ARLINGTON COUNTY, VIRGINIA

AGREEMENT NO. 20-227-RFP AMENDMENT NUMBER 1

This Amendment Number 1 is made on the date of execution by the County and amends Agreement Number 20-227-RFP ("Main Agreement") dated April 20, 2021 between **Corman Kokosing Construction Company** ("Contractor") and the County Board of Arlington County, Virginia ("County").

The County and the Contractor agree to amend the Main Agreement as follows:

1. REVISE PARAGRAPH 32. FORCE MAJEURE TO READ AS FOLLOWS:

32. FORCE MAJEURE

Neither party will be held responsible for failure to perform the duties and responsibilities imposed by this Contract if such failure is due to a fire, riot, rebellion, natural disaster, war, act of terrorism or act of God that is beyond the control of the party and that makes performance impossible or illegal, unless otherwise specified in the Contract, provided that the affected party gives notice to the other party as soon as practicable after the force majeure event, including reasonable detail and the expected duration of the event's effect on the party.

2. ADD PARAGRAPH 56. ARTIST COPYRIGHT AS FOLLOWS:

56. ARTIST COPYRIGHT

- A. Notwithstanding Section 27, the Contractor's Public Artist, identified in Section A.5 of the Scope of Work, shall retain all rights under the Copyright Act of 1976, 17 USC §§ 101 et seq., copyright rights in the Public Art, as defined in Section A1.2.16 of the Scope of Work, or alternatively the "Work", except for ownership and possession; provided Artist will not reproduce the Public Art without the express written permission of the County. Artist shall retain portfolio rights to reproduce images of the Public Art and shall also be allowed to access the Public Art at reasonable times upon prior arrangement with the County to photograph the Public Art and shall retain the right to use such photographic images for Artist promotion purposes (e.g., website, Facebook, use in presentations to clients, and the like), provided that the County's ownership of the Public Art is properly attributed.
- B. Title to the Public Art shall pass to the County upon the County's final acceptance of the Public Art and payment for such Public Art to the Contractor. The Public Artist hereby grants the County an irrevocable, worldwide, perpetual, royalty-free, transferable, right and license to publicly and privately display the Public Art and related deliverables for any and all purposes, and the non-exclusive irrevocable, worldwide, perpetual royalty-free, transferable, right and license to produce, reproduce, distribute, display, publish, adapt, modify, combine with other images, sounds, text or graphics, and otherwise use images of the Work and related deliverables for "non-commercial purposes," in any manner and through any media now known or hereafter developed, without any further approval from, or liability to, Public Artist. For the purposes of this Agreement, "non-commercial purposes"

shall include commercial promotion of the County and its affiliates' properties and services. Without limitation the following are among those uses deemed to be permissible reproductions for "non-commercial purposes": reproduction on websites, brochures and pamphlets pertaining to the Bridge and the services provided therein; reproduction in books, postcards, calendars, educational purposes, project awards, public relations, marketing, and similar materials designed to promote the County and its affiliates, the Bridge, and/or the services or products of any of the foregoing. Non-commercial purposes may also include, without limitation, reproduction of images of the Work in a limited-edition publication used to memorialize the Bridge "ribbon cutting" ceremony. Public Artist acknowledges and agrees that while on display in the Bridge, the Work may be incidentally included in other photographs, films, and depictions in other media of the Bridge, facilities, personnel or grounds, that are created by third parties, and may appear as editorial matter in newspapers, magazines, periodicals, books, motion picture films and/or video recordings and that such uses shall be deemed fair use of the Public Art, and that County cannot control what credit, if any, is given to the Artist by such third parties.

- C. All reproductions of the Artwork that are made by the County will credit the Artist and contain a copyright notice substantially in the form: "© Vicki Scuri, 2022".
- D. The Contractor agrees that the Public Artist hereby: (i) expressly, permanently, and irrevocably waives, with respect to all uses of the Public Art and related deliverables in the manner permitted under this Agreement, any and all rights arising under the Visual Artists' Rights Act of 1990, codified in 17 U.S.C. §106A ("VARA"), and any rights arising under U.S. federal or state law or under the laws of any other country that convey rights of the same nature as those conveyed under VARA or any other type of moral right or droit moral, including but not limited to the following: rights of integrity; rights to prevent any distortion, mutilation, modification or destruction of the Public Art or related deliverables, for whatever reason and for whatever use of the Public Art or related deliverables for whatever reason and for destruction of the Public Art is undertaken; and rights of attribution; and (ii) expressly acknowledges that any installation of the Public Art or related deliverables may need to be removed, modified, or damaged for the purposes of bridge upkeep and/or repair or as a result of hazards.
- E. The Contractor and its Public Artist represents and warrants that the Public Art will be an original work of art created by Public Artist, that Public Artist is the sole author of the Public Art, and that Public Artist holds all copyright rights in and to the Public Art. Public Artist warrants that the Public Art, related deliverables, the services, and the design, construction and installation of the Public Art, will not violate any copyright rights, or, to the best of Public Artist's knowledge, any patent, trademark or other property rights of any person, firm or other entity, and agrees to indemnify the County with regard thereto.

3. ADD PARAGRAPH 57. COVID-19 VACCINATION POLICY FOR CONTRACTORS AS FOLLOWS:

57. COVID-19 VACCINATION POLICY FOR CONTRACTORS

Due to the ongoing COVID-19 pandemic, the County has taken various steps to protect the welfare, health, safety, and comfort of the workforce and public at large. As part of these steps, the County has implemented various requirements with respect to health and safety including policies with respect to social distancing, the use of face-coverings and vaccine mandates. To protect the County's workforce and the public at large, all employees and subcontractors of the Contractor who are assigned to this Contract, should be fully vaccinated against COVID-19. Any contractor employee or subcontractor who is not fully vaccinated should be following a weekly testing protocol as established by the Contractor, unless exempt pursuant to a valid reasonable accommodation under state or federal law.

4. EXECUTE EXHIBIT E. GUARANTEED MAXIMUM PRICE (GMP) AGREEMENT PER THE ATTACHED.

All other terms and conditions of the Main Agreement remain in effect.

WITNESS these signatures:

THE COUNTY BOARD OF ARLINGTON COUNTY, VIRGINIA

CORMAN KOKOSING CONSTRUCTION COMPANY

AUTHORIZEDDocuSigned by:			
SIGNATURE:		Dr. Sharon Tlewis	
Dr. Shareereans			
TITLE:	Purchasing Agent		
DATE:	12/27	/2021	

AUTHORIZED COCUSigned by:			
SIGNATURE: _	Gregory a. Hamilton		
Gregory 9AB1F9F8/11947Eton			
TITLE:	onal Sr Vice President		
DATE: 12/20	/2021		

<u>EXHIBIT E</u>

GUARANTEED MAXIMUM PRICE

THIS GUARANTEED MAXIMUM PRICE AMENDMENT ("Amendment") is entered into by and between the County Board of Arlington County, Virginia (the "County") and **Corman Kokosing Construction Company** (the "Contractor"), pursuant to Agreement No. 20-227-RFP (the "Agreement"), dated April 20, 2021 between the County and the Contractor, for the West Glebe Road Bridge over Four Mile Run Replacement and Substructure Repair to establish a Guaranteed Maximum Price (GMP) as set forth below.

1. GUARANTEED MAXIMUM PRICE

Subject to additions and deductions which may be made only in accordance with the Agreement, the Contractor represents, warrants and guarantees to the County that the total maximum cost to be paid by the County for Contractor's complete performance under the Agreement, including, but not limited to, Final Completion of all Work, and all fees, compensation and reimbursements to Contractor, shall not exceed the total amount of **eight million three hundred fifty one thousand one hundred eighty** dollars and forty cents (\$8,351,180.40) ("Guaranteed Maximum Price" or "GMP"). Costs which would cause the Guaranteed Maximum Price (as may be adjusted pursuant to the Contract Documents) to be exceeded shall be paid by the Contractor without reimbursement by the County.

2. <u>GUARANTEED MAXIMUM PRICE COMPONENTS</u>

The Guaranteed Maximum Price is comprised of the maximum amount payable by the County for:

- A. the Cost of the Work, as defined in the Contract Documents, for full and complete performance of the Work in strict accordance with the Contract Documents, in the amount of **six million one hundred two thousand two hundred sixty nine dollars (\$6,102,269.00)**;
- B. a Design/Build Fee for the Contractor, as defined in the Contract Documents, in the amount of one million four hundred fifty nine thousand three hundred thirty one dollars and forty cents (\$1,459,331.40); and
- C. the General Conditions Fee, as defined in the Contract Documents, in the amount of **seven** hundred eighty nine thousand five hundred eighty dollars (\$789,580.00).

The Contractor may reallocate funds between the Cost of Work and General Conditions Fee categories in order to complete construction of the Project within the GMP. The Guaranteed Maximum Price is further broken down into line items and categories as specified in Attachment D to this Amendment.

3. BASIS FOR THE GMP

The GMP is based on the GMP Drawings and Specifications developed as part of solicitation No. **20-227-RFP**, and the Contractor covenants and agrees that, except for such increases to the GMP as expressly authorized in this Contract, it will deliver a fully complete Project that is a logical development of the RFP Plans and constructed in strict accordance with the IFC Set for an amount that does not exceed the GMP. The GMP is for the performance of the Work in accordance with the Contract Documents and the following Attachments to this Amendment:

- A. Attachment A: List of the Drawings and Specification, addenda, and General, Supplementary, and other Conditions of the Contract on which the GMP is based.
- B. Attachment B: A list of Unit Prices and Allowance items as well as a statement of their basis.
- C. Attachment C: Assumptions and Clarifications made by the Contractor in the preparation of the GMP Proposal to supplement the information contained in the Drawings & Specifications. These clarifications will include specific reference to any exclusion from the bridge or roadway components typically required for a functional and operational West Glebe Road Bridge.
- D. Attachment D: The proposed GMP, including a statement of the detailed cost estimate organized by trade categories, Allowances, Contractor's Contingency, and other items as well as the Cost of the Work, General Condition Fee, Design/Build Fee that comprise the GMP.
- E. Attachment E: An agreed upon schedule that the Contractor has negotiated with the Designers, and all Subcontractors. The schedule shall include, but not limited to the Substantial and Final Completion Dates, upon which the proposed GMP is based. All other project schedule requirements shall be followed as defined in the County issued RFP and Agreement.

4. <u>CONTRACTOR CERTIFICATION</u>

The Contractor and the County acknowledge that the Drawings and Specifications are not complete and, as of the date hereof, that such Drawings and Specifications have reached the level of approximately 60% of the total design effort. The Contractor, however, hereby acknowledges and declares that the Contract Documents are sufficiently complete to have enabled the Contractor to determine the Cost of the Work therein in order to enter into the GMP Amendment and to enable the Contractor to agree to construct the Work outlined therein in accordance with applicable leases, statues, building codes and regulations without any increase to the GMP or extension of Contract Time, except if and to the extent otherwise expressly provided in the Agreement. The Contractor further acknowledges that it has visited the site, examined all conditions affecting the Work, performed and agrees with all studies the Contractor was required to be performed under this agreement, is fully familiar with all of the conditions thereon and affecting the same, and has carefully examined all drawings and specifications.

5. <u>DESIGN INTENT; INFERABLE WORK</u>

The GMP Drawings and Specifications include various clarifications and assumptions that are intended to further define the Scope of Work that will be required to complete design. The Contractor has included within the Guaranteed Maximum Price sufficient amounts to cover aspects of the Work that are not shown on the GMP Drawings and Specifications.

6. <u>COST OVERRUNS</u>

Subject to additions or deductions, which may be made in accordance with the Contract, the Contractor shall be solely liable and responsible for and shall pay any and all costs, fees and other expenditures in excess of the Guaranteed Maximum Price for and/or relating to the Work, without entitlement to reimbursement from the County. The Contractor shall not be entitled to any fee, payment, compensation or reimbursement under this Agreement or relating to the Work or Project other than as expressly provided in the Agreement.

7. <u>CONTRACTOR'S CONTINGENCY</u>

The Contractor's Contingency is a sum of money unassociated with any specific work to allow the Contractor to accommodate market changes and/or unforeseen conditions in order to complete the Project within the Guaranteed Maximum Price. The Contractor's Contingency shall be available for use by the Contractor for reallocation to other line items on an as-needed basis as approved by the County. Any un-unused Contractor Contingency shall be returned to the County.

ATTACHMENT A

DRAWINGS AND SPECIFICATIONS, ADDENDA, AND GENERAL, SUPPLEMENTARY, AND OTHER CONDITIONS OF THE CONTRACT ON WHICH THE GMP IS BASED

Roadway Plans:

C000.1	Cover Sheet
C004.1	Typical Sections – 1
C004.2	Typical Sections – 2
C006.1	Legend
C011.1	Existing Conditions
C041.1	Plan and Profile
C101.1	Signing Plans
C105.1	Pavement Marking Plan
C111.1	Streetlight Plan
C111.2	Underbridge Light Plan
C111.3	General Notes
C111.4	Design Criteria and Statistical Calculations
C111.5	Panelboard Specifications – 1
C111.6	Luminaire Specifications – 2
C111.7	Underbridge/Handrail Luminaire Specifications

- C111.8 Lighting Details
- C200.1 Auto Turn

Bridge Plans:

- B001.1 General Plan, Elevation, and General Notes
- B001.2 Index of Sheets, Quantities
- B001.3 Riprap Details
- B001.4 Sequence of Construction
- B001.5 Abutment Demolition Plan
- B001.6 Pier Demolition Plan
- B001.7 Abutment A Plan and Elevation
- B001.8 Abutment B Plan and Elevation
- B001.9 Abutment Sections and Details
- B001.10 Wingwall details
- B001.11 Pier Plan and elevation
- B001.12 Pier details
- B001.15 Painting Scheme Illustration
- B001.15A Abutment and Pier Painting Scheme Elevations
- B001.16 Bearing Details
- B001.17 Transverse Section
- B001.18 Framing Plan
- B001.19 Bolt Splice and Miscellaneous Details
- B001.20 Diaphragm Details (Sheet 1 of 2)

- B001.21 Diaphragm Details (Sheet 2 of 2)
- B001.22 Camber Diagram
- B001.23 Dead Load Deflection
- B001.24 Deck Plan
- B001.25 Deck Details, Deck Slab Elevations and Concrete Placement Schedule
- B001.26 Parapet Details
- B001.27 Parapet Grill Panel Details
- B001.28 East and West Parapet Profile Elevations
- B001.29 East Parapet Profile Elevations 1
- B001.30 East Parapet Profile Elevations 2
- B001.31 East Parapet Profile Elevations 3
- B001.32 West Parapet Profile Elevations 1
- B001.33 West Parapet Profile Elevations 2
- B001.34 West Parapet Profile Elevations 3
- B001.34A Concrete Pattern Key
- B001.34B Parapet Formliner Details
- B001.35 Wingwall Elevations
- B001.36 Communication Line Conduit System
- B001.37 Bridge Conduit System

Standards and Specifications:

- 1 Arlington County Code
- 2 Arlington County Zoning Ordinance
- 3 Arlington County DES Construction Standards and Specifications
- 4 Arlington County DES Construction Standard Details
- 5 Arlington County DES Signal and Street Lighting Standards
- 6 Arlington County DES Pavement Marking Standards
- 7 Arlington County Stormwater Management Ordinance
- 8 Arlington County Stormwater Manual
- 9 Arlington County CADD Standards and Guidelines
- 10 Arlington County Land Disturbing Activities (LDA) Permit Information
- 11 Article XII of the City of Alexandria Zoning Ordinance (Environmental Management Ordnance which includes SWM and RPA)
- 12 City of Alexandria Erosion & Sediment Control Ordnance (Chapter 4)
- 13 City of Alexandria Environmental Action Plan 2040
- 14 City of Alexandria Construction and Design Standards
- 15 City of Alexandria Transportation and Environmental Services General Information
- 16 City of Alexandria Landscape Guidelines Sec. 11-410(CC)(1)
- 17 City of Alexandria Noise Control
- 18 City of Alexandria Bike and Pedestrian Work Zone Requirements
- 19 2010 ADA Standards for Accessible Design, Department of Justice (September 15, 2010)
- 20 AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011
- 21 AASHTO Construction Handbook for Bridge Temporary Works, 2nd Edition, 2017

- AASHTO Guide Design Specifications for Bridge Temporary Works, 2nd Edition, 2017
- 23 AASHTO Guide for Design of Pavement Structures (Rigid Pavement and Flexible Pavement), 1993 Edition
- 24 AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004
- 25 AASHTO Guide Specifications for Highway Construction, 9th Edition
- 26 AASHTO Guide Specifications for Wind Loads on Bridges During Construction, 1st Edition, 2017
- 27 AASHTO Guidelines to Design for Constructability, G 12.1, 2016
- 28 AASHTO LRFD Bridge Construction Specifications, 4th Edition, 2017
- 29 AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017; and VDOT Modifications
- 30 AASHTO Manual for Bridge Element Inspection, 1st Edition with 2015 Interim Revisions; and VDOT Supplement, 2016
- 31 AASHTO Roadside Design Guide, 4th Edition, 2011 (including errata)
- 32 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 6th Edition, 2013 with 2015 Interim Revisions
- 33 AASHTO's Highway Safety Manual, 1st Edition, Vol. 1-3, 2010
- AASHTO's Manual of Bridge Evaluation, 2nd Edition, 2010, 2011, 2012, 2013, 2014, and 2015 Interim Revisions
- 35 Americans with Disabilities Act Accessibility Guidelines for State and Local Government Facilities, July 1, 2011
- 36 Manual of Uniform Traffic Control Devices (MUTCD), 2009 Edition with Revisions 1 and 2 incorporated, dated May 2012
- 37 NFPA 70 National Electrical Code, 2014 Edition
- 38 VDOT Drainage Manual, April 2002, (including all revisions through March 2019, and current Errata Sheet)
- 39 VDOT Instructional & Informational Memoranda ("IIM"), All Divisions (including revisions and attachments)
- 40 VDOT Manual of the Structure and Bridge Division
- 41 VDOT Materials Division Approved Products Lists
- 42 VDOT Right of Way Manual of Instruction (January 2011, revised December 2016)
- 43 VDOT Road and Bridge Specifications, 2020, including all revisions
- 44 VDOT Road and Bridge Standards, Vol. 1 and Vol. 2, 2016, including all revisions
- 45 VDOT Road Design Manual, Issued January 2005, revised January 2019
- 46 VDOT Traffic Engineering Design Manual, September 2014
- 47 VDOT Utility Manual of Instructions, October 2016, including all revisions
- 48 VDOT Virginia Work Area Protection Manual, 2011 edition, Revised July 2019
- 49 VDOT, The Virginia Supplement to the 2009 Manual on Uniform Traffic Control Devices (MUTCD), 2011 Edition, Revision 1, September 30, 2013
- 50 Virginia Erosion and Sediment Control Handbook, Third Edition, 1992



ENGINEER DEPARTMENT OF **ENVIRONMENTAL SERVICES**

FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 WWW.ARLINGTONVA.US

CONSTRUCTION DRAWINGS FOR:

NOTFORTON WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN SUPERSTRUCTURE REPLACEMENT AND SUBSTRUCTURE REPAIR

PROJECT NUMBER: BMWG

GENERAL NOTES:

GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDAR THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH
- ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS. 3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
- 4. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES FOUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY". PRIVATE WATER, SEWER AND GAS LATERALS WILL NOT BE MARKED BY MISS UTILITY OR THE COUNTY. THE CONTRACTOR SHALL LOCATE AND PROTECT THESE SERVICES DURING CONSTRUCTION.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL RETAIN A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA TO PROVIDE ALL NECESSARY CONSTRUCTION LAYOUTS AND ESTABLISH ALL CONTROL LINES, GRADES, AND ELEVATION DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL CUT SHEETS FOR REVIEW, PER THE SPECIFICATIONS.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE. WHEN CONSTRUCTION ACTIVITY REACHES IN PROXIMITY TO EXISTING UTILITIES, THE TRENCH(ES) SHALL BE OPENED A SUFFICIENT DISTANCE AHEAD OF THE WORK OR TEST PITS SHALL BE MADE TO VERIFY THE EXACT LOCATION AND INVERTS OF THE UTILITY TO ALLOW FOR POSSIBLE CHANGES IN THE LINE OR GRADE AS DIRECTED BY OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES AND THE RELATED STRUCTURES. ALL EXISTING UTILITY SYSTEMS SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONTRACTOR'S OPERATIONS. ANY SYSTEM DAMAGED SHALL BE PROMPTLY REPAIRED AT NO COST TO THE OWNER. EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE COST FOR THIS SHALL
- BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS. 8. THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES AND SHALL ENSURE THE SAFETY OF ALL THOSE PASSING THROUGH OR ADJACENT TO THE SITE.
- 9. ALL SIDEWALK AND CURB AND GUTTER DEMOLITION SHALL BEGIN AND END AT THE CONSTRUCTION JOINT NEAREST TO THE DEPICTED DEMOLITION EXTENTS WITH A NEAT SAWCUT LINE TO FULL DEPTH OF PAVEMENT SECTION.

STORMWATER AND ENVIRONMENTAL PROTECTION

10. THE CONTRACTOR SHALL CONFINE ALL ACTIVITIES AT THE SITE ASSOCIATED WITH CONSTRUCTION ACTIVITIES, TO INCLUDE STORAGE OF EQUIPMENT AND OR MATERIALS, ACCESS TO THE WORK, FORMWORK, ETC. TO WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD).

TREE PROTECTION

11. TREES SHALL BE PROTECTED PER THE REQUIREMENTS OF ARLINGTON PARKS & RECREATION STANDARD.

TRAFFIC CONTROL

- 12. CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO DISTURBING ANY EXISTING, OR INSTALLING ANY NEW, TRAFFIC SIGNS, SIGNALS, OR OTHER TRAFFIC CONTROL DEVICES. 13. THE CONTRACTOR SHALL PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED. THE PREMARKING MAY CONSIST OF
- TYPE D TAPE, CHALK, OR LUMBER CRAYONS. THE CONTRACTOR SHALL ALLOW 3 WORKING DAYS FOR THE INSPECTION AND APPROVAL OF THE PREMARKINGS PRIOR TO PLACING THE PERMANENT MARKINGS. 14. THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 5 BUSINESS DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER.
- 15. THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESSIBILITY THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE, RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. ANY RELOCATION OR CLOSURE OF A BUS STOP SHALL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR - 703-228-3049.
- 16. WHEN CONDITIONS WARRANT DUE TO TRAFFIC VOLUMES, PATTERNS, OR SPECIAL EVENTS, THE COUNTY MAY SUSPEND OR OTHERWISE DIRECT THE CONTRACTOR'S ACTIVITIES TO PROTECT THE PUBLIC AND OR THE COUNTY'S TRANSPORTATION NETWORK.

WATER DISTRIBUTION, STORM AND SANITARY SEWER SYSTEMS

- 17. UNLESS OTHERWISE DIRECTED, CONTRACTORS ARE EXPRESSLY PROHIBITED FROM OPERATING ANY WATER VALVES OR APPURTENANCES. CONTRACTORS SHALL SUBMIT ALL REQUESTS FOR VALVE OPERATIONS TO THE PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED OPERATION.
- 18. IN THE EVENT OF A WATER OR SEWER EMERGENCY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY'S WATER CONTROL CENTER AT 703-228-6555 AND THE PROJECT OFFICER. 19. THE CONTRACTOR SHALL COORDINATE ALL UTILITY SHUTOFFS, DISCONNECTS, AND/OR ABANDONMENT WITH UTILITY OWNER AND PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED INTERRUPTION. FIRE DEPARTMENT NOTES:
- 20. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- 21. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- 22. IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRE DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.

OWNER

TRANSPORTATION & DEVELOPMENT DIVISION

TRANSPORTATION PLANNING BUREAU 2100 CLARENDON BOULEVARD, SUITE 900 ARLINGTON, VA 22201 PHONE: 703.228.3681 FAX: 703.228.7584 WWW.ARLINGTONVA.US

CONSULTANT **RINKER DESIGN ASSOCIATES**

11100 ENDEAVOR COURT, SUITE 200 MANASSAS, VA 20109 PHONE: 703.368.7373 WWW.RDACIVIL.COM

CONTRACTOR CORMAN KOKOSING 12001 GUILFORD ROAD ANNAPOLIS JUNCTION, MD 20701 PHONE: 703.772.8566

WWW.CORMANKOKOSING.COM

RDS AND SPECIFICATIONS, AND WHERE APPLICABLE
H RELEVANT MANUAL SHALL BE USED.
DEMENTS LATEST EDITIONS

Sheet List			
Sheet Number	Sheet Title		
C000.1	COVER SHEET		
C004.1	TYPICAL SECTIONS - 1		
C004.2	TYPICAL SECTIONS - 2		
C006.1	LEGEND		
C011.1	EXISTING CONDITIONS		
C041.1	PLAN AND PROFILE		
C101.1	SIGNING PLANS		
C105.1	PAVEMENT MARKING PLAN		
C111.1	STREETLIGHT PLAN		
C111.2	UNDERBRIDGE LIGHT PLAN		
C111.3	GENERAL NOTES		
C111.4	DESIGN CRITERIA AND STATISTICAL CALCULATIONS		
- C111.5	LUMINAIRE SPECIFICATIONS		
C111.6	LUMINAIRE SPECIFICATIONS		
C111.7	UNDERBRIDGE/HANDRAIL LUMINAIRE SPECIFICATIONS		
C111.8	LIGHTING DETAILS		
C111.9	SPECIFICATIONS		
C200.1	AUTO TURN		
B001.1-37	BRIDGE PLANS		

SWM#

ADT

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LOCATION MAP	DEPARTMENT ENVIRONMENTAL S FACILITIES & ENGINEERING ENGINEERING BUF 2100 CLARENDON BOULEVAL ARLINGTON, VA 2 PHONE: 703.228.3 FAX: 703.228.3 COPYRIGHT © 2020 ARLING VIRGINIA - ALL RIGHTS SEAL GORVINA - ALL RIGHTS SEAL GORVINA - ALL RIGHTS COPYRIGHT © 2020 ARLING VIRGINIA - ALL RIGHTS VIRGINIA - ALL RIGHTS VIRGIN	OF SERVICES IG DIVISION REAU RD, SUITE 813 2201 6629 06 TON COUNTY RESERVED DATE DATE PERVISOR JREAU CHIEF
5		
O 600' 1200' GRAPHIC SCALE	REVISIONS	DATE
UTILITY OWNERS:		
	NEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN BMWG WEST GLEBE ROAD	COVER SHEET
E RD BETWEEN ARLINGTON COUNTY/CITY OF ALEXANDRIA LINE AND MOUNT VERNON AVE- 2018 -	DRAWN: CHECKED: PLOTTED: August 18 2021	
ALEXANDRIA E RD BETWEEN S GLEBE RD AND ARLINGTON COUNTY/CITY OF ALEXANDRIA LINE- 2018 - ARLINGTON COUNTY RD BETWEEN I-395 AND ARLINGTON RIDGE RD - 2018 - VDOT	SCALE:	
CLASSIFICATION IAL - S GLEBE RD URBAN LOCAL - S FOUR MILE RUN DR IAL - W GLEBE RD	N/A	
SPEED E RUN DR, W GLEBE RD		C000.1



REVISED ON 01/24/20



ME: TBD-BMWG-110-BORDER-FW52EQ5D.DWG PATH: Y:\RFP\PROP20\20067-P-ARLINGTONDB-WGLEBE_BRIDGE_OVER_4MIRUN-CORMAN\SHAREPOINT DOWNLOAD PLOTTED BY: WDELC





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A R L I N	IGTON	
DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3609 FAX: 703.228.3606 COPYRIGHT © 2020 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED SEAL		
APPROVALS	DATE	
DESIGN TEAM ENGIN	EER SUPERVISOR	
WATER, SEWER, STR	EETS BUREAU CHIEF	
TRANSPORTATION D	IRECTOR	
REVISIONS	DATE	
WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN BMWG WEST GLEBE ROAD TYPICAL SECTIONS - 2		
DESIGNED: DRAWN: CHECKED: PLOTTED: August 18 2 SCALE:	2021	
AS SHOWN		

LINETYPE LEGEND

FEATURE BUILDING	EXISTING	PROPOSED
CENTERLINE / BASELINE		
COMMUNICATIONS CABLE	СОМ	сом сом
CONTOURS MAJOR; MINOR	— _ 250 — — 250 — —	
CRITICAL ROOT ZONE	CRZ CRZ	CRZ CRZ
PERMANENT EASEMENT		
TEMPORARY EASEMENT		
ELECTRIC (UNDERGROUND)	UGE UGE	UGE UGE
FENCE (MATERIAL NOTED)	XXXXX	XXXXX
FIBER OPTIC	FO FO	—— FO —— FO ——
GAS LINE	GAS GAS	GAS GAS
X" GAS LINE (SIZE INCLUDED IF AVAILABLE)	X" G X" G	X" G X" G
GUARDRAIL		
HARDSCAPE FEATURE (MATERIAL NOTED)		
LIMITS OF DISTURBANCE		
LIMITS OF WORK	I OW I OW	IOW IOW
OVERHEAD WIRES	ullu	ullu
PAVEMENT MINI SKIP LINE		
PAVEMENT SKIP LINE		
PROPERTY LINE		
RIGHT-OF-WAY LINE		
ROOT PRUNING	RP RP	RD RD
SANITARY SEWER	SAN SAN	SAN SAN
X" SANITARY SEWER (SIZE INCLUDED IF AVAILABLE)	X'' S X'' S	X" S X" S
SILT FENCE	XXXXX	XXXXX
STORM (SIZE NOTED)	STM STM	
STREAM		
STREET LIGHT CONDUIT	SI SI	SI SI
TELEPHONE (UNDERGROUND)	UGT UGT	
TREE LINE		
TREE PROTECTION FENCE	тр тр	ти тр тр
WALL		
WATER	\\\/ \\/	\\\/ \\\/
X" WATER (SIZE INCLUDED IF AVAILABLE)		
,	A VV X" VV	X VV X" W

SYMBOL LEGEND

EXISTING FEATURE		PROPOSED FEATURE	
EX CABLE PEDESTAL	С		
EX ELECTRIC BOX	Ε		
EX FIRE HYDRANT	-\$-	PROP FIRE HYDRANT	-
EX GAS VALVE	•	PROP GAS VALVE	\bigcirc
EX GROUND LIGHT	•		
EX GUY WIRES	\succ		
EX IRON PIPE OR PIN	•		
EX LIGHT POLE	۲	PROP LIGHT POLE	-\$-
EX MAILBOX			
EX MONUMENT	•		
EX PARKING METER	0		
EX PAY STATION	PS	PROP PAY STATION	PS
EX SANITARY MANHOLE	0	PROP SANITARY MANHOLE	\bigcirc
EX STORM BASIN	C	PROP STORM CATCH BASIN (TO SCALE)	0
EX STORM MANHOLE	\bigcirc	PROP STORM MANHOLE	0
EX TELEPHONE PEDESTAL	Τ		
EX TRAFFIC CONTROL BOX			
EX TRAFFIC SIGN		PROP TRAFFIC SIGN	▲
EX TRASH CAN	*	PROP TRASH CAN	*
EX TRAVERSE			
EX TREES, WOODED AREA	$\langle \cdot \rangle$	PROPOSED TREE REMOVAL	\times
EX UTILITY MANHOLE TYPE INDICATED ELECTRIC, TELE, ETC	()		
EX UTILITY POLE		PROP UTILITY POLE	
EX WATER MANHOLE	Θ	PROP WATER MANHOLE	Θ
EX WATER METER		PROP WATER METER	O
EX WATER VALVE	\otimes	PROP WATER VALVE	θ
EX YARD INLET		PROP YARD INLET (TO SCALE)	
EX BENCHMARK		CONSTRUCTION NOTES (LEADER TO AREA AFFECTED)	∕x∖
		CURVE NUMBER (SEE CURVE TABLE)	C#
		LINE NUMBER (SEE LINE TABLE)	L#
		TEST HOLE	
		NORTH ARROW	Ň

EXISTING		
EX SAN STRUC NO. EXISTING SANITARY STRUCTURE NUMBER		l
EX STRM SEW STRUC NO. EXISTING STORM SEWER STRUCTUE NUMBER	$\langle \bar{x} \bar{x} \bar{x} \rangle$	F
	HATCH	<u>1 L</u> E
ASPHALT - MILL & OVERLAY SEE TYPICAL SECTION FOR DETAILS		
ASPHALT - OVERLAY SEE TYPICAL SECTION FOR DETAILS		
FULL DEPTH ASPHALT SEE TYPICAL SECTION FOR DETAILS		
CONCRETE		
WATER MAIN (SHOWN ON PROFILE O	NLY)	
DEMOLISH EXISTING SIDEWALK		
DEMOLISH EXISTING DRIVEWAY APRO	DNS	
DEMOLISH EXISTING CURB & GUTTER		

DISTURBED AREA, LANDSCAPE RESTORATION

LABEL LEGEND

PROPOSED

PROP SAN SEW STRUC NO. PROPOSED SANITARY SEWER STRUCTURE NUMBER XXXX

PROP STRM SEW STRUC NO. PROPOSED STORM SEWER STRUCTURE NUMBER $\langle \mathbf{X}\mathbf{X}\mathbf{X} \rangle$

LEGEND

A R L I N VIRG			
DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 COPYRIGHT © 2020 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED SEAL 60065000000000000000000000000000000000			
APPROVALS	DATE		
DESIGN TEAM ENGIN WATER, SEWER, STR TRANSPORTATION D PROJECT MANAGER	IEER SUPERVISOR		
REVISIONS			
WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN BMWG WEST GLEBE ROAD	IEGEND		
DESIGNED: DRAWN: CHECKED:			
PLOTTED: August 18	2021		
N	/A		
	C006.1		



	STORM SEWER TABLUATION		
/ER TABULATION 40'	Ex. #4 TOP GRATE = 29.74' 6" PVC INV. OUT (Ex. #5) = 27.48'	ARLIN	IG TO N
30'	Ex. #5 TOP GRATE = 28.75' 6" PVC INV. IN (Ex. #4) = 25.79' 15" RCP INV. OUT (Ex.#7) = 25.23' INVERT FROM Ex. #6 NOT ACCESSIBLE		
58'	Ex. #6 TOP GRATE = 28.56' 12" RCP INV, OUT (Ex. #5) = 24.63	ENVIRONMEN FACILITIES & ENGI	
28'	Ex. #7 15" RCP @ FACE OF WALL INVERT = 23.07'	ENGINEERIN 2100 CLARENDON BO ARLINGTON PHONE: 70	NG BUREAU ULEVARD, SUITE 813 , VA 22201
11'	Ex. #8 TOP = 28.94 18" RCP INV. OUT (Ex. #9) = 22.35' 18" RCP INV. IN (Ex. #11) = 22.43'	FAX: 703. FAX: 703. COPYRIGHT © 2020 A VIRGINIA - ALL RI	228.3606 RLINGTON COUNTY
03'	Ex. #9 15" C.M.P. INV. OUT (FROM EX. #8) = 20.57'	SEAL 010	(0 ¹⁴ c)
.07'	JUNCTION NOT VISIBLE.	6000	51,202
59'	TOP = 28.07' 15" RCP INV. OUT (Ex. # 11) = 23.50' Ex. #11	SUBNIN	2.00
21'	TOP = 28.38' 15" RCP INV. IN (Ex. #10) = 23.28' 18" RCP INV. IN (Ex. #13) = 23.25' 18" RCP. INV. OUT (Ex. #8) = 23.22'	REY	
91'	Ex. #12 TOP = 27.85' 15" RCP INV. IN (#13) = 25.58' 18" RCP INV. OUT (Ex. #11) = 23.33'	APPROVALS	DATE
52'	Ex. #13 TOP = 28.01' 15" RCP INV. OUT (Ex. #12) = 25.10'	DESIGN TEAM ENGINE	ER SUPERVISOR
PROPOSED PLAN ONLY) = 11.30'	Ex. #14 TOP = 27.40'	WATER, SEWER, STRE	ETS BUREAU CHIEF
PROPOSED PLAN ONLY) = 10.17'	PIPES CONNECTED TO THIS STRUCTURE NOT ABLE TO BE SHOWN ON SURVEY	TRANSPORTATION D	IRECTOR
	Ex. #15 TOP = 27.19 FULL OF DEBRIS, INVERTS NOT VISIBLE. PIPES CONNECTED TO THIS STRUCTURE NOT ABLE TO BE SHOWN ON SURVEY	PROJECT MANAGER	
	#20500 TOP = 30.72' INVERTS NOT ACCESSIBLE C/L INV. OF STRUCTURE = 20.77'	REVISIONS	DATE
	#20598 TOP = 27.18' 15" RCP INV. OUT (20602) = 23.18'		
	#20602 TOP = 26.99' 54" RCP INV. IN = 18.17' 54" RCP INV. OUT (20724) = 17.77'		
	#20680 TOP = 28.35' INVERTS NOT ACCESSIBLE C/L INV. OF STRUCTURE = 19.94'		
	#20724 TOP = 28.97' 54" RCP INV. IN (20602) = 16.93 15" RCP INV. IN (FROM 12?) = 19.52 15" RCP INV. IN (FROM NORTH WEST, POSSIBLY ABANDONED) = 22.67 54" RCP INV. OUT (20773) = 16.57 C/L invert = 18.78' (per 1957 plan info) 15" RCP INV. IN (FROM NORTH) = 20.31' (per 1957 plan info)	RUN	
	#20740 48" RCP INV. OUT NOT ACCESSIBLE INV. PER PLAN = 21.49'	MILE	
	#20773 54" RCP INV. OUT (FROM 20724) = 17.25'	JUR	NS
	#28918 TOP GRATE = 27.93' 12" RCP INV. OUT (28921) = 25.93'	R FC	OII
	#28919 TOP GRATE = 27.95' 15" RCP INV. OUT (28921) = 25.21'	OVE	IDI
	#28920 TOP = 28.04' 15" RCP INV. IN (28921) = 24.62' 15" RCP INV. OUT (TO JUNCTION WITH 48" RCP) = 22.34 NOTE: INV. OUT PIPE CONNECTION SHOWN PER 03/18/87 SITE PLAN WSE_4630-383	3RIDGE BMWG ST GLEBE	IG CON
	#28921 NOT FOUND, CAN'T CONFIRM PIPE CONNECTIONS TO/FROM THIS STRUCTURE ARE SHOWN PER 03/18/87 SITE PLAN WSE_4630-383	OAD I WE	STIN
	#28923 TOP = 28.46' 15" RCP INV. OUT = 21.35'	EBE R	EXI
		WEST GL	

GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 01/2019 TO 03/2019; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

- HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
 VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
- VERTICAL DATUM: NORT
 CONTOUR INTERVAL: 1'
- 5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

DESIGNED:

DRAWN:

CHECKED:

SCALE:

PLOTTED: August 18 2021

GRAPHIC SCALE

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50	(28.50 28.40	(28.91	(29.42 29.33	(<u>30.59</u> 29.80	(31.18) 30.27	(<u>30.61</u> 30.74	(31.89) 31.20	(31.91)31.61	31.73	31.87	(31.62
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40	13+75.00								35 9	STA: 11+61. I ELEV: 32.39 K: 21.02	PVI PV
35	EBREAK STA = LEV = 28.40'		E	END BRIDG			EVCE: 31.36	5; 12+16.35 V	77.05 1.73	PT STA: 11+7 PT ELEV: 31	GH F IGH
30	<u>GRADE</u>		.42	STÁ: 12+78 ELÉV: 30.20	-1.87%						
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	A R L I N VIRGI	G T O N
	DEPARTMI ENVIRONMENTA FACILITIES & ENGINE ENGINEERING 2100 CLARENDON BOUI ARLINGTON, Y PHONE: 703.2 FAX: 703.22 COPYRIGHT © 2020 AR VIRGINIA - ALL RIG	ENT OF AL SERVICES ERING DIVISION BUREAU EVARD, SUITE 813 VA 22201 228.3629 28.3606 LINGTON COUNT EHTS RESERVED
OWEST GLEBE ROAD	SUBMIS REV 10	,08.2021
	APPROVALS	DATI
	DESIGN TEAM ENGINEE	R SUPERVISOR
	WATER, SEWER, STREE	TS BUREAU CHIEF
	TRANSPORTATION DIR	ECTOR
	REVISIONS	DATE
	-	
PROP. TYPE C-2 CURB AND GUTTER PER ARL. CO. STD. DWG. R-2.0. TRANSITION TO		
\sim MATCH ALEXANDRIA STANDARD CURB AND GUTTER ON ALEXANDRIA SIDE OF THE BRIDGE 2 PROP. SOD AND 4" TOPSOIL PER ARL. CO. DES SPECS 329100 AND 329200		
3 PROP. CONC. SIDEWALK PER ARL. CO. STD. DWG. R-2.0.	z	
SAWCUT AND RESTORE FULL DEPTH ASPHALT, SEE TYPICAL SECTIONS AND DETAILS FOR	ERL	
PROP.TYPE CG-12A CURB RAMP WITH DETECTABLE WARNING PER VDOT ROAD AND	MIL	
BRIDGE STD. 204.02 6 PROP.TYPE CG-12B CURB RAMP (10' WIDTH) WITH DETECTABLE WARNING PER VDOT ROAD AND BRIDGE STD. 204.03	FOUR	Щ
7 UP TO 2" MILL AND OVERLAY	ER D)FII
PROP. TYPE C-3 CURB AND GUTTER PER ARL. CO. STD. DWG. R-2.0. TRANSITION TO MATCH ALEXANDRIA STANDARD CURB AND GUTTER ON ALEXANDRIA SIDE OF THE BRIDGE	OV ROA	PRC
9 EXIST. STREET LIGHT MOUNTED ON ARL. CO. TRAFFIC SIGNAL MAST ARM POLE		
0 REMOVE EXISTING MEDIAN	BRI B EST G	AN
1 EXIST. STREET LIGHT TO BE REMOVED	AD NAD	AN
2 SIDEWALK AND BIKE LANE MERGE POINT	L RO	Ы
3 EXIST. VERIZON LINE TO REMAIN IN PLACE AND PROTECTED THROUGHOUT CONSTRUCTION	EBI	
ADJUST EX. MANHOLE TOP TO PROPOSED GRADE		
5 EXIST. POLE TO REMAIN. LIGHT ARM AND FIXTURE TO BE REMOVED BY OTHERS	NES	
.6 ADJUST EX. GAS VALVE TO GRADE AS REQ'D.		
7 REMOVE EX. GUARDRAIL	DESIGNED: DRAWN:	
8 PROP.TEMPORARY CONSTRUCTION EASEMENT		
9 PROP. PERMANENT SIDEWALK EASEMENT	SCALE:	21
20 EXIST. UTILITY POLE TO REMAIN	0 25	50
EXIST. UTILITY POLE WITH LIGHT ARM AND FIXTURE TO REMAIN		SCALE
22 PROP. STD. CG-9D		
	$\frac{\text{VERI.S}}{\text{VERI.S}}$	
	A VALUER UNDER UNDER ENTER ENTER	

SIGN NOTES:

- 1. FOR ALL SIGN POSTS PLACED IN CONCRETE USE 7 GAUGE HEAVY DUTY ANCHOR (30"X2.50") WITH HARDWARE FOR 2" POST. USE $\frac{5}{16}$ " CORNER BOLT WITH FLANGED NUT AND $\frac{3}{8}$ " DRIVER RIVET WITH WASHER.
- CONTACT TE&O CONSTRUCTION MANAGER OR HIS DESIGNEE AT 703-228-6598 OR 571-437-1077 48 HRS PRIOR TO POURING CONCRETE. ALTERNATIVE CONTACT AT 703-228-3788 OR 571-414-7497.

ARE LINGTON VIRGINIA DEPARTMENT OF ENGINEENING BUREAU PACILITIES & ENGINEERING DUTSION ENGINEENING BUREAU DESIGNED: COVRIGHT © 2020 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED SEAL APPROVALS DATE DESIGN TEAM ENGINEER SUPERVISOR WATER, SEWER, STREETS BUREAU CHIEF TRANSPORTATION DIRECTOR PROJECT MANAGER REVISIONS DATE DIMMA BUILD DESIGNED: DATE DIMMA BUILD DESIGNED: DATE DIMMA BUILD DESIGNED: DATE DIMMA BUILD DESIGNED: CHIED: AUGUST 18 2021 SCALES DIMA BUILD DESIGNED: CHIEF DIMA BUILD DESIGNED: CHIEF DIMA BUILD DESIGNED: CHIEF DIMA BUILD DESIGNED: CHIEF DIMA BUILD DESIGNED: CHIEF DIMA BUILD DIMA BUI			
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DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ARLINGTON, VA 22201 PROVENCY 30, 2283, 3663 COPPRIGHT © 2004 RELINGTON COUNTY VICIGINA - ALL RIGHTS RESERVED SEAL JURY NO. AND ARLINGTON RESERVED DESIGN TEAM ENGINEER SUPERVISOR WATER, SEWER, STREETS BUREAU CHIEF TRANSPORTATION DIRECTOR PROJECT MANAGER REVISIONS DATE DATE DISTINUTION DIRECTOR DATE DISTINUTION DIRECTOR DISTINUTION DIREC	A R L .	ING IRGINIA	
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REVISIONS DATE	TRANSPORTATIC	ON DIRECT	OR
REVISIONS DATE	PROJECT MANAG	iER	
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DESIGNED: DRAWN: CHECKED: PLOTTED: August 18 2021 SCALE: 0 25 50 GRAPHIC SCALE GRAPHIC SCALE	WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN BMWG	WEST GLEBE ROAD	SIGNING PLAN
SCALE:	DESIGNED: DRAWN: CHECKED: PLOTTED: August	t 18 2021	
GRAPHIC SCALE	SCALE:		
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/ '7/\7 4			C101 1

G	DASHED I ANE LINES
DTH, 10' LONG, 30' SPACING	DASHED LANE LINES (BRIDGE)
	LANE LINES / BIKE LANE LINES
IDTH	LANE LINES / BIKE LANE LINES (BRIDGE)
	CONTINENTAL CROSS WALKS
	CENTERLINES
	CENTERLINES (BRIDGE)
LANE SYMBOL	BIKE LANES (BRIDGE)
TURN LANE USE ARROW	SINGLE TURN LANES (BRIDGE)
TURN LANE USE ARROW	DOUBLE TURN LANES (BRIDGE)
NG	BIKE LANES AND ASPHALT TRAIL
LANE THRU ARROW, 6' LONG	BIKE LANES AND ASPHALT TRAIL (BRIDGE)
	STOP BARS
DL	BICYCLIST SHARED LANES

	A R L	I N VIRG	
EN F/ 210 COP	DEP IVIRON ACILITIES & ENGI 0 CLARENC ARLI PHO FA YRIGHT © VIRGINIA	ARTM MEN A ENGII NEERII OON BO NGTON NE: 703 2020 A - ALL R	MENT OF TAL SERVICES NEERING DIVISION NG BUREAU ULEVARD, SUITE 813 VA 22201 3.228.3629 228.3606 RLINGTON COUNTY IGHTS RESERVED
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DES WAT TRA PRC	IGN TEAM TER, SEWEI NSPORTAT DJECT MANA	ENGINE R, STRE ION D	EER SUPERVISOR
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	WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN BMWG	WEST GLEBE ROAD	PAVEMENT MARKING PLAN
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DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING DIVISION 2100 CLARENDON BUILEVARD, SUITE 8133 ARLINGTON, VA 22201 PROVE 703.228.3609 COPVRICHT © 2020 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED SEAL BUNK - ALL RIGHTS RESERVED APPROVALS DESIGN TEAM ENGINEER SUPERVISOR WATER, SEWER, STREETS BUREAU CHIEF TRANSPORTATION DIRECTOR PROJECT MANAGER NNN BIND BUNK BUNK BUNK BUNK BUNK BUNK BUNK BUNK	A R L I N VIRG	
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ighting Legend
Denotes Lighting Conduit ECI-I
Denotes Lighting Conduit County Standard 14030-01
Denotes Lighting Conduit Bore
Denotes Areas Where Lighting is Provided
Denotes Electrical Service Meter
Denotes Control Box
Denotes Junction Box
Denotes Roadway Luminaire
Denotes Luminaire Arm

Conduit Design Legend

• Denotes Light Pole Foundation

B Proposed 2" PVC Conduit	osed 2" PVC Conduit
2 - *6 Conductor Cable	"6 Conductor Cable
I - *6 EGC	5 EGC
	osed 2" PVC Conduit *6 Conductor Cable 5 EGC
C + Proposed I.5" Metal Conduit	osed 1.5" Metal Conduit
4 - *6 Conductor Cable	*6 Conductor Cable
I - *6 EGC	5 EGC
Proposed I.5" Metal Conduit	osed 1.5" Metal Conduit
D - 2 - *6 Conductor Cable	*6 Conductor Cable
I - *6 EGC	5 EGC

Proposed 2" PVC Conduit for Dominion

L	ighting Legend
== 1 = == 1 =	Denotes Lighting Conduit EC-I
=== 2 === 2 =	Denotes Lighting Conduit County Standard 14030-01
<u>==</u> B <u>===</u> B =	Denotes Lighting Conduit Bore
	Denotes 1.5" Rigid Metal Conduit
	Denotes Areas Where Lighting is Provided
58	Denotes Splice Box
E	Denotes Electrical Service Meter
*	Denotes Underbridge Luminaire
C	Denotes Control Box
J	Denotes Junction Box
-	Denotes Roadway Luminaire
	Denotes Luminaire Arm
Θ	Denotes Light Pole Foundation

Conduit	Design	Legend

Proposed 2" PVC Conduit $(A) \rightarrow 8 - {}^{*}6$ Conductor Cable 1 - *6 EGC Proposed 2" PVC Conduit B→ 2 - *6 Conductor Cable I - *6 EGC Proposed 1.5" Metal Conduit 1- *6 EGC D→ Proposed 1.5" Metal Conduit 2 - *6 Conductor Cable I - *6 EGC E Proposed 2" PVC Conduit for Dominion 12'-6" _1'-4" € HANDRAIL--DECORATIVE GRILL TYP. ** <---CJ - APPROX. 100 YR FLOOD ELEV. ¥ LED LIGHTING FOR FMR TRAIL >< 2'-1"

M A R L I N G T O N VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703 228 3606 COPYRIGHT © 2020 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED SEAL SUBI 21 APPROVALS DATE DESIGN TEAM ENGINEER SUPERVISOR WATER, SEWER, STREETS BUREAU CHIEF TRANSPORTATION DIRECTOR PROJECT MANAGER REVISIONS DATE RUN MILE PLAN FOUR LIGHT ER ROAD NO BRIDGE BMWG GLEBE UNDERBRIDGE WEST ROAD EBE GL WEST DESIGNED: DRAWN: CHECKED: PLOTTED: August 18 2021 SCALE: 25 50 **GRAPHIC SCALE**

LIGHTING GENERAL NOTES:

CONDUIT:

- I. Conduit locations are diagrammatic. field adjustments shall be made as required to stay within the limits of construction, out of ditch lines, away from guardrail, away from fence posts, and to clear obstructions.
- 2. All non-bored conduits shall be installed with standard ECI-I.
- 3. All proposed conduit by passing light pole foundations shall have a 3 ft. preferred
- clearance and a lft.minimum clearance from edge of foundation.
- 4. Not used.
- 5. Wiring for Project lighting shall be contained in conduit separate from all other utilities. The conduit connecting a power source to an adjacent junction box shall be a minimum of four (4) inches in diameter. All other conduit, including extensions from junction boxes to a light support base, shall be a minimum of two (2) inches in diameter. 6. All Prop.Conduit shall be installed per VDOT St'd.ECI-1 & ECI-2.
- All pipe sleeves, if required, shall be installed in accordance with VDOT Standard ECI-I and or ECI-2.
- 8. Conduits shall be installed with radius offsets (5' minimum radius) to bypass
- drainage inlets, manholes, and other obstructions.
- 9. Conduits shall be installed a minimum of 5 ft.behind guardrail posts.
- IO. Conduits shall be installed a minimum of 5 ft.clear of shoulder edge when no guardrail is installed, or as directed by the engineer.
- *II.* At locations where proposed conduit shall cross existing conduit, the Contractor shall hand-dig the trench and shall take adequate care not to damage the existing conduit or the contents thereof. These conditions shall apply at all such conduit crossings except those locations where proposed conduit will cross conduit designated to be abandoned.

12. All existing light poles and luminaires are to be removed unless otherwise noted.

POLES:

- 13. Light pole bolt circle and anchor bolt diameters in foundations shall be sized per VDOT standard. 14. Mounting heights shown on the plans shall be adhered to within a tolerance of Ift., and shall in no case be less than the mounting heights shown. mounting height must be measured from luminaire to surface of the same roadway that its baseline was used to define pole location. 15. The Contractor and Dominion Virginia Power (DVP) are responsible for determining final pole length needed for each proposed luminaire in-order to attain the designed luminaire mounting height as specified in the plans. This Delta is between the roadway finished grade (below the proposed luminaire) and top of the pole foundation. The Estimated Delta's have been shown from cross section data. The Contractor and DVP are responsible determining final pole heights prior to ordering. I6. All lighting standards shall be provided with identification tags bearing the circuit, phase, and control center number in addition to all other identification requirements as specified in Section 700 of the VDOT Road & Bridge Specifications. 17. Existing lighting pole identification tags and decals shall be removed and replaced per general notes 4 and 5. all service panels shall be provided with identification decals on the control center cabinet. 18. All lighting poles shall be equipped with anchor bolt covers. 19. Lighting poles that are placed behind guardrails,retaining walls and/or concrete barriers
- shall be installed on non-breakaway transformer bases. 20. Lighting poles that are not protected by guardrail, retaining walls, or median barriers
- shall be installed on breakaway transformer bases.
- 21. Light poles installed on barrier or walls shall be installed without transformer bases as shown on the plans.
- 22. Transformer bases shall include bolt covers.
- 23. Transformer bases shall be calculated into the total pole length to acheive the required light fixture mounting height.
- 24. Transformer bases shall be equipped with hinged covers that include a locking mechanism and shall comply with VDOT standard pole type.

- 25. Station and offset references in junction box labels are based on the construction baseline as light pole label of the nearest proposed light pole.
- 26. All VDOT maintained junction box covers shall have the following depressed text on its surface "VDOT ELEC.".
- 27. All in-barrier junction boxes shall be 8"x8"xl'-4" if in bridge structure parapet or 6"x6"x4" if on face of abutment wall.face of cover shall be flush with face of parapet or Concrete barrier.
- 28. All junction boxes and manholes shall be provided with a means for drainage. 29. Areas around cabinets, junction boxes, and manholes on slopes shall be graded as approved by the Engineer.

FIFCTRICA	/ .

ELEC	CTRICAL:				M/SC:	2
30.	Conduci	or cables terminating in jund	ction boxes or light poles	shall be test capped	48.	All Iumii
	And hav	ve a slack of 3 ft.per condu	ctor.			uniform
31.	Contrac	tor shall rebalance existing po	anel phase loads in exist	ing lighting control		and mo
7.0	centers	as necessary			49.	Installat
32.	All splic	e kittuses shall be 20 amps	and rated for a minimu	Im of 600v service.cable		barriers
		ors shall be compression lype,	applied by means of a c	compression looi.	50	Contraci
	Λ	Each cable connector kit sh	all be furnished with all	ly. component parts described under	JU.	inctallir
	A.	the various listed types ea	ch kit shall contain suffi	cient silicane compound to		conduit
		lubricate metal parts and the	he housing for each asse	embly alona with complete	51	The con
		installation instructions.			Û / •	includin
	В.	All housings shall be made o	of water resistant synthem	tic rubber suitable for burial in		notify ti
		the ground or exposure to	sun light. each housing s	shall form a watertight seal		replacer
		around the cable at the poin	nt of disconnection and l	between the insert body and	52.	All soil r
		enveloping housing.				matting
	С.	All copper pins, sockets, and	fuse contacts shall have	a minimum conductivity of 90		working
		percent. the crimpable portion	on shall be fully annealed	d while the rest of the device	53.	All trend
	_	is maintained in its origin	al state.			the sam
	D.	Plastic sleeves shall be rigi	d,molded insulating plas	tic material of sufficient outside		reseede
		diameter to form a waterti	ight fit with its related h	ousing. wall thickness shall be		to preve
		U.IU INCH MAXIMUM, ANA SIEC	eve lengths of 4 inches	ana 7 Inches shall de avalladie.		The sam
ママ	The equ	ismost grounding conductor (ogo) chall ha tha cama ci-	to ac the largest power	J4.	
JJ.	Conduce	inpineni grounanng conductor (tor	egc) shall be the same siz	ze as me largest power		auardra
34	Installa	u. tion of electrical services sha	I be coordinated with Inc	cal nower company	55	Conduit
37. 35	All liaht	ina equipment aroundina shall	be provided per VDAT .	standard 1310.20 and 1312.90	56. 56.	The con
00.	All arou	nd rods utilized in this prov	ect shall meet the current	VDOT Road and Bridge Specification		to be re
	Ground	rods shall be installed in all	proposed junction boxes	$S_{\rm c}$		met and
36.	Equipm	ent grounding conductors in a	conduit entering and exit	ing light pole foundations		and lun
	shall ter	minate at the ground lug at b	pase of light pole.		57.	All above
37.	All cona	uctors in junction boxes,pole	es and equipment enclosu	res shall be provided		minimun
	with inc	lividual brass tags,die stampe	ed with service panel nun	nber,phase(s) and circuit		barrier
	identifi	cations. conductors shall be ne	eatly arranged and suppo	orted on cable racks.		poles to
38.	All wirin	ng shall terminate in control p	anels with insulated lugs	s and be properly		poles si
7 0	Iddeled,	conforming to wiring alagram	ns TURNISNED DY THE ENGI	Ineer. ications Cortified	58.	Contrac
J <i>Э</i> .	conduct	or test reports, shall be approx	ved by the Engineer prio	r to installation		propose
40.	The loci	ation of the light pole foundat	ion around rod shall be	marked on the top		INCIUDE
	surface	e of the foundation by a rece.	ssed arrow and the initi	ial "G" formed in the		the ider
	concrete	e.The ground rod shall typical	lly be placed to the left of	of the lighting pole	59	Refer t
4.1	foundat	ion as observed from the po	le handhole.	,, • , ,	50. 60	Notuse
41. 10	Ground	rods shall be connected to the	e ground wire utilizing	an exothermic weld.	61 61	Install v
42.	peatly c	urapaed and laced with appr	es,unu un equipment enci oved cable ties		62.	Certain
43.	The Cor	ntractor and DVP shall be res	sponsible to return all di:	sturbed areas and fencina to		utilities
	their or	iginal state at the completion (of all work. Disturbed are	eas shall be seeded in		Contrac
	accorde	nce with Section 603 of the	Specifications.			proceed
44.	Roadwa	y lighting shall be in accorda	nce with the American No	ational Standard Practice for	63.	Contrac
A []	Roadwa	y Lighting ANSI/IESNA RP-8	-/8. ithin the lineite of the or	a fact The Ocertainty		TO, WIRIN
45.	Separai	e coniracis will be ongoing w P shall pat bipdar the work b	nin the timils of the pr	o Jeci. The Contractor		require
	and cor	ordinate the work of this pro	enny pennonnieu by onnen iectwith the other contra	contractors and shan cooperate	64	For par
46.	#8 AWG	wire is the smallest wire si	ze allowed in anv feeder	or branch circuit. The	07.	and def
	lighting	system will require equipmer	nt grounding conductors	in non-metallic conduits in	65.	Splice t
	accordo	nce with Article 250 of the i	NEC.Lighting system gro	unding conductors shall be	66.	Contrac
	the sam	e size as the largest power c	conductor within the non-i	metallic conduit.	67	electrico
47.	All prop	.junction boxes shall be in ad	ccordance with the VDOT	St'd.JB-SI,JB-S2,or JB-S3.unless	Ο/.	applicat
	specifie	ed otherwise in the plans.			68.	Contrac
					69.	All stree
					70.	Conduit,
					71.	Conduit
					70	approxi,
					(<u>'</u> 2. ~ ~	roles a
			lastallation		().	structuu
		Proposed Items	nsiananon Responsihility			with exi
					74.	Contrac
		Signal Pole Luminaires	Contractor			DVP Pe
						Dominio

Proposed Items	Responsibility
Signal Pole Luminaires	Contractor
Light Poles	DVP
Foundations	Contractor
Underbridge Lights	Contractor
Conduits	Contractor
Junction Boxes	Contractor
Splice Boxes	Contractor
Control Center	Contractor
Electrical Wiring	Contractor/DVP

		I	
		A R L I N C VIRGIN	GTON
		DEPARTME ENVIRONMENTA FACILITIES & ENGINEE ENGINEERING 2100 CLARENDON BOULE ARLINGTON, V PHONE: 703.22 FAX: 703.228	NT OF L SERVICES ERING DIVISION BUREAU EVARD, SUITE 813 A 22201 28.3629 3.3606
MISC: 48.	All luminaires to be installed shall either meet or exceed the average maintained uniformity,and veiling luminance ratio results of the luminaire manufacturer	SEAL 6000	1012/21
49.	and model no.used in the photometric analysis. Installation of conduits, junction boxes, and anchor bolts specified to be installed into barriers and/or wall shall be coordinated by the electrical contractor with the contractor installing the barrier and/or wall and approved by the field engineer.	SUBIT2	72
50.	Contractor and DVP shall test pit to identify any potential underground utility conflicts prior to installing all proposed lighting equipment foundations and prior to boring or jacking all conduits.	APPROVALS	DATE
51.	The contractor shall document and be responsible for the condition of existing materials including poles.conduits and conductors prior to reuse.The contractor shall immediately notify the department of any defective material prior to being sent to storage.any	DESIGN TEAM ENGINEER	SUPERVISOR
52.	replacement of defective material must br approved by the vdot engineer. All soil removed for junction boxes,foundations,etc.must be covered with erosion control matting to prevent erosion.soil not used for backfill must be removed on the same	WATER, SEWER, STREET	S BUREAU CHIEF
53	working day.	TRANSPORTATION DIRE	
	the same working day in which trenching occured. areas which are not reseeded, mulched or sodded must be overed with erosion control matting to prevent erosion.all soil not used for backfill must be removed on	PROJECT MANAGER	
54.	the same working day. Contractor and DVP to coordinate all work with other contractors to avoid conflicts with other work.conduits are to avoid bridge piers,abutments,		
55.	guardrails,foundations,and other civil works. Conduits at mse walls need to be coordinated with mse wall installer.	REVISIONS	DATE
56.	The contractor shall inspect and verify all existing equipment proposed		
57.	to be relocated and/or reused such that performance specifications are met and materials, including but not limited to light poles, foundations and luminaires are structurally sound for relocation and/or reuse. All above ground structures located behind guardrail shall comply with minimum clearances per current VDOT standard to account for w beam barrier deflection. if site constraints prevent the installation of light		
	poles shall be installed on breakaway transformer bases.		
58.	Contractor and DVP shall include a copy of the as-built lighting plans in all proposed lighting control center cabinets the papel schedule shall		
	include all pole numbers for poles with luminaires that are associated	_	
	with each circuit, the pole numbers shall match the pole numbers on the identification taa installed on each liabt pole.		
59.	Refer to bridge plans for bridge junction box details.		
60. 61	Not used. Install vibration resistant sockets for all structure mounted liabts	ILLE	
62.	Certain utilities within the vicinity of this Project area are shown on the plans. The utilities shown are not guaranteed to be complete or accurately located. The Contractor is responsible for locating all existing utilities and lighting systems before proceeding with the work	OUR M	
63.	Contractor and DVP shall be responsible for installation of all components including, but not limited to, wiring, control centers, light poles, luminaires, junction boxes, light pole foundations, conduit, pipe sleeves, and luminaires complete with all accessories and miscellaneous hardware	VER F	DTES
64.	required for propert installation. For panel schedule and electrical information includina conduit wiring see lighting legend		ž
65	and detail sheets. Splice boxes for Dominion Virginia Power (DVP) shall be supplied by DVP	JAC 190	۲ ا
66.	Contractor shall furnish and install 2" Schedule 40 PVC (for open trench application)		RA
67.	Contractor shall furnish and install 2" Schedule 80 HDPE (for directional boring	BI BI	
68.	application) electrical conduit per ARL STD 14030-01. Contractor to field verify (test pit) exact location and depth of proposed utility.	AD	Ш
69. 70	All streetlights will be unetered, owned and maintained by Dominion Virginia Power.	RO	Ċ
71.	Conduit runs approximate only, field locate alignment. Box locations are	Ш	
7 <i>2</i> .	approximate only, i leta locale placement. Poles and conductors shall be installed by DVP.		
73.	Sidewalk pavement and landscaping within proposed and removed traffic signal structures and electrical/communications utility cuts shall be restored to comply	U U	
74.	with existing conditions or proposed pavement/landscaping. Contractor shall coordinate all street lighting work with the following County,City and DVP Personnel:	WEST	
	Ariington County PM - Zoran Dragacevac (703) 228-6509 Dominion Virginia Power PM - Desnise Stevens (703) 508-0865 Dominion Virginia Power Designer - Ronald Velez (571) 353-0226 City of Alexandria PM - Matt Melkerson (703) 746-4087		
75.	Contractor shall clean out all conduits they install, provide pull strings and cap all ends.	DRAWN:	
		CHECKED:	
		PLOTTED: August 18 202	1
		SCALE:	
		N/A	

JUNCTION BOXES:

	ROADWAY LIGHTING REQUIREMENTS										
Road Name	Arlington Co. Functional Classicification	Arlington County Lighting Classification	Average Maintained Illuminance	Uniformity Ratio Avg/Min							
South Glebe Road	Arterial Commercial/Intermediate	Arterials - Mixed Use	1.0 fc	4: /							
West Glebe Road	Local Commercial/Intermediate/Residential	Local - Mixed Use	0.7 fc	6 : /							
Four Mile Run Dr.	Aeterial Residential	Arterials - Residential	0.7 fc	4:1							

	PEDESTRIAN PATH LIGHTING	REQUIREMENTS*	
	Eavg (lux/fc)	Ev,min (lux/fc)	
Pedestrian Only	10/0.9	5/.05	

* Derived from ANSI/IES RP-8-18 Table 16-1

Eavg: Minimum maintained average horizontal illuminance at pavement

Ev, min: Minimum vertical illuminance at 1.5m above the pavement in both directions and parallel to the main pedestrian flow. Emin: Minimum horizontal illuminance at pavement

	STATISTICAL	AREA RESULTS		
Stat Area Description	Average Maintained Illuminance (Eavg)	Uniformity Ratio (Eavg/Emin)	Мах	Min
Bridge	1.17 fc	3.90	2.8	0.3
Underbridge	0.94 fc	1.34	1 . 2 fc	0.7 fc

Dominion Roadway Luminaire Specifications

Decorative Shoebox

The Decorative Shoebox luminaire is an attractive fixture in a dark bronze color, providing full cut-off distribution for lighting parking areas and for roadway lighting.

Comparable HID Wattage	Finish Color	Initial Lamp Lumens	Lighting Pattern	Correlated Color Temperature (CCT)	Input Wattage	Billing Tier	B-U-G Rating	Recommended Mounting Height (ft.)	Luminaire Stock #	
70	Dark Bronze	4376	Type III	3000к	38	2	1-0-1	25	42323699	
70	Dark Bronze	4281	Type IV	3000К	38	2	1-0-1	25	42323700	
70	Dark Bronze	4714	Type III	4000K	38	2	1-0-1	25	42315801	Γ
70	Dark Bronze	4612	Type IV	4000K	38	2	1-0-2	25	42315802	
100	Dark Bronze	5580	Type III	3000К	49	2	1-0-2	25 - 30	42323701	Γ
100	Dark Bronze	5458	Type IV	3000К	49	2	1-0-2	25 - 30	42323702	
100	Dark Bronze	6011	Type III	4000K	49	2	1-0-2	25 - 30	42315793	Γ
100	Dark Bronze	5880	Type IV	4000K	49	2	1-0-2	25 - 30	42315794	Γ
150	Dark Bronze	7846	Type III	3000К	71	3	2-0-2	25 - 30	42323703	
150	Dark Bronze	7675	Type IV	3000К	71	3	2-0-2	25 - 30	42323704	Γ
150	Dark Bronze	8452	Type III	4000K	71	3	2-0-2	25 - 30	42315795	
150	Dark Bronze	8269	Type IV	4000K	71	3	2-0-2	25 - 30	42315796	Γ
250	Dark Bronze	14704	Type III	3000К	138	5	2-0-3	30 - 35	42337229	
250	Dark Bronze	15377	Type IV	4000K	138	5	2-0-3	30 - 35	42315797	
250	Dark Bronze	14384	Type III	3000К	138	5	2-0-3	30 - 35	42337230	
250	Dark Bronze	15496	Type IV	4000K	138	5	2-0-3	30 - 35	42315798	Γ
400	Dark Bronze	22342	Type III	3000К	185	7	3-0-3	30 - 40	42337231	
400	Dark Bronze	24068	Type III	4000K	185	7	3-0-3	30 - 40	42315799	Γ
400	Dark Bronze	21857	Type IV	3000К	185	7	3-0-4	30 - 40	42337232	
400	Dark Bronze	23545	Type IV	4000K	185	7	3-0-4	30 - 40	42315800	
1000	Dark Bronze	31014	Type III	3000К	270	10	3-0-4	35 - 40	42337233	
1000	Dark Bronze	33410	Type IV	4000K	270	10	3-0-4	35 - 40	42315791	Γ
1000	Dark Bronze	31014	Type III	3000К	270	10	3-0-4	35 - 40	42337234	
1000	Dark Bronze	32684	Type IV	4000K	270	10	3-0-4	35 - 40	42315792	Γ

Eavg/Emin

4.0

WMIS CU Code

LEDSBDE0333ZXXX LEDSBDE0343ZXXX

LEDSBDE0334ZXXX LEDSBDE0344ZXXX

LEDSBDE0533ZXXX

LEDSBDE0543ZXXX

LEDSBDE0534ZXXX

LEDSBDE0544ZXXX

LEDSBDE0833ZXXX

LEDSBDE0843ZXXX LEDSBDE0834ZXXX LEDSBDE0844ZXXX

LEDSBDE1533ZXXX

LEDSBDE1534ZXXX

LEDSBDE1543ZXXX LEDSBDE1544ZXXX LEDSBDE2233ZXXX

LEDSBDE2234ZXXX LEDSBDE2243ZXXX

LEDSBDE2244ZXXX LEDSBDE3233ZXXX

LEDSBDE3234ZXXX

LEDSBDE3243ZXXX LEDSBDE3244ZXXX

South Glebe Road Intersection Stat Area South Four Mile Run Drive Ø [†]0.7 Underbridge Stat-Area Bridge Stat Area — **0.**5 **0**.6

Conduit Design Legend

Panelboard Schedule

								P	١NE	L C	CC1									
VOLTAGE: 208	3 /120	PHASE: WIRE:	1 3	BL ACCI	IS AMPS: ESSORY:	225		MAINS AMPS	MLC 125)	M A	OUNTIN CCESSO	IG: ORY:	SURFAC	Έ			INTERRUPTING	GCAPACITY:	10KA
CIRCUIT	CONN. LO	DAD (KVA)			WIRE		CKT B	RKR			CKT	BRKR		WIRE			CONN. LC)AD (KVA)	CIRCUIT	
DESCRIPTION *	A	В	**	#	SIZE	GND	TRIP	P NO) NC) F	- c	TRIP	GND	SIZE	#	**	A	B *	DESCRIPTION	
PHOTOCELL	0.1		Е	2	#12	1#12	20	1 1	2	2	2	20	1#6	#6	2	L	0.73		ULB LIGHTS	
UBL LIGHTS		0.73	L	2	#6	1#6	20	2 3	4	1	2	20	1#6	#6	2	L		0.25	HANDRAIL LIGH	ITS
HANDRAIL LIGHTS	0.25		L	2	#6	1#6	20	2 5	6							L				
			L					7	8							L				
			L					9	10)						L				
			L					1'	12	2						L				
			L					13	14	ł										
								15	16	6										
								17	18	3										
	I				11		1										1	TOTAL F	- PANEL LOAD (kV	A)
PER PHASE THIS PANEL (kVA) 1.08	0.98																	CONNECTED	DEMAND
PER PHASE SUB-FED (kVA)				SUBFED	PANEL-												KVA	2.06	2.06
PANEL TOTAL (kVA)	2.06																AMPS	17.3	17.3
, , , , , , , , , , , , , , , , , , ,	1																		1	
* NOTES:	**NOTES:	:					***NOTES	S:												
E = EXIST TO REMAIN UNO	H=HEAT		R=RE	CEPT	ACLES		SEE ELI	_ ECTRIC/	L RIS	ER D	IAGR	AM								
G = GROUND FAULT	E=EQUIP	MENT	L=LIG	HTIN	3															
L = LOCKABLE																				
S = SHUNT TRIP																				

Conduit Design Legend

- A→ Proposed 2" PVC Conduit A→ 8 *6 Conductor Cable I-*6 EGC
- Proposed 2" PVC Conduit B→ 2 *6 Conductor Cable I *6 EGC
- Proposed 1.5" Metal Conduit C 4 *6 Conductor Cable I *6 EGC
- D→ 2 *6 Conductor Cable I *6 EGC
- Proposed 2" PVC Conduit for Dominion

T A R L I N G T O N VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 COPYRIGHT © 2020 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED SEAL 50010 508MISSION 8EV12.07 APPROVALS DATE DESIGN TEAM ENGINEER SUPERVISOR WATER, SEWER, STREETS BUREAU CHIEF TRANSPORTATION DIRECTOR PROJECT MANAGER REVISIONS DATE RUN MILE PANELBOARD SPECIFICATIONS FOUR OVER ROAD BRIDGE BMWG GLEBE WEST ROAD GLEBE WEST DESIGNED: DRAWN: CHECKED: PLOTTED: August 18 2021 SCALE: C111.5

Signal Luminaire

225W	100LED14		short		SRUT	Sensor ready driver.	NRC ⁸	No receptacle		
305W	100LED ¹⁴	R	(ASTM)			alternate	NYBC	4 - position termin	al block	
190W1 241W1	12LED		Medium (ASYM)			configuration	PH8 ^{1,10}	Twist-lock photoel UNV (120-277VAC)	ectric cell,	
350W	112LED		Type 4				PH8/347	^{10, 13} Twist-lock ph cell (347VAC)	otoelectric	
130W1 200W	120LED ¹⁴		(ASYM)				PH8/480	^{10, 13} Twist-lock ph cell (480VAC)	otoelectric	
270W1 155W1 230W2	120LED ¹⁴ 140LED ¹⁴	5	Type V (SYMM)				PHXL 1,10	Twist-lock photoel cell, extended life, (120-277VAC)	ectric UNV	
310W1							PH9 10	Shorting cap		
							RCD 3.9	Receptacle for twi photocell or shorti 5-pin (optional)	st-lock ing cap,	
							RCD7 ^{3,5}	Receptacle for twi photocell or shorti 7-pin (standard)	st-lock ing cap,	
							SP2	20kV / 10kA Surge	protector	
							TLRSR ⁶	SR receptacle		
							BAC ¹⁶	Meets the requirer Buy American Act o	nents of the of 1933 (BAA)	
 Not available with Refer to Accessor compatibility of sl Use of photoelect required to ensur Select either DAL mandatory option Please note this in standard with Ros Only available with Accessories¹⁷ Interact City Com Shielding accessor 	HVU. ries section to c. hields with optica: tric cell or short! e proper illumina l or DMG or SRD h. htegrated featur adFocus. h SRD or SRD1 Dr h DMG Driver Optication (must be ord nector node (Copries	a onfirm on firm on firm on firm on the second seco	Not available with PHXL, PH9, DALI, Not available with Either RCD or RC for this option. Extended lead-ti FAWS table accur Not available with Only available with 1 shield provided items – quickl tional support who	n PH8, PH8/347, PH SRD or SRD1 Driver n SRD Driver Option D7 must be selected me may apply. Con macy +/- 15% on the 1 UNV. th R2M or R3M dist per LED light engin y and easily ins en connected light	8/480 Options. ad sult fa ase mo ributione. stalle	, ons. odels. ons. od in the field additional servio	¹⁶ Failure you re with n nation of, or ments requir non-ft admin other ¹⁷ Consu are BA	e to properly select ceiving product tha o recurse for an RM hereunder does no availability of a waive Act, cr (ii) the "Buy ements imposed on deral entities as a sistered by the Depai federal agencies. It Signify to confirm A-compliant.	the "BAC" suffix t is not BAA con A or refund. Th t address (i) the rr under, the Trr America" dome states, localitie condition of rec thment of Trans: whether specif	k could result in npliant product his BAC desig- e applicability ade Agree- stic content es, and other eiving funds portation or ic accessories
	Luminaire	Accessory O	rdering Code			S	hield vs Dis	tribution Compatibil	ity	
Description	Option Code	12/16 LED version*	20 LED vers	ion* R2	м	R2S	R3M	R3S	4	5
Cul-de-sac shield	CSS	ACC-LG66V16LED-CSS	ACC-LG66V20L	ED-CSS Ye	s	Yes	Yes	Yes	Yes	Yes
									4	

Front side shield	FSS	ACC-LG66V16LED-FSS	ACC-LG66V20LED-FSS	Yes	Yes	Yes	Yes	No	Yes
House side shield	HS	ACC-LG66V16LED-HS	ACC-LG66V20LED-HS	Yes	Yes	Yes	Yes	Yes	No
Left side shield	LSS	ACC-LG66V16LED-LSS	ACC-LG66V20LED-LSS	Yes	Yes	Yes	Yes	Yes	Yes
		100 L 0001/001 ED . D00	100 L 000 400 ED 800	N			V		Vee
Right side shield	RSS	ACC-LG66VI6LED-RSS	ACC-LG66V20LED-RSS	Yes	res	res	res	res	res
*Refer to Wattage ta	ble to confirm	light engine configuration. E	xample, if configuration is 2	res x16LED, 2 of the	desired shields	must be order	ed per luminaire	res	res
Right side shield *Refer to Wattage ta	RSS ble to confirm	light engine configuration. E	ACC-LG66V20LED-RSS	res x16∟ED, 2 of the	desired shields	res s must be order	res ed per luminaire	tes	Tes
Right side shield *Refer to Wattage ta	RSS ble to confirm	Ight engine configuration. E	xample, if configuration is 2	res x16∟ED, 2 of the	tes desired shields	res s must be ordere	res ed per luminaire	tes	

RFL RoadFocus LED Cobra head (large)

Predicted Lumen Depreciation Data

by (Signify

Ordering guide

RFL

Series LED module CCT

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11 Addendum B. Published L₇₀ hours limited to 6 times actual LED test hours. Ambient Temperature °C L70 per TM-21 Lumen Maintenance % at 60,000 hrs 25°C >60,000 hours >97.6% LED Wattage values Ordering CodeLight Engine
ConfigurationAverage System
Watts¹⁶Nattage label¹⁷Ordering CodeLight Engine
ConfigurationAverage System
Watts¹⁶Nattage label¹⁷RFL-145W64LED644x16LED137140RFL-190W112LED1127x16LED188190

RFL-145W64LED									
	64	4x16LED	137	140	RFL-190W112LED	112	7x16LED	188	190
L-135W80LED	80	5x16LED	136	140	RFL-241W112LED	112	7x16LED	243	240
FL-180W80LED	80	5x16LED	174	170	RFL-350W112LED 18	112	7x16LED	340	340
L-270W80LED	80	5x16LED	268	270	RFL-130W120LED	120	6x20LED	133	130
FL-215W96LED	96	6x16LED	207	210	RFL-200W120LED	120	6x20LED	196	200
FL-85W100LED	100	5x20LED	88	90	RFL-270W120LED	120	6x20LED	269	270
FL-105W100LED	100	5x20LED	106	110	RFL-155W140LED	140	7x20LED	154	150
FL-165W100LED	100	5x20LED	165	170	RFL-230W140LED	140	7x20LED	229	230
FL-225W100LED	100	5x20LED	224	220	RFL-310W140LED	140	7x20LED	311	310
RFL-305W100LED	100	5x20LED	306	310	16. Typical values.	rounded.			

-L-230W140LED	140	7x20LED	229	230
-L-310W140LED	140	7x20LED	311	310
5. Typical values,	rounded.			

4000K LED Lumen values

			Type R2	2M		Type R2	25		Type R3	вм		Type R	BS		Туре 4	4		Туре 🗄	5
Ordering Code	Color Temp.	Lumen Out- put	Effi- cacy (LPW)	BUG Rating															
RFL-145W64LED	4000	19,162	140	B3-U0-G3	19,841	145	B3-U0-G2	19,102	139	B3-U0-G2	19,358	141	B2-U0-G3	19,012	139	B2-U0-G3	19,777	144	B4-U0-G2
RFL-135W80LED	4000	18,819	138	B3-U0-G3	19,486	143	B3-U0-G2	18,761	137	B3-U0-G2	19,012	139	B2-U0-G3	18,673	137	B2-U0-G3	19,423	142	B4-U0-G2
RFL-180W80LED	4000	23,952	138	B3-U0-G3	24,800	143	B3-U0-G2	23,877	137	B3-U0-G3	24,197	139	B3-U0-G3	23,765	137	B3-U0-G4	24,721	142	B5-U0-G3
RFL-270W80LED	4000	32,506	121	B3-U0-G3	33,658	126	B4-U0-G3	32,405	121	B3-U0-G3	32,839	122	B3-U0-G4	32,254	120	B3-U0-G4	33,549	125	B5-U0-G3
RFL-215W96LED	4000	28,742	139	B3-U0-G3	29,760	144	B3-U0-G2	28,653	138	B3-U0-G3	29,037	140	B3-U0-G4	28,519	138	B3-U0-G4	29,664	143	B5-U0-G3
RFL-85W100LED	4000	13,504	154	B3-U0-G3	N/A	N/A	N/A	13,576	155	B3-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFL-105W100LED	4000	16,168	153	B3-U0-G3	N/A	N/A	N/A	16,255	153	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFL-165W100LED	4000	22,561	137	B3-U0-G3	N/A	N/A	N/A	22,683	137	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFL-225W100LED	4000	28,600	128	B4-U0-G4	N/A	N/A	N/A	28,753	128	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFL-305W100LED	4000	37,480	122	B4-U0-G4	N/A	N/A	N/A	37,681	123	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFL-190W112LED	4000	26,347	140	B3-U0-G3	27,280	145	B3-U0-G2	26,265	140	B3-U0-G3	26,617	142	B3-U0-G3	26,143	139	B3-U0-G4	27,192	145	B5-U0-G3
RFL-241W112LED	4000	32,955	136	B4-U0-G3	34,122	140	B4-U0-G3	32,853	135	B3-U0-G3	33,293	137	B3-U0-G4	32,699	135	B3-U0-G4	34,012	140	B5-U0-G3
RFL-350W112LED	4000	42,515	125	B4-U0-G4	44,021	130	B4-U0-G3	42,382	125	B4-U0-G4	42,950	127	B3-U0-G4	42,184	124	B3-U0-G5	43,879	129	B5-U0-G4
RFL-130W120LED	4000	19,401	146	B3-U0-G3	N/A	N/A	N/A	19,505	147	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFL-200W120LED	4000	27,073	138	B4-U0-G3	N/A	N/A	N/A	27,219	139	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFL-270W120LED	4000	34,319	128	B4-U0-G4	N/A	N/A	N/A	34,504	128	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFL-155W140LED	4000	22,635	147	B3-U0-G3	N/A	N/A	N/A	22,756	148	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFL-230W140LED	4000	31,586	138	B4-U0-G4	N/A	N/A	N/A	31,756	139	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

 RFL-310W140LED
 4000
 40,039
 129
 B4-U0-G4
 N/A
 N/A

Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm performance with a layout - contact Applications at signify.com/outdoorluminaires. Consult DLC QPL to confirm your specific fixture selection is DLC approved.

RoadFocus-RFL-Spec 07/21 page 2 of 5

Note: Some data may be scaled based on tests of similar but not identical luminaries.

LED CO	NIC		au																
3000K I ED I	umei	n value		· · ·	•														
	unei	i value	Type P	м		Type P			Type P	2M		Type P	36		Type	4		Type	
		Lumen	Effi-		Lumen	Effi-	23	Lumen	Effi-		Lumen	Effi-	33	Lumen	Effi-	4	Lumen	Effi-	5
Ondoning Code	Color	Out-	cacy	BUG	Out-	cacy	BUG Bating	Out-	cacy	BUG	Out-	cacy	BUG	Out-	cacy	BUG	Out-	cacy	BUC
REI -145W641 ED	3000	17 976	(LFW)	B3-U0-G3	18 613	(LPW)	B3-U0-G2	17.920	(LPW)	B3-U0-G2	18 160	(LPW)	B2-U0-G3	17.836	(LPW)	B2-U0-G3	18 553	135	B4-U0
REL-135W80LED	3000	17 655	129	B3-U0-G3	18 280	134	B3-U0-G2	17,600	129	B3-U0-G2	17.836	131	B2-U0-G3	17 518	128	B2-U0-G3	18 221	134	B4-UC
REI -180W801 ED	3000	22 470	129	B3-U0-G3	23 266	134	B3-U0-G2	22 400	129	B3-U0-G3	22 700	130	B3-U0-G3	22 295	128	B3-U0-G4	23 191	133	B5-U0
RFL-270W80LED	3000	30.495	114	B3-U0-G3	31,575	118	B4-U0-G3	30,400	113	B3-U0-G3	30.807	115	B3-U0-G4	30.258	113	B3-U0-G4	31.473	117	B5-U0
RFL-215W96LED	3000	26,964	130	B3-U0-G3	27,919	135	B3-U0-G2	26,880	130	B3-U0-G3	27.240	132	B3-U0-G4	26.754	129	B3-U0-G4	27.829	134	B5-U0
REL-85W100LED	3000	12 839	147	B3-U0-G3	N/A	N/A	N/A	12 908	147	B3-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/
RFL-105W100LED	3000	15.372	145	B3-U0-G3	N/A	N/A	N/A	15.455	146	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/
RFL-165W100LED	3000	21.451	130	B3-U0-G3	N/A	N/A	N/A	21.566	131	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/
RFL-225W100LED	3000	27,192	121	B4-U0-G3	N/A	N/A	N/A	27,338	122	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NZ
RFL-305W100LED	3000	35,636	116	B4-U0-G4	N/A	N/A	N/A	35,828	117	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/
RFL-190W112LED	3000	24,717	132	B3-U0-G3	25,592	136	B3-U0-G2	24,640	131	B3-U0-G3	24,970	133	B3-U0-G3	24,525	131	B3-U0-G4	25,510	136	B5-U0
RFL-241W112LED	3000	30,916	127	B4-U0-G3	32,011	132	B4-U0-G3	30,820	127	B3-U0-G3	31,233	129	B3-U0-G4	30,676	126	B3-U0-G4	31,908	131	B5-U0
RFL-350W112LED	3000	39,884	117	B4-U0-G4	41,297	122	B4-U0-G3	39,760	117	B4-U0-G4	40,293	119	B3-U0-G4	39,574	117	B3-U0-G5	41,164	121	B5-U0
2EL_120W120LED	3000	18,446	139	B3-U0-G3	N/A	N/A	N/A	18,545	139	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/
													N1 /A						
RFL-200W120LED	3000	25,741	131	B3-U0-G3	N/A	N/A	N/A	25,880	132	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NZ.
RFL-200W120LED RFL-270W120LED	3000 3000	25,741 32,631	131 121	B3-U0-G3 B4-U0-G4	N/A N/A	N/A N/A	N/A N/A	25,880 32,807	132 122	B3-U0-G3 B4-U0-G4	N/A N/A	N/A	N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/
RFL-200W120LED RFL-270W120LED RFL-155W140LED	3000 3000 3000	25,741 32,631 21,521	131 121 140	B3-U0-G3 B4-U0-G4 B3-U0-G3	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	25,880 32,807 21,637	132 122 141	B3-U0-G3 B4-U0-G4 B3-U0-G3	N/A N/A N/A	N/A N/A N/A	N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/
FL-200W120LED FL-270W120LED FL-270W120LED FL-35W140LED FL-330W140LED FL-310W140LED	3000 3000 3000 3000 3000	25,741 32,631 21,521 30,032 38,069	131 121 140 131 122 \$	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G3 B4-U0-G4	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A N/A	25,880 32,807 21,637 30,194 38,274	132 122 141 132 123	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/ N/ N/ N/
RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-230W140LED RFL-310W140LED 2700K LED L	3000 3000 3000 3000 3000	25,741 32,631 21,521 30,032 38,069	131 121 140 131 122 S	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G3 B4-U0-G4	N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	25,880 32,807 21,637 30,194 38,274	132 122 141 132 123	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4	N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A
RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-230W140LED RFL-310W140LED 2700K LED L	3000 3000 3000 3000 3000	25,741 32,631 21,521 30,032 38,069 value	131 121 140 131 122 S Type R: Effi-	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G3 B4-U0-G4	N/A N/A N/A N/A Lumen	N/A N/A N/A N/A Type R	N/A N/A N/A N/A N/A 25	25,880 32,807 21,637 30,194 38,274	132 122 141 132 123 Type R . Effi-	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A Type R Effi-	N/A N/A N/A N/A N/A 35	N/A N/A N/A N/A Lumen	N/A N/A N/A N/A N/A Type 4	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A Type	N/. N/. N/. N/. 5
RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED 2700K LED L	3000 3000 3000 3000 umer	25,741 32,631 21,521 30,032 38,069 value Lumen Out-	131 121 140 131 122 S Type R Effi- cacy (I PW)	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4	N/A N/A N/A N/A N/A	N/A N/A N/A N/A Type R Effi- cacy	N/A N/A N/A N/A N/A 28 BUG Pating	25,880 32,807 21,637 30,194 38,274 Lumen Out-	132 122 141 132 123 Type R Effi- cacy (I, PW)	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B4-U0-G4	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A Type R Efficacy	N/A N/A N/A N/A N/A 3S BUG	N/A N/A N/A N/A Lumen Out-	N/A N/A N/A N/A N/A Type / Effi- cacy	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A Type ! Effi- cacy	N/2 N/2 N/2 N/2 N/2 N/2 S
RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-330W140LED RFL-310W140LED 2700K LED L Ordering Code RFL-145W641 FD	3000 3000 3000 3000 umer	25,741 32,631 21,521 30,032 38,069 value Lumen Out- put	131 121 140 131 122 S Type R: Effi- cacy (LPW) 120	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G3 B4-U0-G4 2M 2M BUG Rating B3-U0-G3	N/A N/A N/A N/A N/A Lumen Out- put	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW)	N/A N/A N/A N/A N/A 25 BUG Rating B3-110-62	25,880 32,807 21,637 30,194 38,274 Lumen Out- put	132 122 141 132 123 Type R Effi- cacy (LPW)	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B4-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G2	N/A N/A N/A N/A N/A Lumen Out- put	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW)	N/A N/A N/A N/A N/A 3S BUG Rating B2-110-G3	N/A N/A N/A N/A N/A Lumen Out- put	N/A N/A N/A N/A N/A Type 4 Effi- cacy (LPW)	N/A N/A N/A N/A N/A 4 4 8UG Rating	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A Type ! Effi- cacy (LPW)	N/ N/ N/ N/ 5 5 84-10
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED 2700K LED L Drdering Code RFL-145W64LED RFL-145W64LED	3000 3000 3000 3000 umer Color Temp. 2700	25,741 32,631 21,521 30,032 38,069 Value Lumen Out- put 16,484 16,190	131 121 140 131 122 S Type R Effi- cacy (LPW) 120 119	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B4-U0-G4 BUG Rating B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A Lumen Out- put 17,068 16 763	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 125 123	N/A N/A N/A N/A N/A 2S BUG Rating B3-U0-G2 B3-U0-G2	25,880 32,807 21,637 30,194 38,274 Lumen Out- put 16,433 16 140	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G2	N/A N/A N/A N/A N/A Lumen Out- put 16,653 16 356	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 122	N/A N/A N/A N/A N/A 3S BUG Rating B2-U0-G3 B2-110-G3	N/A N/A N/A N/A N/A N/A Uumen Out- put 16,356	N/A N/A N/A N/A N/A Type Effi- cacy (LPW) 119	N/A N/A N/A N/A N/A A BUG Rating B2-U0-G3 B2-U0-G3	N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A Type 8 Effi- cacy (LPW) 124	5 B4-UC B4-UC
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED 2700K LED L Drdering Code RFL-145W64LED RFL-135W80LED	3000 3000 3000 3000 umer Color Temp. 2700 2700	25,741 32,631 21,521 30,032 38,069 Value Uumen Out- put 16,484 16,190 20,605	131 121 140 131 122 S Type R Effi- cacy (LPW) 120 119 118	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A N/A N/A N/A 1/068	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 125 123	N/A N/A N/A N/A N/A 225 BUG Rating B3-U0-G2 B3-U0-G2 B3-U0-G2	25,880 32,807 21,637 30,194 38,274 Lumen Out- put 16,433 16,140 20,541	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 118	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G3	N/A N/A N/A N/A N/A Lumen Out- put 16.653 16.356 20.816	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 122 120	N/A N/A N/A N/A 3S BUG Rating B2-U0-G3 B2-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A N/A N/A N/A 16,356 16,064 20,445	N/A N/A N/A N/A N/A Type - Effi- cacy (LPW) 119 118	AVA N/A N/A N/A N/A N/A BUG Rating B2-U0-G3 B2-U0-G3 B2-U0-G3 B3-U0-G4	N/A N/A N/A N/A N/A N/A Lumen Out- put 17,013 16,709 21,267	N/A N/A N/A N/A N/A Type 5 Effi- cacy (LPW) 124 122	N/ N/ N/ 5 5 84-UC 84-UC 84-UC
RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED 2700K LED L Drdering Code RFL-145W64LED RFL-135W80LED RFL-135W80LED	3000 3000 3000 3000 3000 2000 2700 2700	25,741 32,631 21,521 38,069 Value Value 16,484 16,190 20,605 27,965	131 121 140 131 122 S Type R Effi- cacy (LPW) 120 119 118 104	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A N/A N/A 1/A 10,068 16,763 21,335 28,955	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 125 123 123 123	N/A N/A N/A N/A N/A S S BUG Rating B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2	25,880 32,807 21,637 30,194 38,274	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 118 104	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A N/A Lumen Out- put 16,653 16,356 20,816 28,251	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 122 120 120	N/A N/A N/A N/A N/A 3S BUG Rating B2-U0-G3 B2-U0-G3 B2-U0-G3 B3-U0-G3 B3-U0-G4	N/A N/A N/A N/A N/A Lumen Out- put 16,356 16,064 20,445 20,747	N/A N/A N/A N/A N/A Type / Effi- cacy (LPW) 119 118 118	N/A N/A N/A N/A N/A N/A B2-U0-G3 B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A N/A N/A N/A 1001 17,013 16,709 21,267 28,861	N/A N/A N/A N/A N/A Type 8 Effi- cacy (LPW) 124 122 122 122	N/ N/ N/ N/ 5 5 84-UC 84-UC 84-UC 85-UC
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED 2700K LED L Drdering Code RFL-145W64LED RFL-135W80LED RFL-135W80LED RFL-136W80LED RFL-270W80LED RFL-215W96LED	3000 3000 3000 3000 3000 2000 2700 2700	25,741 32,631 21,521 38,069 Value Lumen out- put 16,484 16,190 20,605 27,965	131 121 140 131 122 S Type R: Effi- cacy (LPW) 120 119 118 104	B3-U0-G3 B4-U0-G4 B4-U0-G3 B4-U0-G4 E4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A N/A N/A N/A 10,763 16,763 21,335 28,955 28,955	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 125 123 123 123	N/A N/A N/A N/A N/A 225 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	25,880 32,807 21,637 30,194 38,274	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 118 104 119	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A Lumen Out- put 16,653 16,356 20,816 28,251	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 122 120 120 120	N/A N/A N/A N/A N/A 335 BUG Rating B2-U0-G3 B2-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A Lumen Out- put 16,356 16,064 20,445 27,747 24,534	N/A N/A N/A N/A N/A Effi- cacy (LPW) 119 118 118 103	N/A N/A N/A N/A N/A N/A BUG Rating B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A N/A N/A 10,012 17,013 16,709 21,267 28,861 25,520	N/A N/A N/A N/A N/A Type : Effi- cacy (LPW) 124 122 122 108 123	N/ N/ N/ N/ 5 5 84-UC 84-UC 85-UC 85-UC
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED 2700K LED L Drdering Code RFL-145W64LED RFL-135W80LED RFL-180W80LED RFL-270W80LED RFL-180W80LED RFL-215W96LED RFL-215W96LED	3000 3000 3000 3000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value Lumen Out- put 16,484 16,190 20,605 27,965 24,727 11,731	131 121 140 131 122 S Type R Effi- cacy (LPW) 120 119 118 104 119 134	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A Lumen Out- put 17,068 16,763 21,335 28,955 25,602 N/A	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 125 123 123 123 108 124 N/A	N/A N/A N/A N/A N/A 225 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2	25,880 32,807 21,637 30,194 38,274	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 118 104 119 135	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A Lumen Out- put 16,653 16,356 20,816 28,251 24,980 N/A	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 122 120 120 120 120 121 N/A	N/A N/A N/A N/A N/A 3S BUG Rating B2-U0-G3 B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A Lumen Out- put 16,356 16,064 20,445 22,747 24,534	N/A N/A N/A N/A N/A Type Effi- cacy (LPW) 1119 118 118 103 119 N/A	A N/A N/A N/A N/A N/A A A BUG Rating B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A N/A N/A 21.267 28.861 25.520 N/A	N/A N/A N/A N/A N/A Effi- cacy (LPW) 124 122 122 108 123 N/A	5 BU:Rati B4-UC B5-UC B5-UC
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED 2700K LED L Ordering Code RFL-145W64LED RFL-135W80LED RFL-135W80LED RFL-135W80LED RFL-270W80LED RFL-215W96LED RFL-85W100LED RFL-105W100LED	3000 3000 3000 3000 3000 2000 2700 2700	25,741 32,631 21,521 38,069 value Lumen Out- put 16,484 16,190 20,605 27,965 24,727 11,731	131 121 140 131 122 S Type R: Effi- cacy (LPW) 120 119 118 104 119 134	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G2 B3-U0-G2 B3-U0-G2	N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 125 123 123 123 108 124 N/A N/A	N/A N/A N/A N/A N/A 22 BUG Rating B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 N/A	25,880 32,807 21,637 30,194 38,274	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 118 104 119 135 133	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A Lumen Out- put 16,653 16,356 20,816 28,251 24,980 N/A N/A	N/A N/A N/A N/A N/A TypeR Effi- cacy (LPW) 122 120 120 120 120 120 120 120 120 120	N/A N/A N/A N/A N/A 33 35 BUG Rating B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A	N/A N/A N/A N/A N/A N/A N/A 16,356 16,064 20,445 27,747 24,534 N/A	N/A N/A N/A N/A N/A Effi- cacy (LPW) 119 118 118 103 119 N/A N/A	 N/A N/A N/A N/A N/A Second State BUG Rating B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A 	N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A Type I Effi- cacy (LFW) 124 122 122 122 122 123 N/A N/A	5 BUURATI B4-UC B5-UC B5-UC
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED 2700K LED L Drdering Code RFL-145W64LED RFL-135W80LED RFL-135W80LED RFL-270W80LED RFL-215W96LED RFL-215W96LED RFL-85W100LED RFL-105W100LED	3000 3000 3000 3000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value Lumen Out- put 16,484 16,190 20,605 27,965 24,727 11,731 14,046 19,600	131 121 140 131 122 S Type R Effi- cacy (LPW) 120 119 118 104 119 134 133 119	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A Lumen Out- put 17.068 16.763 21.335 28.955 28.955 28.955 25.602 N/A N/A	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 125 123 123 123 108 124 N/A N/A N/A	N/A N/A N/A N/A N/A S S S S S S S S S S S S S S S S S S S	25,880 32,807 21,637 30,194 38,274 Lumen Out- put 16,433 16,140 20,541 27,877 24,649 11,794 14,122 19,705	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 118 104 119 135 133 119	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G3 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G3	N/A N/A N/A N/A N/A N/A Lumen Out- put 16,653 16,356 20,816 28,251 24,980 N/A N/A N/A	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 122 120 120 120 120 120 120 120 120 105 121 N/A	N/A N/A N/A N/A N/A SS BUG Rating B2-U0-G3 B2-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A	N/A N/A N/A N/A N/A N/A Lumen Out- put 16,356 16,064 20,445 20,445 22,747 24,534 N/A	N/A N/A N/A N/A N/A Effi- cacy (LPW) 119 118 103 119 N/A N/A N/A	N/A N/A N/A N/A N/A N/A 82-U0-G3 B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A	N/A N/A N/A N/A N/A N/A N/A 21.267 23.861 25.520 N/A N/A	N/A N/A N/A N/A N/A Type t Effi- cacy (LPW) 124 122 122 122 108 123 N/A N/A N/A	5 BUU B4-UC B5-UC B5-UC B5-UC
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED 2700K LED L Drdering Code RFL-145W64LED RFL-145W64LED RFL-135W80LED RFL-270W80LED RFL-215W96LED RFL-215W90LED RFL-105W100LED RFL-105W100LED RFL-165W100LED	3000 3000 3000 3000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value Lumen Out- put 16,484 16,190 20,605 24,727 11,731 14,046 19,600 24 846	131 121 140 131 122 S Type R: Effi- cacy (LPW) 120 119 118 104 119 134 133 119 111	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A Lumen Out- put 17.068 16.763 21.335 28.955 25.602 N/A N/A N/A	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 125 123 123 123 123 123 124 N/A N/A N/A	N/A N/A N/A N/A N/A SUO-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 N/A N/A N/A	25,880 32,807 21,637 30,194 38,274	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 118 104 119 135 133 119 112	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A Lumen Out- put 16,653 16,356 20,816 28,251 24,980 N/A N/A N/A	N/A N/A N/A N/A N/A Type R Effi- cacy (LPW) 122 120 120 120 120 120 121 N/A N/A N/A	N/A N/A N/A N/A N/A 335 BUG Rating B2-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 N/A N/A N/A	N/A N/A N/A N/A N/A N/A Lumen Out- put 16,356 16,064 20,445 20,445 24,534 24,534 N/A N/A	N/A N/A N/A N/A N/A Effi- cacy (LPW) 119 118 118 103 119 N/A N/A N/A N/A	 N/A N/A N/A N/A N/A N/A BUG Rating B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4 N/A N/A N/A 	N/A N/A N/A N/A N/A N/A N/A 10,012 12,020 21,267 28,861 25,520 N/A N/A	N/A N/A N/A N/A N/A Effi- cacy (LPW) 124 122 108 123 N/A N/A N/A N/A	5 BUU Rati B4-UC B5-UC B5-UC N/A N/A
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED 2700K LED L Ordering Code RFL-145W64LED RFL-135W80LED RFL-270W80LED RFL-215W96LED RFL-215W96LED RFL-215W96LED RFL-165W100LED RFL-165W100LED RFL-25W100LED RFL-25W100LED	3000 3000 3000 3000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value Lumen 0ut 16,484 16,190 20,605 27,965 24,727 11,731 14,046 19,600 24,846 32,561	131 121 140 131 122 S Type R: Effi- cacy (LPW) 120 119 118 104 119 134 133 119 111	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A Lumen Out- put 17,068 16,763 21,335 21,335 21,335 25,602 N/A N/A N/A	 N/А N/А N/А N/А N/А Туре R Effi- cacy (LPW) 125 123 123 124 N/А N/А N/А 	N/A N/A N/A N/A N/A N/A SU0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B4-U0-G3 B3-U0-G2 N/A N/A N/A N/A	25,880 32,807 30,194 38,274 Lumen Out- put 16,433 16,140 20,541 27,877 24,649 11,794 14,122 19,705 24,980 32,736	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 104 118 104 119 135 133 119 112	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A ELumen Out- put 16,653 16,356 20,816 28,251 24,980 N/A N/A N/A N/A	N/A N/A N/A N/A N/A Effi- cacy (LPW) 122 120 120 120 120 120 120 120 120 120	N/A N/A N/A N/A N/A 33 BUG Rating B2-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A N/A N/A	N/A N/A N/A N/A N/A C N/A 16,356 16,064 20,445 24,534 24,534 N/A N/A N/A N/A	N/A N/A N/A N/A N/A Effi- cacy (LPW) 119 118 103 119 N/A N/A N/A N/A N/A	 N/A N/A N/A N/A N/A N/A Substraint BUG Rating B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A 	N/A N/A N/A N/A N/A N/A N/A 10,013 16,709 21,267 28,861 25,520 N/A 25,520 N/A N/A	N/A N/A N/A N/A N/A C Type I Effi- cacy (LPW) 124 122 122 108 123 N/A N/A N/A N/A N/A	5 BU Ratii B4-UCU B5-UC B5-UC N// N// N//
RFL-100W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-145W64LED RFL-135W80LED RFL-180W80LED RFL-215W96LED RFL-305W100LED RFL-105W100LED RFL-165W100LED RFL-165W100LED RFL-225W100LED RFL-305W100LED RFL-305W100LED	3000 3000 3000 3000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value Lumen Out- put 16,484 16,190 20,605 27,965 24,727 11,731 14,046 19,600 24,846 32,561	131 121 140 131 122 S Type R Effi- cacy (LPW) 120 119 118 104 119 134 133 119 134 133 119 131	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A Lumen Out- put 17.068 16.763 21.335 28.955 25.602 N/A N/A N/A N/A N/A 23.468	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 125 123 123 123 123 123 123 124 N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A 22 BUG Rating B3-U0-G2 B3-U0-G2 B3-U0-G2 B4-U0-G3 B3-U0-G2 N/A N/A N/A N/A N/A B3-U0-C9	25,880 32,807 30,194 38,274 Lumen Dut 16,433 16,140 20,541 27,877 24,649 11,794 14,122 19,705 24,980 32,736	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 104 119 135 133 119 112 107 120	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A Lumen Out- put 16,653 16,356 20,816 28,251 24,980 N/A N/A N/A N/A N/A 22,898	N/A N/A N/A N/A N/A N/A Effi- cacy (LFW) 122 120 122 120 122 120 121 N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A 38 BUG Rating B2-U0-G3 B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A C C C C C C C C C C C C C C C C C C C	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 119 118 103 119 N/A N/A N/A N/A N/A 120	 N/A N/A N/A N/A N/A N/A N/A Sug Rating B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A 	N/A N/A N/A N/A N/A N/A N/A 17,013 16,709 21,267 28,861 25,520 N/A N/A N/A N/A N/A N/A N/A 23,393	N/A N/A N/A N/A N/A Type Effi- cacy (LPW) 124 122 108 123 N/A N/A N/A N/A N/A N/A	5 BU Rati B4-UC B5
RFL-200W120LED RFL-270W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED 2700K LED L 28FL-145W60LED RFL-215W96LED RFL-165W100LED RFL-165W100LED RFL-165W100LED RFL-225W100LED RFL-305W100LED RFL-190W112LED RFL-190W112LED RFL-190W112LED	3000 3000 3000 3000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value Value 16,484 16,190 20,605 27,965 24,727 11,731 14,046 19,600 24,846 32,561 22,666 28,351	131 121 140 131 122 S Type R: Effi- cacy (LPW) 120 119 118 104 119 134 133 119 134 133 119 134	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A N/A N/A Lumen Out- put 17.068 16.763 21.335 28.955 25.602 N/A N/A N/A N/A N/A N/A 23.468 29.355	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 125 123 123 123 123 108 124 N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A S S BUG Rating B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G2 B4-U0-G3 B3-U0-G2 R4-U0-G3 B3-U0-G2 N/A N/A N/A N/A S B3-U0-G2 R4-U0-G3 R4-U	25,880 32,807 30,194 38,274 38,274 Lumen Out- put 16,433 16,140 20,541 27,877 24,649 11,794 14,122 19,705 24,980 32,736 22,595 28,262	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 118 104 119 135 133 119 112 107 120 116	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A 16,653 16,356 20,816 28,251 24,980 N/A N/A N/A N/A N/A N/A 22,898 28,641	N/A N/A N/A N/A N/A FType R Effi- cacy (LPW) 122 120 120 120 120 120 120 120 120 120	N/A N/A N/A N/A N/A 35 35 80 82-U0-G3 83-U0-G3 83-U0-G3 83-U0-G3 83-U0-G4 N/A N/A N/A N/A N/A N/A N/A 83-U0-G3 83-U0-G3	N/A N/A N/A N/A N/A N/A 16,356 16,064 20,445 20,445 24,534 N/A 24,534 N/A N/A N/A N/A N/A 22,490 28,130	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 119 118 103 119 N/A N/A N/A N/A N/A 120 116	N/A N/A N/A N/A N/A N/A 82-U0-G3 B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A N/A N/A N/A N/A B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A N/A 17.013 16.709 21.267 23.861 25.520 N/A N/A N/A N/A N/A N/A 23.393 29.260	N/A N/A N/A N/A N/A Type I Effi- cacy (LPW) 124 122 122 122 122 123 N/A N/A N/A N/A N/A 125 120	5 BU: B4-UC B5-UC
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-135W140LED RFL-145W64LED RFL-145W64LED RFL-135W80LED RFL-270W80LED RFL-270W80LED RFL-215W96LED RFL-165W100LED RFL-165W100LED RFL-165W100LED RFL-225W100LED RFL-241W112LED RFL-241W112LED RFL-241W112LED	3000 3000 3000 3000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value Lumen Out- put 16,484 16,190 20,605 24,727 11,731 14,046 19,600 24,846 32,561 22,666 28,351	131 121 140 131 122 S Type R Effi- cacy (LPW) 120 119 118 104 119 134 133 119 134 133 119 134 133	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3	N/A N/A N/A N/A Lumen Out- put 17.068 16.763 28.955 25.602 N/A N/A N/A N/A N/A N/A 23.468 29.355 37.870	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 125 123 123 123 123 123 123 123 124 N/A N/A N/A N/A N/A N/A 125 121	N/A N/A N/A N/A N/A S S BUG Rating B3-U0-G2 B3-U0-G2 B3-U0-G2 B4-U0-G3 B3-U0-G2 N/A N/A N/A N/A N/A S 3-U0-G2 B4-U0-G3 B3-U0-G3 B4-U0-G3 B3-U0-G3 B4-U0-G3 B	25,880 32,807 30,194 38,274 38,274 Lumen Out- put 16,433 16,140 20,541 27,877 24,649 11,794 14,122 19,705 24,980 32,736 22,595 28,263 36,461	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 118 104 119 135 133 119 135 133 119 112 107 120 116	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4	N/A N/A N/A N/A N/A N/A Cut- put 16,653 16,356 20,816 28,251 24,980 N/A N/A N/A N/A N/A N/A N/A 22,898 28,641 36,949	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 122 120 120 120 120 120 120 120 120 120	N/A N/A N/A N/A N/A 33 BUG Rating B2-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G4 N/A N/A N/A N/A N/A N/A B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A 16,356 16,064 20,445 20,445 24,534 N/A 24,534 N/A N/A N/A N/A 22,490 28,130 28,130	N/A N/A N/A N/A N/A Effi- cacy (LPW) 119 118 118 103 119 118 103 119 N/A N/A N/A N/A N/A 120 116 107	N/A N/A N/A N/A N/A N/A B2-U0-G3 B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A N/A N/A N/A B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A N/A 17.013 16.709 21.267 28,861 25,520 N/A 23,861 25,520 N/A N/A N/A N/A N/A 23,393 29,260 37,748	N/A N/A N/A N/A N/A Type I Effi- cacy (LPW) 124 122 122 108 123 N/A N/A N/A N/A N/A N/A 125 120 111	5 BUU Rati B5-UC B5-UC B5-UC N// N// N// N// B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-130W140LED RFL-310W140LED RFL-310W140LED RFL-145W64LED RFL-145W64LED RFL-156W80LED RFL-215W96LED RFL-165W100LED RFL-165W100LED RFL-165W100LED RFL-25W100LED RFL-25W100LED RFL-26W100LED RFL-105W100LED RFL-25W100LED RFL-25W100LED RFL-305W102LED RFL-305W102LED RFL-300W12LED RFL-350W112LED RFL-3050W122LED	3000 3000 3000 2000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value Lumen out- put 16,484 16,190 20,605 24,727 11,731 14,046 19,600 24,846 32,561 22,666 28,351 36,574	131 121 140 131 122 S Type R Effi- cacy (LPW) 120 119 118 104 119 134 133 119 134 133 119 134 133 119 134 133 119 111 106 121 107	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A Lumen Out- put 17,068 16,763 21,335 25,602 N/A N/A N/A N/A N/A N/A 23,468 29,355 37,870	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 125 123 123 123 123 123 123 123 123 124 N/A N/A N/A N/A N/A N/A 125 121 112	N/A N/A N/A N/A N/A S BUG Rating B3-U0-G2 B3-U0-G2 B3-U0-G2 B4-U0-G3 B3-U0-G2 N/A N/A N/A N/A B3-U0-G2 B4-U0-G3 B3-U0-G4	25,880 32,807 30,194 38,274 38,274 Lumen Out- put 16,433 16,140 20,541 27,877 24,649 11,794 14,122 19,705 24,980 32,736 22,595 28,263 36,461 16,946	132 122 141 132 123 Type R Effi- cacy (LPW) 120 118 118 104 119 135 133 119 135 133 119 112 107 120 116 107	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A Lumen Out- put 16,653 16,356 20,816 28,251 24,980 N/A N/A N/A N/A N/A N/A 22,898 28,641 36,949 N/A	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 122 120 120 120 120 120 120 120 120 120	N/A N/A N/A N/A N/A 33 BUG Rating B2-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A N/A B3-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A Cumen Out- put 16,356 16,064 20,445 20,445 20,445 20,445 20,445 20,445 20,445 20,445 20,445 10,74 10,74 10,74 20,490 20,2490 20,2490	N/A N/A N/A N/A N/A C Effi- cacy (LPW) 119 118 118 103 119 N/A N/A N/A N/A N/A N/A N/A 120 116 107 N/A	N/A N/A N/A N/A N/A N/A BUG Rating B2-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A N/A N/A B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A N/A N/A 17.013 16.709 21.267 28,861 25,520 X/A 23,5520 N/A N/A N/A 23,393 29,260 3,7,748	N/A N/A N/A N/A N/A Type 1 Effi- cacy (LPW) 124 122 108 123 123 123 N/A N/A N/A N/A N/A 125 120 111	5 BUU Rati B4-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC
RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED 2700K LED L Ordering Code RFL-145W64LED RFL-145W64LED RFL-135W80LED RFL-215W96LED RFL-215W96LED RFL-165W100LED RFL-165W100LED RFL-25W100LED RFL-305W100LED RFL-300W12LED RFL-130W120LED RFL-130W120LED RFL-130W120LED	3000 3000 3000 3000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value Lumen 9ut 16,484 16,190 20,605 27,965 24,727 11,731 14,046 19,600 24,846 32,561 22,666 28,351 36,574 16,855 23,520	131 121 140 131 122 S Type R Effi- cacy (LPW) 120 119 110 104 119 134 104 119 134 133 119 134 133 119 134 133 119 111 106 121 117 108	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G3 B3-	N/A N/A N/A N/A N/A Lumen Out- put 17.068 16.763 21.335 25.602 N/A N/A N/A N/A N/A N/A 23.468 29.355 37.870 N/A	 N/A N/A N/A N/A N/A N/A Type R Efficacy (LPW) 125 123 123 124 N/A N/A N/A N/A 125 121 124 N/A N/A N/A N/A N/A N/A N/A N/A 	N/A N/A N/A N/A N/A N/A S B B B B B B B B B B B B B B B B B B	25,880 32,807 30,194 38,274 Lumen Out- put 16,433 16,140 20,541 27,877 24,649 11,794 14,122 19,705 24,980 32,736 22,595 28,263 36,461 16,946 23,647	132 122 141 132 123 123 123 123 (LPW) 120 118 104 118 104 119 135 133 119 135 133 119 112 107 120 116 107 127	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-	N/A N/A N/A N/A N/A N/A 16.653 16.356 20.816 28.251 24.980 N/A N/A N/A N/A 22.898 28.641 36.949 N/A	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 122 120 120 120 120 120 120 120 120 120	N/A N/A N/A N/A N/A 33 33 33 33 33 33 33 33 34 32 34 32 34 34 34 34 34 34 34 34 34 34 34 34 34	N/A N/A N/A N/A N/A C C C C C C C C C C C C C C C C C C C	N/A N/A N/A N/A N/A Effi- cacy (LPW) 119 118 103 119 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A 800 82-U0-G3 82-U0-G3 83-U0-G4 83-U0-G4 83-U0-G4 83-U0-G4 83-U0-G4 83-U0-G4 83-U0-G4 83-U0-G4	N/A N/A N/A N/A N/A N/A N/A 10,013 16,709 21,267 28,861 25,520 N/A 23,861 25,520 N/A N/A N/A 23,393 29,260 37,748 N/A	N/A N/A N/A N/A N/A Type I Effi- cacy (LFW) 124 122 122 122 123 123 N/A N/A N/A N/A N/A N/A N/A N/A	N/ N/ N/ N/ N/ N/ S B4-UC B5-UC B5-UC N/ N/ N/ N/ B5-UC B5-UC B5-UC B5-UC B5-UC B5-UC N/ N/ N/
RFL-100W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-145W64LED RFL-135W80LED RFL-215W96LED RFL-215W96LED RFL-305W100LED RFL-165W100LED RFL-165W100LED RFL-305W100LED RFL-300W120LED RFL-210W120LED RFL-200W120LED RFL-200W120LED	3000 3000 3000 3000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value Lumen Out- put 16,484 16,190 20,605 24,727 11,731 14,046 19,600 24,846 32,561 22,666 28,351 36,574 16,855 23,520 29,815	131 121 140 131 122 S Type R: Effi- cacy (LPW) 120 119 118 104 119 134 133 104 133 104 133 104 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 134 135 136 137 137 137 137 137 137 137 137 137 137	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4	N/A N/A N/A N/A N/A N/A Lumen Out- put 17.068 16.763 21.335 28.955 25.602 N/A N/A N/A N/A 23.468 29.355 37.870 N/A N/A	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 125 123 123 123 123 123 123 123 124 N/A N/A N/A N/A 125 121 112 121 112 N/A N/A	N/A N/A N/A N/A N/A S S S S S S S S S S S S S S S S S S S	25,880 32,807 30,194 38,274 Lumen Dyt 16,433 16,140 20,541 27,877 24,649 11,794 14,122 19,705 24,980 32,736 22,595 28,263 36,461 16,946 23,647 29,975	132 122 141 132 123 123 123 123 123 120 118 104 119 135 133 119 135 133 119 135 133 119 112 107 120 116 107 120 116 107 127 121	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4	N/A N/A N/A N/A N/A Lumen Out 16,653 16,356 20,816 28,251 24,980 N/A N/A N/A N/A 22,898 28,641 36,949 N/A N/A	N/A N/A N/A N/A N/A N/A Effi- clPW) 122 120 120 120 120 120 120 120 120 120	N/A N/A N/A N/A N/A 38 38 82-U0-G3 B2-U0-G3 B2-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 N/A N/A N/A N/A B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4	N/A N/A N/A N/A N/A C C C C C C C C C C C C C C C C C C C	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 119 118 103 119 118 103 119 N/A N/A N/A N/A 120 116 107 N/A N/A N/A	N/A N/A N/A N/A N/A N/A 8 8 8 8 9 2 - 0 - 3 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 3 - 0 - 4 8 8 - 0 - 4 8 - 8 -	N/A N/A N/A N/A N/A N/A N/A 17,013 16,709 21,267 28,861 25,520 N/A 23,893 29,260 37,748 N/A 23,393	N/A N/A N/A N/A N/A C Effi- cacy (LPW) 124 122 102 122 108 123 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	N// N// N// N// N// S B4-00 B5-00
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RFL-200W120LED RFL-200W120LED RFL-270W120LED RFL-155W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-310W140LED RFL-145W64LED RFL-145W80LED RFL-215W96LED RFL-215W96LED RFL-365W100LED RFL-165W100LED RFL-165W100LED RFL-225W100LED RFL-305W100LED RFL-305W100LED RFL-305W100LED RFL-130W120LED RFL-300W120LED RFL-300W120LED RFL-300W120LED RFL-300W120LED RFL-300W120LED RFL-300W120LED RFL-300W120LED RFL-300W120LED RFL-300W120LED RFL-155W140LED	3000 3000 3000 2000 2000 2700 2700 2700	25,741 32,631 21,521 38,069 Value 16,484 16,190 20,605 24,727 11,731 14,046 19,600 24,846 32,561 22,666 28,351 36,574 16,855 23,520 29,815 19,664	131 121 131 122 S Type R Effi- cacy (LPW) 120 119 134 104 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 134 133 119 111 106 121 110 120 120 111 120	B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4	 N/A N/A N/A N/A N/A N/A 17.068 16.763 21.335 25.602 N/A 14.763 23.468 29.355 37.870 N/A 	N/A N/A N/A N/A N/A N/A N/A N/A N/A I Type R Effi- cacy (LPW) 125 123 108 124 N/A	N/A N/A N/A N/A N/A B3-U0-G2 B4-U0-G3 B3-U0-G2 N/A N/A N/A N/A N/A B3-U0-G2 B4-U0-G3	25,880 32,807 30,194 38,274 38,274 Lumen Out- put 16,433 16,140 20,541 27,877 24,649 11,794 14,122 19,705 24,980 32,736 22,595 24,980 32,736 22,595 28,263 36,461 16,946 23,647 29,975 19,770 27,588	132 122 141 132 123 123 123 123 123 123 (LPW) 120 118 118 104 119 135 133 119 135 133 119 135 133 119 135 133 119 135 133 119 112 107 120 112 120 112 127 121 121 127 121 127	B3-U0-G3 B4-U0-G4 B3-U0-G4 B4-U0-G4 B4-U0-G4 B4-U0-G4 B3-U0-G2 B3-U0-G2 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G3 B4-U0-G4 B3-U0-G3 B3-U0-G3 B4-U0-G4 B3-U0-G3 B3-U0-G3 B4-U0-G4 B3-U0-G3 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-G3 B4-U0-G3 B4-U0-G3 B4-U0-G4 B3-U0-G3 B4-U0-	N/A N/A N/A N/A N/A N/A 16,653 16,356 20,816 28,251 24,980 N/A N/A N/A N/A N/A 22,898 28,641 36,949 N/A 2,898 28,641 36,949 N/A	N/A N/A N/A N/A N/A N/A Effi- cacy (LPW) 122 120 120 120 120 120 120 120 120 120	N/A N/A N/A N/A N/A N/A 33 BUG Rating B2-U0-G3 B3-U0-G3 B3-U0-G3 B3-U0-G4 B3-U0-G4 N/A N/A N/A N/A B3-U0-G4 B3-U0-G4 B3-U0-G4 B3-U0-G4 N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A 16,356 16,064 20,445 20,445 24,534 N/A N/A N/A N/A 22,490 28,130 28,130 36,290 36,290 36,290 36,290 36,290	N/A N/A N/A N/A N/A Type Effi- cacy (LPW) 119 118 118 103 119 118 103 119 118 103 119 N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A 82-U0-G3 B3-U0-G4 B3-U0-	N/A N/A N/A N/A N/A N/A N/A 21,267 22,267 23,861 25,520 N/A N/A N/A N/A 23,393 29,260 37,748 N/A 23,393 29,260 37,748 N/A 23,393	N/A N/A N/A N/A N/A Type 1 Effi- cacy (LPW) 124 122 122 122 122 123 123 123 123 N/A N/A N/A N/A N/A N/A N/A	B5-UC B5-UC

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APPROVALS DESIGN TEAM EN WATER, SEWER, TRANSPORTATIO PROJECT MANAG	IGINEER STREETS IN DIREC ER	DATE SUPERVISOR BUREAU CHIEF CTOR DATE
WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN BMWG	WEST GLEBE ROAD	LUMINAIRE SPECIFICATIONS
DRAWN: CHECKED: PLOTTED: August	: 18 2021	

Underbridge Luminaire Specifications

Vaya Tube White

Compact linear direct view luminaire for crisp white accent lighting effects

Vaya Tube is a compact direct view linear LED lighting solution for exterior accent and low-resolution graphic lighting applications. From static contour lighting to media graphics with a resolution up to 150 mm, the DMX and KiNet-controllable system can transform entire facades with bright and uniform light in White. The light-weight luminaire minimizes the loading onto structures and cladding elements, while run-lengths of up to 12 m (40 ft) per Control Module port (x2) allow for flexible wiring. Simple push'n'click connectors ensure a simple, fast and reliable installation.

 Slim & Light-Weight - The slim form factor, different length options and light-weight of the luminaire ease the integration into façade cladding elements and minimize excess loading onto architectural structures. Uniform & Bright - Create a uniform band of light in a wide 180 degree viewing angle, while ensuring high visibility Contour & Content - Whether outlining the contour of a building, placing accents onto a façade or creating a media display of dynamic graphics, Vaya Tube places a variety of control options at your fingertips from static on/off setups to dynamic

control in resolutions ranging from entire runs down to 150 mm (6 in) segments.

Beam Angle	165° x 110°
Lumens per foot*	180 to 215
Efficacy	59 to 70.4
CRI‡	81 to 84
Color Temperature ^s	2700 K, 3000 K, 4000 K, 5000 K

	Product page
Input Voltage	24 VDC
Weight	360 g (0.8 lb) for 1 ft 780 g (1.7 lb) for 4 ft
Housing Material	Extruded polycarbonate, dark grey
Approbations	UL/cUL, FCC Class A, CE, CQC, RCM
Environment	Dry/Damp/Wet Location, IP66
Applications	Direct View

Custom products information available

Type:

Firm Name: Project:

Specification Sheets

PDF Download	Beam Angle	Lumens*	Efficacy	CRI⁺	Power	Weight	ltem Number	12 NC
2700 K, Ethernet & DMX, 0.3 m (1 ft) 150 mm (6 in) Pitch, UL, CE, CQC	165° x 110°	180	59	83	3 W	360 g (0.8 lb)	350-000014-12	912400130514
2700 K, Ethernet & DMX, 1.2 m (4 ft) 150 mm (6 in) Pitch, UL, CE, CQC	165° x 110°	719	59	83	12 W	780 g (1.7 lb)	350-000014-13	912400130515
3000 K, Ethernet & DMX, 0.3 m (1 ft) 150 mm (6 in) Pitch, UL, CE, CQC	165° x 110°	190	62.3	81	3 W	360 g (0.8 lb)	350-000014-04	912400130506
3000 K, Ethernet & DMX, 1.2 m (4 ft) 150 mm (6 in) Pitch, UL, CE, CQC	165° x 110°	760	62.3	81	12 W	780 g (1.7 lb)	350-000014-05	912400130507

COLOR KINETICS

vaya series

Specificatio	ns		
Due to continuous improven	nents and innovations, specifications may change without	notice.	
Output		Physical	
Beam Angle	170° × 117°	Dimensions	66 x 1,200 x 46.6 mm (2.6 x 47.24 x 1.83 in)
Lumens All Channels Ful	II On [†] 355	(Height x Width x Depth)	Including mounting bracket 66 x 1 200 x 34 2 mm (2 6 x 47 24 x 1 35 in)
On-Axis Candela	77		Excluding mounting bracket
Efficacy	28.18	Weight	780 g (1.7 lb)
LED Channels	Red/Green/Blue	Housing Material	Extruded polycarbonate, dark grey
		Lens	Translucent plastic
Electrical		Temperature Ranges	
Input Voltage	24 VDC	-40 to 50 °C (-40 to 122	2°F) Operating
Power Consumption	12.6 W	-40 to 80 °C (-40 to 176	5 °F) Storage
(Maximum at full output, steady s	state)¶	Vibration Resistance	
For additional Surge Pro	tection Requirements for LED Lighting	Complies with ANSI C13	36.31
Systems, please refer to	www.colorkinetics.com/KB/surge-protection.	Mechanical Impact	IK09
		Corrosion Resistance	
Control		Complies with ASTM B	117 standard for > 1,500 hours.
Interface	Kinet or DMX via Vaya Control Module		

Control System Full range of Color Kinetics controllers and trigger devices, as well as Dynalite or third-party controllers

Lumen Maintenance

2

$ \begin{array}{c cccc} L_{90} & 25 \ ^{\circ}\text{C} & > 100,000 & > 100,000 \\ 50 \ ^{\circ}\text{C} & > 12,000 & > 12,000 \\ L_{80} & 25 \ ^{\circ}\text{C} & > 100,000 & > 100,000 \\ 50 \ ^{\circ}\text{C} & > 30,000 & > 30,000 \\ L_{70} & 25 \ ^{\circ}\text{C} & > 100,000 & > 100,000 \\ 50 \ ^{\circ}\text{C} & > 65,000 & > 65,000 \\ L_{50} & 25 \ ^{\circ}\text{C} & > 100,000 & > 100,000 \\ L_{50} & 25 \ ^{\circ}\text{C} & > 100,000 & > 100,000 \\ \end{array} $	Threshold§	Ambient Temperature	Reported ^{¶¶}	Calculated
$\begin{array}{c} L_{80} & 25 \ ^{\circ}\text{C} & > 100,000 & > 100,000 \\ 50 \ ^{\circ}\text{C} & > 30,000 & > 30,000 \\ L_{70} & 25 \ ^{\circ}\text{C} & > 100,000 & > 100,000 \\ 50 \ ^{\circ}\text{C} & > 65,000 & > 65,000 \\ L_{50} & 25 \ ^{\circ}\text{C} & > 100,000 & > 100,000 \\ L_{50} \ ^{\circ}\text{C} & > 100,000 & > 100,000 \\ \end{array}$	L ₉₀	25 °C 50 °C	> 100,000 > 12,000	> 100,000 > 12,000
	L ₈₀	25 °C 50 °C	> 100,000 > 30,000	> 100,000 > 30,000
L ₅₀ 25 °C > 100,000 > 100,000 50 °C > 100,000 > 100,000	L ₇₀	25 °C 50 °C	> 100,000 > 65,000	> 100,000 > 65,000
	L ₅₀	25 °C 50 °C	> 100,000 > 100,000	> 100,000 > 100,000

ating IK09 lard for > 1,500 hours. 0 to 95%, non-condensing Humidity Luminaire Run Lengths

To calculate luminaire run lengths for your specific installation, download the Configuration Calculator from http://www.colorkinetics. om/vaya/Configuration-Calculator/

Certification and Safety

Approbation UL/cUL, FCC Class A, CE, CQC, RCM Dry/Damp/Wet Location, IP66 Environment

† Lumen output measurements comply with IES LM-79-08 testing procedures. § Lxx = xx% lumen maintenance (when light output drops below xx% of initial output). All values are given at B50, or the median value where 50% of the LED population is better than the reported or calculated lumen maintenance measurement. Increased on the international internatio

Vaya Tube, RGB, Ethernet & DMX, 1.2 m (4 ft) 150 mm (6 in) Pitch, UL, CE, CQC Specification Sheet

	2						
A R L I N G T O N VIRGINIA							
DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 COPYRIGHT © 2020 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED SEAL ON SEAL							
APPROVALS	DATE						
DESIGN TEAM ENGINE	ER SUPERVISOR						
WATER, SEWER, STRE	ETS BUREAU CHIEF						
PROJECT MANAGER							
REVISIONS	DATE						
WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN BMWG WEST GLEBE ROAD	UNDERBRIDGE/HANDRAIL LUMINAIRE SPECIFICATIONS						
DESIGNED: DRAWN: CHECKED: PLOTTED: August 18 2021							
SCALE:							

Note: Anchor bolt details shall comply with Dominion Pole Detail shown on this sheet.

Outdoor Lighting Pole Specifications

Dark Bronze Aluminum for Decorative Shoebox Luminaires

Smooth round tapered poles constructed of aluminum alloy with a Dark Bronze finish matching the Decorative Shoebox luminaires. Mount up to four fixtures with optional tenon adaptors. Poles are available directly embedded or base mounted for use with underground supplied conductors only. Anchor base poles require customer-installed and maintained concrete pole foundations and anchor-bolts.

POLE SPECIFICATIONS

FIXTURE MOUNTING HEIGHT (ft)	TOTAL POLE LENGTH (ft)	BUTT DIAMETER (in)	GROUNDLINE DIAMETER (in)	EMBED or ANCHOR BASE	FINISH COLOR	WMIS CU	POLE ONLY STOCK #
20.0	24.0	3.5**	6.0	Embed	Dark Bronze RAL-8019	PA24DB	42332147
25.0	29.0	4.0**	6.0	Embed	Dark Bronze RAL-8019	PA29DB	42332239
30.0	35.0	4.0**	7.0	Embed	Dark Bronze RAL-8019	PA35DB	42332238
35.0	40.0	4.5**	8.0	Embed	Dark Bronze RAL-8019	PA40DB	42332148
40.0	45.0	4.5**	8.0	Embed	Dark Bronze RAL-8019	PA45DB	42332149
20.0*	20.0	9-10 inch	bolt circle	Anchor	Dark Bronze RAL-8019	PA20ABDB	42144856
25.0*	25.0	9-10 inch	bolt circle	Anchor	Dark Bronze RAL-8019	PA25ABDB	42332242
30.0*	30.0	10-11 inch) bolt circle	Anchor	Dark Bronze RAL-8019	PA30ABDB	42332243
35.0*	35.0	11-12 inch	blot circle	Anchor	Dark Bronze RAL-8019	PA35ABDB	42144857
40.0*	40.0	11-12 inch	blot circle	Anchor	Dark Bronze RAL-8019	PA40ABDB	42144858

* Approximate based on height above grade to top of anchor base ** Butt of pole is flattened to serve as anti-rotational device

TENON ADAPTORS FOR MOUNTING DECORATIVE SHOEBOX FIXTURES

ARM LENGTH	ΝΛΑΤΕΡΙΑΙ		DESCRIPTION		POLE ONLY
(ft)	IVIATERIAL	FINISHCOLOR	DESCRIPTION		STOCK #
N/A	Aluminum	Dark Bronze RAL-8019	Single Decorative Shoebox Fixture	BKTTMS	42334557
N/A	Aluminum	Dark Bronze RAL-8019	Two Decorative Shoebox Fixtures Mounted 180° Apart.	BKTTMD180	42334558
N/A	Aluminum	Dark Bronze RAL-8019	Two Decorative Shoebox Fixtures Mounted 90° Apart.	BKTTMD90	42334559
N/A	Aluminum	Dark Bronze RAL-8019	Three Decorative Shoebox Fixtures Mounted 120° Apart.	BKTTMT120	42334560
N/A	Aluminum	Dark Bronze RAL-8019	Four Decorative Shoebox Fixtures Mounted 90° Apart.	BKTTMQ90	42334561

Many localities have restrictions on light distribution and placement of outdoor lighting equipment. Consult with your local government before selecting outdoor lighting equipment.

T A R L I N G T O N VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 COPYRIGHT © 2020 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED SEAL SUBMISSION * SUBMISOI 2012 APPROVALS DATE DESIGN TEAM ENGINEER SUPERVISOR WATER, SEWER, STREETS BUREAU CHIEF TRANSPORTATION DIRECTOR PROJECT MANAGER REVISIONS DATE RUN ш MIL FOUR Ŋ DETAIL OVER BRIDGE BMWG GLEBE LIGHTING ROAD \geq EBE Ы WEST DESIGNED: DRAWN: CHECKED: PLOTTED: August 18 2021 SCALE:

AUTOTURN ANALYSIS NARRATIVE (S FOUR MILE RUN DRIVE TO W GLEBE ROAD)

The design vehicle for the analysis is a 40' transit bus.

At S Four Mile Run Drive, the design speed is 10 mph.

Right Turn movements to West Glebe Road from S Four Mile Run Drive can be accomplished with the proposed lane configuration. This Movement is a right turn movement.

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25.00		
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Time gle	: 8.50 : 8.50 : 6.0 : 41.4	

AUTOTURN ANALYSIS NARRATIVE (W GLEBE ROAD TO S GLEBE ROAD)

The design vehicle for the analysis is a 40' transit bus.

At W Glebe Road, the design speed is 10 mph.

Right Turn movements to S Glebe Road can be accomplished with the proposed lane configuration. This Movement is a right turn movement. Both turns require crossing the lane lines.

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	-	8.50
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A R L I N VIRG		
DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 COPYRIGHT © 2020 ARLINGTON COUNTY		
SEAL 60% SUBNIC SUBNIC	510N 08.2021	
APPROVALS	DATE	
DESIGN TEAM ENGINE WATER, SEWER, STRE TRANSPORTATION D PROJECT MANAGER	EER SUPERVISOR	
REVISIONS	DATE	
WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN BMWG WEST GLEBE ROAD	AUTOTURN ANALYSIS	
DESIGNED: DRAWN: CHECKED:		
PLOTTED: August 18 2	2021	
o 2 GRAPHI	5 50 C SCALE	
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	GENERAL NOTES:	T	
	WHEN SHOWN AND UNLESS NOTED OTHERWISE, THE EXISTING FEATURES, BRIDGE DIMENSIONS, AND OTHER BRIDGE GEOMETRIC DATA ARE PER THE		
	EXISTING PLANS AND AVAILABLE SURVEY DATA. THE EXISTING ELEVATIONS AND DIMENSIONS SHALL BE CONSIDERED APPROXIMATE AND FIELD VERIFIED PRIOR TO FABRICATION OF THE STRUCTURAL STEEL, MODIFICATION OF THE EXISTING STRUCTURE, AND CONSTRUCTION OF THE NEW DECK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF	AKLINC VIRGIN	J TO N
EXIST. 18"	DISCREPANCIES.		
SED STREET	IS FILED WITH ARLINGTON COUNTY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES IS ILLEGAL. VIOLATORS WILL BE PROSECUTED TO THE FULL EXTENT OF THE APPLICABLE LAWS.	FACILITIES & ENGINEE ENGINEERING 2100 CLARENDON BOULE	ERING DIVISION BUREAU EVARD, SUITE 813
	WIDTH: 69'-0" FACE-TO-FACE OF PARAPETS.	ARLINGTON, V/ PHONE: 703.22 FAX: 703.228	A 22201 28.3629 3.3606
	SPAN LATOUT: 48 - 60 - 48 CONTINUOUS STEEL ROLLED GIRDER SPANS.	COPYRIGHT © 2020 ARL VIRGINIA - ALL RIGH	INGTON COUNTY
WINGWALL 2	CAPACITY: HL-93 LOADING. DRAINAGE AREA: 14.1 SQ. MI.	SEAL olo	1 m
	SPECIFICATIONS:	60,55	202 ·
IVE EXISTING BRIDGE BUTMENT, TYP.	CONSTRUCTION: VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, 2020.	UBNIL O	\dot{O}_{O} .
	DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION, 2017; AND VDOT MODIFICATIONS.	REN	
EXIST. SAN. SEWER	STANDARDS: VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS, 2016; INCLUDING ALL CURRENT REVISIONS.	APPROVALS	DATE
WEST GLEBE	THESE PLANS ARE INCOMPLETE UNLESS ACCOMPANIED BY THE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.	DESIGN TEAM ENGINEER	SUPERVISOR
	DESIGN LOADING INCLUDES 20 PSF ALLOWANCE FOR CONSTRUCTION TOLERANCES AND CONSTRUCTION METHODS.	WATER, SEWER, STREET	S BUREAU CHIEF
EXIST. APPR. SLAB	DESIGN LOADING INCLUDES 15 PSF ALLOWANCE FOR FUTURE WEARING SURFACE.	TRANSPORTATION DIRE	CTOR
_TO BE REMOVED TYP.	ALL STRUCTURAL STEEL, INCLUDING BEARINGS, SHALL BE ASTM A709 GRADE 50W. OUTSIDE AND BOTTOM FLANGE OF EXTERIOR GIRDER SHALL BE PAINTED TO MATCH SHERMAN WILLIAMS FIREWEED SW6328. ALL OTHER STRUCTURAL STEEL SHALL BE UNPAINTED. TOWER AND DECORATIVE GRILL TO BE PAINTED AS SHOWN ON DETAIL SHEETS	PROJECT MANAGER	
O RUSSELL RD.	CONCRETE IN SUPERSTRUCTURE, PARAPET, AND TERMINAL WALLS SHALL BE LOW SHRINKAGE CLASS A4 MODIFIED IN ACCORDANCE WITH SECTION 217.12(A); IN ABUTMENTS AND PIERS, CLASS A3.	REVISIONS	DATE
LECTRIC D BY OTHERS	ALL REINFORCING STEEL SHALL BE DEFORMED AND SHALL CONFORM TO ASTM A615 GRADE 60 EXCEPT FOR STEELS NOTES AS CORROSION RESISTANT REINFORCING (CRR) WHICH SHALL CONFORM TO SECTION 223 OF THE SPECIFICATIONS. ALL REINFORCING BAR DIMENSIONS ON THE DETAILED DRAWINGS ARE TO CENTERS OF BARS EXCEPT WHERE OTHERWISE NOTED AND ARE SUBJECT TO FABRICATION AND CONSTRUCTION TOLERANCES.		
	CRR STEELS SHALL CONFORM TO ONE OR MORE OF THE THREE CLASSES LISTED IN SECTION 223 OF THE SPECIFICATIONS. THE CLASS(ES) OF CRR STEEL(S) REQUIRED ON THIS PROJECT IS/ARE NOTED ON PLAN SHEETS AND IN THE REINFORCING STEEL SCHEDULE. CRR STEEL, CLASS II OR CLASS III, MAY BE SUBSTITUTED FOR CLASS I. CRR, CLASS III, MAY BE SUBSTITUTED FOR CLASS II.		
	STATE STRUCTURE NO. OF EXISTING BRIDGE IS 000-5901.	~	
ISI WIG	PLAN NO. IS 255-67. THE EXISTING STRUCTURE IS DESIGNATED A TYPE B STRUCTURE IN	RUN	
	ACCORDANCE WITH SEC. 411.		
		N N N N	NO
	LEGEND & ABBREVIATIONS	FOL	АТІ
	DEMOLITION AND REMOVAL	/ER	ELEV
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	SHEET NOTES	3RIC	LAN
	 * ARCHITECTURAL MULTI COLOR LED LIGHT FIXTURES ** CLEAN AND PAINT TO MATCH BRIDGE SUBSTRUCTURE FOR TOP AND INSIDE VERTICAL SURFACES FOR THE ENTIRE 	AD E	AL P
	LENGTH EXTENDING TO THE EXISTING METAL TRAIL RAILINGS BEYOND THE BRIDGE IN BOTH UPSTREAM AND DOWNSTREAM DIRECTIONS. TYP	RO,	JER/
FINISHED GRADE	*** CLEAN AND PAINT THE EXPOSED SURFACES FOR BOTH EXISTING AND NEW CONCRETE, TYP. AT ABUTMENTS	EBE	GEN
	**** CLEAN AND PAINT THE EXPOSED SURFACES FOR BOTH EXISTING AND NEW CONCRETE, TYP. AT PIERS	-B	
	(1) WATERPROOF LED LIGHTING UNDER PIER CAP EXTENSION	/EST	
GROUNDING ELECTRODE	AT BOTH UPSTREAM AND DOWNSTREAM ENDS.	\$	
		DESIGNED: MKS	
		DRAWN: MKS CHECKED: BRW	
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ESTIMATED QUANTITIES - SUBSTRUCTURE ONLY								
		CONCRETE CLASS A3	REINFORCING STEEL	DRY RIPRAP CL. II 38"	PIPE UNDERDRAIN (6")	Porous Backfill	STRUCTURE EXCAVATION	Selec Backfi (Abutmi Zone
		CY	LB	TON	LF	CY	CY	TON
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ABUT. A	FOOTING							
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	MOBILIZATION	LS	
	CONSTRUCTION SURVEYING	LS	
	ENVIRONMENTAL PROTECTION AND HEALTH SAFETY (STR. NO. 000-5901)	LS	
	TELEPHONE CONDUIT SYSTEM	LS	
	ARCHITECTURAL METAL TOWERS	LS_	
ſ	REMOVE PORTION OF EXISTING STRUCTURE NO. 000-5901	LS	~
> >	TEMPORARY SIDEWALK	LS	
> > \	TEMPORARY CONDUIT SUPPORT	LS	
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ESTIMATED QUANTITIES - SUPERSTRUCT. ONLY QUANTITY UNITS CY LB SY LB LF CY SY FT LF SY CY

ESTIMATED QUANTITIES - SUPE
ITEM
CONCRETE LOW SHRINKAGE CLASS A4 MODIFIED
Corrosion resistant reinf. Steel class II \otimes
BRIDGE DECK GROOVING \otimes
STRUCTURAL STEEL ROLLED BEAM ASTM 709 GRADE 50W 米
PARAPET WITH DECORATIVE METAL GRILL $~\otimes~$
CONCRETE LOW SHRINKAGE CLASS A4 MODIFIED (SIDEWALK)
COVER DEPTH SURVEY 🚫
TRAFFIC BARRIER SERVICE CONCRETE SINGLE FACE PARAPET
TRAFFIC BARRIER SERVICE CONCRETE DOUBLE FACE PARAPE
CYCLE TRACK STAINED CONCRETE

★ LUMP SUM

 \bigotimes denotes items to be paid for on the basis of plan quantities in accordance with current road and bridge specifications.

SEPARATE PRICING TO BE PROVIDED FOR: 1. PIER DOWN LIGHTING 2. PAINTING OF TRAIL FLOOD WALLS 3. INTERNAL HANDRAIL LIGHTS

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SHEET NO.	D. DESCRIPTION				VIRG	I NIA
1	GENERAL PLAN, ELEVA	TION, AND GENERAL NOTE	S			
3	INDEX OF SHEETS, QUANTITIES RIP RAP DETAILS				ENVIRONMEN	TAL SERVICES
4	SEQUENCE OF CONSTRUCTION			FACILITIES & ENGI ENGINEERI 2100 CLAPENDON BC	NEERING DIVISION NG BUREAU	
5		ARLINGTON PHONE: 70	I, VA 22201 3.228.3629			
6 7	ABUTMENT A PLAN AN	. FAX: 703. COPYRIGHT © 2020 A	228.3606 RLINGTON COUNTY			
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14	PIER CAP EXTENSIONS	S AND TOWER				
15 15A	ABUTMENT AND PIER	USTRATION PAINTING SCHEME ELEVATION	ONS		APPROVALS	DATE
16	BEARING DETAILS					
17	TRANSVERSE SECTION	1			DESIGN TEAM ENGIN	EER SUPERVISOR
18	FRAMING PLAN				WATER, SEWER, STRI	EETS BUREAU CHIEF
19 20	DIAPHRAGM DETAILS	(SHEFT 1 OF 2)			TRANSPORTATION D	IRECTOR
20	DIAPHRAGM DETAILS	(SHEET 2 OF 2)			PROJECT MANAGER	
22	CAMBER DIAGRAM					
23	DEAD LOAD DEFLECTI	ON				
25	DECK DETAILS, DECK	SLAB ELEVATIONS AND CON		1ENT SCHEDULE	REVISIONS	DATE
26	PARAPET DETAILS				· · · · · · · · · · · · · · · · · · ·	
27	PARAPET GRILL PANEL	DETAILS				
28		E ELEVATIONS 1			· · · · · · · · · · · · · · · · · · ·	
30	EAST PARAPET PROFIL	E ELEVATIONS 2				
31	EAST PARAPET PROFI	· · · · · · · · · · · · · · · · · · ·				
32	WEST PARAPET PROF	LE ELEVATIONS 1				
33	WEST PARAPET PROF	LE ELEVATIONS 2				
34A	CONCRETE PATTERN	KEY			NUX	
34B	PARAPET FORMLINER	DETAILS				
35	WINGWALL ELEVATIO				MIL	S
36	BRIDGE CONDUIT SYS				UR	LIE
38	REINFORCING STEEL S	SCHEDULE (SHEET 1 OF 4)			Ū L	
39	REINFORCING STEEL	SCHEDULE (SHEET 2 OF 4)			ÈR.	UAN
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DEPARTI ENVIRONMEN FACILITIES & ENGI ENGINEERI 2100 CLARENDON BC ARLINGTON PHONE: 70 FAX: 703 COPYRIGHT © 2020 A VIRGINIA - ALL R SEAL	MENT OF TAL SERVICES NEERING DIVISION NG BUREAU DULEVARD, SUITE 813 I, VA 22201 3.228.3629 .228.3606 ARLINGTON COUNTY DIGHTS RESERVED
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C -		LAMIN	ATED ELASTOMER	ic bearing			SOLE PLAT	E	GRADE	MAX. HORIZONTAL		٩D
	D	Н	Н _{гс}	n1 @ H _{ri}	n2 @ H _s	Ws	L _S	Τ _s	%	INCHES	KIPS	
.25	13	2.84375	0.25	5 @ 0.375	6 @ 0.078125	29.625	14	1	1.66%	0.34	5 110	
.25	13	2.84375	0.25	5 @ 0.375	6 @ 0.078125	29.625	14	1	2.16%	0.34	2 110	
.25	13	2.84375	0.25	5 @ 0.375	6 @ 0.078125	29.625	14	1	2.66%	0.34	< 110	
.25	13	2.84375	0.25	5 @ 0.375	6 @ 0.078125	29.625	14	1	3.16%	0.34	5 110	
.25	13	2.84375	0.25	5 @ 0.375	6 @ 0.078125	29.625	14	1	3.66%	0.34	2 110	
0.5	15	2.84375	0.25	5 @ 0.375	6 @ 0.078125	26	16	1	0.00%	0.44	215	
0.5	15	2.84375	0.25	5 @ 0.375	6 @ 0.078125	26	16	1	1.47%	0.44	215	
0.5	15	2.84375	0.25	5 @ 0.375	6 @ 0.078125	26	16	1	0.00%	0.44	215	
.25	13	2.84375	0.25	5 @ 0.375	6 @ 0.078125	29.625	16	1	0.00%	0.34	2 110	









NOTES:



SECTION DETAIL 3 NUT IS NOT SHOWN FOR CLARITY.







DETAIL 5 - CONNECTION PLATES



DETAIL 7 - BEAM END STIFFENERS AND SHEAR STUDS ARE NOT SHOWN FOR CLARITY.



B001.19

SPLICE

BOLTED

EBE

GL

WEST

PLOTTED: August 17 2021

SCALE: NOT TO SCALE UNLESS NOTED OTHERWISE

DESIGNED: DRAWN: CHECKED:



















REFERENCE LINE = LINE BETWEEN TOP OF WEB AT ABUTMENT A AND TOP OF WEB AT ABUTMENT B (Q BEARING TO Q BEARING).

 \triangle_{S} = deflection of girder from its own weight after erection including diaphragms, connectors, etc.

 $riangle_{S}$ = DEFLECTION OF GIRDER FROM DEAD LOAD OF CONCRETE DECK SLAB, BOLSTER AND CONSTRUCTION TOLERANCE.

 \triangle_{C} = DEFLECTION OF GIRDER FROM PERMANENT DEAD LOAD ADDED AFTER DECK SLAB IS CAST (E.G. PARAPET).

V.C.C = VERTICAL CURVE CAMBER = DISTANCE BETWEEN THE REFERENCE LINE AND TOP OF WEB AFTER FULL DEAD LOAD DEFLECTION.

TOTAL CAMBER = \bigtriangleup S + \bigtriangleup 'S + \bigtriangleup C + V.C.C.

SIGN CONVENTION: DEFLECTIONS ARE POSITIVE IF DOWNWARD; NEGATIVE IF UPWARD.

V.C.C. IS POSITIVE IF THE TOP OF WEB AFTER FULL DEAD LOAD DEFLECTION IS ABOVE THE REFERENCE LINE; AND NEGATIVE IF BELOW THE REFERENCE LINE.

TOTAL CAMBER IS POSITIVE IF THE TOP OF WEB AS FABRICATED IS ABOVE THE REFERENCE LINE; AND NEGATIVE IF BELOW THE REFERENCE LINE.

DIAGRAM DEPICTS ALL VALUES BEING POSITIVE, AND IS NOT MEANT TO REFLECT ACTUAL CONDITIONS.

CAMBER DIAGRAM

	1
A R L I N	NGTON
DEPARTI ENVIRONMEN FACILITIES & ENGI ENGINEERI 2100 CLARENDON BO ARLINGTON PHONE: 70 FAX: 703 COPYRIGHT © 2020 A VIRGINIA - ALL R SEAL 6010 SUBMA	MENT OF TAL SERVICES NEERING DIVISION NG BUREAU DULEVARD, SUITE 813 V, VA 22201 3.228.3629 .228.3606 ARLINGTON COUNTY AIGHTS RESERVED
APPROVALS	DATE
DESIGN TEAM ENGIN	EER SUPERVISOR
WATER, SEWER, STR	EETS BUREAU CHIEF
TRANSPORTATION D	DIRECTOR
PROJECT MANAGER	
REVISIONS	DATE
WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN	CAMBER DIAGRAM
DESIGNED: DRAWN:	
CHECKED: PLOTTED: August 17	2021
SCALE:	
	B001.22



 $riangle_{
m S}$ = deflection of girder from dead load of concrete deck slab, bolster and construction tolerance. $riangle_{
m C}\,$ = deflection of girder from permanent dead load added after deck slab is cast (e.g. parapet).

DEAD LOAD DEFLECTIONS

					- FINISHED	GRADE										
	LINE THRU CI OF BEARINGS AND & PIER 1				DF WEB AFTE	ER FULL ECTION				-	LINE THRU CL OF BEARINGS AND & PIER 2	ENTER				
)	21	22	23	24	25	26	27	28	29	30	31	32	33	34	¥ 	
€				10	Equal space	CES				~~~				1(0 EQUAL SPAC	:ES
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	1
A R L I N	$\mathbf{J} \mathbf{G} \mathbf{T} \mathbf{O} \mathbf{N}$
DEPARTI ENVIRONMEN FACILITIES & ENGI ENGINEERI 2100 CLARENDON BC ARLINGTON PHONE: 70 FAX: 703 COPYRIGHT © 2020 A VIRGINIA - ALL R SEAL 60010 SUBMAN	MENT OF TAL SERVICES NEERING DIVISION NG BUREAU DULEVARD, SUITE 813 J, VA 22201 3.228.3629 .228.3606 RELINGTON COUNTY IGHTS RESERVED
APPROVALS	DATE
DESIGN TEAM ENGIN	EER SUPERVISOR
WATER, SEWER, STRI	EETS BUREAU CHIEF
TRANSPORTATION D	IRECTOR
PROJECT MANAGER	
REVISIONS	
MEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN	DEAD LOAD DEFLECTIONS
DRAWN: CHECKED:	
PLOTTED: August 17 2	2021
	B001.23







A R L I N	JGTON
DEPARTI ENVIRONMEN FACILITIES & ENGI ENGINEERI 2100 CLARENDON BC ARLINGTON PHONE: 70 FAX: 703. COPYRIGHT © 2020 A VIRGINIA - ALL R	MENT OF TAL SERVICES NEERING DIVISION NG BUREAU DULEVARD, SUITE 813 J, VA 22201 3.228.3629 .228.3606 RLINGTON COUNTY DIGHTS RESERVED
SEAL 60%	5101221
SUBNI REV	0.00
APPROVALS	DATE
DESIGN TEAM ENGIN WATER, SEWER, STRI TRANSPORTATION D	EER SUPERVISOR
PROJECT MANAGER	
REVISIONS	DATE
WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN	DECK PLAN
DESIGNED: HP DRAWN: HP CHECKED: PLOTTED: August 17 2 SCALE: 2 1 0 SCAL	2021 2 4 6 8 10 E: ¹ / ₈ ''=1'-0'' U.O.N.
	B001.24







DECK SLAB ELEVATIONS - PLAN

	TOP OF DECK ELEVATIONS ALONG & GIRDER																				
~~~ ¹ 9~~	~20~	~21~~	$\sim^{22}$	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~24~~	~~25~~	~~~26~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~29~~~	~30~	~31~~	~~3~~~~	~33~	~34~~	~~35~~~	~~36~~	~~37~~	~~38~~	39	~ <del>40</del> ~~~
31.26	31.23	31.17	31.10	31.01	30.90	30.79	30.68	30.57	30.45	30.34	30.23	30.14	30.06	29.97	29.88	29.80	29.71	29.63	29.54	29.45	29.36
31.28	31.26	31.22	31.16	31.09	31.00	30.89	30.78	30.66	30.55	30.44	30.33	30.24	30.15	30.07	29.98	29.90	29.81	29.72	29.64	29.55	29.46 <
31.35	31.35	31.32	31.28	31.22	31.14	31.05	30.94	30.83	30.71	30.60	30.49	30.40	30.32	30.23	30.14	30.06	29.97	29.89	29.80	29.71	29.63
31.50	31.50	31.49	31.47	31.42	31.36	31.28	31.19	31.08	30.96	30.85	30.74	30.65	30.57	30.48	30.39	30.31	30.22	30.13	30.05	29.96	29.87
31.63	31.65	31.65	31.64	31.61	31.57	31.50	31.42	31.32	31.21	31.10	30.99	30.90	30.81	30.73	30.64	30.55	30.47	30.38	30.30	30.21	30.12 <
31.60	31.63	31.65	31.65	31.64	31.61	31.56	31.49	31.41	31.31	31.20	31.09	31.00	30.91	30.83	30.74	30.65	30.57	30.48	30.39	30.31	30.22
31.41	31.45	31.48	31.50	31.50	31.49	31.45	31.40	31.33	31.25	31.15	31.03	30.95	30.86	30.77	30.69	30.60	30.51	30.43	30.34	30.26	30.17 🗸
31.21	31.26	31.30	31.34	31.35	31.35	31.33	31.30	31.24	31.17	31.09	30.98	30.90	30.81	30.72	30.64	30.55	30.46	30.38	30.29	30.20	30.12 <
31.07	31.13	31.20	31.24	31.28	31.29	31.28	31.26	31.23	31.17	31.10	31.01	30.93	30.84	30.76	30.67	30.58	30.50	30.41	30.32	30.24	30.15
30.99	31.06	31.14	31.20	31.25	31.28	31.29	31.28	31.26	31.22	31.16	31.09	31.02	30.94	30.85	30.77	30.68	30.59	30.51	30.42	30.33	ړ 30.25



- END OF SLAB

NOTES: DECK SLAB ELEVATIONS ARE ON TOP OF FINISHED ROADWAY AT FACE OF RAIL. STRAIGHT LINE INTERPOLATION FOR INTERMEDIATE ELEVATIONS ON TOP OF FINISHED ROADWAY MAY BE MADE BETWEEN ANY TWO ADJACENT POINTS.



	NOTES: PLAN DIMENSIONS S VERTICAL PLANES.	HOWN ARE MEASURED I	N THE RESPECTIVE HOP	RIZONTAL AND	A R L I N	G T O N
	ALL BEVELS FOR CO	LL BE LOW SHRINKAGE CL	ASS A4 MODIFIED.	S NECESSART		
	ALL REINFORCING S STEEL, CLASS II.	TEEL SHALL BE CORROSI	ON RESISTANT REINFO	RCING	FACILITIES & ENGIN	AL SERVICES
	FOR DETAILS AND R SEE SHEET XX.	EINFORCING STEEL SCHE	DULE OF TERMINAL WA	ALL,	ENGINEERIN 2100 CLARENDON BOU ARLINGTON,	G BUREAU ILEVARD, SUITE 813 VA 22201
	BOLTS FOR ATTACH SLOT IN HEAD), AST OTHERWISE INDICA OR ASTM A194 GRAI	ING RAILS TO POST ARE M A449. ALL OTHER BOLT TED IN THE DETAILS. NU DE 2H. WASHERS SHALL B	4" DIAMETER ROUND H I'S SHALL BE ASTM A32! I'S SHALL BE ASTM A56 BE ASTM F436.	EAD (WITH 5 UNLESS 3 GRADE DH	PHONE: 703 FAX: 703.2 COPYRIGHT © 2020 AF VIRGINIA - ALL RIG	.228.3629 28.3606 RLINGTON COUNT` GHTS RESERVED
	FOR BOLTS ATTACH BE LIMITED TO THE THE EXTENSION IS L THE BOLT END GROU SHALL BE APPLIED T	ING RAILS TO POSTS, BOI SMALLER OF ONE AND A ONGER, EXCESS SHALL B JND SO THAT NO SHARP O DAMAGED GALVANIZEE	LT EXTENSIONS BEYON HALF FINISHING TURN E CUT OFF AND THE EL EDGES REMAIN. COLD AREAS.	D NUT SHALL S OR ¼". IF DGES OF GALVANIZING	SEAL 60%	51012021
	ALL BOLTS SHALL BE	SNUG TIGHTENED.			- BRI	). 00
	POSTS SHALL BE SE/ A NOMINAL DUROME DIMENSIONS.	ATED ON NEOPRENE PADS ETER HARDNESS OF 60. P.	5 ½" MINIMUM THICKNI ADS SHALL CONFORM 1	ESS, HAVING TO POST BASE	REV	-
	POSTS SHALL BE VEI PROFILE GRADE. CU HANDRAIL TO HAVE RAILING.	RTICAL IN TRANSVERSE D T BOTTOM OF POSTS TO A POWDER COAT FINISH	DIRECTION AND NORMA MEET THESE CONFIGUE AND POINT SOURCE LI	L TO LONGITUDINAL RATIONS. GHTING ALONG THE	APPROVALS	DATE
	LIGHTNING PROTEC	TION AND GROUNDING S 250.106, NFPA 780-2011	YSTEM TO BE PROVIDE , AND IEC 62305-3.	D FOR DECORATIVE GRILL	) DESIGN TEAM ENGINE WATER, SEWER, STREE	ER SUPERVISOR
					TRANSPORTATION DI	RECTOR
					PROJECT MANAGER	
					REVISIONS	DATE
		0402 OR 0404 -COPING TYP. -RELIEF TYP. ◇ ★ ★				
		½"`CL. [≁]			z	
	DETAIL 1				LE RL	
IOWN WITH REATMENT C R DIMENSIO TAILS, SEE S E DETAIL A.	ARCHITECTURAL DN BOTH SIDES DNS AND ARCHITECTURA GHEET XX. FOR MINIMUI	L TREATMENT M COVER,			OVER FOUR MI	ETAILS
	REINEARCI	NC STEEL	SCHEDIII		IDGE	ET DE
			JCHLDUL		0 BR	ARAF
BE PI	ENDING N	BENDING PIN			ROAE	РV
9" >	2'-5 ¹ 4"	<u>6½</u> " 			WEST GLEBE I	
01, RG Mark	0403 RG0402, R	G0404		tion		
401	#4	3"	Parapet		DESIGNED: BRW	
402 403	#4 #4	<u> </u>	Parapet Parapet		CHECKED:	
404	#4	3"	Parapet		PLOTTED: August 17 20	)21
1 iona ia '''	ing diagram are to be	ut of bara	Parapet		<b>SCALE:</b> 6" 3"	0 3" 6" 1
ons in bendi	ing diagram are out-to-oเ	ut of bars.			SCAL	E: 1''=1'-0'' U.O.N.



- VERTICAL LINE FROM TOP POINT

ARLIN	IG TO N
VIRG DEPARTI ENVIRONMEN FACILITIES & ENGI ENGINEERI 2100 CLARENDON BO ARLINGTON PHONE: 70 FAX: 703. COPYRIGHT © 2020 A VIRGINIA - ALL R	I NIA MENT OF TAL SERVICES NEERING DIVISION NG BUREAU DULEVARD, SUITE 813 I, VA 22201 3.228.3629 228.3606 RLINGTON COUNTY IGHTS RESERVED
SEAL 60% SUBMI SUBMI REV	510N21 0.08.2021
APPROVALS	DATE
DESIGN TEAM ENGIN	EER SUPERVISOR
TRANSPORTATION D	IRECTOR
PROJECT MANAGER	
WEST GLEBE ROAD BRIDGE OVER FOUR MILE RUN	PATTERN GRILL PANEL DETAILS
DESIGNED: DRAWN: CHECKED:	
PLOTTED: August 17 2	=16"
B00	1.27

REVISED ON 01/24/2020	NOTE: ALL DIMENSIONS ARE TO BE CONFIRMED BY THE PRIME TEAM. ALL UNITS, BOTH FORM LINER PATTER	RN U ERS LS A
	EAST PARAPET PROFILE UNIQUE 1E UNIQUE 2E PANEL 2 PANEL 1 PANEL 2 PANEL 1 UNIQUE 1E UNIQUE 2E UNIT A	
DRMAN\SHAREPOINT DOWNLOAD PLOTTED BY: WDELONG	NOTE: THIS LAYOUT IS INTENDED TO BE A PATTERN MAP TO GUIDE THE ENGINEER. ALL DIMENSIONS AND THE NOTE: BEFORE THE FABRICATION RUNS CAN BEGIN, ALL CUSTOM WORK BOTH LINERS AND GRILL PANELS, "INCLUDED IN THE PROJECT.	ECH
.DWG PATH: Y:\RFP\PROP20\20067-P-ARLINGTONDB-WGLEBE_BRIDGE_OVER_4MIRUN-CC	WEST PARAPET PROFILE	
.ENAME: TBD-BMWG-110-BORDER-FW52EQ5D.	NOTE: FABRICATOR TO CONFIRM FIELD DIMENSIONS. THIS LAYOUT IS INTENDED AS A GUIDE TO THE FABRIC RESPONSIBILITY THROUGH THE USE OF THESE DRAWINGS IN THE FABRICATION OF THE WORK.	CAT

UNITS AND GRILL PANELS ARE MAPPED TO THE PARABOLIC CURVES AND MUST BE ROTATED AND FACTORY TRIMMED TO FIT THEIR SPECIFIC LOCATION ON THE CURVE.

RS AND WALL CAPS ARE TREE BRANCH SW7525 S ARE SANDY RIDGE SW 7535

PANEL 2	PANEL 1	PANEL 2 PANEL 2 PAN	L 1 PANEL 2 000000000000000000000000000000000000	PANEL 1	PANEL 2	PANEL 1 PANEL 1 PAN	IEL 2 PAI	NEL 1 PANEL 2	PANEL 1
UNIT A	UNIT B	UNIT A	UNIT A UT	VIT B UNIT A	UNITA	UNIT B			

196'-3"

CHNICAL REQUIREMENTS ARE THE RESPONSIBILITY OF THE ENGINEER. THE ENGINEER ASSUMES ALL RESPONSIBILITY THROUGH THE USE OF THESE DRAWINGS.

/ILL REQUIRE A MOCK-UP REVIEW FOR APPROVAL. PRELIMINARY CASTING FOR FORM LINERS MAY BE ON SITE, BUT NOT INCLUDED IN THE BARRIER WORK. MOCKUP PANELS FOR GRILLS, IF APPROVED, MAY BE

PANEL 2	PANEL 1	PANEL 2	PANEL 1	PANEL 2	PANEL 1	PANEL 2	PANEL 1	PANEL 2	PANEL 1	PANEL 2	PANE	L 1
UNIT	3 UNIT A	UNITA	UNIT B	UNIT A	UNIT	A UNIT	BUNIT	A U			UNIT A	UNIT A
				1	163'-6"							

ATOR. ALL DIMENSIONS AND TECHNICAL REQUIREMENTS TO ASSURE PROPER FIT AND FABRICATION ARE THE RESPONSIBILITY OF THE FABRICATOR. THE CONTRACTOR ASSUMES ALL





1) THE INTERNAL LINERS OF THE EAST BARRIER WALL MAY BE USED TO CAST THE EXTERIOR UNITS OF THE WEST BARRIER WALL, PROVIDING THE SLOPES AND PATTERN CODING ARE CONSISTENT WITH THE LINER PATTERN

IDE. ADDITIONAL FORM LINE TE THE PATTERNING TO MEE	THE LINER PATTERN R UNITS MAY BE T THE TRIMMING AND			ARLIN VIRGI	$\mathbf{G}_{\mathbf{N}\mathbf{I}\mathbf{A}}\mathbf{T}\mathbf{O}_{\mathbf{N}\mathbf{I}\mathbf{A}}$
S.				DEPARTM ENVIRONMENT FACILITIES & ENGIN ENGINEERIN	ENT OF AL SERVICES EERING DIVISION G BUREAU
RM LINER FABRICATOR.	UNIQ	UE 3E		ARLINGTON, PHONE: 703 FAX: 703.2	VA 22201 .228.3629 28.3606
				VIRGINIA - ALL RI	GHTS RESERVED
				SEAL 60% SUBNIS SUBNIS	510N 2021
				APPROVALS	DATE
				DESIGN TEAM ENGINE	ER SUPERVISOR
			-		
	UNI	ΙB		PROJECT MANAGER	
		4'-1½"	-	REVISIONS	DATE
				VER FOUR MILE RUN	EVATIONS 1
				WEST GLEBE ROAD BRIDGE OV	EAST PARAPET PROFILE EL
		UNIT /		DESIGNED: DRAWN: CHECKED: PLOTTED: August 17 20	021
8'-2¾"		<u>4'-1½"</u>		SCALE: 1"=	16"
		1-			

M





NOTE: THIS LAYOUT IS INTENDED TO BE A PATTERN MAP TO GUIDE THE ENGINEER. ALL DIMENSIONS AND TECHNICAL REQUIREMENTS ARE THE RESPONSIBILITY OF THE ENGINEER. THE ENGINEER ASSUMES ALL RESPONSIBILITY THROUGH THE USE OF THESE DRAWINGS.









NOTE: THIS LAYOUT IS INTENDED TO BE A PATTERN MAP TO GUIDE THE ENGINEER. ALL DIMENSIONS AND TECHNICAL REQUIREMENTS ARE THE RESPONSIBILITY OF THE ENGINEER. THE ENGINEER ASSUMES ALL RESPONSIBILITY THROUGH THE USE OF THESE DRAWINGS.

Decorative Grill Pattern to be Revised

	<image/> <section-header><section-header><section-header><text><text><text><text></text></text></text></text></section-header></section-header></section-header>				
	APPROVALS	DATE			
	DESIGN TEAM ENGINEER SUPER WATER, SEWER, STREETS BURE TRANSPORTATION DIRECTOR				
	PROJECT MANAGER				
RIER PR UNITS THE STENT SLOPE. MIT A ON FOR ND MAY BE SKEW OF R MUST OCEED O MEET TIONS UST BE DR UNITS ND EET THE ILL ICES FOR IOP	NOTTED: August 17 2 SCALE: 1":	MEST PARAPET PROFILE ELEVATIONS 3 1021			
	B00	1.34			

NUTS AND BOLTS ARE STAINLESS STEEL

1) THE INTERNAL LINERS OF THE EAST BAR WALL MAY BE USED TO CAST THE EXTERIO OF THE WEST BARRIER WALL, PROVIDING SLOPES AND PATTERN CODING ARE CONSIS WITH THE LINER PATTERN LAYOUTS AND SI THE FORM LINER FABRICATOR MUST SUBM PICTORIAL AND NUMERIC CODED ELEVATION ALL BARRIER WALL ELEVATIONS, INSIDE AN OUTSIDE. ADDITIONAL FORM LINER UNITS REQUIRED TO FIT THE SLOPE DUE TO THE THE BRIDGE. THE FORM LINER FABRICATOR IDENTIFY THE ADDITIONAL LINERS AND PRO TO TRIM AND ROTATE THE PATTERNING TO THE TRIMMING AND ROTATION SPECIFICAT FOR THIS WORK.

2) NOTE PATTERN MAPPING SEQUENCE MU CONFORMED TO UNIT TYPE AND SLOPE FO THAT ARE TO BE REUSED FOR EXTERIOR AN INTERIOR BARRIER WALLS.

3) MORE LINERS MAY BE REQUIRED TO ME SKEW AND SLOPE REQUIREMENTS.

4) 100% ELEVATIONS OF BARRIER RAILS WI SHOW ALL PATTERN AND CODING SEQUEN **REVIEW AND CONFIMATION THROUGH SHO** DRAWINGS DONE BY THE FORM LINER FABRICATOR.

5) ADD EXTERIOR AND INTERIOR DESIGNAT BARRIER WALLS



4) 100% ELEVATIONS OF BARRIER RAILS WILL SHOW ALL PATTERN AND CODING SEQUENCES FOR REVIEW AND CONFIMATION THROUGH SHOP DRAWINGS DONE BY THE FORM LINER FABRICATOR. 5) ADD EXTERIOR AND INTERIOR DESIGNATION TO BARRIER WALLS





1) BARRIER PERIMETER BORDERS AND WALL CAPS ARE TREE BRANCH SW7525 2) BARRIERS, PIERS AND WALLS ARE SANDY RIDGE SW 7535

BARRIER RAIL IS TWO COLORS:

**TYPICAL RAIL SECTION** 



RILLS, TABS AND POSTS		FITTING DIAGRAM FOR CON
ATED: TIGER DRYLAC 30028 ICK RED	TYPICAL FORMLINER ORIENTED HORIZONTALLY	
	TYPICAL FORMLINER ROTATED TO MATCH THE SLOPE ANGLE	
	Veritcal Line from Bottom Corner	
VATION	ROTATED FORMLINER WITH VERTICAL FITTING LINES FROM TOP AND BOTTOM CORNERS	
E BRANCH SW7525		

# NOTE: THIS LAYOUT IS INTENDED TO BE A PATTERN MAP TO GUIDE THE ENGINEER. ALL DIMENSIONS AND TECHNICAL REQUIREMENTS ARE THE

**ELEVATIONS OF CONCRETE RAIL END UNITS 1 AND 2** 

## NCRETE FORM LINERS







## NUTS AND BOLTS ARE STAINLESS STEEL

- Verical Line from Top Corner



The A R L I N G T O N DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 COPYRIGHT © 2020 ARLINGTON COUNT VIRGINIA - ALL RIGHTS RESERVED SEAL 50010510N21 50BMI551082021 REV 10.08.2021 APPROVALS DATE DESIGN TEAM ENGINEER SUPERVISOR WATER, SEWER, STREETS BUREAU CHIEF TRANSPORTATION DIRECTOR PROJECT MANAGER REVISIONS DATE RUN MILE FOUR VER AILS Ó BRIDGE DET, PARAPET ROAD EBE GL Ś ШМ DESIGNED: DRAWN: CHECKED: PLOTTED: August 17 2021 SCALE: 1"=1' B001.34B









ILEN PRE: CBD3MVA-110-BORDER-FW52(B)5). PM P3(A) 1: RFP\PROP20\20067-P-ARLINGTONDB-WGLEBE_BRIDGE_OVER_4MIRUN-CORMAN\SHAREPOINT DOWNLOAD PLOTTED BY: V



## ATTACHMENT B

## UNIT PRICES AND ALLOWANCE ITEMS

The Guaranteed Maximum Price (GMP) is based on the following unit prices. No allowance items have been included in the GMP.

West Glebe RD Bridge over Four Mile Run						
Wage Rates Utilized for GMP (12-14-21)						
Labor	Description	Data				
			Unit			
	FINISHER	22.50	MH			
CRP	CARPENTER	26.00	МН			
CRPL	LEAD MAN CARPENTER	28.00	MH			
IW	IRONWORKER	32.00	MH			
LG	LABORER	18.00	MH			
LPL	PIPELAYER	22.00	MH			
LS	SKILLED LABORER	18.00	MH			
ОРВН	OPERATOR-BACKHOE	24.00	MH			
OPCR	OPERATOR-CRANE	39.00	MH			
OPDZ	OPERATOR-BULLDOZER	24.00	MH			
OPEX	OPERATOR-EXCAVATOR	27.00	MH			
OPGR	OPERATOR-GRADER	30.00	MH			
OPLD	OPERATOR-LOADER	24.00	MH			
OPRL	OPERATOR-ROLLER	21.00	MH			
OPTR	OPERATOR-TRUCK	20.00	MH			
PD	PILE DRIVER	30.00	MH			
SVIM	INSTRUMENT MAN	35.00	MH			
SVPC	SURVEYOR PARTY CHIEF	45.00	ΜН			
WLDR	WELDER	30.00	MH			
ZFE	FIELD ENGINEER	36.50	ΜН			
ZFM	FOREMAN	40.00	МН			
ZPA	PROJECT ADMINISTRATOR	22.50	МН			
ZPE	PROJECT ENGINEER	53.00	MH			
ZPECO	СО-ОР	20.00	МН			
ZPM	PROJECT MANAGER	62.00	MH			

V	Vest Glebe RD Bridge over Four Mile	Run		
Wage Rates Utilized for GMP (12-14-21) Continued				
Labor	Description	Rate	ι	
ZPS	SUPERINTENDENT	57.50	MI	
ZPS ZQCM	SUPERINTENDENT QC MANAGER	57.50 55.00	M M	
ZPS ZQCM ZSPE	SUPERINTENDENT QC MANAGER SR. PROJECT ENGINEER	57.50 55.00 60.00	M M M	
ZPS ZQCM ZSPE ZSPM	SUPERINTENDENT QC MANAGER SR. PROJECT ENGINEER SR. PROJECT MANAGER	57.50 55.00 60.00 72.00	MI MI MI	

## West Glebe RD Bridge over Four Mile Run Equipment Rates Utilized for GMP (12-14-21)

Resource	Hourly Rate (complete)	
8CNBW	BIDWELLS 4800	(complete)
och bw		195.50
8CNBWB	WORK BRIDGES	5.00
8CNDH	DECK HEATER	18.88
8CRAT210	AT CRANE 210TN (OP'D&Maint.)	505.00
8CRRT80	CRANE 80T BT	79.65
8DEHR02500	HOE RAM 2.500 FT LB	6.00
8DEMC	9,100 LB/MAX CRUSH 150 TN	120.00
8DZ450	DOZER 75 HP (450)	33.20
8EX030K	EXCAVATOR 30,000 LB (312)	33.35
8EX051K	EXCAVATOR 51,000 LB (321/325 ZERO- SWING)	56.33
8EX080K	EXCAVATOR 80,000 LB (330)	74.00
8EXM76	MINI EXC 7,600 LB (303)	30.15
8LDIT28	LOADER RUBBER TIRED 2.25 CY	45.68
8LDSS	SKID LOADER 6,500 LB (853)	18.75
8LDSST	SKID LOADER; TRACK	17.00
8ML60	MANLIFT 60'	21.55
8MOTAP	ARROW PANEL	1.00
8MOTMB	MESSAGE BOARD	3.00
8PHVSP50	MOVAX VIBRATORY (SP50)	31.00
8RLJJ	PLATE COMP. (JUMPING JACK)	1.35
8RLMX	COMPACTOR 26"-34" (RAMMAX)	5.75
8TFLT	SINGLE AXLE FLATBED TRUCK	50.00
8TFT	FUEL TRUCK	46.75
8TLB	TRACTOR & TRAILER	63.73
8TLBOSR	TRAC-TRAILER OSR	110.00
8TMT15	MECHANIC TRUCK 1.5 TN	29.43
8TPU	FOREMAN PICKUP TRUCK	7.75
8TSBT1	STAKE BODY TRUCK 1.0 TN	17.10
8TSPS	HYDRA-PLATFORM (RICHMOND)	82.00
8TWT2000	WATER TRUCK 2,000 GA	43.75
8ZC185	COMPRESSOR 185 CFM	5.00
8ZLT	LIGHT TOWER	5.00
8ZP3	PUMP 18,000 GPH (3")	6.50

West Glebe RD Bridge over Four Mile Run Equipment Rates Utilized for GMP (12-14-21) Continued

Resource	Description	Hourly Rate (complete)
8ZSTSU	SURVEY EQUIPMENT	8.00
8ZVACT	Vacuum Trailer	29.55
8ZWT400	400 AMP TRUCK	32.58

## ATTACHMENT C

## ASSUMPTIONS AND CLARIFICATIONS INCLUDED IN THE GMP

The following assumptions and clarifications are included in the GMP:

- 1. The attached wage rates per classification in Attachment B are used as basis for GMP direct costs.
- 2. The attached major equipment rates used in Attachment B are used as the basis for GMP direct costs.
- 3. The schedule in Attachment E (submitted 10/18/21) shows the Notice To Proceed (NTP) for Phase 2 as November 30, 2021. It shall be utilized with NTP date updated to the actual NTP. Durations do not change.
- 4. Pricing assumes two (2) each mobilizations for OSR-210 Ton crane, as documented on the Quote #620879 attached.
- 5. Pricing assumes Dominion to install poles, arms, fixtures, power supply, and all wiring for all street lighting at no cost to the Design Builder.
- 6. There are no material changes to the final Released For Construction documents (a.k.a. IFC) from the current 60% design set.
- 7. Pricing based on receiving final executed agreement with Verizon for maintaining existing conduits in existing location.

## QUOTE #620879



## www.cranerental.com

NOTWITHSTANDING ANY AGREEMENT, PURCHASE ORDER, CHANGE ORDER OR CONTRACT IN ANY FORM, CUSTOMER SHALL NOT BE ENTITLED TO ANY ABATEMENT, DEDUCTION, REDUCTION, SET-OFF, COUNTERCLAIM, RECOUPMENT OR DEFENSE AGAINST RENT FOR ANY REASON, INCLUDING ANY NON-WORKING TIME OF THE EQUIPMENT. <u>MAXIM CRANE</u> WORKS, LP SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RELATING TO THE RENTAL AGREEMENT. IF THE CRANE IS DOWN DUE TO MECHANICAL ISSUES, THE DAILY RATE OF THE CRANE IS THE MAXIMUM AMOUNT OF DISCOUNT OR CREDIT TO BE APPLIED.

Job Site:

Four Mile Run

beams

remove and replace bridge

Glebe Road Bridge Over

Arlington, VA 22207

December 22, 2020

## Customer:

Brian Moore - bmoore@kokosing.biz CORMAN KOKOSING CONSTRUCTION C 12001 Guilford Rd. Tom Mchugh / Mark Annapolis Junction, MD 20701 Phone: 301-575-3938 Mobile Phone: 301-575-7510

Maxim Quote #: 620879

PO #:

Maxim Crane Works is pleased to submit the following quotation to assist you in your upcoming project:

Equipment 1

Type: Rental Type:	A∥ Terrain Crane 210 Tons O&M	Rate:	\$425.00 / Hourly	Lift Din	nensions
Payment Terms:	Invoices due upon receipt unless other payment terms have been	OT Rate: DT Rate:	\$490.00 / Hourly \$555.00 / Hourly	Boom Length: Jib Length:	148 ft. 0 ft.
Start Date:	established. 6/1/2021	Min. Hours:	8	Load to Lift:	0 ft. 11100 lbs.
End Date:	6/10/2021				

## **Billing Items**

Line #	Item	Quantity	Price	UOM	Comments
	Road Permit	1	\$540.00	One Time Charge Beg of Rental	
	Road Permit	1	\$540.00	One Time Charge End of Rental	
	Fuel Hourly	1	\$15.00	Hourly	
	Freight In	1	\$3,150.00	One Time Charge Beg of Rental	
	Freight Out	1	\$3,150.00	One Time Charge End of Rental	

## Scope of Work

2 ea phases 2&3 5 days each

 Equipment 2

 Type:
 All Terrain Crane
 165 Tons
 Rate:
 \$365.00 / Hourly

 Rental Type:
 O&M
 OT Rate:
 \$430.00 / Hourly

Customer Initial


					www.cranerent	al.com
Payment Terms:	Invoices due upon receipt unless other payment terms have been	DT Rate:	\$495.00 / Hourly	Lift Din	nensions	
Start Date: End Date:	8/2/2021 8/5/2021	Min. Hours:	8	Boom Length: Jib Length: Radius to Lift: Load to Lift:	140 ft. 0 ft. 115 ft. 6100 lbs.	

#### **Billing Items**

Line #	ltem	Quantity	Price	UOM	Comments
Road P	ermit	1	\$475.00	One Time Charge Beg of Rental	
Road P	ermit	1	\$475.00	One Time Charge End of Rental	
Fuel Ho	urly	1	\$15.00	Houriy	
Freight	in	1	\$2,250.00	One Time Charge Beg of Rental	
Freight	Out	1	\$2,250.00	One Time Charge End of Rental	

### Scope of Work

2 ea phases 2 days each

Unless otherwise noted specifically herein, quoted prices do NOT include state and/or local sales tax or tangible personal property tax, if and to the extent such taxes are applicable.

Thank you for giving Maxim Crane Works this opportunity. If you have any questions, please don't hesitate to give me a call.

Sincerely,

Accepted By:

Bob Carroll - BCarroll@maximcrane.com Sales Representative Maxim Crane Works, L.P. 443-271-6195

8635 Old Dorsey Run Road Jessup, MD 20794 Phone: 410-724-8300 Signature above indicates agreement to all terms and conditions of this document.

Last Revision: 12/22/2020 Maxim Crane Works, L.P. is an Equal Opportunity Employer

MAXIM'S STANDARD TERMS AND CONDITIONS (available for review at <u>www.cranerental.com/customers/customers-agreements</u> or furnished upon request) ARE INCORPORATED HEREIN BY REFERENCE AND MADE A PART HEREOF. 1. Subject to equipment availability. 2. Expires in thirty (30) days. 3. Acceptance of delivery of equipment shall be deemed acceptance of Maxim's standard terms and conditions. Such terms, together with the terms set forth above, are the SOLE AND EXCLUSIVE writing governing any sale and performance by Maxim and any Maxim sale and/or performance is/are WHOLLY CONTINGENT upon such singularity and exclusivity. Any different or additional terms that may be contained in purchaser's documentation are hereby REJECTED in their entirety. Performance or Partial Performance by Maxim shall not be deemed an acceptance of any of purchaser's terms.

Customer verifies that signal person(s) and rigger(s) are qualified as defined and required by OSHA Regulations, 29 CFR 1926, 1425 & 1428, Documentation is available onsite:

### ATTACHMENT D - PROPOSED GMP

OFFEROR NAME: <u>Corman Kokosing</u> DATE: 11/29/2021

Please modify this template as necessary to provide your firm's preliminary cost proposal. Final costs will be negotiated with the awarded Offeror.

West Glebe Road Bridge Over Four Mile Run Superstructure Replacement and Substructure Repair

## COST OF WORK

The Offeror acknowledges and understands that the Cost of Work is a firm, fixed price and other than as permitted in the Scope of Work will not be subject to further adjustment. The Cost of the Work shall include all applicable costs listed in A4.1.1 of the Scope of Work, which shall be reimbursable at cost and without mark-up of any kind. The Offeror's cost proposal is as follows:

ltem	Description	Price
	Design Fee Total (60% Design Level + 61 100% Design Level)	
	Design Fee Total (00% Design Level + 01-100% Design Level)	In Orig Contract
	Design Fee Op to 00% Design Level	111 Ong Contract
2	Design Fee 01-100% Design Lever	\$104,001.00 \$1.00
3		\$1.00
		\$395,000.00
	Rende to Jurisdictional Agonaios (Utilition, Storm Water Management, Land	\$133,990.00
6	Disturbance, Grading, etc.)	\$5,000.00
7	Distributice, Glading, etc.)	\$33,720,00
8		\$72,300,00
<u> </u>	Testing and Inspection Fees	\$34,814,00
10	Bridge Superstructure	ψ34,014.00
	Demolition	\$893,308,00
	Rridge Rearings	\$56,112,00
	Structural Steel	\$881 725 00
	Deck Concrete	\$451,401,00
	Deck Reinforcing Steel	\$241,103,00
	Deck Sidewlak	\$79.271.00
	Deck Sidewalk Reinforcing Steel	\$13,140.00
	Paranet	\$71,749.00
	Parapet Reinforcing Steel	\$36.957.00
	Deck Grooving	\$8.540.00
	Parapet Conduit System	\$14.896.00
	Deck Sidewalk Conduit	\$1,400.00
	Temporarv Sidewalk	\$57,860.00
11	Bridae Substructure	** ***
	Demolition	\$189,532.00
	Support of Excavation	\$16,863.00
	Structural Excavation	\$36,928.00
	Abutment Concrete	\$129,282.00
	Pier Concrete	\$66,504.00
	Wingwall Concrete	\$79,364.00
	Reinforcing Steel	\$20,345.00

· -	Approach Roadway and Sidewalk	
	Site Demolition	\$29,027.00
	Site Flatwork Concrete	\$34,940.00
	Aggregate Base	\$18,284.00
	Asphalt Paving	\$78,389.00
	Pavement Markings	\$29,319.00
	Guardrail GR-2	\$4,650.00
	Landscaping	\$2,251.00
	Signing	\$2,090.00
13	Drainage and Storm Water Management	\$178,574.00
14	Erosion and Sediment Control	\$3,933.00
15	*Bridge Architecture and Enhanced Lighting	
	Under Bridge Lighting	\$59,764.00
	Tower Lighting	\$0.00
	Architectural Metal Towers (4 EA)	\$0.00
	Architectural Metal Railing	\$326,954.00
	Concrete Stain	\$60,420.00
	Painting Interior Walls along the Trail	\$30,092.00
	Painting Exterior Walls along the Trail	\$31,350.00
	Handrailing with Spot Lighting	\$368,648.00
	Architectural Formliner	\$221,726.00
16	Maintenance of Traffic	\$221,827.00
17	Utilities	
	Adjust Utilities to Grade	\$3,463.00
	Street Lighting	\$79,797.00
18	Public Involvement	\$2,417.00
19	Others	
	Substructure Concrete Repairs	\$59,257.00
	Construction Survey	\$48,425.00
		ψ0,102,203.00
The Offero permitted i	GENERAL CONDITIONS FEE or acknowledges and understands that the General Conditions Fee is a firm, fixed price in the Scope of Work will not be subject to further adjustment. The General Conditions	e and other than as shall include all
The Offero permitted i applicable	<b>GENERAL CONDITIONS FEE</b> or acknowledges and understands that the General Conditions Fee is a firm, fixed price in the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows:	e and other than as shall include all
The Offero permitted i applicable Item	GENERAL CONDITIONS FEE or acknowledges and understands that the General Conditions Fee is a firm, fixed price in the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows:	e and other than as shall include all
The Offero permitted i applicable Item Number	GENERAL CONDITIONS FEE or acknowledges and understands that the General Conditions Fee is a firm, fixed price in the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description	e and other than as shall include all
The Offero permitted i applicable Item Number 1	GENERAL CONDITIONS FEE or acknowledges and understands that the General Conditions Fee is a firm, fixed price in the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization	e and other than as shall include all Subtotal \$142,340.00
The Offero permitted i applicable Item Number 1 2	GENERAL CONDITIONS FEE r acknowledges and understands that the General Conditions Fee is a firm, fixed price in the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization Construction Staff	e and other than as shall include all Subtotal \$142,340.00 \$350,856.00
The Offero permitted i applicable Item Number 1 2 3	GENERAL CONDITIONS FEE r acknowledges and understands that the General Conditions Fee is a firm, fixed price n the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization Construction Staff Fringe Benefits	\$0,102,203.00 e and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00
The Offero permitted i applicable Item Number 1 2 3 4	GENERAL CONDITIONS FEE r acknowledges and understands that the General Conditions Fee is a firm, fixed price n the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization Construction Staff Fringe Benefits Payroll Taxes / Payroll Insurance	\$0,102,203.00 and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00
The Offero permitted i applicable Item Number 1 2 3 4 5	GENERAL CONDITIONS FEE r acknowledges and understands that the General Conditions Fee is a firm, fixed price n the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization Construction Staff Fringe Benefits Payroll Taxes / Payroll Insurance Staff Costs	\$ and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00 \$1,000.00
The Offerc permitted i applicable Item Number 1 2 3 4 5 6	GENERAL CONDITIONS FEE or acknowledges and understands that the General Conditions Fee is a firm, fixed price on the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization Construction Staff Fringe Benefits Payroll Taxes / Payroll Insurance Staff Costs Out of House Consultants	\$0,102,203.00 and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00 \$1,000.00 \$1,000.00
The Offerc permitted i applicable Item Number 1 2 3 4 5 6 7	GENERAL CONDITIONS FEE or acknowledges and understands that the General Conditions Fee is a firm, fixed price on the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization Construction Staff Fringe Benefits Payroll Taxes / Payroll Insurance Staff Costs Out of House Consultants Field Office Construction Staff	\$0,102,203.00 and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.
The Offerc permitted i applicable Item Number 1 2 3 4 5 6 7 8	GENERAL CONDITIONS FEE or acknowledges and understands that the General Conditions Fee is a firm, fixed price on the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization Construction Staff Fringe Benefits Payroll Taxes / Payroll Insurance Staff Costs Out of House Consultants Field Office Office Equipment	\$0,102,203.00 and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.
The Offerc permitted i applicable Item Number 1 2 3 4 5 6 7 8 9	GENERAL CONDITIONS FEE r acknowledges and understands that the General Conditions Fee is a firm, fixed price n the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization Construction Staff Fringe Benefits Payroll Taxes / Payroll Insurance Staff Costs Out of House Consultants Field Office Office Equipment Delivery Costs	\$0,102,203.00 and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$5,194.00 \$500.00
The Offerc permitted i applicable Item Number 1 2 3 4 5 6 7 8 9 10	GENERAL CONDITIONS FEE           GENERAL CONDITIONS FEE           or acknowledges and understands that the General Conditions Fee is a firm, fixed price           n the Scope of Work will not be subject to further adjustment. The General Conditions           costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows:           Description           Mobilization           Construction Staff           Fringe Benefits           Payroll Taxes / Payroll Insurance           Staff Costs           Out of House Consultants           Field Office           Office Equipment           Delivery Costs           Temporary Power and Water	\$0,102,203.00 and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00 \$1,000.00 \$1,000.00 \$1,000.00 \$5,194.00 \$500.00 \$9,000.00
The Offerc permitted i applicable Item 1 2 3 4 5 6 7 8 9 10 11	GENERAL CONDITIONS FEE or acknowledges and understands that the General Conditions Fee is a firm, fixed price on the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization Construction Staff Fringe Benefits Payroll Taxes / Payroll Insurance Staff Costs Out of House Consultants Field Office Office Equipment Delivery Costs Temporary Power and Water First Aid Facility	\$0,102,203.00 and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00 \$1,000.00 \$1,000.00 \$1,000.00 \$212,756.00 \$5,194.00 \$500.00 \$9,000.00 \$2,000.00
The Offerc permitted i applicable Item Number 1 2 3 4 5 6 7 8 9 10 11 12	GENERAL CONDITIONS FEE or acknowledges and understands that the General Conditions Fee is a firm, fixed price in the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows: Description Mobilization Construction Staff Fringe Benefits Payroll Taxes / Payroll Insurance Staff Costs Out of House Consultants Field Office Office Equipment Delivery Costs Temporary Power and Water First Aid Facility Other (Please Itemize)	\$0,102,203.00 and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00 \$1,000.00 \$1,000.00 \$5,194.00 \$5,194.00 \$5,194.00 \$5,194.00 \$2,000.00 \$2,000.00
The Offerc permitted i applicable Item Number 1 2 3 4 5 6 7 8 9 10 11 12	GENERAL CONDITIONS FEE         r acknowledges and understands that the General Conditions Fee is a firm, fixed price         n the Scope of Work will not be subject to further adjustment. The General Conditions         costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows:         Description         Mobilization         Construction Staff         Fringe Benefits         Payroll Taxes / Payroll Insurance         Staff Costs         Out of House Consultants         Field Office         Office Equipment         Delivery Costs         Temporary Power and Water         First Aid Facility         Other (Please Itemize)	\$0,102,200.00 and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00 \$1,000.00 \$1,000.00 \$1,000.00 \$5,194.00 \$5,194.00 \$5,194.00 \$5,194.00 \$5,194.00 \$5,00.00 \$2,000.00 \$2,000.00 \$2,000.00 \$2,000.00
The Offerc permitted i applicable 1 1 2 3 4 5 6 7 8 9 10 11 11 12	GENERAL CONDITIONS FEE         GENERAL CONDITIONS FEE         acknowledges and understands that the General Conditions Fee is a firm, fixed price         in the Scope of Work will not be subject to further adjustment. The General Conditions costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows:         Description         Mobilization         Construction Staff         Fringe Benefits         Payroll Taxes / Payroll Insurance         Staff Costs         Out of House Consultants         Field Office         Office Equipment         Delivery Costs         Temporary Power and Water         First Aid Facility         Other (Please Itemize)	\$0,102,203.00 and other than as shall include all \$142,340.00 \$350,856.00 \$37,942.00 \$27,991.00 \$1,000.00 \$1,000.00 \$212,756.00 \$5,194.00 \$5,194.00 \$5,000.00 \$2,000.00 \$2,000.00 \$2,000.00 \$2,000.00
The Offerc permitted i applicable Item Number 1 2 3 4 5 6 7 8 9 10 11 12 7 8 9 10 11 12 7 7	GENERAL CONDITIONS FEE         GENERAL CONDITIONS FEE         acknowledges and understands that the General Conditions Fee is a firm, fixed price         n the Scope of Work will not be subject to further adjustment. The General Conditions         costs listed in A4.1.2 of the Scope of Work. The Offeror's cost proposal is as follows:         Description         Mobilization       Construction Staff         Fringe Benefits       Payroll Taxes / Payroll Insurance         Staff Costs       Out of House Consultants         Field Office       Office Equipment         Delivery Costs       Temporary Power and Water         First Aid Facility       Other (Please Itemize)         SUB TOTAL	\$0,102,200.00           and other than as shall include all           Subtotal           \$142,340.00           \$350,856.00           \$37,942.00           \$27,991.00           \$1,000.00           \$1,000.00           \$1,000.00           \$5,194.00           \$50,000           \$9,000.00           \$789,580.00           \$789,580.00

	Design/Build-Fee	
The Offeroi only be ent	^r acknowledges and understands that 30% of the Design/Build Fee shall be at risk and itled to such portion as set forth in the Scope of Work.	the Offeror shall
Item Number	Description	Subtotal
1		\$1,459,331.40
	SUB TOTAL	\$1,459,331.40
	TOTAL GUARANTEED MAXIMUM PRICE	\$8,351,180.40

	Contractor Contingency	
The Offeron accommod Guarantee	r shall specify the sum of money unassociated with any specific work that will allow the ate market changes and/or unforeseen conditions in order to complete the Project with d Maximum Price.	e Offeror to hin the
Item Number	Description	Subtotal
1		\$410,677.00
'		
	TOTAL CONTRACTOR CONTINGENCY	\$410,677.00
		\$8,761,857.40
*All construct total constru that will be s costs betwee	tion and associated hard costs related to the artistic treatment and enhanced lighting shall not e ction cost for the project. The design fee for the artist shall not come out of this 3% allotment. E ubject to the artistic treatment, i.e. parapet wall, or railings, shall not count against this limit. Or en the basic and improved costs will be subject to this limit.	exceed 3% of the 3ridge components nly difference in

# ATTACHMENT E

				Glebe	Rd - Oct	18th 2	2021	Schedule Revisior	า													18-(	Oct-21 1	1:29
# A	ctivity ID	ActivityName	Original Start	Finish	han L Each	Mar	<b>A</b> ==	2021	S 0+	Nev		Tab. Ma		Mary Ive	2022	Aug. 0		L. Neu			20:	23	hur hal	
1	W Glebe Road Bridge	Over Four Mile Run Proposal Schedule - Revised For GMP Delays	542 18-Jan-21 A	29-Aug-23	Jaii Feb	Ivial	Арі	Way Jun Jui Aug	Sep Ou		Jec Jan	reb Ivia	і Арі	iviay Juli	Jui	Aug 3	sp Ou	NOV	Dec Ja	II Feb	iviai Api	Iviary J	Jun Jui	Aug
2	Milestones		542 18-Jan-21 A	29-Aug-23		-							-							<del></del>		—		<b>—</b>
3	MILE-01	Submit Price Proposal 1/18/21	0 18-Jan-21*		♦ Subm	it Price F	roposa	al 1/18/21																
4	MILE-02	Notice of Intent to Award	0 18-Apr-21 A				♦ N	Notice of Intent to Award																
5	MILE-13	Contract Award	0 20-Apr-21*				<b>♦</b> (	Contract Award														-		
6	MILE-03	Initial Notice to Proceed - Design Confirmation	0 10-May-21*					♦ Initial Notice to Proceed	- Design C	onfirmation														
7	MILE-04	Notice to Proceed - Design Implementation	0 09-Jul-21					<ul> <li>Notice to F</li> </ul>	Proceed - D	esign Imple	mentation													
8	MILE-56	Notice To Proceed - Post 60% Design	0 30-Nov-21							• 1	lotice To Pr	oceed - Po	ost 60% D	Design										
9	MILE-46	Notice to Proceed - Construction Implementation	0 14-Apr-22										♦ No	otice to Proc	eed - Co	nstructior	Impleme	entation						
10	MILE-06	Construction Phase 1 (Advance Design Package) Complete	0 27-May-22											♦ Con	struction	Phase 1 (	Advance	Design	Package)	Complete				
11	MILE-16	Construction Phase 2 Complete	0 07-Jan-23																•	Constructic	n Phase 2 C	omplete		
12	MILE-26	Construction Phase 3 Complete	0 08-Jun-23																			•	Construct	tion Pha
13	MILE-36	Construction Phase 4 Complete	0 31-Jul-23									8												<ul> <li>Cons</li> </ul>
14	Contractual Finish Miles	stones	30 31-Jul-23	29-Aug-23																				
15	FIN-01	Substantial Completion (564 CD From Design Implementation NTP)	0	31-Jul-23*																				Subs
16	FINL02	Project Completion (30 CD From Substantial Completion)	0	20-01023*																				•
17	Design Confirmation	Phase	33 00-May-21	08- Jul-21				▼ 08-Jul-21	Design Cor	nfirmation F	hase													
18		Propage Basis of Design Report and 60% Design Submitted	60 09 May 21	07 Jul 21				Prepare B	asis of Desi	on Report a	ind 60% De	sian Subr	nittal											
19	DC-101	Prepare basis of Design Report and 00% Design Submittai	60 10 May 21					RFP Plan	Review / Ba	sis of Desi	an Submiss	ion with C	ounty Rev	/iew & Aare	ement									
20	DC-11	Proporto Submit Boview & Approvo Bosolino Milostono Sobodulo	60 10 May 21					Prepare S	ubmit Revi	iew & Annr	ve Baseline	Mileston	e Schedul	e .										
21	DC-31	Prepare, Submit, Review & Approve Baseline Iviliestone Schedule	60 10 May 21	08-Jul-21				Prepare S	ubmit Revi		ve Control	Rudaet	o donoda	•										
22	DC-41	Supplemental Flood Blain and Biver II when the Argunian	60 10 May 21	00-Jul-21				Suppleme	ntal Flood P	lain and Riv	ver Hydrauli	Fvaluatio	ากร									-		
23	DC-01		00 10-iviay-21	00-Jul-21				Suppleme	ntal Wetland	d Delineatic	n													
24	DC-71	Supplemental Wetland Delineation	60 10-May 21	08-Jul-21				Evaluate F			Plane													
24	DC-81	Evaluate Potential Alternate MOT Plans	60 10-May-21	08-Jul-21					ction: As bu		ridiis	tructure /	\nd Field I	nvestigatio	20									
25	DC-91	Data Collection: As-built Assessment of EX. Structure And Field Investigation	60 10-May-21	08-Jul-21				Data Colle	ction: Confi	motion of I				nvesigaio	15									
20	DC-101	Data Collection: Confirmation of Ex. Utilities	60 10-May-21	08-Jul-21				Data Colle	ction: Com	mauon or r	X. Oundes	volvomon	t 9 Dodoo	trion/Dikor	A	ont								
27	DC-111	Data Collection: Community Issues, Public Involvement & Pedestrian/Bike	60 10-May-21	08-Jul-21				Data Colle	ction. Com	numity issu	es, Public II	voivernen	IL & Pedes		Assessm	eni								
28	DC-121	Data Collection: Environmental Impact Assessment	60 10-May-21	08-Jul-21							o antinua T	sment												
29	DC-131	Public & Stakeholders Meetings (Continue Through Implementation As Ner	60 10-May-21	08-Jul-21					takenoiders	ivieetings		irougn Im	piementat	ION AS INCO	aea)									
30	DC-21	Design Quality Assuance / Control (Confirmation Phase)	60 10-May-21	08-Jul-21				Design Qu	ality Assuar	nce / Contro	oi (Contirma	ion Phase	e)											
31	DC-151	Permitting Coordination & Verification	60 10-May-21	08-Jul-21				Permitting	Coordinatio	n & vernica	tion													
32	DC-171	Submit Basis of Design Report and 60% Design Submittal	1 08-Jul-21	08-Jul-21					sis of Desig	n Report a	na 60% Des	ign Subm	Iπal											
33	DC-51	Finish Design Confirmation Phase	0	08-Jul-21	_			◆ Finish Des	ign Confirm	nation Phas	Э													
34	Implementation Pha	Se	477 10-May-21	29-Aug-23																				
35	Design Implementation		477 10-May-21	29-Aug-23																				
36	GMP		477 10-May-21	29-Aug-23										1			-							
37	DC-141	Design Quality Assuance / Quality Control (Project Duration)	842 10-May-21	29-Aug-23																				
38	DI-81	Prepare & Submit GMP Proposal (60% Design & Advance Packages)	2 19-Aug-21	23-Aug-21				•	Prepare & S	Submit Givi	Proposal	60% Desi	ign & Adva	ance Раска	iges)									
39	DI-91	County Review of GMP Proposal	99 23-Aug-21	30-Nov-21							ounty Revi	W OT GIVII	Proposa	a 										
40	DI-101	Enter GMP Agreement with County & Start Final Design Plans	0	30-Nov-21						◆E	nter GMP	greement	t with Cou	nty & Start	Final Des	ign Plans								
41	Advance Utility Packag	e	345 09-Jul-21	18-Jun-22						Dealer					18-Jun-2	∠, Advano	e Utility I	-аскаде	ð					
42	A1010	CKCC Verizon Design - Early Submission to Verizon for Approach	30 09-Jul-21	07-Aug-21					C Verizon	Design - E		sion to Ver	izon for A	pproach				_	M					
43	A1030	Verizon 90 Day Notification For Removal/Installation	90 23-Feb-22	24-May-22										Veriz	on 90 Da	y Notifical	ion For R	kemoval	Installation	1				
44	A1040	Dominion 90 Day Notification For Removal/Installation	90 20-Mar-22	18-Jun-22											Dominio	n 90 Day	Notificatio	on For R	.emoval/In	stallation				
45	Permitting		180 09-Jul-21	04-Jan-22							• 04-J	n-22, Per	mitting											
46	DI-171	Permit Coordination, Submission, Review, and Approval	180 09-Jul-21	04-Jan-22							Perm	it Coordin	ation, Sub	mission, R	eview, an	dApprova	al							
	Actual Work	<ul><li>♦ Milestone</li></ul>				Page	e 1 of	f 4																
	Remaining Work	Summary																						
	Critical Remaining	y Work																						

				Gleb	e Rd - Oct 18th 2021 Schedule Revision	18-Oct-21 11:29
# A	ctivity ID	Activity Name	Original Start Duration	Finish	2021         2022           Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         Dec         Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         Dec         Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         Dec         J	2023 an Feb Mar Apr May Jun Jul Aug
47	Advance Phase 1 De	esign Package (At-Risk)	60 30-Nov-21	22-Mar-22	22-Mar-22, Advance Phase 1 Design Package (At-Risk)	
48	DI-181	Preliminary Phase 1 Design Package, Review & Approval	110 30-Nov-21	20-Mar-22	Preliminary Phase 1 Design Package, Review & Approval	
49	DI-201	Prepare Demolition & Steel Erection Package, Review & Approval	110 30-Nov-21	20-Mar-22	Prepare Demolition & Steel Erection Package, Review & Approva	l l
50	DI-191	Issue Phase 1 Advance Package IFC Drawings	1 20-Mar-22	21-Mar-22	I Issue Phase 1 Advance Package IFC Drawings	
51	DI-211	Issue Advance Package Demolition & Steel Erection Plans	1 22-Mar-22	22-Mar-22	I Issue Advance Package Demolition & Steel Erection Plans	
52	Phase 2 & 3 Design I	Packages Roadway/Structures/Utility/Art	280 08-Jul-21	14-Apr-22	▼ 14-Apr-22, Phase 2 & 3 Design Packages Roadway/Structu	ıres/Utility/Art
53	DI-01	Submit & QC 60% Design Document	0	08-Jul-21	◆ Submit & QC 60% Design Document	
54	DI-11	County Review & Revisions to 60% Design Document	41 09-Jul-21	18-Aug-21	County Review & Revisions to 60% Design Document	
55	DI-111	Incorporate Comments to 60% Design Documents	11 30-Nov-21	11-Dec-21	Incorporate Comments to 60% Design Documents	
56	DI-141	Submit Initial Construction Stage Plan & Protection of Roadway Users	5 30-Nov-21	05-Dec-21	Submit Initial Construction Stage Plan & Protection of Roadway Users	
57	DI-151	County Review of Construction Stage Plan & Protection of Roadway User I	21 05-Dec-21	26-Dec-21	County Review of Construction Stage Plan & Protection of Roadway User Plan	
58	DI-21	Permit Set Review	14 26-Dec-21	09-Jan-22	🛑 Permit Set Review	
59	DI-31	Prepare and Submit 90% Design Documents (Construction Document)	45 09-Jan-22	23-Feb-22	Prepare and Submit 90% Design Documents (Construction Document	)
60	DI-41	County Review & Revisions to 90% Design Documents	28 23-Feb-22	23-Mar-22	County Review & Revisions to 90% Design Documents	
61	DI-121	Incorporate Comments to 90% Design Documents	7 23-Mar-22	30-Mar-22	Incorporate Comments to 90% Design Documents	
62	DI-51	Initial IFC Submission	2 30-Mar-22	01-Apr-22	Initial IFC Submission	
63	DI-61	Initial IFC Review & Feedback (7 Days From Submission)	7 01-Apr-22	08-Apr-22	Initial IFC Review & Feedback (7 Days From Submission)	
64	DI-131	Incorporate Comments to IFC	5 08-Apr-22	13-Apr-22	Incorporate Comments to IFC	
65	DI-71	Final IFC Set Submission & Issuance	1 13-Apr-22	14-Apr-22	I Final IFC Set Submission & Issuance	
66	Public Involvement, A	Art, Bridge Lighting	477 10-May-21	28-Aug-23		
67	ART-01	Art Concepts Investigation, Design & Review	140 10-May-21	29-Nov-21	Art Concepts Investigation, Design & Review	
68	PUBL-01	Public Involvement & Meetings (Project Duration)	477 10-May-21	28-Aug-23		
69	Staging		5 30-Nov-21	05-Dec-21	▼ 05-Dec-21 Staging	
70	ROW-11	Staging & Storage Area Procurement (Off-Site)	5 30-Nov-21	05-Dec-21	Staging & Storage Area Procurement (Off-Site)	
71	МОТ		100 30-Nov-21	27-May-22	▼27-May-22, MOT	
72	MOT-01	MOT Plan QC & Submission (Phase 2, Phase 3, Phase 4)	50 30-Nov-21	09-Feb-22	MOT Plan QC & Submission (Phase 2, Phase 3, Phase 4)	
73	MOT-11	County Review & Revisions to MOT Plans	28 09-Feb-22	09-Mar-22	County Review & Revisions to MOT Plans	
74	MOT-21	Incorporate Comments MOT Plans	3 09-Mar-22	14-Mar-22	Incorporate Comments MOT Plans	
75	MOT-31	Prepare and Submit 90% MOT Plans	3 14-Mar-22	17-Mar-22	■ Prepare and Submit 90% MOT Plans	
76	MOT-101	Develop & Submit Transportation Management Plan (TMP)	10 14-Mar-22	28-Mar-22	Develop & Submit Transportation Management Plan (TMP)	
77	MOT-41	County Review & Revisions to 90% MOT Plans	28 17-Mar-22	14-Apr-22	County Review & Revisions to 90% MOT Plans	
78	MOT-111	County Review Transportation Management Plan (TMP)	21 28-Mar-22	18-Apr-22	County Review Transportation Management Plan (TMP)	
79	MOT-51	Incorporate Comments to 90% MOT Plans	3 14-Apr-22	19-Apr-22	Incorporate Comments to 90% MOT Plans	
80	MOT-121	Incorporate Comments to TMP	5 18-Apr-22	25-Apr-22	Incorporate Comments to TMP	
81	MOT-61	Initial IFC MOT Plans	3 19-Apr-22	22-Apr-22	■ Initial IFC MOT Plans	
82	MOT-71	Initial IFC MOT Review & Feedback	7 22-Apr-22	29-Apr-22	■ Initial IFC MOT Review & Feedback	
83	MOT-131	Submit Revised TMP & Gain Approval	21 25-Apr-22	25-May-22	Submit Revised TMP & Gain Approval	
84	MOT-81	Incorporate Comments to MOT IFC	3 29-Apr-22	04-May-22	Incorporate Comments to MOT IFC	
85	MOT-91	Release MOT RFC Plans	2 25-May-22	27-May-22	I Release MOT RFC Plans	
86	Drainage/Stormwate	r/Bridge Hydraulics	201 09-Jul-21	25-Apr-22	✓ 25-Apr-22, Drainage/Stormwater/Bridge Hydraulics	
87	DRN-01	H&HA Analysis	30 09-Jul-21	19-Aug-21	H&HAAnalysis	
88	DRN-11	Prepare, Submit, County Review SWPPP (Incl. ESC, P2, Post SWM)	20 09-Jul-21	05-Aug-21	Prepare, Submit, County Review SWPPP (Incl. ESC, P2, Post SWM)	
89	DRN-21	Apply & Obtain VPDES Permit	25 06-Aug-21	10-Sep-21	Apply & Obtain VPDES Permit	
90	DRN-41	Prepare, Submit, County Review SWM Plan	30 30-Nov-21	11-Jan-22	Prépare, Submit, County Review SWM Plan	
91	DRN-31	Apply & Obtain for Water Quality Permits	30 14-Mar-22	25-Apr-22	Apply & Obtain for Water Quality Permits	
92	Environmental		0			
	Actual Work Remaining Work	<ul> <li>Milestone</li> <li>Summary</li> </ul>			Page 2 of 4	

					Gleb	e Rd - C	Oct 18th	2021 Scheo	lule Revi	visior	n											18-0	)ct-21 11:29
#	Activity ID		Activity Name	Original Start Duration	Finish	Jan	Feb Mar	Apr Mav	2021 Jun Jul	Aug	Sep	Oct Nov	Dec	Jan Feb	2022 Mar Apr Mav Jun Ju	Aug S	ep Oct N	lov Dec	Jan F	Feb Ma	202 ar Apr	3 Mav Ju	un Jul Aug
93		Construction Impleme	ntation	444 09-Jul-21	29-Aug-23																		
94		QA/QC		444 09-Jul-21	29-Aug-23															—		—	
95		QAQC-01	Submit Draft QA/QC Plan (Post 60% Documents)	35 09-Jul-21	26-Aug-21				-		Submit E	Draft QA/Q	C Plan	(Post 60% I	Documents)								
96		QAQC-11	County QA/QC Plan Review	14 27-Aug-21	09-Sep-21						🗖 Coun	ty QA/QC F	Plan Re	view					+				
97		QAQC-21	QA/QC Plan Resubmission	5 10-Sep-21	16-Sep-21						□ QA/	QC Plan R	esubm	ission								8	
98		QAQC-31	QA/QC Plan Approval	21 17-Sep-21	07-Oct-21						-	QA/QC PI	an App	roval								8	
99		QAQC-41	Construction QA/QC (Construction Duration)	517 30-Mar-22	29-Aug-23																		
100		Major Procurement		135 30-Nov-21	29-Jul-22											🔫 29-Jul-22	2, Major Procu	urement					
101		E&P-51	Bridge Lighting, Form Liner, and Architectural Railing Procurement	110 30-Nov-21	15-Jun-22										Bridg	e Lighting, Fo	rm Liner, and	Architectu	ıral Railing	g Procur	ement		
102		E&P-21	Submit Beam Shop Drawings	30 23-Mar-22	21-Apr-22										Submit Beam Sh	p Drawings							
103		E&P-31	County Review of Beam Design	14 22-Apr-22	05-May-22										💻 County Review	of Beam De	sign						
104		E&P-41	Beam Fabrication, QC, and Off-Site Inspections	85 06-May-22	29-Jul-22											📕 Beam Fa	brication, QC	, and Off-	Site Insper	ections			
105		Utility Relocations		0									1 1 1 1							1		8	
106		Phase 1		44 30-Mar-22	14-Jun-22										▼ 14-Ju	1-22, Phase	1		++				
107		PH1-01	Start Phase 1 Construction (Advance Package Construction Starts after G	0 30-Mar-22											<ul> <li>Start Phase 1 Constru</li> </ul>	tion (Advanc	e Package C	onstructio	n Starts a'	after GM	P)		
108		PH1-31	Mobilization	5 30-Mar-22	06-Apr-22										Mobilization								
109		PH1-121	Initial Survey	4 30-Mar-22	05-Apr-22										Initial Survey								
110		PH1-131	Install Project Signage	1 06-Apr-22	07-Apr-22										Install Project Signage	e							
111		PH1-161	Remove Median	3 07-Apr-22	12-Apr-22										Remove Median				+				
112		PH1-81	Install Temp. Barrier and Reduce NB Traffic to 1 Lane	1 12-Apr-22	13-Apr-22										I Install Temp. Barrie	and Reduce	NB Traffic to	1 Lane					
113		PH1-61	Construct Pedestrian Walkway Protection at Trail (Advance Package)	5 13-Apr-22	20-Apr-22								1		Construct Pedest	ian Walkway	Protection at	Trail (Adv	/ance Pac	ckage)		8	
114		PH1-41	Install Timber Sidewalk (Advance Package)	18 20-Apr-22	16-May-22								1		Install Timb	r Sidewalk ( <i>I</i>	Advance Pack	kage)				8	
115		PH1-151	Notify County for Safety Inspection of Sidewalk	5 11-May-22	16-May-22										Notify Count	y for Safety lı	nspection of S	Sidewalk					
116		PH1-71	Install Temporary MOT Barriers on NB W. Glebe and Detour Vehicular Tra	1 16-May-22	17-May-22										I Install Temp	orary MOT E	arriers on NB	W Glebe	and Detc	our Vehic	cular Traffi	с	
117		PH1-101	Close SB W. Glebe Rd to Traffic	1 16-May-22	17-May-22										I Close SB V	. Glebe Rd to	o Traffic						
118		PH1-141	Phase 1 Safety and Acceptance Inspection by County	1 24-May-22	24-May-22										⊢ Phase 1 S	afety and Acc	eptance Insp	ection by	County				
119		PH2-181	Verizon: Ductbank (NB)	14 24-May-22	14-Jun-22										Verizo	n: Ductbank	(NB)						
120		PH1-51	Open Ex. Downstream Sidewalk and Detour Ped. Traffic	1 25-May-22	25-May-22										I Open Ex.	Downstream	Sidewalk and	d Detour P	ed. Traffic	с			
121		PH1-91	Phase 1 to Phase 2 Traffic Switch	1 26-May-22	26-May-22										⊢ Phase 1 t	Phase 2 Tra	affic Switch						
122		Phase 2		92 01-Aug-22	06-Jan-23								1			-			🔫 06-Jan	n-23, Ph	ase 2	1	
123		PH1-21	Remove Abandoned Gas Lines	2 01-Aug-22	02-Aug-22											Remove	e Abandoned (	Gas Lines					
124		PH2-21	Start Phase 2 (Upstream) Construction	0 01-Aug-22												<ul> <li>Start Ph</li> </ul>	ase 2 (Upstre	am) Cons	truction				
125		PH2-421	Phase 2 Concrete Spall Repairs	12 01-Aug-22	16-Aug-22											💻 Phas	e 2 Concrete	Spall Rep	airs				
126		A1050	Bridge Lighting Removal Notification	20 01-Aug-22	20-Aug-22											💻 Brid	ge Lighting Re	emoval No	otification				
127		PH1-111	Install E&S	2 01-Aug-22	02-Aug-22											Install E	&S						
128		PH2-91	Remove Ex. Railing	3 03-Aug-22	05-Aug-22								1			Remov	e Ex. Railing						
129		PH2-11	Install Support/Mats & Demo Span A, B, C & Approach Slab	16 08-Aug-22	29-Aug-22								1			💻 In	stall Support/I	Mats & De	mo Span	IA, B, C	& Approac	h Slab	
130		PH2-111	Erect Scaffolding at Piers	6 30-Aug-22	07-Sep-22											-	Erect Scaffold	ding at Pie	rs				
131		PH1-201	Excavate & Install Rip Rap At Piers	10 30-Aug-22	13-Sep-22			+			+						Excavate &	Install Rip	Rap At Pi	'iers			
132		PH2-101	Selective Demo Pier Cap	18 08-Sep-22	03-Oct-22											-	Selectiv	ve Demo F	^v ier Cap				
133		PH2-121	Selective Pier & North Abutment Reconstruction	15 29-Sep-22	20-Oct-22												📕 Sele	ective Pier	& North A	Abutmen	t Reconst	uction	
134		PH2-611	Selective Pier & South Abutment Reconstruction	15 29-Sep-22	20-Oct-22												💻 Sele	ective Pier	& South A	Abutmer	t Reconst	ruction	
135		PH2-241	Install Verizon Bridge Conduit	5 21-Oct-22	27-Oct-22												🔳 Ins	stall Verizo	n Bridge (	Conduit			
136		PH2-71	Set Steel Beams & Connections At Abutments	6 28-Oct-22	04-Nov-22						+							Set Steel E	3eams & (	Connect	ions At Ab	utments	
137		PH2-341	Verizon- Install Cable & Splice Connection	30 28-Oct-22	12-Dec-22								1					- Ve	erizon- Inst	tall Cabl	e & Splice	Connectio	on
138		PH2-201	Install Formwork Overhang	6 07-Nov-22	15-Nov-22								1					Install F	ormwork (	Overhar	ıg		
						ı		i	i		<u> </u>				· · · · · ·	<u> </u>	, i	1	<u> </u>		i		i
	A	ctual Work	Milestone				Pac	e 3 of 4															
	R	emaining Work	Summary																				
	C	ritical Remaining	g Work																				

				Gleb	be R <u>d - Oct 18th 2021 So</u>	chedule l	Revision								18-Oct-21 11:29
# Ac	tivity ID	ActivityName	Original Start Duration	Finish	Jan Feb Mar Apr Ma	2021 ay Jun	Jul Aug Sep	Oct Nov Dec	Jan Feb	) Mar Apr	2 May Jun	022 Jul Aug	Sep Oct	Nov Dec Jan Feb	2023 Mar Apr May Jun Jul Aug
139	PH2-251	Set Deck Forms	5 07-Nov-22	14-Nov-22										Set Deck Forms	
140	PH2-261	Install Access Overhang	5 07-Nov-22	14-Nov-22										Install Access Overhar	ıg
141	PH2-291	Install Reinforcing Steel	5 16-Nov-22	22-Nov-22										Install Reinforcing Ste	æl
142	PH2-211	P/F/C Concrete Deck	4 23-Nov-22	29-Nov-22									8 8 8 8	P/F/C Concrete De	зk
143	PH2-271	P/F/C Sidewalk	5 01-Dec-22	07-Dec-22									8 8 8 8	P/F/C Sidewalk	
144	PH2-301	P/F/C Parapet & Art Design Concept	10 08-Dec-22	21-Dec-22									8	P/F/C Parapet	& Art Design Concept
145	PH2-221	Install Railing & Art Design Concept	10 19-Dec-22	03-Jan-23										💻 Install Railin	g & Art Design Concept
146	PH2-601	Temp. Pave & Striping	3 22-Dec-22	27-Dec-22										Temp. Pave δ	* Striping
147	PH2-321	County Notification for Inspection of Phase 2 Structural Construction & As-I	5 27-Dec-22	03-Jan-23										County Noti	ication for Inspection of Phase 2 Struc
148	PH2-231	Install Temp. Barrier & Signage for Phase 3 Construction	2 04-Jan-23	05-Jan-23										I Install Temp	). Barrier & Signage for Phase 3 Cons
149	PH2-281	Phase 2 Safety Inspection & Acceptance	1 04-Jan-23	04-Jan-23										⊢ Phase 2 Sa	rety Inspection & Acceptance
150	PH2-311	Phase 2 to Phase 3 Traffic Switch (MOT & Signage)	1 06-Jan-23	06-Jan-23										Phase 2 to	Phase 3 Traffic Switch (MOT & Signa
151	Phase 3		83 09-Jan-23	07-Jun-23									8		▼ 07-Jun-23, Pha
152	PH3-01	Start Phase 3 (Downstream) Construction	0 09-Jan-23											♦ Start Phas	e 3 (Downstream) Construction
153	PH2-331	Remove Ex. Railing	3 09-Jan-23	11-Jan-23										Remove:	x. Railing
154	PH1-171	Phase 3 Concrete Spall Repairs	13 09-Jan-23	26-Jan-23											3 Concrete Spall Repairs
155	PH1-181	Remove Streetlights at Median & Install Temp Lighting	2 09-Jan-23	10-Jan-23											treetlights at Median & Install Temp Li
156	PH2-351	Install Temp Support/Mats & Demo Span A, B, C & Approach Slab	16 12-Jan-23	03-Feb-23											I Temp Support/Mats & Demo Span A
157	PH2-381	Erect Scaffolding at Piers	6 06-Feb-23	13-Feb-23									8		Ct Scattolding at Piers
158	PH2-391	Selective Demo Pier Cap	18 14-Feb-23	10-Mar-23									8 8 8 8		Selective Demo Pier Cap
159	PH2-401	Selective Pier & North Abutment Reconstruction	14 08-Mar-23	27-Mar-23									8		Selective Pier & North Abutmen
160	PH2-621	Selective Pier & South Abutment Reconstruction	14 08-Mar-23	27-Mar-23											Selective Pier & South Adutmer
161	PH2-411	Set Steel Beams & Connections At Abutments	6 28-Mar-23	04-Apr-23											Set Steel Beams & Connectio
162	PH2-431	Install Formwork Overhang	6 05-Apr-23	12-Apr-23											Install Formwork Overhang
163	PH2-441	Set Deck Forms	5 05-Apr-23	11-Apr-23											Set Deck Forms
164	PH2-451	Install Access Overhang	5 05-Apr-23	11-Apr-23											Install Access Overhang
165	PH2-461	Install Reinforcing Steel	5 13-Apr-23	19-Apr-23											Install Reinforcing Steel
166	PH2-471	P/F/C Concrete Deck	5 20-Apr-23	26-Apr-23									8 8		P/F/C Concrete Deck
167	PH2-481	P/F/C Sidewalk & Bike Lane	8 27-Apr-23	08-May-23									-		P/F/C Sidewalk & Bike
168	PH2-491	P/F/C Parapet & Art Design Concept	10 09-May-23	23-May-23											P/F/C Parapet & A
169	PH2-571	Install Curb & Gutter (Off-Bridge)	3 09-May-23	11-May-23											Install Curb & Gutter
170	PH2-581	Asphalt Mill & Overlay & Final Striping for Phase 3	3 12-May-23	16-May-23											Asphalt Mill & Overlage
171	PH2-501	Install Railing & Art Design Concept	10 18-May-23	02-Jun-23											
172	PH2-531	County Notification for Inspection of Phase 3 Structural Construction & As-I	5 26-May-23	30-May-23											
1/3	PH2-511	Install Temp. Barrier & Signage for Phase 4 Construction	2 05-Jun-23	06-Jun-23											
1/4	PH2-541	Phase 3 Safety Inspection & Acceptance	1 05-Jun-23	05-Jun-23											Phase 3 Salety
175	PH2-551	Phase 3 to Phase 4 Traffic Switch (MOT & Signage)	1 07-Jun-23	07-Jun-23											Phase 3 to Pha
477	Phase 4		49 08-Jun-23	29-Aug-23											A Start Dhose 4 (
177	PH4-01	Start Phase 4 (Upstream 2nd Mobilization) Construction	0 08-Jun-23												▼ Start Pridse 4 (
170	PH4-81	Complete Sidewalk with Bike Lane, Finishes, and Other Painting (Rev.)	20 08-Jun-23	06-Jul-23											
179	PH4-21	Install Permanent Lighting	4 07-Jul-23	12-Jul-23											
100	PH4-41	Install C&G (Off-Bridge)	3 13-Jul-23	17-Jul-23											
182	PH4-51		3 18-Jul-23	20-Jul-23									- 8 8 8 8		
102	PH4-11	Asphait Mill & Ovenay & Final Striping For Phase 4 Ott-Bridge	3 21-JUI-23	25-JUI-23									-		■ Aspi
184	PH4-31	Remove Signs, Seeding, Landscaping, Demob	5 26-Jul-23	30-Jul-23									-		
104	PH4-61	Puriori List (+30 Substantial Completion)	30 31-Jul-23	29-Aug-23											
	Actual Work	◆ ◆ Milestone			Page 4 of 4										
	Remaining Work	Summary													
	Critical Remainin	a Work							1						