Original

Design-Build Project For

I-64 Southside Widening and High Rise Bridge, Phase 1

City of Chesapeake, Virginia

Contract ID Number: C00106692DB93

Technical Proposal – Volume I

August 2017

Skanska-Archer Western 2 Joint Venture

SKANSKA in association with WSP

ATTACHMENT 4.0.1.1 (REV 1)

I-64 SOUTHSIDE WIDENING AND HIGH RISE BRIDGE, PHASE 1

TECHNICAL PROPOSAL CHECKLIST AND CONTENTS

Offerors shall furnish a copy of this Technical Proposal Checklist, with the page references added, with the Technical Proposal.

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Included within page limit?	Technical Proposal Page Reference
Technical Proposal Checklist and Contents	Attachment 4.0.1.1	Section 4.0.1.1	no	N/A
Acknowledgement of RFP, Revisions, and/or Addenda	Attachment 3.7 (Form C-78-RFP)	Sections 3.7, 4.0.1.1	no	N/A
List of Approved ATCs form	Attachment 3.6.7	Sections 3.6.7	no	N/A
Letter of Submittal	NA	Sections 4.1		
Letter of Submittal on Offeror's letterhead	NA	Section 4.1.1	yes	1
Identify the full legal name and address of Offeror	NA	Section 4.1.1	yes	1
Authorized representative's original signature	NA	Section 4.1.1	yes	1
Declaration of intent	NA	Section 4.1.2	yes	1
120 day declaration	NA	Section 4.1.3	yes	1
Point of Contact information	NA	Section 4.1.4	yes	1
Principal Officer information	NA	Section 4.1.5	yes	1
Final Completion Date(s)	NA	Section 4.1.6	yes	1
Provide any Unique Milestone dates	NA	Section 4.1.7	yes	1
Proposal Payment Agreement or Waiver of Proposal Payment	Attachment 9.3.1 or 9.3.2	Section 4.1.8	no	N/A
Certification Regarding Debarment Forms	Attachment 11.8.6(a) Attachment 11.8.6(b)	Section 4.1.9	no	N/A

ATTACHMENT 4.0.1.1 (REV 1)

I-64 SOUTHSIDE WIDENING AND HIGH RISE BRIDGE, PHASE 1

TECHNICAL PROPOSAL CHECKLIST AND CONTENTS

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Included within page limit?	Technical Proposal Page Reference
Offeror's Qualifications	NA	Section 4.2		
Confirmation that the information provided in the SOQ submittal remains true and accurate or indicates that any requested changes were previously approved by VDOT	NA	Section 4.2.1	yes	2
Organizational chart with any updates since the SOQ submittal clearly identified	NA	Section 4.2.2	yes	3
Revised narrative when organizational chart includes updates since the SOQ submittal	NA	Section 4.2.2	yes	2
Design Concept	NA	Section 4.3		
Conceptual Roadway Plans and description	NA	Section 4.3.1	yes	5
Conceptual Bridge Plans and description - B662, I-64 (WB) over Southern Branch of the Elizabeth River, NPBL RR, and Route 166 (High Rise Bridge)	NA	Section 4.3.2	yes	12
Narrative for New High Rise Bridge addressing ease of maintenance.	NA	Section 4.3.2	yes	13
Conceptual Bridge Plans and description -Existing Bridge Modification Conceptual Plans – B670, I-64 (EB) over Southern Branch Elizabeth River, NPBL RR, and Route 166	NA	Section 4.3.3	yes	14
Conceptual Bridge Replacement Plans - B663, Route 190 (Great Bridge Blvd.) over I-64	NA	Section 4.3.4	yes	14

ATTACHMENT 4.0.1.1 (REV 1)

I-64 SOUTHSIDE WIDENING AND HIGH RISE BRIDGE, PHASE 1

TECHNICAL PROPOSAL CHECKLIST AND CONTENTS

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Included within page limit?	Technical Proposal Page Reference
Conceptual Bridge Plans and description – For Bridge Widenings	NA	Section 4.3.5	yes	15
Conceptual Plans – Tide Gate at Gilmerton Canal	NA	Section 4.3.6	yes	16
Project Approach	NA	Section 4.4		
Environmental Management	NA	Section 4.4.1	yes	18
Utilities	NA	Section 4.4.2	yes	20
Geotechnical	NA	Section 4.4.3	yes	23
Quality Assurance/ Quality Control (QA/QC)	NA	Section 4.4.4	yes	23
Construction of Project	NA	Section 4.5		
Sequence of Construction	NA	Section 4.5.1	yes	30
Transportation Management Plan	NA	Section 4.5.2	yes	33
Disadvantaged Business Enterprises (DBE)	NA	Section 4.6		
Written statement of 8% DBE participation goal	NA	Section 4.6	yes	44
Proposal Schedule	NA	Section 4.7		
Proposal Schedule	NA	Section 4.7	no	Follows S-12

ATTACHMENT 4.0.1.1 (REV 1)

I-64 SOUTHSIDE WIDENING AND HIGH RISE BRIDGE, PHASE 1

TECHNICAL PROPOSAL CHECKLIST AND CONTENTS

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Included within page limit?	Technical Proposal Page Reference
Proposal Schedule Narrative	NA	Section 4.7	no	S-1
Proposal Schedule in electronic format (CD-ROM)	NA	Section 4.7	no	enclosed

ATTACHMENT 3.7

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFP NO. C00106692DB93

PROJECT NO.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

ACKNOWLEDGEMENT OF RFP, REVISION AND/OR ADDENDA

Acknowledgement shall be made of receipt of the Request for Proposals (RFP) and/or any and all revisions and/or addenda pertaining to the above designated project which are issued by the Department prior to the Letter of Submittal submission date shown herein. Failure to include this acknowledgement in the Letter of Submittal may result in the rejection of your proposal.

By signing this Attachment 3.6, the Offeror acknowledges receipt of the RFP and/or following revisions and/or addenda to the RFP for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

1. Cover letter of **RFP – December 14, 2016**
2. Cover letter of **Jan. 10, 2017 – Addendum No. 1**
3. Cover letter of **Feb. 8, 2017 – Addendum No. 2**
4. Cover letter of **March 17, 2017 – Addendum No. 3**
5. Cover letter of **April 24, 2017 – Addendum No. 4**
6. Cover letter of **May 23, 2017 – Addendum No. 5**
7. Cover letter of **June 19, 2017 – Addendum No. 6**
8. Cover letter of **July 10, 2017 – Addendum No. 7**
8. Cover letter of **August 4, 2017 – Addendum No. 8**

Stephen Davis — August 4, 2017

SIGNATURE — DATE

Stephen Davis — Authorized Representative

PRINTED NAME — TITLE

ATTACHMENT 3.6.7
LIST OF APPROVED ATCs INCLUDED IN TECHNICAL PROPOSAL

OFFEROR:

List all approved ATCs included in the Technical Proposal along with the page number references from Technical Proposal.

ATC ID Number	ATC Name Description	Date ATC Approved	Technical Proposal Reference Page(s) #
SAW-1	Guardrail Adjacent to Sound Wall	05/17/2017	
SAW-3	WB CD Lanes Alignment Shift	05/17/2017	

By signing this document, the Offeror hereby confirms that they are agreeing to all conditions that may have accompanied the ATC approval(s). The Offerors shall make a note of RFP Part 4 Section 2.1.10

"If the Contract Documents incorporate any ATCs and Design-Builder, for whatever reason: (a) does not comply with one or more Department conditions of pre-approval for the ATC; (b) does not obtain required third-party approval for the ATC; or (c) fails to implement the ATC, then Design-Builder shall: (1) provide written notice thereof to Department; and (2) comply with the requirements in the Contract Documents that would have applied in the absence of such ATC. Such compliance shall be without any increase in the Contract Price or extension to the Contract Time(s). For the avoidance of doubt, Design-Builder shall not be entitled to any increase in the Contract Price or extension of the Contract Time(s) as a result of any delay, inability or cost associated with the acquisition of any property that may be required to implement any ATC".

[Signature: Offerors POC or Principal Officer]

Stephen Davis
[Printed Name]

Authorized Representative
[Title]

DATE: August 1, 2017

4.1
Letter of Submittal

SKANSKA

Skanska-Archer Western 2 Joint Venture
295 Bendix Road
Suite 400
Virginia Beach, Virginia 23452

August 8, 2017

Mr. Jeffrey A. Roby
Alternate Project Delivery Office
Virginia Department of Transportation
1401 E. Broad Street
Richmond, Virginia 23219

SUBJECT: Technical Proposal – Contract ID Number C00106692DB93
I-64 Southside Widening and High Rise Bridge, Phase 1
State Project Number 0064-131-811, P101, R201, C501, B662-B670, D637, D638
Federal Project Numbers NHPP-064-3(488)

Dear Mr. Roby:

The Skanska-Archer Western 2 Joint Venture (SAW2JV), as the Offeror, is pleased to submit our technical proposal for the Virginia Department of Transportation (VDOT) I-64 Southside Widening and High Rise Bridge, Phase 1 Project (the Project). Our proposal is organized in accordance with the RFP. Volume I consists of our narrative and the required forms and appendices. Volume II consists of our design concept graphics.

4.1.2 DECLARATION OF INTENT TO ENTER INTO A CONTRACT: SAW2JV, if selected, will enter into a contract with VDOT for the Project, in accordance with the terms of the RFP and subsequent addendum.

4.1.3 PURSUANT TO PART 1, SECTION 8.2: The offer represented by our Letter of Submittal will remain in full force and effect for one hundred and twenty (120) days after the date that the technical proposal is actually submitted to VDOT.

4.1.4 OFFEROR'S POINT OF CONTACT:
Mr. Stephen Davis, Vice President Estimating
Skanska USA Civil Southeast Inc.
295 Bendix Road, Suite 400
Virginia Beach, VA 23452
T 757-578-4184 / F 757-420-3551
stephen.davis@skanska.com

4.1.5 PRINCIPAL OFFICER INFORMATION:
Mr. Salvatore F. Taddeo, Executive Vice President
Skanska USA Civil Southeast Inc.
295 Bendix Road, Suite 400
Virginia Beach, VA 23452
T 757-578-4162 / F 757-420-3551
salvatore.taddeo@skanska.com

4.1.6 MILESTONE DATE(S): FINAL COMPLETION: July 30, 2021

4.1.7 UNIQUE MILESTONE DATES: SAW2JV does not anticipate any unique milestone dates.

4.1.8 PROPOSAL PAYMENT AGREEMENT: Please refer to the Appendix for executed Proposal Payment Agreement form Attachment 9.3.1

4.1.9 DEBARMENT FORMS: Please refer to the Appendix for executed debarment forms 11.8.6(a) and 11.8.6(b) from all team members.

We appreciate the opportunity to provide our design and construction means and methods to build a successful Project for VDOT, the local community, and stakeholders. In consideration of our extensive experience and Project approach, we are confident that the SAW2JV Team has the professional and financial resources to make the Project a resounding success.

Sincerely,

Skanska-Archer Western 2 Joint Venture

Stephen Davis
Authorized Representative

ATTACHMENT 9.3.1
PROPOSAL PAYMENT AGREEMENT

THIS PROPOSAL PAYMENT AGREEMENT (this "Agreement") is made and entered into as of this ____ day of _____, 20__, by and between the Virginia Department of Transportation ("VDOT"), and Skanska-Archer Western 2 Joint Venture ("Offeror").

WITNESSETH:

WHEREAS, Offeror is one of the entities who submitted Statements of Qualifications ("SOQs") pursuant to VDOT's August 16, 2016 Request for Qualifications ("RFQ") and was invited to submit proposals in response to a Request for Proposals ("RFP") for the **I-64 Southside Widening and High Rise Bridge, Phase 1, Project No. 0064-131-811, P101, R201, C501, B662-B670, D637, D638** ("Project"), under a design-build contract with VDOT ("Design-Build Contract"); and

WHEREAS, as part of the procurement process for the Project, Offeror has already provided and/or furnished to VDOT, and may continue to provide and/or furnish to VDOT, certain intellectual property, materials, information and ideas, including, but not limited to, such matters that are: (a) conveyed verbally or in writing during proprietary meetings or interviews; (b) contained in, related to or associated with Offeror's Proposal, including, but not limited to, written correspondence, designs, drawings, plans, exhibits, photographs, reports, printed material, tapes, electronic disks, or other graphic and visual aids; and (c) conveyed verbally or in writing as Alternative Technical Concepts, as such term is defined in the RFP, that are made known to VDOT through (a) and (b) above, regardless of whether the Alternative Technical Concept has been approved by VDOT or included as part of Offeror's Proposal (collectively "Offeror's Intellectual Property"); and

WHEREAS, VDOT is willing to provide a payment to Offeror, subject to the express conditions stated in this Agreement, to obtain certain rights in Offeror's Intellectual Property, provided that Offeror submits a proposal that VDOT determines to be responsive to the RFP ("Offeror's Proposal"), and either (a) Offeror is not awarded the Design-Build Contract; or (b) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror; and

WHEREAS, Offeror wishes to receive the payment offered by VDOT, in exchange for granting VDOT the rights set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement and other good and valuable consideration, the receipt and adequacy of which are acknowledged by the parties, the parties agree as follows:

1. VDOT's Rights in Offeror's Intellectual Property. Offeror hereby conveys to VDOT all rights, title and interest, free and clear of all liens, claims and encumbrances, in Offeror's Intellectual Property, which includes, without restriction or limitation, the right of VDOT, and anyone contracting with VDOT, to incorporate any ideas or information from Offeror's Intellectual Property into: (a) the Design-Build Contract and the Project; (b) any other contract awarded in reference to the Project; or (c) any subsequent procurement by VDOT. In receiving all rights, title and interest in Offeror's Intellectual Property, VDOT is deemed to own all intellectual property rights, copyrights, patents, trade secrets, trademarks, and service marks in Offeror's Intellectual Property, and Offeror agrees that it shall, at the request of VDOT, execute all papers and perform all other acts that may be necessary to ensure that VDOT's rights, title and interest in Offeror's Intellectual Property are protected. The rights conferred herein to VDOT include, without limitation, VDOT's ability to use Offeror's Intellectual Property without the obligation to notify or seek permission from Offeror.

2. Exclusions from Offeror's Intellectual Property. Notwithstanding Section 1 above, it is understood and agreed that Offeror's Intellectual Property is not intended to include, and Offeror does not convey any rights to, the Escrow Proposal Documents submitted by Offeror in accordance with the RFP.

3. Proposal Payment. VDOT agrees to pay Offeror the lump sum amount of **four hundred and seventy five thousand dollars ($~~400,000~~475,000)** ("Proposal Payment"), which payment constitutes payment in full to Offeror for the conveyance of Offeror's Intellectual Property to VDOT in accordance with this Agreement. Payment of the Proposal Payment is conditioned upon: (a) Offeror's Proposal being, in the sole discretion of VDOT, responsive to the RFP; (b) Offeror complying with all other terms and conditions of this Agreement; and (c) either (i) Offeror is not awarded the Design-Build Contract, or (ii) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror.

4. Payment Due Date. Subject to the conditions set forth in this Agreement, VDOT will make payment of the Proposal Payment to the Offeror within forty-five (45) days after the later of: (a) notice from VDOT that it has awarded the Design-Build Contract to another Offeror; or (b) notice from VDOT that the procurement for the Project has been cancelled and that there will be no Contract Award.

5. Effective Date of this Agreement. The rights and obligations of VDOT and Offeror under this Agreement, including VDOT's ownership rights in Offeror's Intellectual Property, vests upon the date that Offeror's Proposal is submitted to VDOT. Notwithstanding the above, if Offeror's Proposal is determined by VDOT, in its sole discretion, to be nonresponsive to the RFP, then Offeror is deemed to have waived its right to obtain the Proposal Payment, and VDOT shall have no obligations under this Agreement.

6. Indemnity. Subject to the limitation contained below, Offeror shall, at its own expense, indemnify, protect and hold harmless VDOT and its agents, directors, officers, employees, representatives and contractors from all claims, costs, expenses, liabilities, demands, or suits at law or equity ("Claims") of, by or in favor of or awarded to any third party arising in whole or in part from: (a) the negligence or wilful misconduct of Offeror or any of its agents, officers, employees, representatives or subcontractors; or (b) breach of any of Offeror's obligations under this Agreement, including its representation and warranty under Section 8 hereof. This indemnity shall not apply with respect to any Claims caused by or resulting from the sole negligence or wilful misconduct of VDOT, or its agents, directors, officers, employees, representatives or contractors.

7. Assignment. Offeror shall not assign this Agreement, without VDOT's prior written consent, which consent may be given or withheld in VDOT's sole discretion. Any assignment of this Agreement without such consent shall be null and void.

8. Authority to Enter into this Agreement. By executing this Agreement, Offeror specifically represents and warrants that it has the authority to convey to VDOT all rights, title, and interest in Offeror's Intellectual Property, including, but not limited to, those any rights that might have been vested in team members, subcontractors, consultants or anyone else who may have contributed to the development of Offeror's Intellectual Property, free and clear of all liens, claims and encumbrances.

9. Miscellaneous.

a. Offeror and VDOT agree that Offeror, its team members, and their respective employees are not agents of VDOT as a result of this Agreement.

b. Any capitalized term used herein but not otherwise defined shall have the meanings set forth in the RFP.

c. This Agreement, together with the RFP, embodies the entire agreement of the parties with respect to the subject matter hereof. There are no promises, terms, conditions, or obligations other than those contained herein or in the RFP, and this Agreement shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties hereto.

d. It is understood and agreed by the parties hereto that if any part, term, or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the Commonwealth of Virginia, validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provisions to be invalid.

e. This Agreement shall be governed by and construed in accordance with the laws

of the Commonwealth of Virginia.

IN WITNESS WHEREOF, this Agreement has been executed and delivered as of the day and year first above written.

VIRGINIA DEPARTMENT OF TRANSPORTATION

By: _____

Name: _____

Title: _____

SKANSKA-ARCHER WESTERN 2 JOINT VENTURE

By: Stephen Davis

Name: Stephen Davis

Title: Authorized Representative

ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature	August 1, 2017 Date	Vice President Title

Skanska USA Civil Southeast Inc.
Name of Firm

ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature Stephen P. Carter Jr 8/1/17 Date

Senior Vice President
Title

Archer Western Construction, LLC
Name of Firm

ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Scott A. Lord 8/7/17 Vice President

Signature Date Title

WSP USA Inc.

Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Dave Mahoney 8/1/17 Executive Vice President

Signature Date Title

Pewbeny Consultants LLC

Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature 8/01/17 Date DIRECTOR Title

CARDNO, INC.
Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature	8/1/2017	President
	Date	Title

Hassan Water Resources, PLC

Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature	08/02/17 Date	President & CEO Title

Harris Miller Miller & Hanson Inc.
Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature Date President
Title

Precision Measurements, Inc.
Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

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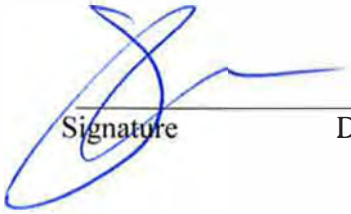
The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



August 01, 2017	Principal
Signature Date	Title

Sabra, Wang & Associates, Inc.
Name of Firm

RECEIVED
AUG 3 1
WSP
Virginia Beach, VA Office

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-131-811, P101, R201, C501, B662-B670, D637, D638

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature	8/1/2017 Date	Senior Principal Title

Stantec Consulting Services Inc.
Name of Firm

4.2

Offeror's Qualifications

4.2 Offeror's Qualifications

4.2.1 Confirmation of SOQ Information

SAW2JV confirms that the information contained in our Statement of Qualifications (SOQ) remains true and accurate in accordance with Part 1, Section 11.4.

4.2.2 Organizational Chart

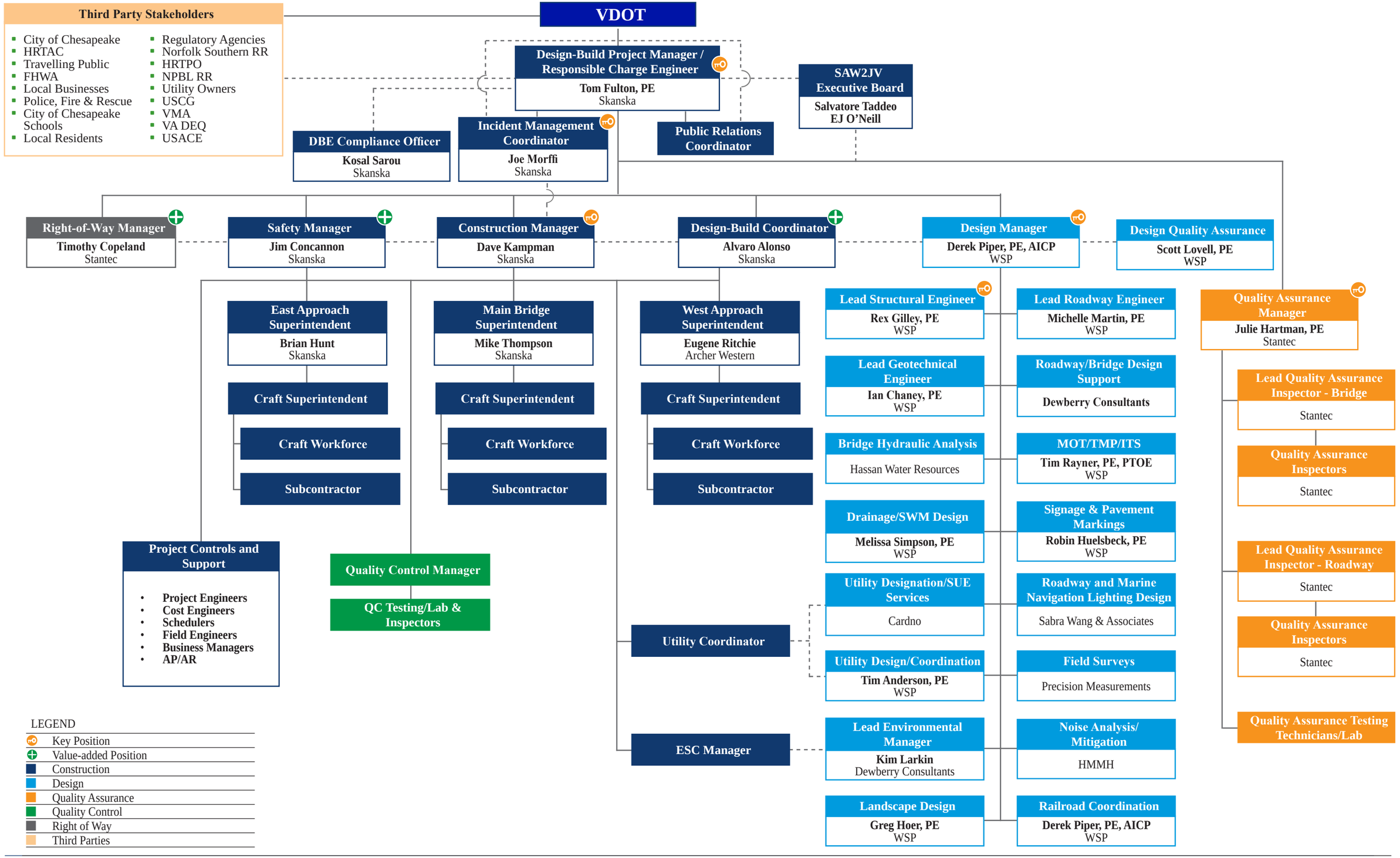
The Project organizational chart (Figure 4.2-1) on Page 3 identifies the "chain of command" and major functions to be performed and their reporting relationships in managing, designing, and constructing the Project, including quality assurance/quality control.

There are no functional changes to the Organization Chart from what was submitted with the SAW2JV Statement of Qualifications (SOQ). However, we have included the following modifications to address the VDOT comments on the SOQ:

- The Incident Management Coordinator now reports directly to the Responsible Charge Engineer with responsibility for communicating with VDOT when incidents arise and coordinating Maintenance of Traffic with the Construction Manager.
- A Public Relations Coordinator has been included, reporting directly to the Design-Build Project Manager with responsibility for coordinating public relations activities with VDOT.

Finally, we have included the following minor clarifications to the Team:

- We have replaced Mr. Bob Rose with Mr. Salvatore Taddeo on the SAW2JV Executive Board.
- WSP no longer intends to use Tuhin Basu & Associates to provide bridge design support. The DBE goal will still be attained without the use of this design subconsultant.


Third Party Stakeholders
City of Chesapeake
HRTAC
Travelling Public
FHWA
Local Businesses
Police, Fire & Rescue
City of Chesapeake Schools
Local Residents
Regulatory Agencies
Norfolk Southern RR
HRTPO
NPBL RR
Utility Owners
USCG
VMA
VA DEQ
USACE
VDOT
Design-Build Project Manager / Responsible Charge Engineer
Tom Fulton, PE
Skanska
SAW2JV Executive Board
Salvatore Taddeo
EJ O'Neill
DBE Compliance Officer
Kosal Sarou
Skanska
Incident Management Coordinator
Joe Morffi
Skanska
Public Relations Coordinator
Right-of-Way Manager
Timothy Copeland
Stantec
Safety Manager
Jim Concannon
Skanska
Construction Manager
Dave Kampman
Skanska
Design-Build Coordinator
Alvaro Alonso
Skanska
Design Manager
Derek Piper, PE, AICP
WSP
Design Quality Assurance
Scott Lovell, PE
WSP
East Approach Superintendent
Brian Hunt
Skanska
Main Bridge Superintendent
Mike Thompson
Skanska
West Approach Superintendent
Eugene Ritchie
Archer Western
Craft Superintendent
Craft Workforce
Subcontractor
Project Controls and Support
Project Engineers
Cost Engineers
Schedulers
Field Engineers
Business Managers
AP/AR
Quality Control Manager
QC Testing/Lab & Inspectors
Utility Coordinator
ESC Manager
Lead Structural Engineer
Rex Gilley, PE
WSP
Lead Roadway Engineer
Michelle Martin, PE
WSP
Lead Geotechnical Engineer
Ian Chaney, PE
WSP
Roadway/Bridge Design Support
Dewberry Consultants
Bridge Hydraulic Analysis
Hassan Water Resources
MOT/TMP/ITS
Tim Rayner, PE, PTOE
WSP
Drainage/SWM Design
Melissa Simpson, PE
WSP
Signage & Pavement Markings
Robin Huelsbeck, PE
WSP
Utility Designation/SUE Services
Cardno
Roadway and Marine Navigation Lighting Design
Sabra Wang & Associates
Utility Design/Coordination
Tim Anderson, PE
WSP
Field Surveys
Precision Measurements
Lead Environmental Manager
Kim Larkin
Dewberry Consultants
Noise Analysis/ Mitigation
HMMH
Landscape Design
Greg Hoer, PE
WSP
Railroad Coordination
Derek Piper, PE, AICP
WSP
Quality Assurance Manager
Julie Hartman, PE
Stantec
Lead Quality Assurance Inspector - Bridge
Stantec
Quality Assurance Inspectors
Stantec
Lead Quality Assurance Inspector - Roadway
Stantec
Quality Assurance Inspectors
Stantec
Quality Assurance Testing Technicians/Lab
LEGEND
Key Position
Value-added Position
Construction
Design
Quality Assurance
Quality Control
Right of Way
Third Parties

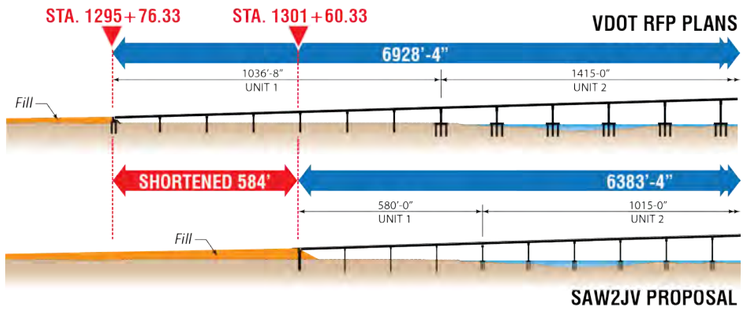
4.3
Design Concept

Table 4.3-1: Design Concept Benefits

Innovation or Concept

Bridge Length Reduction

The SAW2JV is proposing a design where the abutment on the west end of the proposed High Rise Bridge has been shifted 584 ft. to the east, thus eliminating four spans. These spans are replaced with embankment fill retained with MSE walls to control the width of the embankment, thus allowing this significant reduction in bridge length.



The SAW2JV span arrangement reduces the bridge length by 584 ft.

Design Concept Benefits

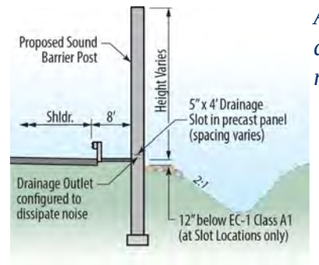
This design concept will reduce the overall Project cost and VDOT's long term maintenance and inspection costs.

ATCs 1 and 3

The SAW2JV received approval from VDOT for two ATCs.

ATC-1 proposed elimination of the MB-7D with rock backfill located adjacent to noise barriers. The concrete barrier would be replaced with MASH compliant Guardrail offset from the noise barrier which will incorporate the use of "drainage slots" to collect roadway stormwater runoff.

ATC-3 proposed an alignment shift in the area of I-64 WB CD lanes approaching the terminus at Battlefield Boulevard.



ATC-1 reduces maintenance issues associated with drop inlets in Phase 1 and risk of pavement settlement in Phase 2.

***ATC-1:** VDOT will have less drop inlets and piping to maintain at the end of Phase 1. It reduces future risk associated with pavement settlement with the removal and backfill of additional drop inlets and piping in Phase 2.*
***ATC-3:** This eliminates impacts to Bulldog Drive, eliminates fee simple acquisition of adjacent properties, and minimizes impacts to overhead Dominion Power lines.*

Reduction of Right-of-Way Acquisitions

During design development, the SAW2JV Team eliminated three (3) BMPs and relocated a water quality swale. These modifications resulted in the elimination of seven (7) fee simple acquisition parcels. Other minor modifications to the design resulted in the elimination of six (6) additional fee simple acquisition parcels, totalling thirteen (13).

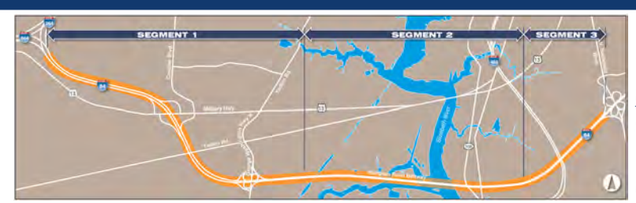
	Fee Simple Acquisitions	
	Acres	No.
VDOT RFP Plans	20.631	21
SAW2JV Proposal	15.997	9
Reduction	4.634	13

*Right-of-Way acquisitions will be reduced by **13 properties**.*

The SAW2JV Team eliminated fee simple acquisitions for thirteen (13) out of twenty-one (21) parcels, saving both time and an estimated $440,000 of VDOT costs associated with these properties.

Project Segmentation

During several discussions with the Corps of Engineers, the Team proposed the concept of segmenting the Project. As this approach was viewed favorably, we are proposing to proceed with requesting permits separately for the "non-High Rise Bridge" segments.



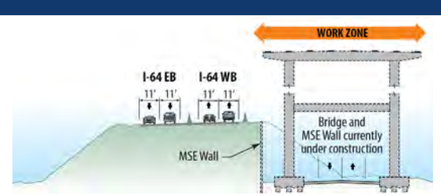
The SAW2JV's plan to segment the Project saves time.

Dividing the Project into 3 segments will allow time for both the right-of-way acquisition and permitting of Segment 2 (water crossing) while construction proceeds on Segments 1 and 3.

Alignment Shift on Eastern Approach

The SAW2JV Team has proposed a temporary alignment shift to minimize construction conflicts between existing I-64 and the new High Rise Bridge. The I-64 mainline alignment will be shifted to the south to eliminate the need for staged construction of the new bridge.

The SAW2JV's plan to shift alignment during construction creates a safer environment.



This shift will result in improvements to the construction staging and phasing. Most importantly, this concept provides a safer environment for both the workers and the traveling public.

4.3.1 Conceptual Roadway Plans

a) Project Limits

Located in the City of Chesapeake, the Project begins 0.6 miles from the Bowers Hill interchange and ends 0.9 miles east of the I-464 interchange. The Project consists of 7.3 miles of 4-lane to 6-lane interstate widening to accommodate a HOT/HOV lane in each direction and includes a new I-64 Westbound (WB) bridge over the Elizabeth River.

The limits of construction including all stormwater management facilities as proposed by the SAW2JV Team are within the limits of existing and proposed right-of-way (ROW) as indicated in the RFP Conceptual Plans, with the exception of permanent and temporary easements. **In several locations within the Project limits, our design approach has reduced ROW impacts.**

VDOT has included a listing of Project design exceptions / waivers in the RFP. No additional roadway design exceptions or waivers are anticipated by our Team.

b) Geometry

The existing I-64 roadway within the Project limits is relatively level with the exception of the three existing bridge overpass locations and the High Rise Bridge (HRB). The alignment consists of several long curves, with reverse curves near the Bowers Hill Interchange and a curve near the Great Bridge Boulevard interchange. As the original construction dates back to the 1960's, several features of the existing road do not meet current design standards. Features such as superelevation rates will be corrected as part of this Project. The improvements to the I-64 corridor will meet the VDOT Road Design Manual (RDM) Standards GS-5 for an Urban Interstate classification with a design speed of 70 mph. The adjacent interchanges ramps, collector roads, and cross streets will be designed using the geometry in Table 4.3-2.

Table 4.3-2: Geometric Standards for interchange ramps, collector roads and cross streets

ROADWAY	MINIMUM STANDARD	DESIGN SPEED
Interchange Ramp	GS-R	35 mph
Collector Distributor	Urban Principal Arterial Freeway GS-5	60 mph
Rt 17 George Washington Hwy Rt 13 Military Hwy	Other Urban Principal Arterial GS-5	Route 17 - 45 mph Route 13 - 55 mph
Great Bridge Blvd Bainbridge Blvd	Urban Minor Arterial GS-6	Great Bridge - 40 mph Bainbridge - 45 mph
Shell Rd	Urban Major Collector GS-7	35 mph
Libertyville Rd Bulldog Dr Rotunda Ave Yadkin Rd	Urban Local GS-8	Libertyville Rd - 30 mph Bulldog Dr - 25 mph Rotunda Ave - 35 mph Yadkin Rd - 35 mph

c) Number and Widths of Lanes, Shoulders, and Sidewalks

The number and width of lanes, shoulders, and sidewalks are all consistent with VDOT's RFP Plans.

d) Horizontal Alignments

The proposed design maintains the existing alignment of I-64, with sixteen curves in the eastbound (EB) direction and fifteen curves in the westbound (WB) direction. The curves on I-64 from the Military Highway overpass to the Route 17 overpass are relatively sharp requiring superelevation correction ranging from 5.1% to 5.8%. The remaining curves are long, sweeping curves that will generally use a normal crown. All superelevation determination and design is in accordance with the RFP and TC-5.11R for 70 mph. Great Bridge Boulevard will be realigned to accommodate the proposed I-64 overpass. This realignment introduces two curves along Great Bridge Boulevard that will require superelevation ranging from 2.6% to 4.0%, to meet the 40 mph design speed.

Both Libertyville Road and Bulldog Drive require realignment due to the widening of I-64. Libertyville Road will be realigned to be placed

between the piers of the proposed HRB to avoid ROW and environmental impacts. Horizontal curve data and associated design speeds are presented on the Volume II Concept Plans.

e) Profile Grade

The I-64 EB profile is a spline grade matching the existing profile grade for the entire corridor. Likewise, the I-64 WB profiles is a spline grade that matches a majority of the existing profile grade until roughly 2500' before the proposed bridge. The proposed bridge has an approach grade of 3.00% and a departure grade of 2.92%.

f) Typical Sections

Along the I-64 corridor there are two typical sections, that both include widening of the existing corridor by adding a 4' buffer, and 12' HOT lane with a 12' paved shoulder. In locations where the proposed median is less than 40' wide, a barrier separated median is provided with a 12' paved inside shoulder. In locations where the median is greater than 40', a 12' paved shoulder with a grass median is proposed. The result of the widening will provide one HOT lane and two General Purpose (GP) lanes in each direction, along with hard shoulder running from US 17 to Great Bridge Boulevard. The roadway cross slope for the widening will follow the TC-5.11R standard with the shoulders following the GS-5 standards. The cross slope of the existing travel lanes will be maintained with the exception of areas that require superelevation correction.

The majority of the retaining structures for the Project are located along the approaches of the proposed I-64 WB HRB. Mechanically Stabilized Earth (MSE) walls will be used to retain the proposed slopes on the inside and outside shoulders on both the east and west ends of the bridge. Another MSE wall is proposed for Great Bridge Blvd., to avoid the placement of fill material over the HRSD 30" sanitary sewer force main.

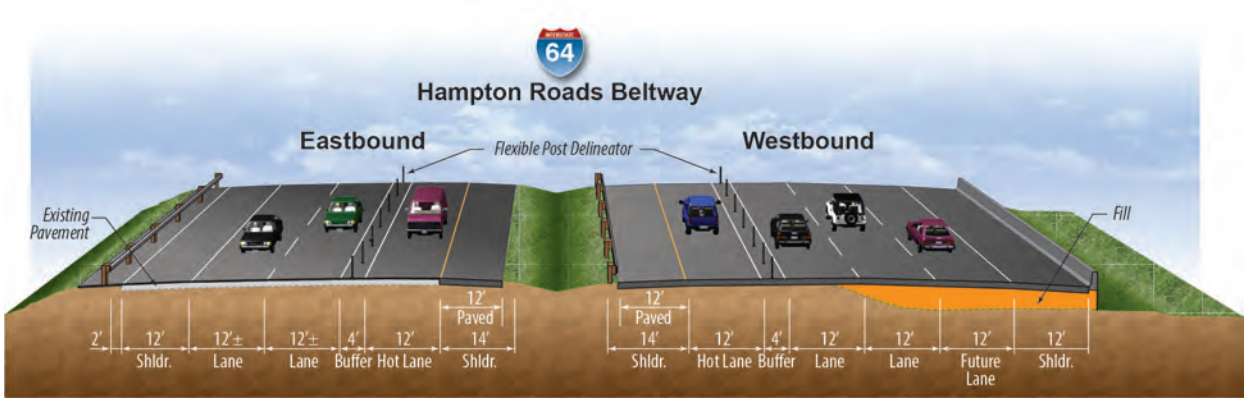
g) Conceptual Hydraulic and Stormwater Management Design

Drainage improvements for the Project consist of new culverts, culvert extensions and connections, median and curb/barrier inlets, storm sewer systems, underdrains, bridge deck drainage system, and open channels for conveyance. Stormwater management improvements consist of channels, swales and ponds for both water quality and quantity reductions. The hydraulic and stormwater management design will be in accordance with section 2.7 of the Technical Requirements and all applicable hydraulic standards and reference documents included in section 2.1 of the Technical Requirements.

Major drainage improvements consist of constructing culvert connections across the median, adding culvert extensions, and placing new cross culverts. The pipe inspection reports provided by VDOT were used as the basis for determining which existing culvert pipes will be cleaned and repaired or abandoned and replaced. Locations for new cross culverts were placed strategically to avoid acquiring ROW, while minimizing stream and wetland impacts. Any new pipe culverts will be constructed by "jack-and-bore" beneath existing travel lanes.

The conceptual hydraulic and stormwater management design presented in Volume II Concept Plans was developed sufficiently to

Figure 4.3-1: Roadway typical section



confirm that the water quantity and quality requirements will be achieved. Finally, implementation of ATC-1 allows the SAW2JV design to easily meet the spread requirements of the hard shoulder running lane.

Our Team's design eliminated three BMP's and relocated a water quality swale in a concerted effort to reduce ROW impacts and to realize both schedule and cost benefits.

During final design, a detailed hydrologic and hydraulic analysis will be performed on all drainage improvements. All culvert crossings will be analyzed to verify that the post-construction headwater elevations meet the allowable levels as established in the VDOT Drainage Manual, and to verify that there will be no impacts to upstream structures and properties during the 100-year event. **Based on preliminary analysis, significant impacts on upstream water surface elevations are not anticipated.** Proposed and existing stormwater runoff in the vicinity of the Gilmerton Canal will not be discharged to the north side of I-64, to mitigate existing flood problems experienced in the adjacent neighborhood.

A Stormwater Pollution Prevention Plan for the entire Project will be submitted to VDOT for approval prior to construction, to obtain a General Virginia Pollutant Discharge Elimination System permit for discharges of stormwater from construction activities. Stormwater management analysis for both water quality and quantity will be performed using Technical Criteria IIB of the Virginia Stormwater Management Program regulations. The Project extends over the following three 6th order Hydrologic Unit Code (HUC) basins:

- JL51: Southern Branch Elizabeth River – New Mill Creek
- JL53: Southern Branch Elizabeth River – Deep Creek
- JL54: Eastern Branch Elizabeth River

A detailed analysis will be performed using VDEQ runoff reduction spreadsheets as the basis for determining phosphorous removal reductions within the drainage area of each outfall. Based on the preliminary analysis developed to date, the entire Project will require a phosphorus load reduction of approximately 139 pounds per year. A subtotal of pollutant load reduction was also estimated for each HUC Basin. When all stormwater management facilities are constructed, at least 75% pollutant load reduction is achieved for all HUC basins, with approximately 76% load reduction achieved for the entire Project, meeting the Technical Requirements. The remaining 24% to achieve water quality standards will be purchased for the Lower James River watershed.

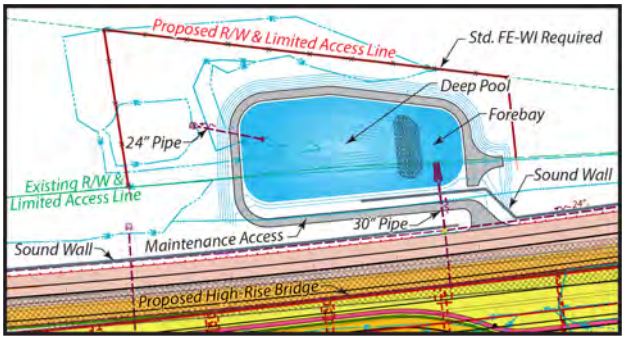


Figure 4.3-2: Stormwater pond

By using median stormwater management facility locations from the RFP and outside shoulder linear facilities, we will reduce ROW acquisition for the Project. Three offsite BMP's involving four of the offsite ROW acquisition locations shown in the RFP Plans will be eliminated from the Project. Facilities for water quality will include the following:

- Grass Channels
- Extended Detention Ponds
- Wet Swales
- Level 1 & 2 Wet Ponds

Pre-treatment cells or forebays will be used for the majority of the stormwater facilities. For linear stormwater facilities, a 5-foot wide grass strip for sheet flow will be used as pretreatment.

Within the Project limits, there are approximately 25 stormwater outfalls. Field investigations will be performed to evaluate conditions such as erosion, channel degradation, sediment build-up or undermining, and will identify any necessary remedial measures to stabilize the outfalls. Water

quantity flow reduction will be analyzed at each outfall using the Energy Balance Equation. No channel protection analysis is required for receiving streams with drainage areas less than 100 times the drainage area at the outfall. We anticipate outfalls into the Elizabeth River will meet this criteria. At other outfall locations, the energy balance equation will be used to determine flow reduction requirements. Hydrologic routing analysis will be performed to size the basins and to verify the condition of the energy balance equation is met for the 1-year storm event.

By consolidating stormwater management facilities, minimizing land disturbance, modifying a water quality swale to a stormwater collection ditch, and avoiding impacts to the existing box culvert at the western terminus of the Project, the SAW2JV design reduces fee simple ROW impacts from 21 parcels (VDOT RFP Plans) to 8 parcels, resulting reduction in required ROW of 4.845-acres. This reduction will save VDOT approximately $440,000 in fee simple ROW costs.

h) Proposed Right-of-Way limits

The SAW2JV design approach significantly reduces ROW impacts (see Table 4.3-3). These reductions are also highlighted in the Volume II Concept Plans.

VDOT approval of ATC-3 involved reducing the roadway footprint of I-64 adjacent to Bulldog Drive, which allowed the SAW2JV team to eliminate the fee simple ROW takes originally anticipated in this area, providing both a schedule and cost savings to the Project.

Table 4.3-3: ROW acquisition reductions

PARCEL	FEE TAKING REDUCTION (ACRES)	REASON
1	1.163	Eliminated Potential BMP
2	0.414	Eliminated Potential BMP
5	0.159	Eliminated Proposed Water Quality Swale
6	0.077	Eliminated Proposed Water Quality Swale
7	0.045	Eliminated Proposed Water Quality Swale
17	0.212	Approved ATC-3 – Alignment Shift
18	0.123	Approved ATC-3 – Alignment Shift
23	0.86	Eliminated Potential BMP
24	0.897	Eliminated Potential BMP
25	0.211	Converted to permanent easment
28	0.551	No impacts
29	0.073	No impacts
30	0.06	No impacts
TOTAL	**4.845**	

i) Proposed utility impacts

During preliminary design development, the SAW2JV Team had several formal meetings and other communications with the utilities listed in Table 4.3-4.

Table 4.3-4: Utility owners

Century Link	City of Chesapeake
Dominion Power Transmission	Dominion Energy Distributions
Colonial Pipeline Company	Level 3 Communications
Columbia Gas of VA	Lightower Fiber Networks
Columbia Pipeline Group	Verizon
Cox Communications	Verizon South
Hampton Roads Sanitation District	Virginia Natural Gas

The design was developed and modified to eliminate as many conflicts as possible. As presented in Table 4.3-5, the SAW2JV Team was able to eliminate 73 of the identified potential conflicts (excluding VDOT facilities) with an additional 19 conflicts mitigated. Thus, the modified design presented on the Volume II Concept Plans **significantly reduced the originally anticipated utility relocation effort to consist of 24 relocations, affecting only six owners.** A detailed presentation of the remaining conflicts is included in Volume II Concept Plans.

Table 4.3-5: Summary of utility conflicts

PLANS	OWNERS	CONFLICT SUMMARY		
VDOT RFP	14	107 Potential Utility Conflicts		
SAW2JV Volume II Concept	6 Affected	17 Reloc.	36 Conflicts Mitigated	54 Conflicts Eliminated

j) Minimum Pavement Sections

As required per RFP Part 2, Section 2.6.2, the SAW2JV Team used the minimum pavement sections and locations for Proposal preparation purposes only. A summary of the pavement design life for various Project roadways is included in Table 4.3-6.

Table 4.3-6: Pavement design life

ROADWAY	PAVEMENT DESIGN LIFE
Existing GP lanes	13 years
Proposed HOT/HOV lanes and left shoulder	30 years (west of HRB), 13 years (east of HRB)
I-64 Ramps at Great Bridge Blvd and Battlefield Blvd	30 years
High Rise Bridge Approaches	30 years (WB)
Arterial and Local Roadways	20 years
Outside right shoulder	3 years for strengthening to support traffic during construction
Outside right shoulder (with Hard Shoulder Running)	13 years (30% of AWDT)

We conducted a formal review of the VDOT pavement designs included. The only unusual element of the pavement design requirements is the inclusion of the full percentage of I-64 truck traffic in the design traffic volumes for the HOV/HOT lane pavement. **As truck traffic should be precluded from using the HOV/HOT lanes, VDOT should consider reducing the truck percentage for this pavement design, to realize Project cost savings.** This opportunity will be addressed during Scope Validation and may include consideration as a Value Engineering Construction Proposal during final design development.

Our Team's preliminary analysis of the pavement designs provided in the RFP indicated that the minimum pavement sections established were generally adequate. From our analysis, all of the proposed pavement sections on I-64 mainline meet or exceed the pavement sections designed in accordance with VDOT and AASHTO, with two possible exceptions as presented in Table 4.3-7.

Table 4.3-7: Pavement areas of concern

ROADWAY	RESOLUTION
I-64 EB Sta. 1838+65 to Sta. 1925+58	Increase AC layer from 3-inches to 4-inches of BM 25.0D
I-64 WB Sta. 1384+75 to Sta. 1442+00	Increase AC layer from 3-inches to 4-inches of BM 25.0D

Final design of the asphalt pavement sections will be based on the design criteria provided in the RFP and the varying design lives identified for each roadway summarized in the Table 4.3-6. The "Pavement Areas of Concern" noted in Table 4.3-7 will be formally addressed during Scope Validation.

k) Location of milling and overlaying and/or building up of existing pavement

The locations of milling, overlaying, and buildup of existing pavement are provided in our Volume II Conceptual Plans. These were developed based on Table 2.6-2 of the RFP. Generally, the existing lanes will be milled and overlaid with buildup required in the location of superelevation correction.

l) Noise walls

The RFP provides a Noise Technical Memorandum dated October 2014. The Project requires a draft and final Noise Abatement Design Report (NADR). The findings of the NADR will determine the final locations and heights of the walls. Based on the RFP Part 2, Section 2.4.8 and the Noise Memorandum, the Project includes 48,075-LF of noise wall ranging in height from 15-30' tall.

A majority of these noise walls will be ground mounted, however there is one location on the east approach to the High Rise Bridge that will have 891-LF of structure mounted noise wall. SAW2JV is proposing a combination noise wall / retaining wall in specific locations to minimize impacts to adjacent jurisdictional ditches / streams. SAW2JV pricing for Noise Abatement is based on the quantities of wall as indicated in RFP Table 2.4.8-1.

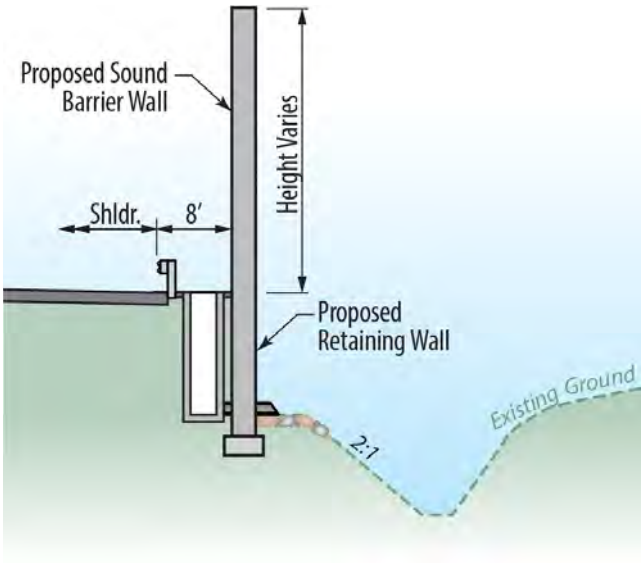


Figure 4.3-3: Combination retaining wall and noise wall.

m) Traffic structures

Traffic structures consist of structures for guide signage, Toll/HOT lane signage, Lane Control Signage (LCS) and Dynamic Messages Signs (DMS). The conceptual Signage/DMS plan provided with the RFP Plans was used as a basis for developing an integrated Project wide concept design, presented on the Volume II Conceptual Plans. The concept layout utilized VDOT sign spacing standards and sign messaging/placement from the current versions of the MUTCD and the Virginia Supplement to the MUTCD. The design team utilized these guides to refine the Volume II Conceptual Plans from the RFP Plans. **The Team utilized existing signs and structures where practical, to provide cohesive messaging to drivers, both within the HOT lanes and the GP lanes, while reducing the overall number of signs proposed.** This reduces the potential for sign pollution and improves the driver message perception.

In addition to improved messaging, we have designed signs and DMS to the latest VDOT standards (including the font), so that they share structures to the extent practical. Consolidating locations further reduces the number of structures. Since structures themselves are objects along the roadway that are typically located within the clear zone, fewer structures result in less guardrail. Fewer structures is inherently safer.

As well as being safer, our concise design means there are fewer assets to inspect and maintain in the future. Having fewer structures provides flexibility, not only with the structures included in the design, but flexibility to add intermediate structures and still maintain the appropriate sign spacing if additional signage is needed for future improvements. This is particularly important, when considering that Phase 2 of the overall HRB Project will add another HOT lane in each direction. Our design reduces potential sign location conflicts in the next phase.

In addition to fewer structures, care was taken to minimize the signs and structures on the new bridge. Only the specific signs required to be on bridge due to the message they deliver are included. All other signs were located on the approaches, which make those traffic structures much easier to inspect and maintain.

n) ITS/Tolling Infrastructure features (CCTV, VDS, DMS)

The ITS/Tolling Infrastructure features a design developed to provide superior functionality and flexibility. This infrastructure consists of CCTV, Microwave Vehicle Detection System (MVDS), LCS for hard shoulder running, DMS, Toll Collection equipment, and draw bridge system devices.

CCTV is designed to provide visibility of the entire roadway as required in the RFP. In locating CCTV equipment, bridges, roadway curves, and vegetation were all considered. Our design also features additional cameras on the west end of the Project, where the median is wide enough to grow vegetation that could lead to future blind spots. As such, our design does not rely on vegetation maintenance to remain effective. If the medians remain clear, these cameras provide redundancy to ensure VDOT has a robust system.

Our Team understands that GP lanes and HOT lanes have different detection needs. Microwave Vehicle Detection System (MVDS) are separated into general purpose and toll devices. GP lane devices are placed to directly count and measure traffic on the mainline and each ramp. Uniform

spacing of these devices is not critical; placing them to count ramp traffic eliminates the need to post process data to determine ramp volumes, as many systems require. Spacing of MVDS for HOT lanes is critical and was designed to not only count traffic, but also to measure traffic speed and headway along the HOT lanes, which is critical to managing these facilities.

Some DMS are specific to toll pricing and are included as required in the RFP. Informational DMS's are separated into GP lanes and HOT lanes. This provides VDOT with the flexibility to have different messages for different groups of traffic as needed.

As with sign structures, devices are co-located to the extent practical. Where devices are co-located, a single cabinet will be used. Communications to each cabinet will depend on the device. Devices serving general purpose lanes will use a new distributive 96 strand Fiber backbone as required in the RFP. This new fiber cable will be located on the south side of I-64 (from the 464 Hub to Bowers Hill Hub) and on the new HRB with branch fiber drops to serve individual cabinets.

At Project completion, the toll collection devices will use dark fibers in the existing 96 strand fiber backbone with a new fiber backbone on the new bridge, as required in the RFP. At Project completion, ITS devices will utilize a new separate distributive fiber backbone also running across the new bridge. **By keeping these systems separate, our design is robust and flexible to accommodate a separate Systems Integrator during Project development.** It also provides room for expansion for future devices or data.

o) Lighting

Lighting is an important safety feature of the Project. All new lighting will include LED fixtures as required by the RFP. Our lighting analysis determined the spacing required for new lighting to ensure that current industry standard lighting levels (IES RP-08-14) will be met. New lighting on the median barrier is included between the HRB and Battlefield Boulevard, where no lighting currently exists. Median barrier lighting is also included where the HOT lanes begin in both directions. **Mounting the lighting on the median barrier minimizes the number of poles, conduit, and junction boxes required for the Project, which also minimizes the number of lights that must be maintained.**

Coupled with the long life of LED fixtures, the lighting should be nearly maintenance free for years to come. In addition, the new HRB features LED lighting in the barrier wall on both sides of the bridge, providing the appropriate lighting levels for the entire bridge deck. This will ensure that all future traffic configurations are accommodated, including the future phase of this Project. LED lighting will also be installed where existing lighting must be removed as a result of construction as required by the RFP.

Our lighting analysis concluded that existing lighting meets current standards; therefore, existing lighting will be preserved to the extent practical. Preserving existing lighting reduces the potential for outages and temporary lighting.

p) Guardrail/Barrier

The SAW2JV Team is responsible for furnishing and installing new guardrail where necessary in accordance with Guardrail Warrants presented in Appendix J of the VDOT Road Design Manual.

RFP Addendum 4 included a requirement for using MASH-compliant guardrail, to comply with recent modifications to the VDOT Road Design Manual and the VDOT Road and Bridge Standards. This requires additional width between the back of shoulder and the slope break point, as indicated in RFP Addendum No. 7, Typical Section revisions.

q) Location of Tide Gate

The proposed tide gate is located at the south end of the existing box culvert, adjacent to the Gilmerton Canal as illustrated in Figure 4.3-4.

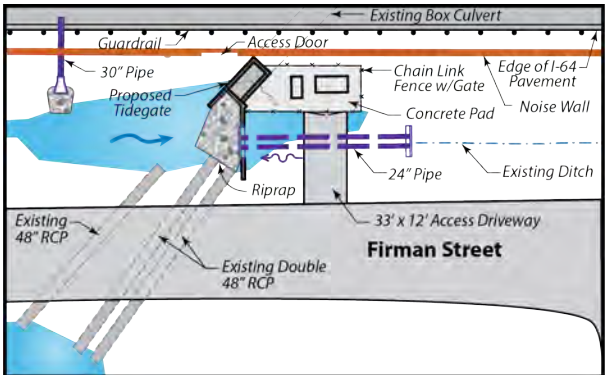


Figure 4.3-4: Tide gate location

4.3.2 Conceptual Bridge Plans - B662, I-64 (WB) over Southern Branch of the Elizabeth River, NPBL RR, and Route 166 (Proposed New High Rise Bridge)

a) Plan View, Elevation, and Transverse Section

The bridge consists of 41 spans using PCBT beams with span lengths varying between 130' and 156'. The span layout for the channel unit is 170'-230'-170' using steel plate girders (See Figure 4.3-5). The typical beam spacing is 11'-3".

b) Number and Widths of Lanes and Shoulders

At the completion of this Project, the bridge will consist of a 15' shoulder, a 12' Managed Lane, a 4' buffer between the Managed Lane and the GP lane, 2-12' GP lanes, a 12' shoulder running lane, and a 15' shoulder (Figure 4.3-6, Page 15).

c) Horizontal and Vertical Clearance (Including Navigable Channel)

The horizontal and vertical clearances at the roadway and railroad crossings are in accordance with VDOT requirements. Piers adjacent to railroad tracks have been located to provide greater than 25' of horizontal clearance between the face of the column and the centerline of the nearest track in order to eliminate the need for crash walls. Where the bridge piers span Libertyville Road, a pier protection system using VDOT BPPS Standards is being provided to compensate for the horizontal clearance being less than 30'. The bridge and fender layout for the navigation channel provide 100' of vertical clearance with a 125' horizontal channel opening as illustrated in Figure 4.3-5.

d) Abutment Configurations

The abutments consist of Virginia Abutments supported on precast concrete piles, per VDOT requirements.

e) Pier Configurations (Approaches and Main Bridge)

The pier configurations consist of 3 pile bents at the beginning and 2 pile bents at the end of the bridge, with 2-column piers for the 38 remaining piers.

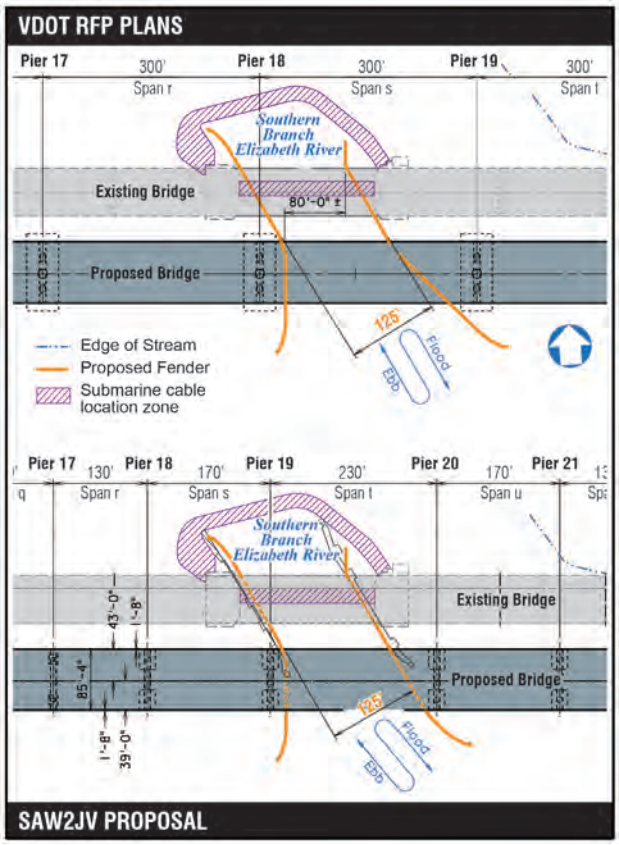


Figure 4.3-5: Federal Channel span arrangement

f) Fender System

The fender system layout is consistent with the existing channel opening and will use composite piles, spliced as required, and wales that meet the Project technical requirements.

g) Retaining Walls

MSE retaining walls parallel to the roadway are

being used to support the roadway embankment leading up to the bridge.

h) Roadway Lighting

Lighting will be consistent with the lighting elements being used on the roadway with the poles being supported on bridge deck blisters.

i) Marine Navigation Lighting

The marine navigation lighting will provide channel marking in accordance with current United States Coast Guard (USCG) and VDOT requirements.

New High Rise Bridge - Ease of Maintenance

The SAW2JV Team's design has incorporated many features that will benefit VDOT on long-term maintenance of the new HRB. We will use the Virginia Abutment supported by driven precast prestressed concrete piles. **This abutment type will protect the ends of the beams from water intrusion by means of separating the backwall from the end diaphragm. This gap provides for the conveyance of stormwater runoff from the expansion joint between the backwall and diaphragm, which keeps stormwater runoff away from the beam ends.** The wingwalls consist of concrete panel MSE walls. This type of wall has a proven track record of low maintenance and high durability.

The SAW2JV Team proposes simple two-column piers with a cap, with taller piers including a mid-height strut. The first few piers at each end of the bridge will consist of pile bents. One pier utilizes an inverted tee cap to span relocated Libertyville Road, to maintain the required vertical clearance. All of the piers are founded on driven precast prestressed concrete piles.

In order to accommodate thermal movements as well as live load braking forces, the SAW2JV team considered the fixity of each pier. As the taller piers naturally allow more movement, it is practical to use fixed bearings with a closure diaphragm. The bearings in these locations will perform well as they only need to accommodate beam deflection, not thermal movement. The span lengths proposed by SAW2JV will accommodate the use of reinforced elastomeric bearings with and without PTFE sliding plates. These bearings perform well with little maintenance. As the SAW2JV has avoided the use of high-load-multi-rotational bearings, VDOT will realize long-term benefits from both durability and accessibility perspectives.

The SAW2JV proposed superstructure utilizes VDOT Standard Prestressed Concrete Bulb-T beams, with the exception of the three span unit crossing the navigation channel. Prestressed concrete beams have a proven track record with minimal maintenance. The beams being utilized are not the largest sections available for use. Some of the inherent risks associated with fabrication and erection of large precast beams have been mitigated. The selected beams have less potential for defects during fabrication, making them more durable. Inspection of the beams is straightforward due to the minimal connection details, which reduces the need for access during routine inspection cycles.

The unit over the channel consists of three-span continuous steel plate girders utilizing weathering steel. **Weathering steel reduces required maintenance when compared to traditional painted steel bridges, without sacrificing performance or durability. Painting of the ends of the girders at the expansion joints will further enhance long-term performance.** The span lengths have been set with flanking spans that balance the channel span. The channel span has been reduced by a minor adjustment in the fender alignment on the east side (Figure 4.3-5, Page 12). The resulting plate girder design is simple and uses standard details throughout, which will produce a durable and long-lasting structure.

The concrete deck being utilized is one-half-inch thicker than the minimum required by VDOT standards. This will provide a more durable deck that will last for many years. The use of stainless steel reinforcing and low shrinkage concrete will further enhance the durability. Unit lengths have been established to minimize the number of expansion joints. SAW2JV is proposing tooth joints, which traditionally perform well and are highly durable. Rather than

utilizing light pole standards that are integral with the concrete parapet, deck blisters are being utilized. This simplifies the parapet construction by reducing the number of joints, resulting in a more durable product.

4.3.3 Existing Bridge Modification Conceptual Plan - B670, I-64 (EB) over Southern Branch Elizabeth River, NPBL RR, and Route 166

Modifications to the existing HRB consist of installing new warning, safety and traffic management systems, along with removal of the existing median barrier.

a) Warning and Barrier Gates

With implementation of a new WB bridge, the existing HRB will no longer need gates to stop I-64 WB traffic during a bridge opening. The existing bridge will need gates to stop I-64 EB traffic in the GP lanes, the hard shoulder running lane, and the HOT lane. Thus, the SAW2JV design has included new gates to I-64 EB (the existing bridge) for stopping all EB lanes during a bridge opening. Two new sets of gates will be installed east of the bascule span, in close proximity to the existing gates.

b) Drawbridge Message Signs

Drawbridge dynamic message signs (DBDMS) supplement the location of the gates and inform drivers of a bridge opening. New message signs will be installed on the bridge to cover all lanes. Separating the signs for each lane provides a clear alert to drivers in all of the lanes of the need to stop. The DBDMS at the barrier gates will be mounted on an existing bridge pier while the advanced set will be mounted prior to the bridge.

c) Traffic Signals

Traffic signals mounted to each DMS are per the RFP. The SAW2JV design has a separate signal head for each lane (two for GP, one for the HOT lane and one for the hard shoulder running lane) and on both sets of DMS. **This improves visibility for drivers and improves safety.**

d) CCTV Cameras

The CCTV cameras have been designed with two cameras viewing the bridge as per the RFP requirements. The SAW2JV design has placed two cameras on the north side of the new bridge such that the entire existing bridge deck can be viewed (even while the draw is open) with no occlusions. Both cameras are mounted on pier caps to minimize vibration. In addition, these cameras are part of the overall CCTV view concept and are designed to provide a comprehensive view of the entire area.

e) Static Signs

In addition to the electronic devices, the SAW2JV design includes the appropriate static warning signs as per the RFP requirements. These static signs supplement the other draw bridge indications to help improve safety during an opening.

f) Shoulder Running Lane

To accommodate the shoulder running lane on the bridge, the existing median barrier will be removed on both the concrete deck and the steel deck of the bascule span. The concrete deck under the existing concrete barrier will be removed and replaced with a 1.5-inch latex modified concrete overlay.

Similarly, new steel grid deck for the bascule span will be designed and detailed by SAW2JV during final design.

4.3.4 Conceptual Bridge Replacement Plans - B663, Route 190 (Great Bridge Blvd) over I-64

a) Plan View, Elevation View and Transverse Section

This two span (151’ and 151’) structure uses PCBT beams (9’-8 ½” spacing) made continuous for live load. Elimination of the expansion joints produces a low maintenance bridge.

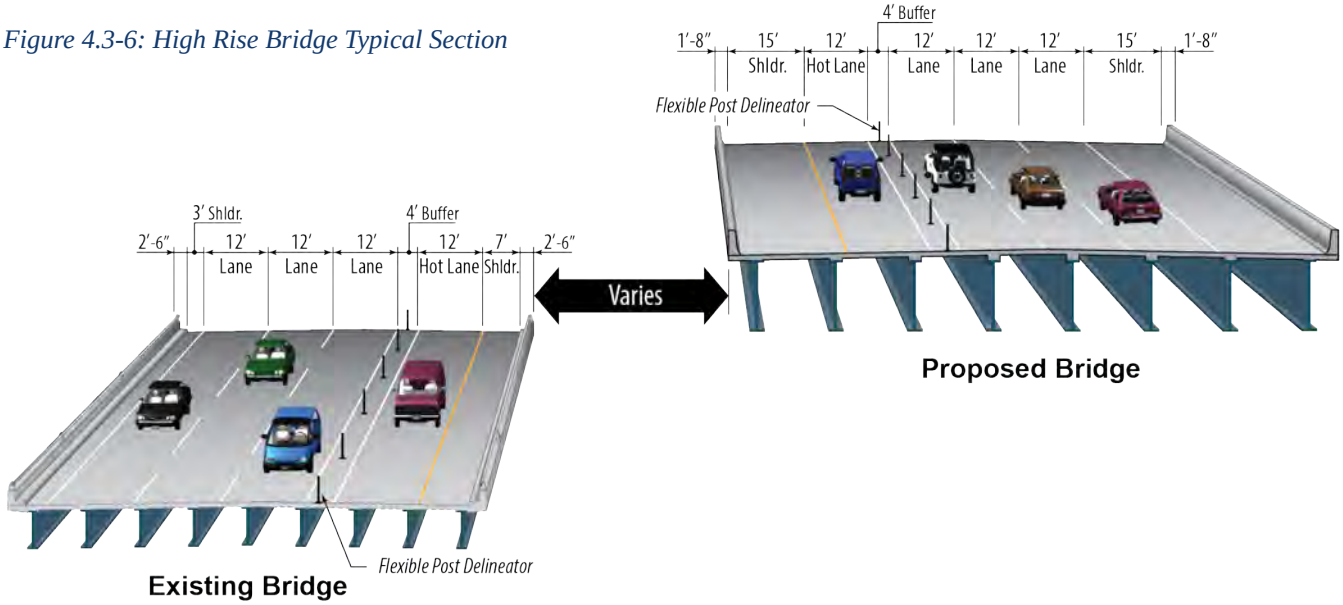
b) Number and Widths of Lanes, Shoulders, and Sidewalks

The structure width of 44’-6” accommodates two 12’ travel lanes, two 6’ bicycle lanes, and a 6’ sidewalk.

c) Horizontal and Vertical Clearances

The required minimum vertical clearance (16’-6”) is maintained below the structure in all locations.

Figure 4.3-6: High Rise Bridge Typical Section



Horizontal clearances meet all VDOT standards.

d) Abutment Configurations

The proposed abutments are fully integral and are founded on H-piles to accommodate thermal movements. The abutments are located behind MSE walls.

e) Pier Configuration

A standard multi-column pier founded on precast, prestressed concrete piles will be constructed in the median of I-64. The superstructure is supported on elastomeric bearing pads.

f) Lighting

No lighting is proposed for this bridge structure.

g) Retaining Walls

Two stage MSE walls are proposed for the approaches to address settlement issues.

4.3.5 Conceptual Bridge Plans – Bridge Widenings

Widening 1 - I-64 EB (B-664) & I-64 WB (B-665) over Routes 13 & 460 (Federal ID 21862, 21864)

a) Plan View, Elevation View and Transverse Section

The superstructure consists of simple span, steel plate girders and rolled beams (56' - 50' - 50' - 56'). Deck slabs use current standard thickness and rebar details with new expansion joints for the entire bridge. The abutments are being extended to match the existing abutment while adding new wingwalls. Driven precast prestressed concrete piles are being used for the abutment foundations. The approach slabs are being extended to be full width. Pier extensions are separate from the existing piers and will meet current standards, while being similar to the existing piers. Drilled shaft foundations are being used for the piers to minimize potential impacts to existing utilities.

b) Number and Width of Lanes

The structure width for each bridge accommodates 10' to 12' shoulders, two 12' GP lanes, a 5' buffer and a 12' HOT lane.

c) Horizontal and Vertical Clearance

A pier protection system using VDOT BPPS Standards is being provided for the existing and proposed piers. Existing vertical clearances will be maintained.

Widening 2 - I-64 EB (B666) & I-64 WB (B667) over Yadkin Road & Norfolk Southern Railroad (Federal ID 21858, 28160)

a) Plan View, Elevation View and Transverse Section

The superstructure consists of simple span, AASHTO precast beams (62'1"- 62'-70'-70'1"). Deck slabs use current standard thickness and rebar details with new expansion joints for the entire bridge. The abutments are being extended

to match the existing abutment while adding new wingwalls. Driven pipe piles will be used at the Abutment A foundation. Precast prestressed concrete piles will be used for the foundation at Abutment B. The approach slabs will be extended to be full width. Pier extensions are separate from the existing piers and will meet current standards, while being similar to the existing piers. Driven precast prestressed piles will be used for the pier foundations.

b) Number and Width of Lanes

The structure width for each bridge accommodates 3' to 12' shoulders, two 12' GP lanes, a 4' buffer and a 12' HOT lane.

c) Horizontal and Vertical Clearance

A pier protection system using VDOT BPPS Standards will be provided for the existing and proposed piers. Similarly, concrete crash walls will be provided in accordance with AREMA requirements (less than 25' of clearance) for the existing and proposed piers adjacent to the Norfolk Southern tracks. Existing vertical clearance will be maintained.

Widening 3 - I-64 EB (B668) & I-64 WB (B669) over Route 648 (Shell Road) (Federal ID 21858, 28160)

a) Plan View, Elevation View and Transverse Section

The superstructure consists of simple span PCBT beams (39' - 43'6" - 39') to maintain current vertical clearances. Deck slabs use current standard thickness and rebar details with new expansion joints for the entire bridge. The abutments will be extended to match the existing abutment while adding new wingwalls. The approach slab will extend to full width. Pier extensions are separate from the existing piers and will meet current standards while being similar to the existing piers. Driven precast prestressed piles will be used for all foundations. To accommodate the shoulder lane and match the crown point of the adjacent roadway sections, the crown point on the existing bridge will be shifted by milling 1.25-inches of existing concrete deck. We will use latex modified concrete to replace the milled area as well as for the additional overlay to shift the crown point.

b) Number and Width of Lanes

The structure width for each bridge accommodates a 3' inside shoulder, a 12' shoulder running lane, 2-12' GP lanes, a 4' buffer, a 12' HOT lane, and a 9' outside shoulder.

c) Horizontal and Vertical Clearance

A pier protection system using VDOT BPPS Standards is being provided for the existing and proposed piers. Existing vertical clearance will be maintained.

4.3.6 Conceptual Plans – Tide Gate at Gilmerton Canal

a) Plan/Schematic of Tide Gate

A noncorrosive tide gate will be mounted on a new end wall structure at the downstream (southern) end of the Gilmerton Canal box culvert (Figure 4.3-4, page 12) as an added measure to mitigate tidal flooding of the adjacent neighborhood. The gate will close automatically when tides exceed an elevation of +1.5 feet and open when upstream water levels in the canal rise above the downstream canal water surface level. The gate will be electrically powered with a means of manually opening and closing in case of an emergency. A backup power supply will be provided to operate the gate for a minimum of 96 hours.

b) Connection to Existing Box Culvert

A portion of the existing culvert will be demolished and reconstructed to be square to the flowlines to minimize gate size. The new portion of the culvert will also be designed to withstand the floodgate weight and water pressure without transferring load to the existing culvert.

c) Tide Gate Access

Access to the tide gate is a priority during emergency situations and extreme weather events. The tide gate and fuel and generator platform will have two ingress points. A paved vehicle access drive will be provided from Firman Street to allow service truck access for maintenance. An access door will be installed in the Noise Barrier 7 to provide for personnel access from I-64.

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4.4

Project Approach

Table 4.4-1: Project Approach Benefits

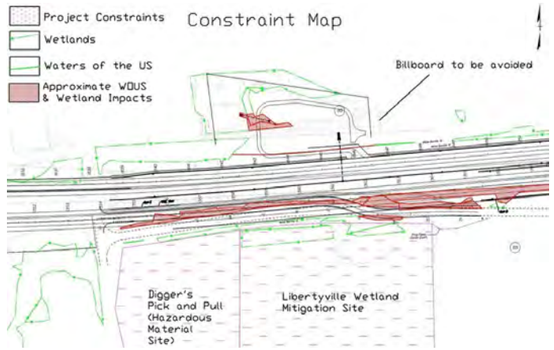
Project Approach Innovations

Project Benefits

Environmental Management

The Team will use a comprehensive Environmental Management Program (EMP). The EMP incorporates the specific requirements of the NEPA commitments, all project permits and conditions, and environmental constraint requirements in a convenient and usable form. Constraints maps are an integral part of the Plan.

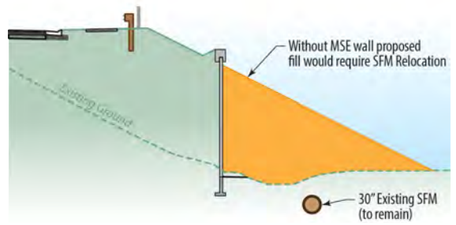
The Team's comprehensive Environmental Management Plan will identify constraints.



Creating constraints maps and making them available to construction personnel allows inspectors and construction managers to ensure the project is protecting sensitive environmental resources.

Minimizing Utility Conflicts

The SAW2JV Team recognizes the need to minimize utility conflicts. An example of the Team's avoidance approach is at the Great Bridge Boulevard bridge relocation where we are proposing to extend the MSE walls at the bridge abutments to run parallel to Great Bridge Boulevard, to avoid the placement of embankment material over the existing HRSD 30" sanitary sewer force main.



MSE walls avoid impacts to existing 30" sanitary sewer force main.

These MSE wall extensions eliminate the need to relocate the existing sanitary sewer force main, while providing the necessary easement area for maintenance.

Design Quality Management

Design Quality Management will be led by the Design Manager, with oversight from the RCE and DBPM, to confirm that the RFC (Released for Construction) Plans are prepared in accordance with VDOT's QA/QC Guide for Design-Build Projects. In addition, we have assigned a WSP principal as the Design Quality Assurance Manager (DQAM), responsible for oversight of quality assurance activities. Specifically, he will confirm that the design team is following the formal QA/QC processes documented in the Project Quality Management Plan.

The Team's commitment to quality management procedures are present throughout the design development to ensure that the highest quality standards are included in all design documents. Our process and procedures are designed to minimize VDOT's efforts and maximize your confidence in the quality of the design.

Construction QA/QC Approach

SAW2JV will implement the SAW2 Integrated Quality Management System (SAWQMS) for the share point data base to fully integrate our proven quality processes. SAWQMS will store all of the quality documents and utilize automated alerts to track deficiencies. The inspectors and materials technicians will utilize tablets to input daily diary information, photos, inspection reports, and testing results that is searchable through the project data base access.

Provides a transparent QA/QC process utilizing processes and database that will be easy for VDOT to audit. Creates staffing efficiency by giving QA/QC staff easily accessible project documents using a computer based application such as "PlanGrid" and provides real time alerts of quality deficiencies and resolution. SAWQMS provides VDOT confidence that SAW2JV will deliver a quality facility with minimal VDOT intervention needed.

4.4.1 Environmental Management

From design through construction, SAW2JV will use a comprehensive integrated Environmental Management (EM) approach that identifies, tracks, and assures implementation of the Project commitments including:

- NEPA document commitments
- Wetland, oyster bed, cultural resource, protected and endangered species and hazardous materials location constraints
- 4(f) properties
- Navigational channel/Virginia Maritime Association/USCG requirements
- RFP, special provision and contract requirements
- Regulatory compliance including inspections and permit conditions.

This is a proven approach to deliver a compliant Project that exceeds the expectation and requirements of Project stakeholders, as well as other federal and state agencies having jurisdiction.

The process begins with development of Project constraints identification mapping during design and a "seat at the table" for the EM staff, roadway designers, construction supervisors, drainage/SWM engineers, utility coordinators, subcontractors, and VDOT. The SAW2JV EM approach includes incorporating the identification of schedule constraints, allowing the Team to identify and integrate permitting

Table 4.4-2: Regulatory agencies and their requirements

FEDERAL AGENCY	DOCUMENTS / CLEARANCES / PERMITS	STATE AGENCY & OTHERS	DOCUMENTS / CLEARANCES / PERMITS
EPA	• Section 404, and Section 10 Permitting (commenting agency to the Corps of Engineers)	• VA Department of Environmental Quality	• Section 401 Permit • Hazardous Waste permitting / SPCC Plan • Air Quality Permitting & restrictions • Coastal Zone Management Act Consistency Cert.
FHWA	• FONSI • 4(f) clearances (School Property) • 6(f) clearances	• Virginia Department of Game and Inland Fisheries	• Endangered Species Act • Clean Water Act Section 401 Permit
USACE Navigation	• Section 10 & Section 408	• Virginia Department of Conservation and Recreation (through VDACS)	• Water Quality Permit Commenting Agency
USACE Regulatory	• Section 10, Section 404 Permit	• Virginia Department of Historic Resources • (SHPO)	• Section 106 Clearances and appropriate mitigation as necessary
USCG	• Bridge Permit • Navigation Channel Clearance	• Virginia Marine Resources Commission	• Subaqueous Bed Permit • Fisheries Approvals • Tidal wetland / Shoreline
National Marine Fisheries	• Commenting agency to USACE, DEQ and VMRC Permits	• Virginia Department of Transportation	• VSMP –LD 445 series • Drawbridge Traffic Management System
US Fish and Wildlife	• Endangered Species Act • Migratory Bird Treaty Act • Clean Water Act Section 404 Permits	• City of Chesapeake	• Schools and Locality
FEMA	• Floodplain Alterations	• Norfolk & Portsmouth Belt Line Railroad	• Right of Entry

and environmental compliance needs early in the Project schedule. This method assists both SAW2JV and VDOT in implementing a Project that will meet and exceed the environmental requirements of the RFP.

The permitting of this Project is critical, therefore our Team has met with the U. S. Army Corps of Engineers (USACE) and the USCG to discuss the Section 10, Section 404, and the Section 408 permit processes in the Norfolk District. This pre-proposal coordination has afforded the Team the opportunity to refine the Project schedule and provide realistic durations for obtaining long lead permits. The Team will continue this coordination effort throughout design, including formal pre-application meetings with the permitting agencies. **This early coordination allows the agencies the opportunity to review the Project and offer early comments.** SAW2JV has found that this upfront coordination provides a streamlined permitting process by addressing agency concerns in the design and avoiding late stage redesign or protracted information requests from the regulatory agencies. This Project requires authorizations from a number of permitting agencies noted in Table 4.4-2 (Page 18).

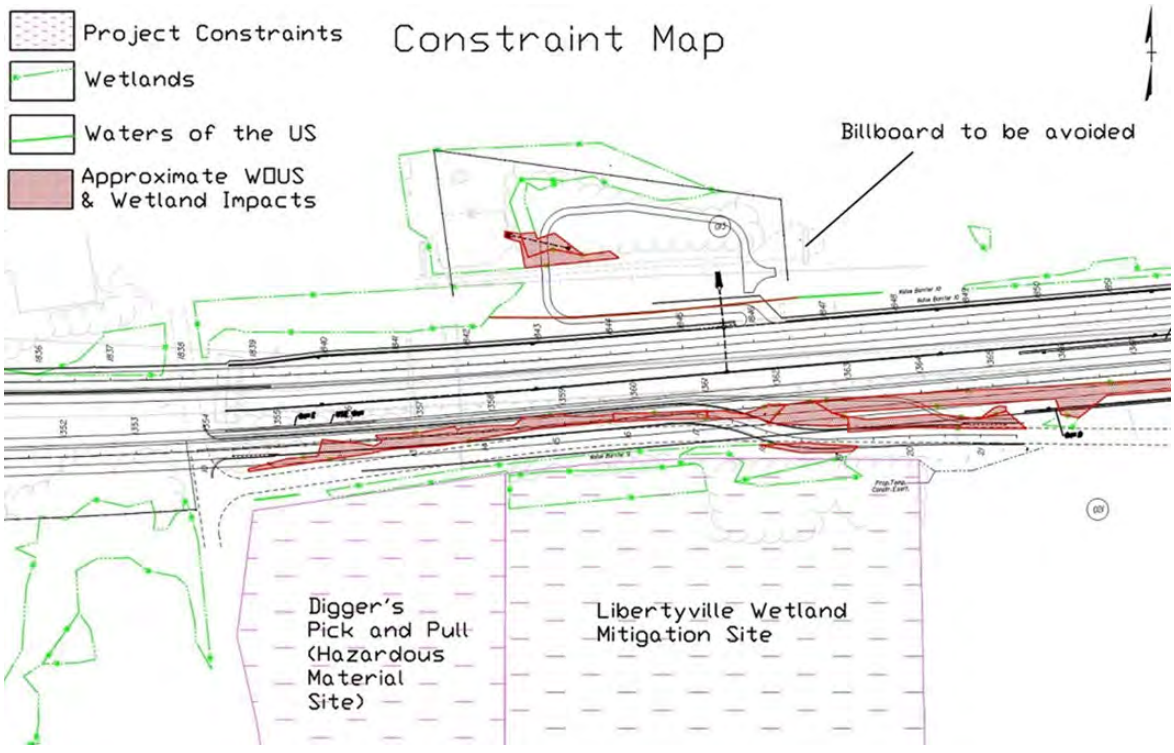
Environmental Management Program and Tracking

The Team will use a comprehensive Environmental Management Program (EMP). The EMP incorporates the specific requirements of the NEPA commitments, all project permits and conditions, and environmental constraint requirements in a convenient and usable form.

The EMP will be used by design and construction personnel (including office and field supervisors).

The Environmental Constraints Map developed by SAW2JV clearly identifies site specific areas that must be avoided or where notifications and discussions with the EM staff are required. These maps have proven invaluable and will be made available to all Project personnel in both paper form and electronic format (KMZs for integration into Google Earth). This allows inspectors and construction managers to ensure the Project is protecting sensitive environmental resources. Figure 4.4-1 illustrates an example of the constraints mapping utilized during preliminary design.

Figure 4.4-1: Constraints Mapping



A key component of the EMP is the Environmental Compliance Matrix (ECM) and Tracking Databases to determine if a permit, clearance or approval has been applied for and the status of each application or approval. These databases are specific to the item type (such as Cultural Resources, Air Quality, Water Quality, Wetlands, Noise, Stormwater Management, Erosion Control, Threatened and Endangered Species, Hazardous Materials Site Assessments/ Investigations, etc.). Once a permit is issued, the ECM is updated to identify all permit conditions and the relevant disciplines for which the conditions apply. All of these matrices will be used to facilitate and monitor permit submission, permit issuance, permit modifications, compliance with permit conditions, and permit close-out. The tracking reports allow the Team to identify all of the Project commitments and track the status of compliance.

Potential Risks

Table 4.4-3 illustrates the major schedule risks and mitigations as they relate to EM. The utilization of environmental constraint mapping, a key component of the EMP, will minimize and mitigate risks during the design/permitting process.

The EMP and ECM are living documents which will be updated and maintained from Notice to Proceed through construction closeout and including permit monitoring, which often exceeds construction completion.

The clear illustration of these items helps Team members avoid unintended impacts from items such as utilities, Project laydown, or signage, and allows Team members to engage the appropriate environmental staff early in the process to facilitate approvals as necessary without affecting Project schedule.

The ECM also allows the Team to identify those areas that need additional studies based on the design and conduct those studies early in the design process to allow the Project to remain on schedule. Additionally, the utilization of the ECM and constraint maps allows the Team to identify where re-coordination, permit modifications, mitigation requirements, and/or re-evaluations must be conducted to keep the Project in compliance with all the applicable laws, rules and regulations.

The above mentioned databases are tools for both the Team and VDOT so that all parties can ensure that the Project remain in compliance with all applicable laws, regulations, and requirements. These tools have been proven valuable in past Projects in tracking compliance and Project close out requirements.

Reduction of Impacts

SAW2JV is committed to being a good steward of the environment. The EMP details our approach to permitting and compliance. Additionally, our Task Teams have been focused on design solutions that will minimize and reduce environmental impacts. The bottom panel of the noise wall also serving as a retaining wall, yields the greatest reduction in impacts (See Figure 4.3-3 in Section 4.3-1 Noise Walls). This solution reduces stream impacts by approximately 4,500 LF by bringing the slopes closer to the wall.

4.4.2 Utilities

The SAW2JV approach to utility coordination began with the Team engaging utility owners early in the pursuit with a goal to verify the RFP utility information provided, seek additional information, and begin a collaborative process.

The Team's approach has been to develop design solutions coupled with construction techniques to avoid and minimize impacts, thereby reducing schedule risk.

SAW2JV has met or corresponded with the owners listed in Table 4.3-4 (Page 8) and received additional information pertaining to their facilities on the Project.

The conflict matrix in Volume II Concept Plans lists all known utilities, identifies conflicts, and describes mitigation strategies.

The early work associated with these known utility conflicts and the utilities with facilities along the corridor has enhanced our understanding of the process and schedule for

Table 4.4-3: Potential Environmental Risks

ENVIRONMENTAL RESOURCES	REQUIRED ACTION	MITIGATION STRATEGIES
EQ-103 & RFP commitments not noted below	• Confirm that no additional ROW beyond limits provided on VDOT RFP Plans will be required. • Avoid and minimize impacts to Chesapeake Bay Act RMA & RPA buffers.	• Use ECM, over the shoulder and weekly design review to address minimization efforts • Place RPA buffer limits on ECM
Noise	• Final barrier conditions determined in final design: Conform with VDOT requirements and public commitments. • Complete Final Noise Abatement Design Report based on final design roadway geometrics. • Comply with Section 107.16 (b)(2) of VDOT Road and Bridge Specifications. • VDOT may restrict specific operations between 10 pm & 6 am, or if noise levels exceed 80 decibals during noise intensive activities.	• Reviewed noise analysis documentation provided by VDOT. • Inform public during 'pardon our dust' meetings.
Threatened and Endangered Species (T&E species)	• Coordinate with USFWS, NMFS, VDGIF & VDCR regarding the identification of state and federal T&E species. Addressing any required impact assessments. Potential to encounter Northern Long Eared Bat (NLEB), Atlantic Sturgeon, Dismal Swamp Shrew, Peregrine falcon nests, and Eagle nests within 1 mile. • Project and schedule will include provision for the T&E Time of Year Restriction (TOYR) as required.	• Incorporate TOYR for peregrine falcon in project schedule, perform inspections for bats on bridges. • Use ECM, display on plans, and mark in field: LOD & Habitat Areas to be avoided. • Coordination with DGIF.
Cultural Resource Constraints Commitments (Cemetery & Historic District) & 4(f) Properties	• Conform to the FHWA, NPS, VSHPO and VDOT Programmatic Agreement. • Remain within the right-of-way limits noted on the RFP to avoid additional impacts to cemetery. • Avoid impacts to 4(f) properties (at schools) outside what has been noted in the FONSI.	• Use ECM overlay of Cultural Resource Study Limits to avoid need for additional surveys. • Clearly mark Study Limits or LOD prior to construction to avoid additional disturbance for staging/ laydown. • Require design grading of ditches adjacent to special sites to assure avoidance.
Wetlands/ Streams/WQ Permitting	• Conduct field review pre-application meeting with Corps and obtain WQ permits. • Continue to evaluate and document possible avoidance and minimization alternatives during design. • Provide mitigation for unavoidable wetland and waters impacts.	• Perform field checks to accurately estimate probable wetland impacts. • Begin wetland re-confirmation at NTP • Document Avoidance/Minimization efforts for rapid permit issuance • Conduct Early Coordination JD to address concerns early & facilitate permitting in timely fashion.
Hazardous Materials	• Conduct Phase I ESA for all ROW acquisitions. • Conduct Asbestos and Lead Based Paint testing of bridges & structure demolitions by independent asbestos inspector licensed in VA by DPOR • Perform abatement prior to demolition. Recognized Environmental Conditions are not anticipated. • Handle all hazardous materials in compliance with local, state, and federal regulation.	• Conduct review of State and federal databases, one spill noted on VDOT facility • Avoided the placement of SWM basins down gradient of documented spill location on VDOT property to avoid potential REC's. • Begin Phase I ESAs following Notice-To-Proceed. • Prepare and maintain SPCC.

needed relocations. Based on this understanding, the proposal schedule was sequenced to eliminate potential delays, and includes activities for the coordination, design, and relocation of the affected utilities.

The main goal is to avoid or mitigate utility conflicts where practical. Mitigation strategies include the following:

- During construction, any adjacent utility will be protected or shored in place to ensure no disturbance or interruptions.
- Foundation construction in close proximity to a small number of utilities will require drilled shafts to minimize the footprint and eliminate construction vibration (Military Highway bridge widening adjacent to the existing 30" sanitary line).
- Bridge and noise wall construction below the overhead power lines at Yadkin Road will require low headroom construction techniques to avoid relocations/disruptions.
- Submarine cables will be accurately located and observed by divers during the fender pile installation.

The large gas and petroleum pipelines within the Project limits are not in conflict, but will require special considerations for construction vehicle crossings. Additionally, the Dominion Power high voltage transmission tower relocation at the west end of the High Rise Bridge will require coordination. Although the transmission tower will be relocated under a separate contract, there will be periods of time where we will not be permitted to work below the electrical lines. These constraints are included in the proposal schedule.

Managing and Minimizing Utility Conflicts

To advance the utility relocation activities on the Project aggressively, the proposal schedule presents activities during the design phase to verify existing utility locations and produce utility relocation plans. After Project award, the DBPM will schedule a Utility Project Kickoff Meeting. Led by the Utility Coordinator, the construction Team will conduct test holes to confirm the location, size, and depth of affected facilities. The utility relocation design and construction schedule will be coordinated and updated with the utility owners and VDOT.

Once the Project design is advanced to the preliminary (60%) level, the Team will meet with each utility owner that will be performing their own relocations to coordinate their relocation designs. Likewise for wet utilities being relocated by the Team, relocation packages for those utilities will be submitted for approval to those agencies. Once approvals of the design packages by the utility agencies have been received, these packages will be submitted to VDOT for approval and for incorporation into the Project. Upon receipt of VDOT approval, the Team will proceed by planning the work for the wet utilities, procuring the necessary materials, and performing the relocations as per the schedule. As relocation packages from the dry utilities are approved, the Team will coordinate with the applicable utility owners, as they will plan their work, procure their material, and perform their own relocations as per the schedule.

An excellent example of the SAW2JV avoidance approach to utility relocations is at the Great Bridge Boulevard bridge, where our design solution includes a new MSE wall. **This new wall eliminates the need to relocate the existing sanitary sewer force main (Figure 4.4-2).** This wall also eliminates the additional fill that would have been placed over the line and provides the necessary easement for maintenance.

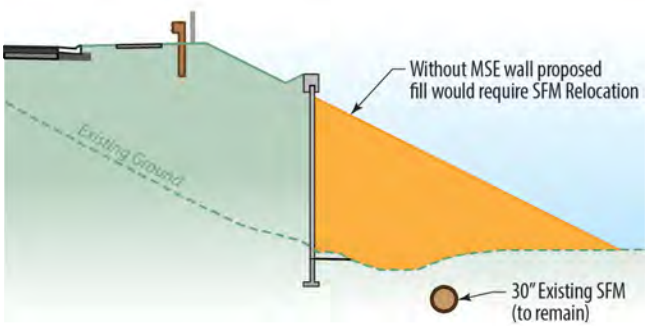


Figure 4.4-2: MSE Wall to avoid impact to sanitary forcemain

Mitigation Strategy for Delays or Unknown Utility Relocations

An on-going method to identify potential schedule issues with the dry utilities is to include the utility

owners in the Project 4-week look ahead schedule meetings from the start of design through construction. **When a dry utility relocation appears to be delayed, the SAW2JV Team will meet with that utility owner to discuss appropriate measures for schedule recovery by reallocating resources, adding resources, schedule readjustments or resequencing.** The same look ahead schedule review is the first defense in identifying risk to the schedule for the wet utilities.

Extensive use of test holes around all major bridge structures and other key elements, and an in depth review of as-built drawings is how SAW2JV will proactively mitigate for unknown utilities. In the case of the discovery of an unknown utility, identification of the owner and whether the utility is active remains critical to starting the relocation or redesign process. The key is to implement a mitigation process that provides the least disruption to the critical path.

4.4.3 Geotechnical

Similar to much of the Hampton Roads area, the subsurface conditions around the site consist of fill materials underlain by alluvial soils and then the Yorktown formation. In certain places, the alluvial materials are coarse-grained loose sands. Other places are more problematic fine-grained compressible soils. **Mitigating the risk that these soils pose will be paramount in defining the Project schedule, budget, and means-and-methods of construction.**

For most of the bridge structures, driven precast concrete piles, founded in the Yorktown formation, will be the preferred foundation alternative. Due to the fact that most similarly loaded structures in the area are founded on this type of foundation and because the Team has designed many of these, a significant amount of as-built data is available from which to accurately estimate pile lengths and expected driving conditions. Using this proven method of construction will reduce both design and construction risk and will result in lasting foundations, relatively immune to long-term settlements and structural distress.

At the Military Highway widening, numerous utilities exist within the "zone-of-influence" for driven pile construction. As such, driven precast concrete piles will not be used. Instead, drilled shafts founded in the Yorktown formation will be used so that the existing utilities can remain in their current location. While this type of foundation is atypical in this region, the Team has experience with drilled shafts from the Gilmerton Bridge Project and from numerous ancillary foundations constructed for various Projects throughout the area. The behavior of the soils during excavation are well-known and the proper means-and-methods of excavation, casing and slurry use can be defined based on the actual conditions at the location. Furthermore, CSL tubes will be installed, and load testing will be implemented, where required.

Regardless of the type of piles, PDA testing and CAPWAP analyses will be performed during the test pile program to confirm the pile capacities according to AASHTO and VDOT requirements.

At the Great Bridge Boulevard overpass, significant thicknesses of fine-grained alluvium are present. Adding fill for the Great Bridge Boulevard approach will cause compression of these soils, yielding surface settlements in the vicinity. To address potential post-construction settlement issues, and to accelerate consolidation, a wick-drain and surcharge program will be used. To confirm the adequacy and completeness of the consolidation program, settlement plates and piezometers will be installed.

4.4.4 Quality Assurance/Quality Control

Design QA/QC Approach

The SAW2JV approach involves development of a formal Design QA/QC Plan documenting the roles, responsibilities, and requirements of the design Team throughout the design development process. The documented approach involves a collaborative effort between the DM, the design Team, QAM, RCE, CM, and construction staff. The staffing plan for design quality management includes the entire design Team, applying specific focus to the details of their work products throughout design development. It is mandatory

that all design Team members sign a document stating that they will comply with the DQMP.

Design Quality Management will be led by the DM, with oversight from the RCE and DBPM, to confirm that the RFC (Released for Construction) Plans are prepared in accordance with VDOT's QA/QC Guide for Design-Build Projects. **A WSP principal will be assigned as the Design Quality Assurance Manager (DQAM), responsible for oversight of quality assurance activities.** He will confirm that the design Team is following the formal QA/QC processes documented in the Project Quality Management Plan. SAW2JV anticipates the following design quality control requirements to be implemented during design development:

- Formal plan reviews by the designer, prior to each formal submittal to SAW2JV and VDOT
- Develop Project specific compliance Checklists (by discipline), using the Project Technical Requirements
- Submit checklists to the RCE, DBPM, and the QAM for review and approval
- Conduct milestone Interdisciplinary Coordination (IDC) reviews (in advance of the formal QC checking program) for each formal submittal
- Responsible design engineer to complete the Design Discipline Project Checklists and submits concurrently with each formal submittal as documentation of the QC process
- DM and DQAM confirm that Discipline Checklists are completed
- Complete Quality Assurance Certifications by the DM, DQAM, and the Design Discipline Leads
- Compliance checklists, IDC reviews and QC check-prints will be retained in our on-line document management system and will be available for audits

Other components of the Quality Management Plan include a series of coordination meetings between the design Team and the construction Team, and between SAW2JV and VDOT. The purpose of these meetings is to allow the construction Team to provide oversight and constructability input during design development and provide for "over-the-shoulder" reviews from VDOT and key stakeholders.

For RFC submittals, the drawings will be signed and sealed by discipline leads and accepted by the RCE prior to submittal to VDOT for acceptance and release as AFC (Approved for Construction). Design changes during construction will involve the same rigorous process as noted above, but will include direct control and approval from the RCE. All RFI (Request for Information) and NCR (Non Conformance Report) documents will be maintained in Project databases for tracking changes and clarifications to the design plans, for use in preparing the As-Built drawings.

Audits of the Design QA/QC process are encouraged to be performed by VDOT and/or external auditors, to confirm that the quality processes outlined in the Design QA/QC Plan are utilized, thus providing VDOT with assurance that design documents were prepared in accordance with the Project Technical Requirements.

To ensure accurate recording of as-builts conditions, SAW2JV will prepare a plan for preparation of the As-Built Drawings in collaboration with VDOT before construction begins. This plan will define VDOT's discipline-specific As-Built requirements. As-Built Drawing mark-ups will be recorded by the construction Team on the most-current and applicable RFC plans before construction is complete. In addition to VDOT requirements, the mark-ups will include relevant RFI's and/or Shop Drawings. The QC inspectors will review the As-Built mark-ups before they are submitted to the design Team for incorporation into the final As-Built Plans.

Construction QA/QC Approach

The approach to construction quality control starts with one primary premise: all personnel have the authority and the responsibility to stop production when work is not being constructed per the specifications or Project documents. The Team will establish a culture of quality among all members that continually reinforces quality as a core value and recognizes those who perform high quality work. SAW2JV will satisfy VDOT's

priority that we are delivering the quality facility that they are paying for, with minimal VDOT intervention.

Through experience with similar Projects, the Team knows that **Quality is built in**, not added on, and that intensive training coupled with strong leadership will minimize re-work and non-conformance issues. The primary objective of the Construction Quality Management Plan (CQMP) is to assure all work, materials and products are in the conformance with the lines, grades, cross sections, dimensions and materials requirements, including tolerances specified in the contract documents and vendor drawings. The QA/QC procedures are intended to prevent non-conformance by:

- Identifying lack of construction conformity and desired intent
- Preventing the use or installation of products that do not meet contract requirements
- Establishing corrective action plans to be applied to non-conforming products or work
- Investigating the root cause of nonconformance so that the QA/QC procedures can be revised and future nonconformances can be avoided

SAW2JV will implement the SAW2 Integrated Quality Management System (SAWQMS) for the share point data base to fully integrate our proven quality processes and provide VDOT an easily auditable system to monitor for this Project. SAWQMS will store all of the quality documents and utilize automated alerts to track deficiencies and prevent them from slipping through the cracks. In addition, it will provide for staffing efficiency by giving the QA/QC staffs easily accessible Project documents of plans, specifications, submittals and shop drawings for field verifications and inspections using a computer based application such as "PlanGrid". The inspectors and materials technicians will utilize tablets to input daily diary information, photos, inspection reports, and testing results that is searchable through the Project data base access. Features and benefits of the SAWQMS are highlighted in Table 4.4-1 (Page 17).

Inspection checklists will be developed for each definable feature of work. These checklists will be used by the QA and the QC inspection and testing personnel. The individual checklists shall be approved by VDOT as part of the overall approval of the QA/QC Plan. The checklist for each work activity will include the construction requirements stated in the standard specifications or Contract for that work activity and will meet the requirements presented in the VDOT Minimum Requirements for Quality Assurance/ Quality Control on Design-Build Projects (2012), Table A-4, and will contain requirements for preparatory, intermediate, and completion inspections as described below.

- Preparatory Inspection items are discussed at the preparatory meetings and include items such as C-25 Source of Materials, mix designs, C-31 Sublets, approved for construction plans, and shop drawings have been received/ approved prior to the start of the work activity.
- Intermediate Inspection will be performed on a continual basis commensurate with the construction activity. All inspections shall be consistent with and/or exceed the frequencies defined in VDOT's minimum requirements.
- Completion Inspection shall be performed prior to final payment for each significant construction activity. All applicable documentation will be reviewed to verify the appropriate testing was performed.

Verification – The QCM will confirm that all materials sampling and testing is consistent with the QA/QC plan and will provide a weekly report to the QAM that lists by activity, how much material has been installed, quantity and type of tests performed, identify any required re-testing, and what was done to correct the non conformance, and corresponding passing retest. The QAM and staff will monitor the QC field testing and will maintain a daily diary of construction activities. The QAM will review all field and lab testing reports produced by QA and QC to monitor materials testing and construction activity documentation. Notification of work and materials not meeting the plans and specifications

will be provided in a timely manner using the non-conformance reporting plan.

Records - The QA/QC plan will include Inspection Checklists that cover all phases of work (Preparatory, Intermediate, and Completion). These checklists will be utilized by both the QA and QC staff and the QCM and QAM, as appropriate, will review these checklists as part of the verification and documentation process. All QA/QC staff will complete a daily report which will include test results, copies of completed checklists, and a summary of the day's activities. These daily reports will be reviewed by the QCM on a daily basis.

Testing – The QA/QC Plan will specify that testing will be performed by separate and independent QA and QC laboratories using VDOT-certified inspectors and laboratory personnel. Both QA and QC laboratories will be accredited by the AASHTO Acceptance Program, and all QA and QC testing and inspection technicians will have the certifications in accordance with Section 3.6 and 3.7 of VDOT's Minimum Requirements for QA/QC on Design Build Projects (2012) for the types of testing and/or inspection that they are assigned to perform.

Project Document Control and Maintenance – The QAM will monitor the QA and QC Team's daily records and document and track changes identified during construction. Field changes will be documented on a control (as-built) set of drawings maintained in the Project field office. The QAM will review QA and QC documents much in the manner of preparing for final submission. This provides Project files that are audit ready and in a near completed state.

Nonconformance Reports – "Nonconformance Reports" will be issued and tracked for work identified through the QA and QC process which do not meet contract requirements. When the nonconforming work has been corrected, re-inspected and the results are satisfactory, a "Notice of Correction" will be issued for record purposes. Nonconformance reports issued on the Project will be tracked on the "NCR Log". Supporting documentation for NCRs will also be included in the file relative to the NCR, and the status of each NCR will be noted on the required "NCR Log."

Staffing Levels

The Quality staff for this Project includes an independent QAM and QA inspection staff to perform **verification inspection and testing.** Since the emphasis of the QA staff is on verification, the direct responsibility for quality lies with the construction Team. Accordingly, SAW2JV will have a full time QC Manager (QCM) and staff on this Project. While it is anticipated that much of the QC efforts will be performed by production personnel, it is also anticipated that specialty tasks such as concrete testing and various compaction testing will be performed by dedicated personnel due to certification requirements and time demands. Table 4.4-4 represents anticipated staffing levels of QA and QC personnel on average during the construction activities, noting that we will peak at higher staffing levels.

Table 4.4-4: Anticipated staffing levels of QA / QC

ROLE / TITLE	QC	QA
Quality Manager	1	1
Lead Inspector (Bridge, Roadway)	2	2
Inspector(s)	3	1
Specialty ITS	1	1
Technicians	7	3
Foundations (Shafts/Piling)	7	3

High Rise Bridge Structure – Critical Element

Design Approach

SAW2JV has selected "Concrete Quality" as the critical element with the greatest potential impact on future maintainability. From a design perspective, VDOT has already taken steps to improve the long-term life of the concrete through the use of low-shrinkage concrete and corrosion resistant reinforcing steel. The quality and durability of concrete structures can be further improved during the design process through the following:

- Adherence to Standards – The Team is committed to documenting compliance to VDOT standards with each submittal. This

includes identifying relevant standards prior to starting design as well as auditing to assure compliance.

- Attention to Details – The design process will improve quality by making sure that bar layouts and detailing are mitigated for items that tend to result in poor cover or congestion issues that can result in poorly consolidated concrete. The Team's extensive experience in mass concrete operations has sensitized the need for proper detailing and thermal monitoring for mass concrete pours, to assure that cracking and future delayed ettringite formation is minimized.
- Experience with Construction Practices – Through our integrated Task Teams we will tailor the design to improve long term performance by performing constructability reviews to identify design modifications or simplification to improve construction quality including spacing construction joints to improve crack control and increasing repetition of details and processes to improve quality through standardization.

Construction Approach

The construction aspect of ensuring that the rebar is installed correctly and proper coverage is achieved is the work activity that SAW2JV believes is most critical to minimize future maintenance of the bridge deck. The QA/QC inspectors will perform multiple Bidwell dry runs with adjustments made in order to achieve proper reinforcing tolerances. The final inspection before placing bridge deck concrete will be documented on a signed-off Pour Card and documented in the SAWQMS. **The 4-step approach to continuous improvement** will provide the QAM and VDOT with the confidence that the work was done correctly, the inspections occurred, and proper documentation was recorded and distributed.

Step 1 – Work Plans for Definable Features: QCM will track development of the Work Plan for every new construction activity in conjunction with the Superintendents and Project Engineers to incorporate safety and quality procedures by using the **Plan > Do > Check > Act** methodology:

- **PLAN:** Evaluate the work to be accomplished and establish what success looks like. Identify all steps and procedures required and how you will implement them.
- **DO:** Execute the plan as it was written. If circumstances change of if conditions arise that were not accounted for in the plan, stop and re-evaluate. Move ahead after establishing the new plan.
- **CHECK:** Inspect for success during the work and evaluate the results. Did the plan work? Are there things that should be improved in the plan moving forward? Are there things from the original plan that were not covered?
- **ACT:** Make adjustments and create a new plan based on the evaluation. Begin the cycle again for continuous improvement.

Step 2 – Develop and review the Quality Checklists as a comprehensive listing of all the items and tasks that need to be accomplished prior to the work activity occurring. It includes the following items:

- Items to be inspected/verified
- Hold Points where work is halted until inspections and sign-offs occur
- Sign-off by multiple parties including the foreman, superintendent, QC inspector, and the QA inspector.
- Material Testing Requirements such as number of concrete cylinders, additional concrete tests, and material certifications received

Step 3 – Utilize Operational Checklists that describe items that occur during the concrete placing operation including method of placement, when cylinders and concrete tests occur (number of loads), and vibration and its interval.

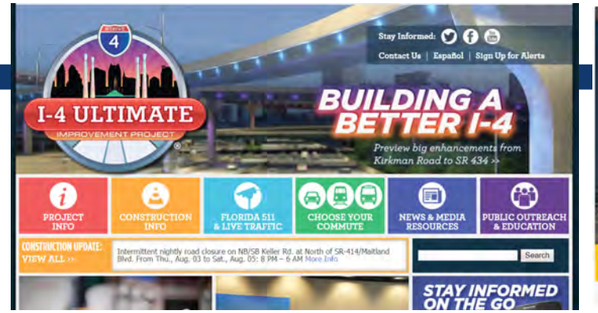
Step 4 – Use Post Construction Checklist to indentify when cylinder breaks occur (i.e. 7, 14, 21-day) and when test results reports will be distributed and to the Project Team, QC, QA, and VDOT.

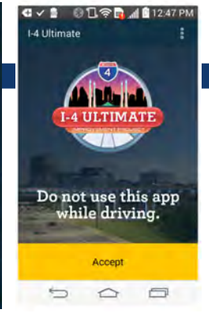
4.5
Construction of Project

Table 4.5-1: Construction Benefits

Innovation or Concept

Project website, mobile application (app), and Public Relations Coordinator: The SAW2JV Team will develop a Project website in partnership with VDOT that will feature a robust content management system with a news scroll on the home page as well as multimedia content for the public and news media. The website will maintain updates from VDOT's 511 Traveler Information System, recommended alternate routes, and content for sharing on social media. Our Public Relations Coordinator will manage this effort. Skanska's I-4 Ultimate website (I4Ultimate.com) was honored in 2015 at the annual AASHTO Transcomm Skills Awards where FDOT was presented with "Website of the Year".





Construction Benefits

Real-Time Public Information Updates

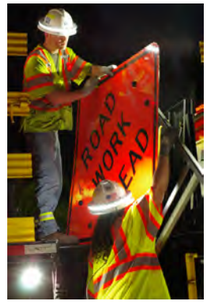
Project website, mobile app, and Public Relations Coordinator (PRC): Real-time Project updates will be sent to Stakeholders, the traveling public, and first responders. The app will push alerts of daily closures/ detour to the mobile app from the Project Document Portal. Our PRC will mitigate Project concerns by engaging with the public and Stakeholders.

MOT Trucks: The SAW2JV Team will use specialty trucks that are designed to haul traffic control devices, tow trailers, provide a safe platform for workers to place and pick up traffic cones from both sides or the rear, act as an attenuator and an arrow board. These multifaceted trucks have cameras to allow the driver to monitor traffic flow and keep a watchful eye on crew members to make sure they remain safe. Cabin mounted display screens allow the driver to monitor nearby vehicles and the crew in the back without needing to turn around. There is also an intercom system which allows the driver to communicate with workers in the back. The MOT truck can create a crash protection zone with a detachable attenuator device which is easily mounted to the rear of the vehicle. This truck also has cameras to record actual lane closures at night for legal documentation.

Halo Lights: Skanska played an important role in the development and testing of Halo Lights and we were the first U.S. contractor to deploy these (on the I-4 Ultimate Project in Orlando, FL). When working near traffic in low-light conditions SAW2JV workers will use the Halo Light, a safety and task light that enables the wearer to see and be seen in all directions.

Smart Work Zone (SWZ): SAW2JV will set up integrated PCMS Boards spaced along I-64 that utilize traffic detectors and cameras at each location to issue immediate automatic warnings of slowing traffic ahead. These SWZ's analyze traffic data and provides real-time information to the motoring public, Project managers, VDOT TOCs, and public websites.

Synchro-guide Cone Lights: SAW2JV will use the proven cone lights for in-lane closure tapers as a best practice.These are simply deployed tools that enhance the visibility of the work zone while improving driver lane discipline.



Public and Worker Safety First!

MOT Trucks: This Injury-Free Environment (IFE) innovation mitigates risks by reducing the number of vehicles and personnel needed to perform MOT operations, lessening the time to change attachments, and reducing physical stress on workers. SAW2JV crews have installed more than 6,200 lane closures with zero truck-mounted attenuator impacts using this specialty MOT truck.

Halo Lights Attaches to a hard hat and uses a 12-hour rechargeable battery to produce its signature ring of light visible from approximately 1/4 mile away. This innovation reduces significant risks to our workers and the traveling public.

Smart Work Zones: This proven advanced telecommunications system reduces rear-end collisions within an active construction work zone.

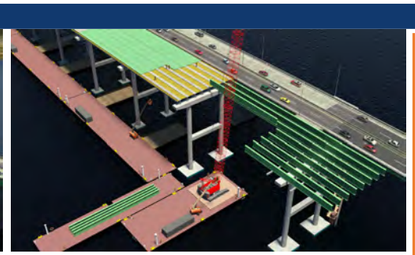
Synchro-guide Cone Lights: Reduces taper intrusions to nearly zero compared to history of two intrusion per shift prior to implementation.

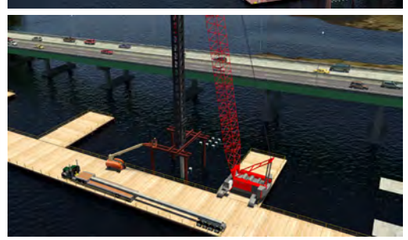
IFE
Injury-Free Environment ®

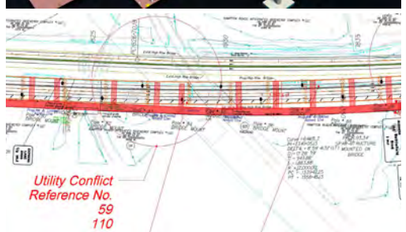
High Rise Bridge Work Platforms

SAW2JV will build temporary work platforms consisting of trestle, lay barges and/or gravel access roads for construction of all elements of the new WB High Rise Bridge (HRB). We will take delivery of most bridge materials on the platforms from land along our temporary access points shown in our Project site overview map (Figure 4.5-16, Page 43). The temporary platforms make the HRB construction more like a land-based Project allowing the following construction to be completed with limited use of barges and boats on water and reducing lane closures on land:

- Pile driving
- Forming substructure (footings, columns, struts, and caps)
- Setting substructure reinforcing steel
- Placing substructure concrete
- Erecting girders
- Forming superstructure decks (stay-in-place decking and bridge overhangs)
- Setting superstructure reinforcing steel
- Placing superstructure deck concrete







SAW2JV work platforms will provide proven benefits:

- ***fewer lane closures on I-64 - minimizes traffic impacts***
- ***fewer marine work boats and barges - minimizes traffic impacts***
- ***safety for our workers with better access***
- ***safety to mariners with less water traffic***
- ***less environmental impacts with controlled access***
- ***better quality with controlled access points for QA/ QC inspectors***
- ***ease of survey layout providing for more accurate locating to stay well within quality tolerances***
- ***more confidence in schedule to deliver the critical work on HRB***

Introduction

The SAW2JV Team will successfully deliver the Project for VDOT by meeting the overall objective to increase capacity and mobility as well as improve safety and operations of the corridor. The Team will also achieve the stated Project priorities by following an integrated approach to working in partnership with VDOT and local Stakeholders as noted on the organizational chart. The Project priorities are summarized below as three key elements:

- ***Maintain the safety of the traveling public and minimize construction impacts***
- ***Provide for safety of the collective construction and inspection work force***
- ***Implement cost-effective construction means and methods while delivering a quality facility on time to VDOT***

Our plan keeps the public completely out of the work zone. There will be limited movement of materials through traffic, no lifting over traffic, and no chances of drivers going through the work zone or near workers. **Staging/storage areas and access points to the construction zones will be strategically placed to minimize impacts to the traveling public.** Alternative routes around the work zones will be developed and coordinated with local authorities and first responders before implementation. Prior to every traffic shift, there will be media notices and opportunities for community briefings and other measures which will be further detailed in the Public Information and Communications Plan, administered by our Public Relations Coordinator (PRC).

The marine work force will continually communicate with the USCG, Virginia Maritime Association, local industry and the nearby marina through the DBPM and PRC to provide updates of the ongoing construction activities. Stakeholders will be invited to attend the Project 4-week look ahead scheduling meetings when construction activities will encroach into the navigational channel. Prior to those activities, proper "Notice to Mariners" will be in place when warranted.

All equipment in the waterways will have proper navigational lights and markers for safety. Equipment barges or material barges will not be moored in the navigational channel except for when permitted followed by a "Notice to Mariners" posted according to USCG regulations. The Team will continue with its long and successful history of working with the USCG ensuring the safety of the public is never compromised.

The same communication and inclusion process will be used when construction activities occur adjacent to and over the railroads. Material and equipment will not be stored within the railroad ROW. **Work will not take place adjacent to or over the tracks unless a railroad flagger is on site.** The team has previous experience working on projects over railroads at the MLK Expressway Extension Project in Portsmouth, Virginia. All workers adjacent to railroad property will receive, and will continue to maintain, certifications of the railroad construction safety program before beginning any work near the railroads.

The Project's location and design creates conditions that expose our workers to constant vehicular traffic and the public with activities adjacent to and above traffic. **Combining tight workspaces and night work, the importance of safety awareness and our emphasis on an Injury Free Environment® (IFE) is a top priority. IFE is a shared corporate and individual belief that safety is a value not compromised by cost or schedule.**

SAW2JV's safety culture creates a mindset intolerant of any frequency or severity of incident or injury.

A Construction Work Plan will be created for each construction activity, which will include the safety hazards, environmental concerns and quality requirements associated with the specific task at hand. **Critical activities will have a Preparatory Meeting to review the work plan in detail before going live, including traffic shifts, beam setting, and deck pours.** VDOT personnel are encouraged to be involved in the formation and review of these work plans.

The work plans are used in the Daily Job Briefing at the start of every shift to ensure that every crew member knows the safety, environmental, and quality aspects for the task they are performing.

We strive for continuous improvement with the Plan>Do>Check>Act cycle with all crews and activities, sharing best practices throughout the I-64 corridor.

Our Innovations and Benefits Table 4.5-1 (Page 28) demonstrates innovative tools and concepts that the SAW2JV Team will implement to maintain safety and minimize traffic impacts during construction that provide benefits for VDOT and the local community.

4.5.1 Sequence of Construction

The approach to construction sequencing incorporates the proposal schedule, well detailed construction activities, and competent personnel with specific safety and quality requirements and goals. For each individual work task, the Team will develop and execute comprehensive implementation work plans that ensure the means and methods for each element of the Project meet or exceed contract requirements, including:

- Scope of Work
- Safety
- Environment
- Quality
- Plans & Specifications
- Task-Specific Procedures

The Project will be divided into three construction segments as depicted in Figure 4.5-1 (Page 31):

Segment 1 is from the western terminus (Bowers Hill) to Shell Road.

Segment 2 is from Shell Road to the beginning of the WB off ramp to Great Bridge Boulevard.

Segment 3 is from the WB off ramp to Great Bridge Boulevard to the eastern terminus near Bull Dog Drive.

The segmentation is based on logical termini, that USACE will require, enabling us to submit more than one Joint Permit Application for the same Project. This methodology will allow Segments 1 and 3 to advance to construction several months prior to Segment 2. As Segment 2 includes the new HRB, the permitting includes both the USACE Section 408 concurrence and the USCG Section 10 review. The Team met with and discussed segmentation with both agencies, and they are agreeable to this approach.

The design will be released in three main deliverable packages:

Package A provides grading, drainage, erosion control, settlement surcharging of the Great Bridge Boulevard approaches, and utility relocations for both Segments 1 and 3.

Package B includes all of the ancillary plans for Segments 1 and 3 to include bridge widening at Military Highway and Yadkin Road, final paving, walls and the remaining elements of civil, ITS, electrical, and tolling works for Segment 2.

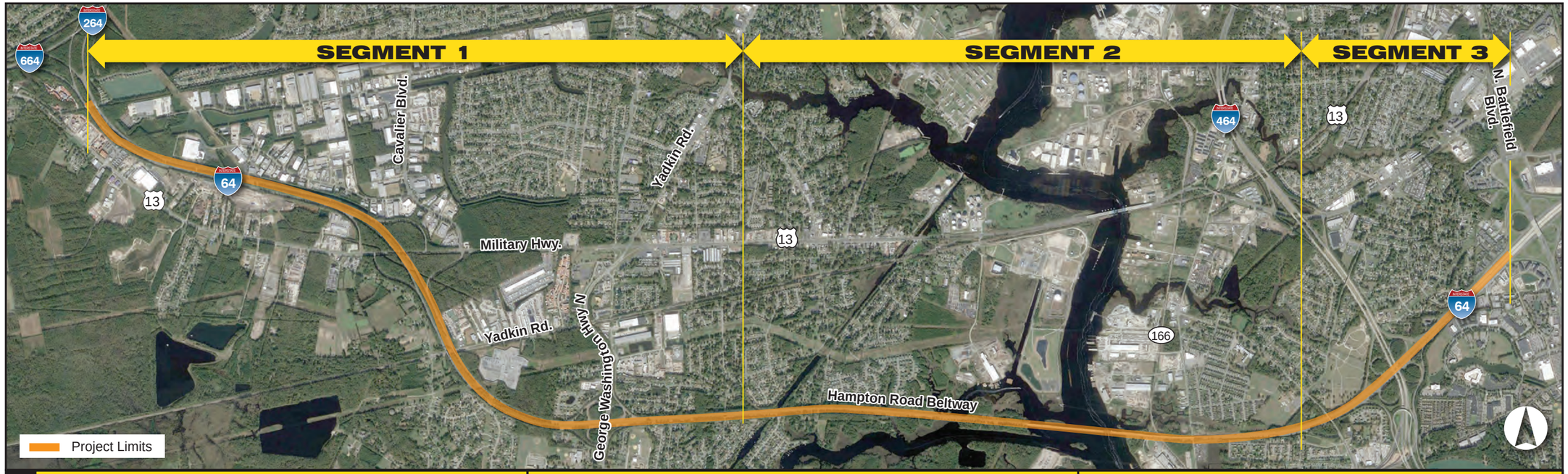
Package C includes the new HRB, Shell Road Bridge, the bridge approach work and the balance of the civil, ITS, electrical, and tolling works.

A dedicated Segment Superintendent and Segment Project Engineer will manage each construction segment to **ensure safety, environmental, quality, schedule, and commitments are met or exceeded for VDOT.**

Segmenting the Project allows the SAW2JV Team to better manage the schedule, traffic, our craft workers, the equipment resources, the material staging, and our subcontractors on the Project.

Dividing the Project into segments (with approved logical termini) will allow the SAW2JV Team to

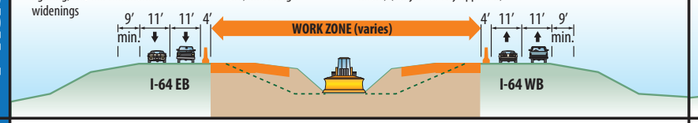
Figure 4.5-1: Construction MOT Segment Map



Phase 1

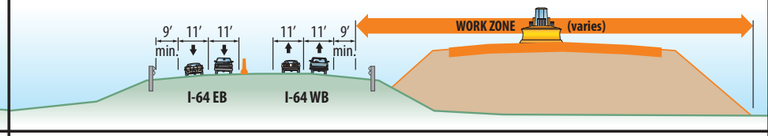
SEGMENT 1

- Install erosion and sediment control measures
- Install temporary concrete barrier in both directions during allowable closure hours and shift traffic
- Construct median, inside shoulders, inside lanes, median drainage, select sound walls (during allowable closure hours), median lighting, ITS/Toll communication infrastructure, and bridge widenings
- Military Hwy: Remove outside guardrail, install pavement and BPPS, place temporary concrete barrier and shift traffic during allowable closure hours
- Yadkin Rd: Install detour and close road (subject to City approval)
- Shell Rd: Close one lane and flag traffic (during allowable closure hours) (subject to City approval)



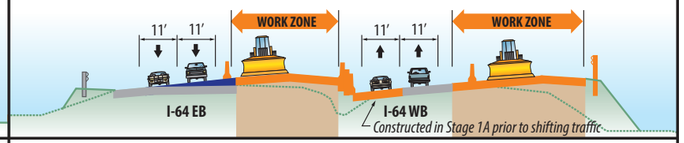
SEGMENT 2

- Install erosion and sediment control measures
- Install temporary concrete barrier during allowable closure hours and shift traffic
- Remove existing concrete median barriers and construct temporary pavement crossovers
- Construct inside shoulders, inside lanes, median drainage, select sound walls (during allowable closure hours), and ITS/Toll communication infrastructure
- Construct new High Rise Bridge and approaches
- Libertyville Rd: Install detour and close road (subject to City approval)



SEGMENT 3

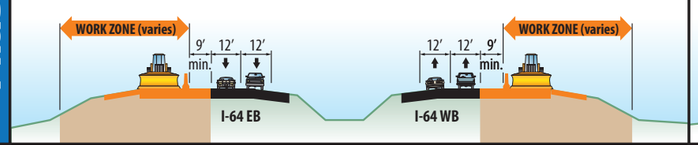
- Install erosion and sediment control measures
- Install temporary concrete barrier during allowable closure hours and shift traffic
- Construct median, inside shoulders, inside lanes, median drainage, select sound walls, outside WB shoulders, and outside WB C-D lanes
- Great Bridge Blvd: Construct bridge



Phase 2

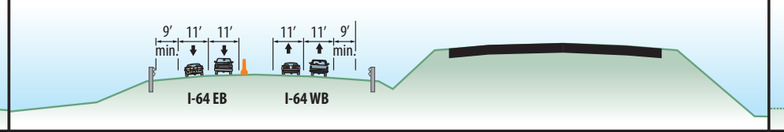
SEGMENT 1

- Install temporary concrete barrier in both directions (during allowable closure hours) and shift traffic
- Construct outside shoulders, outside lanes, select sound walls, drainage (including tide gate), and ITS/Toll devices
- Military Hwy: Open to traffic
- Yadkin Rd: Open to traffic
- Shell Rd: Open to traffic



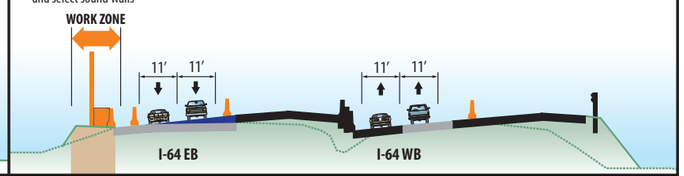
SEGMENT 2

- Construct Libertyville Rd
- Install ITS/Toll devices, power, standpipe system, and signage on new High Rise Bridge
- Install ITS/Toll devices on existing High Rise Bridge
- Install Fender System



SEGMENT 3

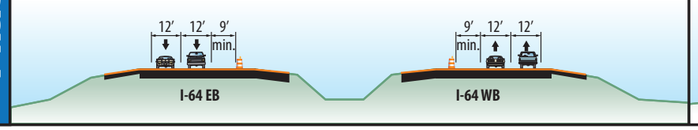
- Install ITS/Toll devices, power, and signage
- Construct C-D median, C-D shoulders, C-D lanes, drainage, and select sound walls
- Great Bridge Blvd: Construct bridge and road
- Bulldog Drive remains open to traffic at all times



Phase 3

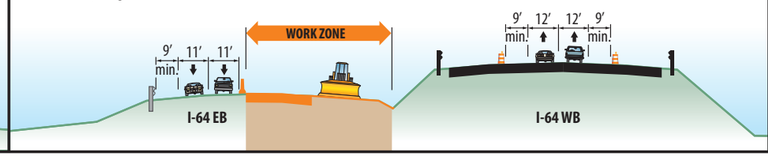
SEGMENT 1

- Install final surface pavement and markings (during allowable closure hours) and signage in both directions (during allowable closure hours)
- Burn in ITS and coordinate with Systems Integrator



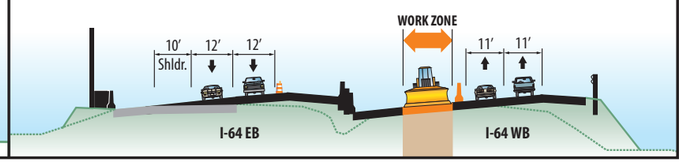
SEGMENT 2

- Shift WB traffic to new High rise Bridge
- Remove temporary crossovers to/from existing WB High Rise Bridge
- Construct inside shoulders, inside lanes, median drainage, and select sound walls (during allowable closure hours)
- Install final surface pavement and markings (during allowable closure hours)
- Test ITS and coordinate with Systems Integrator
- Libertyville Rd: Open to traffic



SEGMENT 3

- Test ITS and coordinate with Systems Integrator
- Construct C-D median, C-D shoulders, C-D lanes, drainage, and select sound walls
- Install final surface pavement and markings in both directions (during allowable closure hours)
- Great Bridge Blvd: Open to traffic



execute this complicated Project as three simpler Projects. Consistency in the design, construction, safety and quality of the area segments is achieved through our management structure. The Team has performed a detailed analysis of the craft labor resource requirements.

We anticipate a peak of nearly 350 craft personnel, with an average of about 180 craft workers, will be needed for this Project. **Our segmentation and local resources are important for the timely completion of this critical portion of the I-64 corridor.**

We have identified sufficient local labor resources in the Hampton Roads area, many of whom were part of the recently completed Elizabeth River Tunnels and US Navy Pier 5 Projects.

The overall Project construction sequence begins with effective management and a coordinated approach between all design, utility, ROW, environmental agencies, VDOT, and the SAW2JV personnel to ensure permits are acquired in a comprehensive and timely manner. The development of the preliminary design and the joint permit applications is critical to achieving the start of construction and ensuring the Final Completion is met. During the first six months after Notice of Award, the initial design and permit applications are on the critical path to allow construction to begin as scheduled. Details of the design, permitting and construction sequences are presented in Section 4.7 of the proposal.

The schedule provides a reasonable construction time frame with appropriate allowance for weather and unknown delays. It allows for true collaboration and partnering in the process for a sustainable delivery.

Section 4.7 provides a detailed schedule and discussion of the critical path. Figure 4.5-1 (Page 31) depicts the typical MOT phasing and construction activities required to successfully achieve the Project Final Completion Date of July 30, 2021.

The construction sequencing uses three basic phases to **minimize impacts to traffic**. This approach provides the following benefits for the traveling public:

- ***Maintains existing number of lanes along the entire length for the full duration of construction***
- ***Maintains existing travel lanes and shoulder widths except where otherwise allowed by the RFP***
- ***Maintains all movements within the Project corridor throughout construction***
- ***Shifts I-64 traffic only twice before shifting into final traffic configuration***
- ***Uses temporary barrier walls to separate traffic from work zones for worker and public safety while maintaining traffic flow.***

Our Team's previous experience with constructing Projects along interstates in Hampton Roads is extensive and includes Projects like the MLK Expressway, and HOV Projects on both I-64 and I-264. Lessons learned from these Projects have been applied to the sequencing plan.

Intelligent Transportation System (ITS)

The Team will inventory the existing ITS assets for monitoring traffic conditions within the construction limits and identify those assets that will be impacted. Once those assets have been identified, crews will start by installing a temporary fiber optic cable (FOC) backbone outside the impacted areas in order to avoid any communication disruptions. Crews will then reroute the fiber backbone in either an underground or aerial installation to suit the best situation as it relates to MOT, construction phasing, and ease of maintenance. This will be accomplished with a combination of temporary conduits directly buried or FOC installed overhead on wood poles that crews will install outside the impacted areas. Once the temporary backbone has been spliced, inspected and tested, crews will install temporary devices, hubs, and

Relocating the fiber optic backbone out of the areas impacted by construction, while maintaining the existing redundant loops where possible, will provide 24/7 uninterrupted service.

ITS devices will be selected from VDOT's APL list, ensuring seamless integration into VDOT's system and installed on temporary poles or existing structures and tied back to the FOC backbone. The crews will then aim, modify and test each device to ensure it is functioning properly. Once the temporary devices are tested and inspected, crews will remove the existing devices and supporting infrastructure. **Relocating these assets early will help to reduce the risks of impact and outages.**

While construction is underway, crews will simultaneously install and test the permanent fiber backbone system and devices. Once the permanent backbone and ITS devices are installed, tested and functioning properly, we will remove the temporary system. Testing and integration will take place throughout the course of construction to help facilitate final acceptance of the system. **Crews with the necessary spare parts and equipment will be on call 24-hours a day to ensure our commitment to respond quickly and efficiently for any maintenance issues that may arise during construction.**

Telemetered Traffic Monitoring Sites (TTMS)

The Team will install the TTMS structures, foundations, toll pricing signs, fiber optic communications cabling, power utilities and devices as called out in the RFP. Once the civil work has been completed around the tolling site to include the proper pavement type, inductive loops, and required testing distance on both sides, crews will complete the conduit system. The toll building will be a prefabricated shelter and delivered prewired with all the support systems already installed and ready to set on the pad. Once in place, SAW2JV crews will make all utility connections and start up the individual systems within the building.

Toll gantry installation will begin by assembling the gantries in staging areas. Crews will install conduit and necessary rack brackets at these staging areas from the ground to minimize working overhead and limit the need for detours.

Once drilled shaft foundations have been installed, we will begin setting the gantries with crews and installing prepackaged backup generator power systems. Raceway crews will then begin making all conduit connections with pull string and wires as stated in the RFP. Crews will perform testing and integration of the installed systems within the toll buildings and generators while simultaneously supporting the tolling system integrator to ensure that the overall system functions per the RFP.

4.5.2 Transportation Management Plan

Temporary Traffic Control Plan (TTCP)

Each segment of the Project is constructed in three traffic shifts or less, to ensure free-flowing traffic and uniform speed limits. The SAW2JV Team designed a detailed TTCP that has been reviewed for constructability and included in the schedule. The plan enumerates the stages and steps needed to complete each phase. Informational and directional signage has been included with the plans. Final plans will be reviewed by the IMC for consistency between the segments and the overall TMP, avoiding confusion to the motorist.

Our Team's TTCP focuses on driver expectancy, the safety of the public and construction workers, and facilitating construction access, while still allowing the maximum amount of work to occur in the least amount of phases.

Lane closures are required to install traffic barriers, remove sign structures and other similar construction activities throughout the Project. Specialty coordinated daily, nightly and weekend lane closures with the City of Chesapeake are necessary for the construction of the bridge widenings at Military Highway and the new roadwork. Major nightly lane closures will be required, but not limited to the following locations:

- Construction of superelevation corrections from Sta. 1131+87 to Sta. 1177+77
- Construction part of the super elevation corrections from WB Sta. 1373 to 1403 and EB Sta. 1587 to 1897
- Full-depth pavement reconstruction of I-64 under sections of I-464 and US 17
- Girder erection at the new Great Bridge Blvd and demolition of the existing bridge using rolling blocks

SAW2JV plans to recommend the following roads for consideration to have temporary detours in place during construction for the protection of the public and work force:

- Libertyville Road would be recommended for closure from Bainbridge Blvd to Windward Place for a period of time to facilitate the construction of the HRB and reconstruction of Libertyville Road.
- Yadkin Road would be recommended for closure from the intersection of Galberry Road and the MCO Transportation property.

These closures and detours would be a partnering effort, coordinated with the affected Stakeholders, VDOT, first responders and public services (HRT bus route) ensuring the needs and safety of the community is addressed and for the shortest duration practicable.

Temporary drainage has been incorporated into all lane/shoulder closures using temporary concrete barrier, including shoulder widths as per the RFP and the Virginia Work Area Protection Manual. Flaggers will be employed to **protect motorists, pedestrians and bicyclists from construction operations** as needed. All construction operations will adhere to the Norfolk Southern Railway Company Operation Guidelines for Contractors when working adjacent to their property.

Stakeholder Identification and Coordination

The overall success of the Project will rest with the Stakeholders' perception. As addressed in our Innovations and Benefits Table 4.5-1, the SAW2JV Team will work closely with VDOT to ensure that we maintain a positive outlook for this vital I-64 corridor improvement. There are many Stakeholders near the Project that will be affected by construction, including:

- Deep Creek Middle School
- Norfolk Southern Railroad
- Dominion Virginia Power
- Precon Marine
- Concrete Precast Systems
- Seward Marine Corp
- Chesapeake Yachts
- A&R Logistics

Coordination with these Stakeholders will be extremely important to **maintain the project schedule and minimize impacts to traffic operations**. Our Public Relations Coordinator (PRC) will provide accurate and timely information to all these Stakeholders.

Our PRC will work with VDOT to establish and maintain a Project website and mobile phone application to provide information about the I-64 corridor overview, work sequencing, overall Project schedule, potential traffic impacts, potential impacts to local Stakeholders, up-to-date Project photos, and our contact information. This same information will be sent to VDOT's District Office of Public Affairs and Stakeholders on both a periodic basis and at key milestones. We will prepare for and attend Public Coordination Meetings as necessary to communicate Project status and upcoming activities that will impact the Stakeholders. We will also provide written documentation to VDOT about our planned operations, haul routes, utility relocations, lane closure schedules, and changes in traffic patterns.

Traffic Mitigation Strategies

Mitigation of traffic impacts starts with early planning and scheduling. **We have established a sequence of work for each Project segment that allows concurrent work required to meet the schedule and to minimize the number of traffic shifts.** Please refer to Section 4.7 for a detailed discussion of our work plan and sequence, with the following specific strategies:

- Staging areas and access points to the work zones to **minimize the impact of construction traffic on I-64 travel lanes,** including

temporary access to the median work zone from the Rotunda Avenue, Yadkin Road, Shell Road, and/or Military Highway crossings

- Work zone barriers to s**eparate construction activity from the traveling public**
- Work schedule to **minimize traffic impacts, such as off-peak delivery times** of materials and equipment
- Alternative routes around the work zones to **minimize traffic impacts**
- Alternative continuous access to affected businesses and residential areas

Incident Management Plan (IMP)

Our Incident Management Coordinator (IMC) will lead the preparation of the required Incident Management Plan and will coordinate this important plan with the following Stakeholders:

- **VDOT Transportation Operations Center (TOC) to determine the possibility of adding temporary cameras in the Project corridor to enhance response times for medical support and to clear vehicles quickly.** We will also pursue the potential of using the TOC's Active Traffic Management System to set variable speed limits using temporary dynamic message signs.
- **Service Safety Patrol, which are already serving the corridor, to define ways to expedite response time and clearing of accidents.** We plan to define accessible pull-off areas to allow removing vehicles from traffic lanes as soon as possible and to provide on-call towing service.
- First Responders in the area to define a workable response plan. Before a traffic switch, the IMC and PIC will brief first responders on changes to traffic flow, explain how they can access the corridor and address any concerns regarding their ability to respond within their service area. **It is our practice to execute a practice drill with first responders every six months to help ensure a rapid, efficient response if required.**

Means and Methods - Specific Details

High Rise Bridge West Access

To minimize impacts on the traveling public (both land and marine), SAW2JV plans to use a combination of trestle and lay barges to create a make-shift work platform on the west end of the bridge. The trestle layout begins at the land to water transition and switches to lay barges once the water depth is great enough as to not "bottom out" during low tide. Most deliveries will be made to the west end by truck and off loaded straight from the platform.

These methods eliminate the need for lane closures on land (simple flagging operations to move trucks in and out during off peak hours) and minimizes barge traffic on the water.

Access to the work platform will be via the new roadway being constructed along with temporary access roads and truck turn-arounds as needed. As depicted in Figure 4.5-2, **the platform is designed to remain tucked in tight, parallel to the new bridge with safety protection such as navigation lights, so that water traffic can pass at all times avoiding confusion due to barge movements.**

Figure 4.5-2 Rendering of construction access to West section of the new I-64 High Rise Bridge

High Rise Bridge East Access

Just as with the west bridge access, our plan is focused around limiting impacts to the traveling public. There will be a minimal amount of trestle to transition off the land. Barges will be used as possible for accessing work areas in an environmentally safe manner. Most of our access on the east end will be via access roads within the Project ROW limits constructed by filter fabric and stone to maintain proper drainage.

The main point of ingress and egress will be along Bainbridge Boulevard near the intersection of Libertyville Road, as shown in Figure 4.5-3. **This single point of access will keep the traffic flowing more efficiently and allow for ease of deliveries and flagging operations during off peak hours.** As our access road crosses live tracks, we have coordinated with the railroads (Norfolk and Portsmouth Beltline and CHEMRES) and included temporary railroad crossings as well as railroad flaggers during the time in which we are crossing and working adjacent to the railroad tracks.

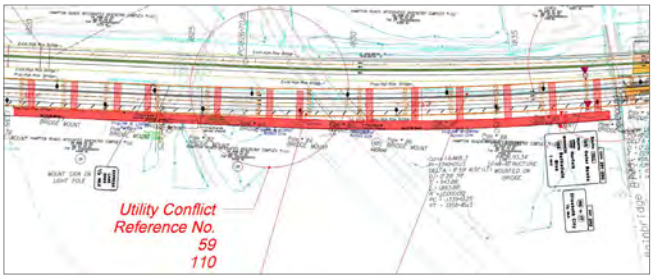


Figure 4.5-3: Plan of construction access to East section of the new I-64 High Rise Bridge

High Rise Bridge Marine Access

Given our access plans from the west and east, we have been able to limit the amount of marine access needed in the navigation channel to just the three main spans. The barge mounted cranes will work from behind the fender system leaving the channel open nearly 100% of the time (Figure 4.5-4). To fit our equipment behind the fender system, we will also install USCG approved temporary dolphins on the south side of the new bridge until access is no longer needed and the remaining fender system is installed. There will be minor exceptions for channel closures or limitations regarding setting the main span girders as well as removing and installing the fender system.

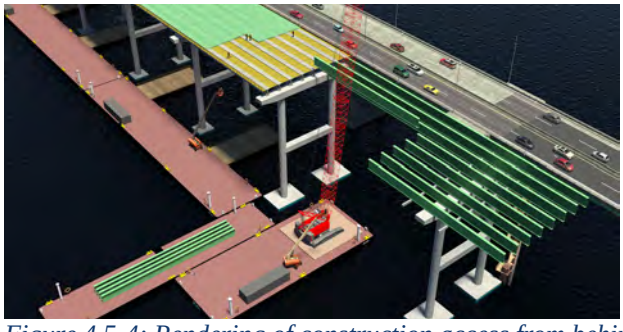


Figure 4.5-4: Rendering of construction access from behind existing fender system

To limit the time needed in the navigation channel, we developed a plan to accelerate the main span girder erection by pre-fabricating two units together into pairs at our Equipment Yard located just south of HRB (See location on Figure 4.5-16). **The girder pairs will be erected during off peak hours in half the time.** With our equipment selection and pre-fabrication work, the channel will remain open at all times during the fender system work. However, we will need to narrow the channel in width for short periods of time during off peak hours to complete the fender system work.

Pile Driving

We will be using a single tier template system to achieve accurate placement of piles within the alllowable tolerances. The template is made up of pin piles that support an upper frame allowing for a single set at each foundation instead of multiple moves, thereby **limiting vibration issues**.

Once the pin piles are driven into place, the upper frame is erected followed by the cross-guide frame. Prior to setting the piles into the cross-guide frame, certain locations will require the use of an auger to **limit vibration** and help in pile placement. Next, a row of piles will be placed within the template at which point the pre-fabricated bubble curtain will be set to **maintain proper considerations for endangered species**, as shown in Figure 4.5-5.

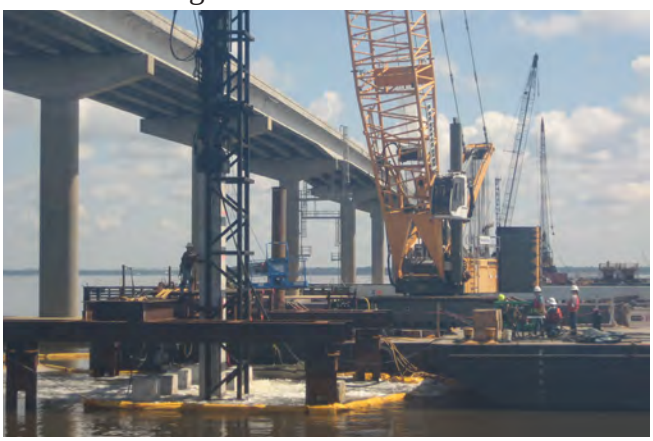


Figure 4.5-5: Image of a SAW2JV Project detailing marine pile driving with template and bubble curtain

As shown in Figure 4.5.6, the pile hammer size, with corresponding marine leads, has been carefully analyzed and selected to **ensure proper**

driving integrity. We intend to cut off each pile for QC purposes to allow for a proper surface to drill and grout the necessary connection dowels for the footings. This method of pile driving will be the same no matter if it is a test pile or production pile. The only difference is in the test pile restrikes for the purposes of PDA Testing.

Figure 4.5-6: Rendering of marine pile driving operation with template along west section of new High Rise Bridge

Bridge Substructure

In most cases the footings are land based and are formed via standard wood or steel plate girder forms. Cranes will be used to set the pre-fabricated forms in place followed by reinforcing steel installation. **To maintain the highest of quality standards, the water footings will be constructed with engineered precast concrete slabs with voids for the piles to penetrate.** These slabs are temporarily supported through steel falsework from the foundation piles themselves. The voids between the piles and slabs will be grouted to a water tight seal to allow for the formed footing to be pumped out ready for reinforcing steel. Certain footings will require mass concrete provisions due to their size, with instrumentation installed prior to the concrete pour check-off by the QA/QC inspectors. The concrete is placed with a crane and bucket as the footings are not large enough to warrant a pump. **Curing methods will be balanced against the mass concrete procedures to ensure the highest quality, especially at water level where low maintenance must be ensured.**

Columns, caps, and struts will be formed using specialized steel forms set in place with cranes as well as other man lift equipment. The forms are engineered to ensure proper liquid head pressure against the pour rates needed to maintain our pour cycle (Figure 4.5-7).

Reinforcing steel cages for both the columns and caps will be pre-tied to the maximum extent practical. Column cages will be placed in single units using rebar jigs up to a reasonable height before splices are made. The column forms will then be placed as single units over the cages. **This allows for ease of QA/QC inspection to view the entire form in place with the rebar cage to ensure proper clearances.**

Figure 4.5-7: Image of a SAW2JV Project detailing engineered column and cap forms

In a few cases, the columns will have to be formed and poured in multiple lifts with the same procedure being followed (Figure 4.5-7). Caps and struts will be constructed in reverse method where the entire form will be set in place first followed by the rebar cage.

However, the end results are the same regarding QA/QC inspection and review. Both the columns and caps contain mass concrete provisions and as such will follow the same methods described for the footings. Depending on our equipment assignments at the time of concrete pour, columns, caps, and struts will be placed via both crane and bucket as well as pumping.

Bridge Superstructure

We have engineered each girder pick on the Project to ensure proper crane sizing and safety protocols. **These erection plans are conducted in conjunction with delivery truck and/or barge placement as well as staging to keep our commitment to limit impacts to the traveling public (Figure 4.5-8).**

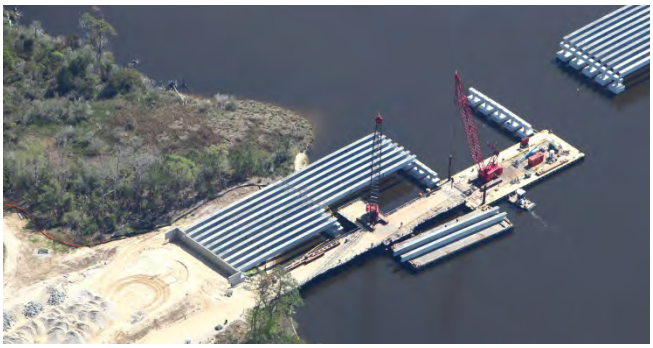


Figure 4.5-8: Image of SAW2JV Project detailing girder delivery and erection along trestle

Based on our engineering and access planning, only three spans on the entire Project will require double picks using two large crawler or truck cranes. Our splice location design and erection plans, such as the one described in our Marine Access Plan with pre-assembling girders into pairs, have eliminated the need for temporary falsework that would have severe impacts to the traveling public. We developed a specialized girder picking/setting system in the areas where power lines exist to eliminate the impacts to certain 3rd Party Stakeholders. Per our Marine Access Plan, we will deliver major materials, such as girders, during off peak hours and plan in advance of all permitted loads.

Stay-in-Place (SIP) deck forms will be set from the top of the girders using engineered hanging platforms and safety lines (Figure 4.5-9). The work progresses in a leading edge fashion using safety lines once the clips are installed from the hanging platforms. Bridge overhang forms will be installed using standard overhang brackets and plywood walkways installed from below the deck using man-lifts. Where practical, we will install the same from the top of the deck using a small davit type crane once the SIP is placed.

Figure 4.5-9: Image of SAW2JV Project detailing SIP installation with hanging platform

As deck reinforcing steel clearances are critical, especially in this type of corrosive environment, stainless reinforcing steel will be used with specialized installers given its delicate nature. Prior to pouring and curing the decks, our Bidwell Deck Finishers will be set into place, dry run multiple times, and adjusted each time to achieve proper tolerances. Deck placement on the lower level spans whereby the entire deck width can be reached will be completed via a standard pump truck (Figure 4.5-10).

Figure 4.5-10: Image of a SAW2JV Project detailing standard bridge deck concrete placement with pump truck

As the bridge increases in height such that a standard pump truck will not be able to reach the full width of the deck, we will implement a deck placing system using slick lines and spider placing boom system from a lower level span that can be reached with a pump truck.

Drainage and Utilities

With over 37,000 LF of pipe and 300 structures, the drainage and utility systems require extensive means and methods **planning to ensure deliveries, trenches and crossings will not impact the traveling public or 3rd Party Stakeholders.** Where possible, material deliveries will be made directly to the site location from the precast fabricator. **Given the tight constraints in many areas along with our commitment to keep the traveling public moving, we will make most deliveries to central yards and then reload to make deliveries during off peak hours with smaller loads.** Trenching of every line has been analyzed against existing and new drawings to verify what engineered shoring systems, if any, are needed including trench boxes, sheeting, and hydraulic speed shore systems (Figure 4.5-11).

Figure 4.5-11: Image of a SAW2JV project detailing trench shoring system

Jack-and-bore installation methods will be used extensively throughout the Project and will include the proper engineered shoring systems as well for the jacking and receiving pits.

These jack-and-bores are being used to eliminate the need for specific road closures or detours to maintain existing traffic at all times. Proper dewatering will be maintained during all excavation and backfill operations mainly through the use of centrifugal or hydraulic pumps using sump pits and discharging into proper locations with required treatment per the required 3rd Party Stakeholder water discharge permits. Existing and new drainage systems, including storm water ponds within the Project limits will be cleaned and maintained throughout the Project construction duration to ensure no roads become impassable due to flooding during heavy rain events due to clogged pipes or structures.

Walls

Figure 4.5-12: Image of a drilled shaft installation along steep slope with an excavator mounted drill

Noise wall access will drive the overall installation efficiency to limit the Stakeholder burden of construction noise near residences as soon as possible. As such, we have included the necessary temporary access roads in and out of areas to mobilize and demobilize equipment without other construction activities needing to take place first. **To limit the noise impact, we have selected the use of drilled shafts with surface mounted posts as the structure for the noise walls.** The drilled shafts will be installed with versatile excavator-mounted rigs (Figure 4.5-12) to fit along our access roads within the tight ROW areas and will be constructed in two lifts with the top lift being a short 3’ to 5’ hand-formed section that will enable our crews to accurately place the anchor bolts and **maintain high quality standards**.

Our plan is to use temporary casings where possible to **limit environmental impacts associated with slurry clean-up and removal**. The posts and panels will be set with forklifts, RT cranes, and man lifts again, engineered to fit within the allowable access areas. There are low overhead restrictions along Yadkin Road due to 3rd Party power lines that we have accommodated for by using small excavators and man lifts to set the posts and panels.

MSE walls will be constructed using standard leveling pads, panels with straps, select backfill, and coping that will be erected and placed with

standard excavators, loaders, dozers, man lifts and compactors based on the activity location (Figure 4.5-13).

Figure 4.5-13: Image of a SAW2JV Project detailing MSE wall construction

Access to these areas are more simplified than the noise walls given their locations in relation to bridge abutments. The exceptions are the two MSE walls along Libertyville Road that will require special consideration with temporary access roads. The key to the MSE walls on this Project are the two-stage MSE walls needed due to settlement issues at Great Bridge Boulevard. These two-stage MSE walls will require the use of temporary sheeting for access, wire walls for phasing, and wick drains with surcharge to attain the settlement needed prior to placing the final wall facing panels.

Roadway

Once the temporary traffic barrier is in place as defined within our TTCP design drawings, we will commence with installation of erosion control features and our clearing and grubbing operations. Critical erosion control devices will be installed first to ensure no accidental releases are made into environmentally sensitive areas such as wetlands or waterways. **We will institute a full-time dedicated erosion control and maintenance crew during construction operations, reporting to the Responsible Charge Engineer (RCE), to maintain and repair any erosion control devices in order to eliminate any possible issues before they arise and to support our high quality standards and commitment to the environment.** Certain aspects of the clearing and grubbing operations are MOT critical given that trees overhang the existing roadway. These trees will be removed with specialty equipment, and by hand as necessary, during off peak hours with traffic shifted.

Delivery and placement of borrow, aggregates, and asphalt will mainly be completed during off peak hours as well following our haul routes and delivery points described later in this section. Placement of roadway materials will be completed per lift and compaction specifications with GPS guided equipment such as dozers, motor graders, and pavers meeting or exceeding the tolerances and quality standards (Figure 4.5-14).

Figure 4.5-14: Image of a SAW2JV Project detailing GPS guided equipment for grading

Maintenance of Traffic (MOT)

Our MOT phasing is detailed on the design drawings and Construction MOT Segment Map (Figure 4.5-1, Page 31) that depicts our segment phasing and construction sequencing as described in Section 4.7.

To maintain traffic flow and safety, we will have multiple full-time MOT crews mobilized during construction. Each Segment will contain a dedicated MOT crew that will set lane closures and detours using barrels, cones, barricades, and temporary traffic barriers for both vehicle and pedestrian traffic. These same crews will provide daily maintenance along the corridor using our proven, specialty designed MOT trucks (Figure 4.5-15) as well as other equipment such as wheeled excavators, attenuator trucks, arrow boards, portable traffic control signals and portable changeable message signs **(we will use**

4.5-15: Image of SAW2JV Project detailing specially designed MOT truck

more than the required eight units).

Our IMC, who reports to the RCE, will be the direct line of management to these crews to ensure any issue that arises will be resolved immediately. We will implement several innovations and tools to **minimize disruption to the traveling public** including Smart Work Zone Systems and a Project Document Portal (PDP) that schedules, monitors and tracks through real-time data all lane closures and detours. We will also provide a proven mobile phone application that ties to the PDP to advise and alert travelers of lane closures and detours as well as provide contact information and public meeting notices to **maintain mobility within the region**. See additional details in Table 4.5-1.

We have included the costs for Chesapeake Police during local street closures and added additional signage to ensure there is no confusion as to the MOT routing to keep traffic moving efficiently.

We also analyzed the drainage affected by our MOT traffic phases and included the additional pipe and structures needed to eliminate possible ponding.

Overhead Signs

Signs structure foundations will be constructed using the same drilled shaft methods described for our noise walls, but accessed with more ease from the outside and inside of I-64. Most of the foundation work will **not require lane closures, with work conducted behind barrier wall thus limiting traffic impacts**. There are several different types of structures including butterfly, cantilever, and gantry types. After the foundations are installed with the anchor bolts cast properly using a template, the sign structure columns will be set and adjusted. **The larger truss sections of each overhead sign structure will be prefabricated into single units at one of our laydown yards resulting in better quality. They will then be trucked to their final location, and then erected into place in a single unit, reducing the lane closure time frames.**

Erection of these sign structures will be conducted with mobile truck cranes along with bucket trucks and man lifts. Sign panels will then be installed using the same crews and equipment. Existing sign structures and panels to be removed will be done so in the same manner as the erection, in large sections loaded to trucks and shipped back to one of our yards, to be disposed of appropriately.

General Project Logistics and Maintenance

We are providing roll back (on site 24 hours/day), light duty (on site 12 hours/day during long term stationary work), and heavy duty (on call 16 hours/day) wrecker trucks as required by the specifications to **respond to incidents quickly and to reduce traffic impacts**. Street sweeping will also be maintained at all times during construction utilizing a vacuum broom truck to keep streets clean of debris to **reduce impacts to streams and wetlands**. Maintenance of the Project corridor will be conducted per the specifications and will include items such as drainage system cleaning, pavement repairs (patching/crack repair), ITS/electrical/lighting/sign repairs, mowing, and general roadway litter pick up.

Our full-time dedicated MOT crews will also perform certain aspects of general roadway maintenance while not working on setting or removing lane closures. **This effectively provides for constant maintenance along the corridor reducing impacts to the traveling public and Stakeholders**. Four time-lapse camera and video monitoring systems will be implemented at the locations set forth in the specifications and maintained throughout Project construction. Our Public Information and Communications Plan (PICP) will abide by the guidelines of the Technical Requirements including all tools, tactics, and strategies as well as provide for the Groundbreaking Ceremony to start this critical Project on the right path. We will provide a Type I Field Office for VDOT, located adjacent to our Field Office, and outfit said facility per the specifications.

Borrow Pits, Aggregate Materials and Asphalt Plants

As this Project requires close to 400,000 CY of import fill, 100,000 Tons of aggregate, and 260,000 Tons of asphalt, we have located and visited several sources pre-bid that meet the proper specification parameters of each. **These pits are strategically located from one end of the Project to the other to provide short haul distances and durations which will help limit the impacts to the traveling public.**

During these site visits, we took numerous fill samples to test and verify pre-bid the material reports provided to us were accurate.

Each site has been permitted under local regulations regarding dewatering, loading, batching, and hauling to which we have reviewed and will abide by. The borrow pits are owned by Luck Stone, Vulcan, VICO, and Branscome and the aggregates pits are owned by Luck Stone and Vulcan. Finally, the local asphalt plants are operated by Branscome and Allen Myers. Virginia Paving also has a nearby asphalt plant, but it is located in Norfolk. **It is our intent to load out the borrow pit materials ourselves to control the rate of delivery as well as the quality selected.** As with the bridge deliveries, we plan on hauling most of these roadway materials during off peak hours while maintaining proper access and egress points to minimize traffic impacts. Our Project Site Overview Map, Figure 4.5-21, details each location.

Haul Routes and Delivery Points

Our haul routes have been driven pre-bid during peak and off-peak hours to verify traffic conditions, including vehicle volume, traffic signal timing, and non-signalized intersections to determine the best routes to take in order to limit impacts to the traveling public and Stakeholders during construction. Further, we have worked with our designer to determine the best entry and exit points for deliveries of all materials across the Project given the Level of Service at any given point in time. We also took into account the MOT phasing while conducting this haul route study. Figure 4.5-16 details the best entry and exit points into the median for Phase 2 as well as HRB.

Laydown Areas and Craft Parking

We have located four different laydown yards across the Project totaling 7.8 acres. Similar to the borrow pits, aggregate materials, and asphalt plants noted above, these yards are located from one end of the Project to the other **resulting in shorter hauls and less construction impacts**. All locations are flat, readily accessible, and permitted to allow for temporary construction.

Three of the laydown yards exist in the borrow or aggregate pits, which will allow for possible back haul of demolition materials, limiting the number of truck loads along the Project and lowering impacts to the traveling public.

Our plan is to limit the amount of craft parking within the Project ROW limits to ensure the safety of our workers as well as the traveling public from vehicles entering and exiting multiple points along the Project during early morning and late afternoon peak hours.

Office Location and Supervisory Parking

It is always our intent to locate both the Owner's and the Contractor's Field Offices as near to the central part of the Project as possible or where the majority of the work exists. **Given the possible locations and with the focal point being the High Rise Bridge, we have found that the Chesapeake Yachts' property (2.01 acres) is our best option.** This location gives both land and water access via Shipyard Road to Old Mill Road as well as Chesapeake Yachts large bulkhead and pier space.

There will be no laydown at this location given the narrow width of Shipyard Road, which will ensure that safe access to and from the Field Office will be available at all times and not impeded by delivery trucks.

We have made an agreement with Chesapeake Yachts pre-bid to rent the area shown on Figure 4.5-16, that includes full access to the bulkhead and piers.

Asphalt / Pit / Yard Locations

Enter and Exit Median from I-64

Enter Median from I-64

Exit Median from I-64

Enter and Exit Shoulder from I-64

Enter and Exit Median from Sidestreet

4.6 Disadvantaged Business Enterprises (DBE)

4.6 Disadvantaged Business Enterprises (DBE)

DBE Participation

SAW2JV is committed to meeting the 8% DBE participation goal. In addition to the participation that will be achieved through construction subcontractors, SAW2JV also includes participation from the design subconsultant community.

DBE Subcontracting Narrative

SAW2JV will provide subcontracting and purchasing opportunities to local DBE firms to meet VDOT's established goal of 8% DBE. Since members of our team have been working in the local area for over 50 years, we have established strong working relationships with many local DBE firms. We have built these strong relationships through the combined efforts of all parties and with our prompt payment system. In addition, we are always seeking new qualified DBE firms. We have been successful in meeting the DBE goals for the projects we have completed for multiple agencies and owners throughout the region.

As projects are pursued, efforts are made to ensure procurement packages are structured to allow all types of disadvantaged business concerns to participate to the maximum extent possible. Bid invitations and other documents are reviewed to eliminate statements or clauses which may restrict or prohibit disadvantaged business participation.

Assistance Programs and Outreach to DBE Firms

In addition to the composition of our team, we anticipate that there will be additional subcontract opportunities placed with disadvantaged business concerns qualified as DBE contractors following award. Our outreach efforts during the preconstruction phase will continue throughout the entire Project. These ongoing efforts will include, but are not limited to:

- Encouraging DBEs to attend VDOT sponsored networking/informational outreach meetings and SAW2JV hosted meetings to provide adequate information about the I-64 High Rise Bridge Project and the requirements of the contract.
- Directly contacting DBE firms by phone, fax, email, and mail about contracting opportunities using Skanska's and Archer Western's bidder databases and VDOT's qualification list.
- Partnering with DBE trade/professional associations, local chambers, and community organizations to deliver Project information about upcoming contracting opportunities via member distribution lists.
- Advertising solicitations using a variety of local media targeting disadvantaged community-concentrated audiences
- Considering DBEs for administrative, engineering, and construction assistance during the Project.
- Inviting DBEs to come to our offices to review the drawings and specifications and ask questions concerning potential scopes of work.
- Coordinating and providing technical assistance to enhance the capacity and capability of DBE firms. Methods to accomplish this may include breaking work components into smaller packages to assist the smaller firms by giving them a scope of work they can handle.
- Facilitating the cash flow schedule of DBE subcontractors and suppliers through early payment on mobilization items and waived retainage on labor-only subcontracts to subcontractors who are unable to obtain sufficient credit.

During the design phase and the procurement process, workshops or one-on-one meetings may be conducted to provide DBE subcontractors/ suppliers direct support and additional encouragement to participate in the bidding process.

4.7
Proposal Schedule

4.7 Proposal Schedule

4.7.1 Proposal Schedule

The Proposal Schedule is included at the end of this section. For ease of review of the SAW2JV schedule, we have included a rollup schedule, in addition to the critical path version and the fully expanded version.

- The rollup schedule is the compressed version of the fully expanded proposal schedule, "rolling up" the activities to the major work WBS header by phase and by location.
- The critical path schedule is a filtered version of the fully expanded proposal schedule depicting the critical path of the Project.
- Finally, the expanded schedule is the traditional schedule showing all of the activities sorted by the WBS.

4.7.2 Proposal Schedule Narrative

Key Assumptions

SAW2JV used Oracle Primavera P6 Software to develop a Critical Path Method (CPM) Schedule. The Proposal Schedule for this Project was created to ensure a timely delivery. Several factors were considered in developing the proposal schedule for this Project, including:

1. VDOT Goals and Schedule Expectations
2. Design and Permitting
3. ROW Acquisition
4. Public Relations
5. Environmental Protection
6. Procurement of Critical Materials
7. Manpower and Resources
8. Coordination of Work and Approvals
9. Maintaining Traffic Flow during Construction

Table 4.7-1: Monthly Number of Days Precipitation >= .5 for Norfolk Area, VA (ThreadEx)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2000	5	0	1	4	3	5	5	7	4	0	1	0	35
2001	1	2	5	1	2	3	2	3	2	1	0	1	23
2002	3	1	5	2	2	4	3	4	3	5	5	2	39
2003	1	6	1	4	4	1	5	4	1	2	2	6	40
2004	0	0	1	2	4	3	7	5	1	1	2	2	28
2005	2	2	2	1	2	5	2	5	2	3	1	4	31
2006	1	0	0	2	3	5	1	2	3	3	3	1	24
2007	2	2	1	1	2	3	3	4	0	3	0	3	24
2008	1	3	1	4	2	1	3	0	4	1	4	2	26
2009	0	1	4	1	4	4	1	6	4	2	3	7	37
2010	3	3	3	0	3	3	1	2	4	2	0	1	25
2011	3	2	2	1	2	3	7	2	5	2	1	1	31
2012	1	1	3	1	4	4	5	6	0	4	0	2	31
2013	1	3	2	1	2	2	4	5	0	3	3	4	30
2014	1	2	4	4	2	1	5	3	4	1	1	2	30
2015	3	2	3	4	1	6	3	1	3	2	5	2	35
2016	3	5	4	3	4	5	5	4	5	2	0	1	41
2017	2	0	M	M	M	M	M	M	M	M	M	M	M
Mean	2	2	3	2	3	3	4	4	3	2	2	2	31

For bridge work over water, a five day calendar that factored weather and holidays was based on the NOAA 17 year average / 1.0 inch of rain per day, found in Table 4.7-2 on the following page.

Table 4.7-2 - Monthly Number of Days Precipitation >= 1 for Norfolk Area, VA (ThreadEx)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2000	1	0	0	1	1	3	2	3	3	0	0	0	14
2001	0	0	1	0	2	1	1	1	1	0	0	1	8
2002	1	1	1	0	1	2	1	1	2	1	1	1	13
2003	0	1	0	2	0	1	3	2	3	1	1	2	16
2004	0	0	0	0	2	1	3	5	1	0	1	1	14
2005	1	0	0	0	2	2	1	4	1	1	1	2	15
2006	0	0	0	1	0	3	1	1	2	1	3	1	13
2007	0	0	1	1	0	2	2	1	0	2	0	2	11
2008	0	1	1	2	0	0	1	0	3	0	2	1	11
2009	0	0	1	0	1	2	1	4	2	1	2	2	16
2010	1	2	1	0	2	1	1	1	2	1	0	1	13
2011	2	0	0	0	0	1	6	2	3	0	0	0	14
2012	0	0	0	1	4	2	2	1	0	2	0	1	13
2013	1	2	0	1	1	1	4	1	0	1	1	0	13
2014	1	0	0	1	2	0	4	0	4	0	1	1	14
2015	1	0	0	2	0	3	3	0	3	1	0	0	13
2016	3	2	0	0	2	1	1	2	4	2	0	1	18
2017	2	0	M	M	M	M	M	M	M	M	M	M	M
Mean	1	1	0	1	1	2	2	2	2	1	1	1	14

SAW2JV developed the schedule using a variety of construction calendars. A seven day calendar (excluding holidays and weather) was assigned to all Project milestones, establishing the 1352 calendar day Project duration from an anticipated Notice to Proceed to Final Completion. The same seven day calendar was used with all of the design, permitting, and ROW activities. A five day work week calendar (excluding weather days, including holidays) was tied to all procurement activities, VDOT Plan Reviews, and activities not affected by weather. A five day calendar, which factored weather and holidays, was added to all of the construction activities directly impacted by weather. The five day calendar, which factored weather and holidays on land, was based on the NOAA 17 year average / 0.50 inch of rain per day, found in Table 4.7-1 below. This calendar was also used to create the asphalt calendar that restricts asphalt activities during December, January, and February.

Work Breakdown Structure (WBS)

The proposal schedule was developed using a hierarchical WBS that includes all major phases of the Project, such as milestones, Project management, design and permitting, utilities, procurement, precasting, and construction. Each major WBS phase is further subdivided into work areas, phases within those areas, and type of work. The WBS will be further developed as necessary during preliminary and baseline schedule development.

Within the proposal schedule, activities may also be sorted by use of activity codes. Activity codes were created to further filter, group, and sort the activities by VDOT Division, VDOT Specification, stage, phase, and location of work on the Project site. These activity codes will be advanced during preliminary and baseline schedule development to include work orders, DBE, responsibility, and other major work categories required to effectively filter, group, and sort the schedule.

There are two distinct milestone dates required by the RFP: NTP being issued on or before 17 November 2017 and Final Completion by no later than July 30, 2021. Each of these prescribed dates may be found in our CPM under the WBS “Milestones”.

Project Management consists of the administrative

activities such as insurance and bond submittals, Project Kickoff Meeting, VDOT Groundbreaking Ceremony, preliminary and baseline schedule submittals, HS&W plan, Public Information and Communication Plan, list of affected stakeholders, preliminary utility status report, design and construction QA/QC plans, and VDOT regional Utility Manager Meeting. Within these activity descriptions, notes have been added defining the timeframe in which the activity is required to be completed. Activities required to be completed prior to NTP will be completed as stated, and are shown as being completed on NTP since the schedule/contract time starts on NTP. Currently these activities are constrained "finish on dates" in the schedule as hold points.

The scope validation period of 120 days is identified within the WBS hierarchy and is tied with activities listed under the "Early Works" portion of our Design and Permitting Schedule.

Right-of-Way (ROW)

ROW will be acquired before the start of construction. Our preliminary design plans keep construction activities within VDOT's proposed ROW and easements and reduce ROW acquisitions, as described in Section 4.3.

During concept design development, the Team has worked diligently to eliminate impacts to adjacent properties. Specifically, fee simple ROW acquisition has been eliminated from all parcels in Segments 1 and 3. ROW will be acquired before the start of construction for Segment 2. The Volume II Concept Plans keep construction activities within VDOT's proposed ROW and easements.

Design and Permitting

This Project presents the Team with several time-related challenges, most notably, the need to effectively advance the design sufficiently to submit Joint Permit Applications for the three segments (allowing the USACE permit reviews to commence), obtain Section 408 concurrence from the USACE, and a Section 10 permit from the USCG. To minimize this risk, the Team met with USACE during concept design development to discuss the permitting process, the possibility of segmentation, and required Section 408 concurrence for the river crossing. From these discussions, we determined that it will take 14 months from NTP to obtain required permits for the water crossing (Segment 2). For this reason, we will begin advancing the design immediately upon notice of selection. During this period, we will review potential Project innovations and value engineering with VDOT, prepare required work plans and submittals for scope validation field investigations, refine design concepts, engage the permitting agencies, and begin the public outreach to the surrounding communities that will be affected by our work. While there is risk on our behalf for proceeding without negotiated contracts, we believe this is crucial to achieve the Project milestones. Under the Utility section, we listed the design and relocation activities that were identified on the Project. The design activities have a predecessor tied to VDOT Utility Manager Meeting and the Preliminary Utility Status Report, as well as its corresponding relocation activity. The relocation activity is then tied to the specific construction activity that is dependent on that relocation being completed.

Within the proposal schedule, procurement activities were created to specifically tie the purchase, submittal and approval process, fabrication, and the delivery of materials to design and installation. Based on the activity relationships and Project sequencing, we have identified critical elements throughout the design, procurement, and construction of the Project, while optimizing Project resources. The precasting portion of the schedule ensures that our fabrication schedule will meet our construction schedule.

The construction WBS is broken into segments to align with USACE permits. Work areas for each segment are then broken down by phase and type of work. By breaking down the Project to this level of detail, it helps the Project management team track and forecast Project performance from the milestone level to the smallest work activity, including those items on the critical path. All Project activities are scheduled to allow precursor tasks to be completed on time so as not to delay or impact subsequent tasks. The proposal schedule

will be further developed after award and NTP to create a detailed contractual Baseline Schedule that will be used to coordinate both onsite and offsite Project management tasks.

Construction

Segment 1

- I-64 WB from 1030+57.06 to South Military Highway Bridge
- I-64 EB from 1489+33.00 to South Military Highway Bridge
- WB Military Highway Bridge
- EB Military Highway Bridge
- WB Military Highway Roadway Work
- EB Military Highway Roadway Work
- I-64 WB from South Military Highway Bridge to Yadkin Road Bridge
- I-64 WB from South Military Highway Bridge to Yadkin Road Bridge
- WB Yadkin Road Bridge
- EB Yadkin Road Bridge
- WB Yadkin Road Roadway Work
- EB Yadkin Road Roadway Work
- I-64 WB from Yadkin Road Bridge to Shell Road Bridge
- I-64 EB from Yadkin Road Bridge to Shell Road Bridge

Segment 2

- WB Shell Road Bridge
- EB Shell Road Bridge
- NB Shell Road Roadway Work
- SB Shell Road Roadway Work
- I-64 WB from Shell Road Bridge to New HRB
- I-64 EB from Shell Road Bridge to Existing HRB
- New WB HRB
- Existing EB HRB
- Libertyville Road Roadway Work
- I-64 WB from new HRB to 1442+08.47
- I-64 EB from existing HRB to 1925+58.03

Segment 3

- I-64 WB from new HRB to 1442+08.47
- I-64 EB from existing HRB to 1925+58.03
- I-64 WB CD to Battlefield Blvd
- Great Bridge Blvd Bridge
- Great Bridge Blvd Roadway Work
- Great Bridge Blvd Ramp Work

Segment 1

Phase 1

Construction begins on the west side of the Project (Segment 1) once “Package A – Project Wide Design RFC Plans” are issued. Crews will begin on both WB I-64 from 1030+57.06 to the South Military Highway Bridge and EB I-64 from 1489+33.00 to the South Military Highway Bridge. During Phase 1, crews will construct the new inside lanes and associated drainage located within the median. Noise Wall No. 2 located on the outside lanes of I-64 will be constructed during Phase 1. Crews will then proceed to WB/EB I-64 from the South Military Highway Bridge to the Yadkin Road Bridge Phase 1, constructing the new inside lanes, associated drainage located within the median, SWM areas, and portions of Noise Wall 4-5. Crews will then proceed to WB/EB I-64 from the Yadkin Road Bridge to the Shell Road Bridge. This work again will consist of the new inside lanes, associated drainage, SWM areas, and include portions of Noise Walls 4, 5, and 7 on WB I-64 and portions of Noise Walls 6 and 8 located on EB I-64.

During the Phase 1 roadway construction (inner lane widening) from the west side of the Project to the Shell Road Bridge, bridge crews will construct the bridge widenings starting at Military Highway then proceeding to the Yadkin Road Bridge. The ITS fiber and distribution lines will also be run during this time.

Phase 2

Upon completion of Phase 1 from the west side of the Project to the Shell Road Bridge, traffic will then be shifted from the existing outside lanes to the newly constructed lanes, allowing

the outermost travel lanes on both WB and EB I-64 to be closed. Once Traffic has been shifted, crews will begin Phase 2 construction starting at WB I-64 from 1030+57.06 to the South Military Highway Bridge and EB I-64 from 1489+33.00 to the South Military Highway Bridge. Existing paving will be milled and overlaid as guardrail and ITS equipment is installed. Similar to Phase 1, crews will then proceed into WB/EB I-64 from the South Military Highway Bridge to the Yadkin Road Bridge section. Crews will install remaining drainage along the outer lanes, mill and overlay the existing asphalt, install guardrail and barrier, set ITS equipment, and install remaining Noise Wall 4-5 on WB I-64. Phase 2 work will continue into the WB/EB I-64 from the Yadkin Road Bridge to the Shell Road Bridge Area. Work in this area will consist of extensive drainage work along the outer lanes, mill and overlay the existing asphalt, install guardrail and barrier, set ITS equipment, and install remaining Noise Walls 4, 5, and 7 on WB I-64 and Noise Walls 6 and 8 located on EB I-64. During this phase, the toll points located between Yadkin Road Bridge and the Shell Road Bridge will be completed and ready for testing on the existing backbone.

Phase 3

Phase 3 work on the west side of the Project to Shell Road Bridge will consist of the final topping of asphalt, installation of all traffic signage, pavement markers, and ITS Burn-in.

Figure 4.7-1 shows a summary schedule of Segment 1 overlaid with the manpower resource graph for Segment 1 from P6. As shown, Segment 1 quickly ramps up to 60 craft throughout earthwork and drainage and peaks at 80 craft as Phase 1 and Phase 2 work overlaps with drainage and Noise Walls.

Table 4.7-3: Labor Breakdown

Crew Type	Workers per Crew	Total Workers
Barrier Wall	6	averaging 1 crew (6 men)
Noise Wall	15	averaging 1 crew (15 men) during Phase 1, maxing out at 3 crews (45 men) during Phase 2
Drainage	5	averaging 1 crew (5 men) during Phase 1, peaking during Phase 2 with 3 crews (15 men)
Earthwork	6	averaging 4 crews (24 men) throughout Phases 1 and 2, peaking at 7 crews (42 men)
Pile	5	averaging 1 crew (5 men) throughout the construction of Military Hwy and Yadkin Rd bridge widening
Substructure	6	averaging 2 crews (12 men) throughout the construction of Military Hwy and Yadkin Rd bridge widening
Girder	7	averaging 1 crew (7 men) throughout the construction of Military Hwy and Yadkin Rd bridge widening
Deck	7	averaging 2 crews (14 men) throughout the construction of Military Hwy and Yadkin Rd bridge widening

Segment 2

Phase 1

Crews independent of those working in Segment 1 from the west side of the Project to the Shell Road Bridge will begin WB/EB I-64 roadway construction from the Shell Road Bridge to the HRB once Package C – Project Wide Design RFC Plans are issued. During Phase 1, crews will construct the new inside lanes and associated drainage located within the median and the new WB lanes and drainage to the abutment of the new HRB. Noise Wall No. 7 located on the outside lanes of I-64 and remaining fiber and distribution lines will also be constructed during this phase. Access roads will be constructed to gain access to piers 1-9 of the new HRB and to the “special design” wall at the crossway. In order to maintain access to HRB piers 1-9, the retaining wall separating the westbound and eastbound lanes will not be installed until pier 1 piles are installed and span 2 girders are erected.

Segment 2 includes the construction of the Shell Road Bridge widenings, the new HRB, Libertyville Road, and the Existing HRB. Work on the New HRB can begin once Package C –

Segment 2 Design RFC Plans are issued.

The new HRB will be constructed in four sections referred to as headings. Heading 1 will include Abutment A through Pier 9. Heading 2 will consist of all "water" work including Piers 10 through Pier 22. Heading 3 will consist of all landside work on the east end from Pier 31 through pier 23. Heading 4 will consist of piers 32 through Abutment B.

Heading 1 will begin by installing trestle along Piers 9 through 4. Once the trestle has been installed, test piles will be driven from Pier 9 through 2, with Pier 1 and Abutment A test piles being left out for material delivery access. As the test pile program is completed, production piles will be driven using the same crane as the test piles. Once production piles have been driven at Pier 9, assist cranes and crews will begin constructing the substructure from Pier 9 through Pier 2. As the pile driving crane has completed the production piles at Pier 2, that crane will fall back to Piers 8 and 9 to begin setting girders, following the substructure crews to Pier 2. Once the girders have been set between Piers 2 and 3, girders for spans 2 and 1 will be delivered and stored, and piles for Pier 1 and Abutment A will be driven. Once the piles for Pier 1 and Abutment A have been driven, the access road can be filled in, and the retaining wall between the existing WB lanes and new WB lanes can be constructed. As the substructure for Pier 1 is complete and Abutment A is constructed, spans 1 and 2 can be erected. The assist cranes and pile rig will then be demobilized via trestle. The bridge deck will be constructed via assist cranes from below and placed at night from the existing bridge during a night time lane closure.

Heading 2 will begin with driving test piles from Pier 10 through 22 and installation of the fender system at piers 19 and 20. Once the test pile program is completed, production piles will be driven using the same crane as the test piles. As production piles are completed, assist cranes and crews will begin constructing the substructure from Pier 10 through Pier 22. Upon completing the piles at Pier 22, that crane will then fall back to Pier 10 to begin setting girders. The bridge deck will be constructed via assist cranes from below and placed at night from the existing bridge during a night time lane closure.

Heading 3 will begin by installing trestle along Piers 23 through 27. As the trestle is installed, test piles will be driven from Pier 31 through pier 23. As the test pile program is completed, production piles will be driven using the same crane as the test piles. Once production piles have been driven at Pier 31, assist cranes and crews will begin constructing the substructure from Pier 31 through Pier 23. As the pile driving crane has completed the production piles, that crane will fall back to Piers 31 and 32 to begin setting girders, following the substructure crews to Pier 23. As the substructure for Pier 23 is completed, assist cranes and the pile rig will then be demobilized via trestle. The bridge deck will be constructed via assist cranes from below and placed at night from the existing bridge during a night time lane closure.

Heading 4 will begin with driving test piles from pier 32 toward Abutment B. As the test pile program is completed, production piles will be driven using the same crane as the test piles. Once the production piles have been driven at pier 32, assist cranes and crews will begin constructing the substructure from pier 32 to pier 43. As the pile driving crane has completed the production piles, that crane will fall back to piers 32 and 33 to begin setting girders. Due to concerns with bordering properties, spans 33 and 34 will be the only girders in this heading to be set using a crane from below. Starting with span 35, a girder picker will be used at night to pick the girders from the existing HRB I-64 WB under a nighttime lane closure.

As the bridge deck is completed, barrier wall will be constructed followed by the installation of the fire main line, conduit carrying the new backbone, and ITS/Lighting. Once the backbone is installed and terminated, the ITS Burn-in can proceed.

The demolition and reconstruction of Libertyville Road can begin after deck span 35 on the new HRB is completed and should take approximately 4 months to complete.

Once the new HRB is completed and WB traffic is diverted onto the new bridge, modifications to the existing bridge will be completed.

Figure 4.7-2 shows a summary schedule of the HRB overlaid with the manpower resource graph for the HRB from P6. The HRB starts out with 20-40 craft throughout pile driving operations, peaks around 160 men during substructure construction, and then tends to average out to about 80 men as substructure construction nears completion and girder erection and bridge deck construction begins.

Table 4.7-4: Segment 2 HRB Labor Breakdown

Crew Type	Workers Per Crew	Total Workers
Pile	5	averaging 4 crews (20 men) throughout, peaking at 8 crews (40 men) during trestle and fender installations
Substructure	6	averaging 16 crews (96 men), peaking at 20 crews (120 men)
Girder	7	averaging 4 crews (28 men)
Deck	7	averaging 6 crew (42 men), peaking at 10 crews (70 men)

Phase 2

During Phase 2, EB traffic is shifted to the newly constructed interior lanes while crews install remaining drainage along the outer lanes, mill and overlay the existing asphalt, install guardrail and barrier, set ITS equipment, and install remaining Noise Wall 7 on WB I-64 and Noise Wall 8 on EB I-64. Traffic will continue to travel on the existing HRB until the new HRB is completed.

Phase 3

Phase 3 work from the Shell Road Bridge to the HRB will consist of the final topping of asphalt, installation of all traffic signage, pavement markers, and ITS burn-in. ITS burn-in will be completed once the new backbone is installed across the new HRB. Traffic will be switched over to its final configuration and remaining barrier walls will be completed.

Segment 2 quickly ramps up to 70 craft throughout earthwork and drainage, drops to about 30 craft as Phase 1 work completes, and then peaks again to 70 craft. This temporary reduction in work will be managed by moving crews from Segment 2 to work other areas within Segment 3 such as the Battlefield Boulevard CD Road and Great Bridge Boulevard.

Table 4.7-5: Segment 2 Roadway Labor Breakdown

Crew Type	Workers Per Crew	Total Workers
Barrier Wall	6	averaging 1 crew (6 men)
Noise Wall	15	averaging 4 crews (60 men) throughout Phase 1 and 2
Drainage	5	averaging 3 crews (15 men), peaking at 7 crews (35 men)
Earthwork	6	averaging 2 crews (12 men) throughout Phases 1 and 2, peaking at 4 crews (24 men)
Pile	5	averaging 1 crew (5 men) throughout the construction of Shell Rd bridge widening
Substructure	6	averaging 2 crews (12 men) throughout the construction of Shell Rd bridge widening
Girder	7	averaging 1 crew (7 men) throughout the construction of Shell Rd bridge widening
Deck	7	averaging 2 crews (14 men) throughout the construction of Shell Rd bridge widening

Segment 3

Phase 1

Construction begins on the east side of the Project (Segment 3) WB/EB I-64 from the new/existing HRB to the east end of the Project once Package A – Project Wide Design RFC Plans are issued. At the beginning of Phase 1, the shoulder on the EB I-64 approach to the existing HRB must be widened to include a 9 foot shoulder to maintain traffic lane widths. Earthwork, drainage, and asphalt will need to be installed during night shift lane closure. Once this has been completed, traffic can be shifted towards the outside lanes, and demolition work can proceed between the existing WB I-64 lanes and the new WB lanes. Crews will then proceed to construct the new inside lanes, associated drainage located within the median, SWM areas, and portions of Noise Walls 15,11,

9, and 13B on WB I-64 and portion of Noise Wall 12 on EB I-64. The new WB lanes and drainage to the abutment of the new HRB and fiber and distribution lines will also be constructed during this phase.

Phase 2

In Phase 2, traffic on WB/EB I-64 from the new/existing HRB to the east end of the Project is shifted to the newly constructed interior lanes while crews install remaining drainage along the outer lanes, mill and overlay the existing asphalt, install guardrail and barrier, set ITS equipment, and install remaining Noise Wall 11 on WB I-64 and Noise Walls 10 and 12 on EB I-64. WB traffic will be shifted to the new HRB while EB traffic will continue to use the existing HRB.

Phase 3

Phase 3 work from the HRB to the east end of the Project will consist of the final topping of asphalt, installation of all traffic signage, pavement markers, and ITS Burn-in. ITS Burn-in will be completed once the new backbone has been installed across the new HRB. Traffic will be switched over to its final configuration and remaining barrier walls will be completed.

Construction of Great Bridge is included in Segment 3. Crews will begin by constructing the abutments to allow for a 4-6 month settlement period. During this time, and while traffic is shifted to the outer lanes on I-64 during Phase 1, crews will construct Pier 1 located within the new median. Girder and deck construction will be conducted during night time lane closures. Ramp and road construction not able to be constructed "offline" will also be constructed during night lane closures.

Demolition of the existing Great Bridge Blvd overpass will take place once the new bridge is on line. Demolition of the existing bridge has been identified as "critical" to the construction schedule due to the existing foundations being located within the widening and cross slope correction work. Once the bridge has been demolished, median work not completed during Phase 1 of Segment 2 and 3 will be completed within Phases 2 and 3.

Figure 4.7-6 shows a summary schedule of Segment 3 overlaid with the manpower resource graph for Segment 3 from P6. Segment 3 averages between 6 to 12 craft for the first five months, focusing on abutment fill and surcharge at Great Bridge Blvd. As Segment 3 work becomes available, manpower will peak around 80 craft.

Table 4.7-6: Segment 3 Labor Breakdown

Crew Type	Workers Per Crew	Total Workers
Barrier Wall	6	averaging 1 crew (6 men)
Noise Wall	15	averaging 2 crews (30 men) throughout Phase 1 and 2
Retaining Wall	5	averaging 1 crew (5 men) during Phase 1 and Phase 2
Drainage	5	averaging 2 crews (10 men)
Earthwork	6	averaging 2 crews (12 men) throughout Phases 1 and 2, peaking at 4 crews (24 men)
Pile	5	averaging 1 crew (5 men)
Substructure	6	averaging 2 crews (12 men)
Girder	7	averaging 1 crew (7 men)
Deck	7	averaging 2 crews (14 men)

Critical Path

The critical path, as shown in the attachment, starts from NTP, runs through the design and permitting of design packages A and C, ROW acquisition, fabrication of the HRB production piles and girders, installation of the new backbone to the new HRB, construction of the new HRB, then continues through I-64 EB in Segment 2.

The critical path based on the longest path method shows that a total of 110 activities out of a total 3,396 activities fall on the critical path. Further analysis of the near critical activities with total float less than or equal to 20 days increases this to 342 activities. When the total float is increased to less than or equal to 40 days, 584 activities of the 3,396 activities become critical.

Labor Analysis

Our labor analysis included identification of 10 different scopes of work our Team has historically self-performed, and created a labor resource for

each type of work. The 10 resources included a 6 man barrier crew, 15 man Noise Wall crew, 5 man retaining wall crew, 5 man drainage crew, 6 man earthwork crew, 5 man pile crew, 6 man substructure crew, 7 man girder crew, 7 man deck crew, and a 4 man demo crew. Resources were then assigned to various construction activities throughout the proposal schedule.

Table 4.7-7: Project-wide Labor Breakdown

Crew Type	Workers Per Crew	Total Workers
Barrier Wall	6	averaging 1 crew (6 men)
Noise Wall	15	averaging 2 crews (30 men), peaking at 8 crews (120 men)
Retaining Wall	5	averaging 1 crew (5 men), peaking at 3 crews (15 men)
Drainage	5	averaging 3 crews (15 men), peaking at 8 crews (40 men)
Earthwork	6	averaging 6 crews (36 men), peaking at 11 crews (66 men)
Pile	5	averaging 4 crew (20 men), peaking at 9 crews (45 men)
Substructure	6	averaging 13 crews (78 men), peaking at 26 crews (156 men)
Girder	7	averaging 4 crews (28 men), peaking at 6 crews (42 men)
Deck	7	averaging 9 crews (63 men), peaking at 14 crews (98 men)
Demo	4	averaging 2 crews (8 men), peaking at 5 crews (20 men)

Over the first 5 months of construction we see a steady increase in manpower from a 6 man crew to 70 total craftsmen. From March 2019 to June 2019, the resource curve skyrockets as construction begins on both Segment 2 and the HRB. Then from the high point in June 2019 (300+ craft), there is a decrease in the number of craft over the next 4 months, leveling out around 180 craft. As the HRB construction nears completion the resource curve drops back to 70 craft, but picks back up to 140 craft, mainly due to construction of Noise Walls.

The HRB accounts for the majority of the labor on the Project, peaking at 160 craft. Roadway portions of the Project range between 60 – 80 craft, peaking during Noise Wall installation. As seen in the labor breakdown, Noise Walls make up 120 craft at peak and peaks within the last 12 months of the Project. In an effort to manage the labor demands on the Project, SAW2JV will look to subcontract the Noise Walls. By subcontracting the noise wall construction, the peak manpower drops approximately by 50 men in 2019, and 120 men in the last half of 2020, significantly minimizing manpower demand.

Another way we will manage the labor demand on this Project is by using our roadway and bridge resources across the Project. For example, as crews working in Segment 2 Phase 1 complete their work, they will be moved to Great Bridge Blvd, Libertyville Rd, and the Battlefield Blvd CD road. Once the HRB is completed and WB traffic is placed on the new bridge, the crews will return to Segment 2 and proceed with Phase 2 work.

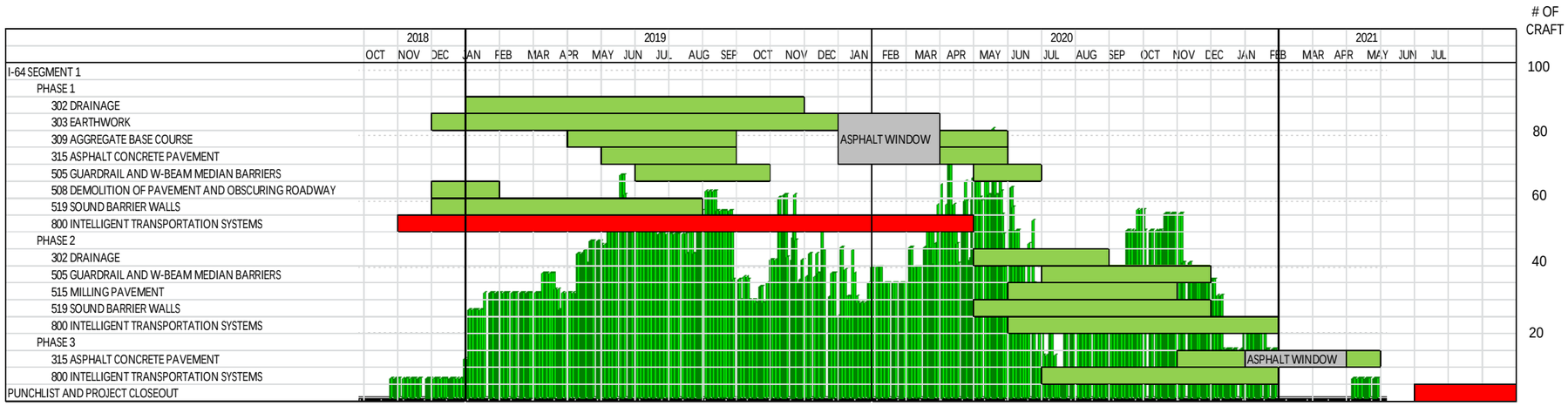


Figure 4.7-1: Segment 1 Manpower Resource Schedule Summary

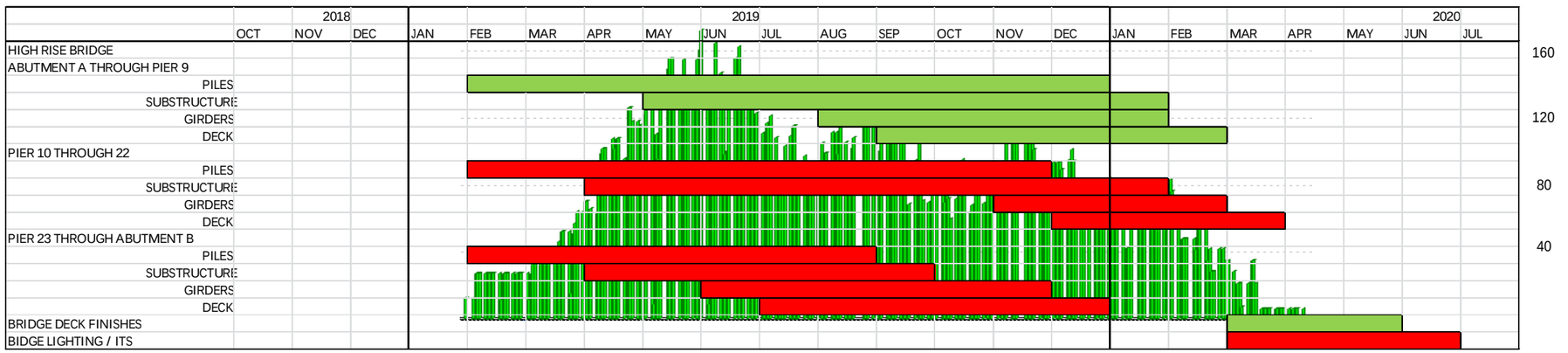


Figure 4.7-2: High Rise Bridge Manpower Resource Schedule Summary

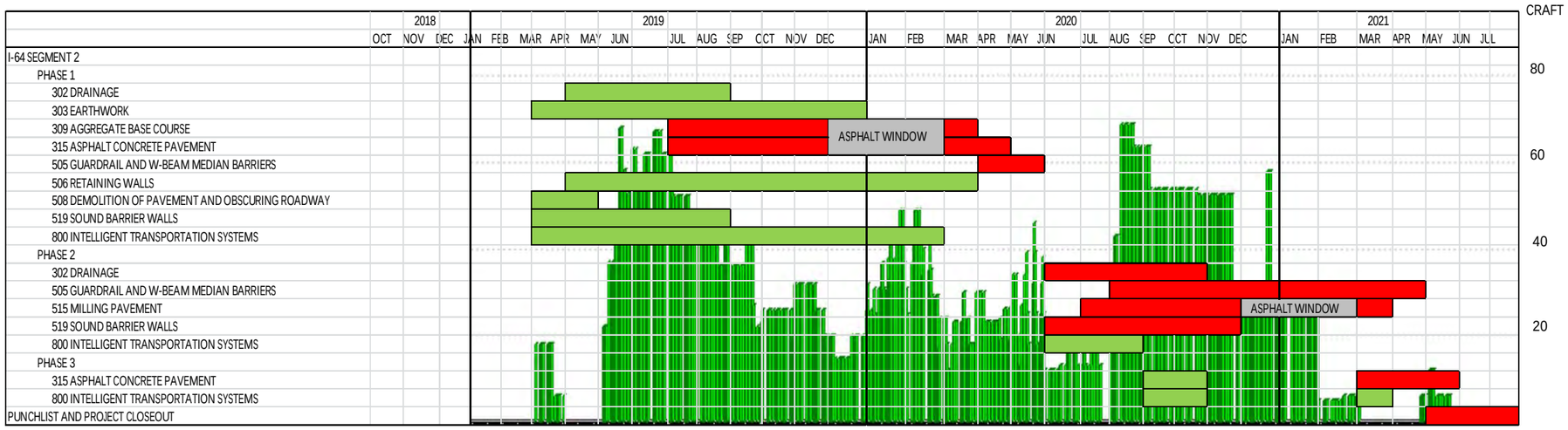


Figure 4.7-3: Segment 2 Manpower Resource Schedule Summary

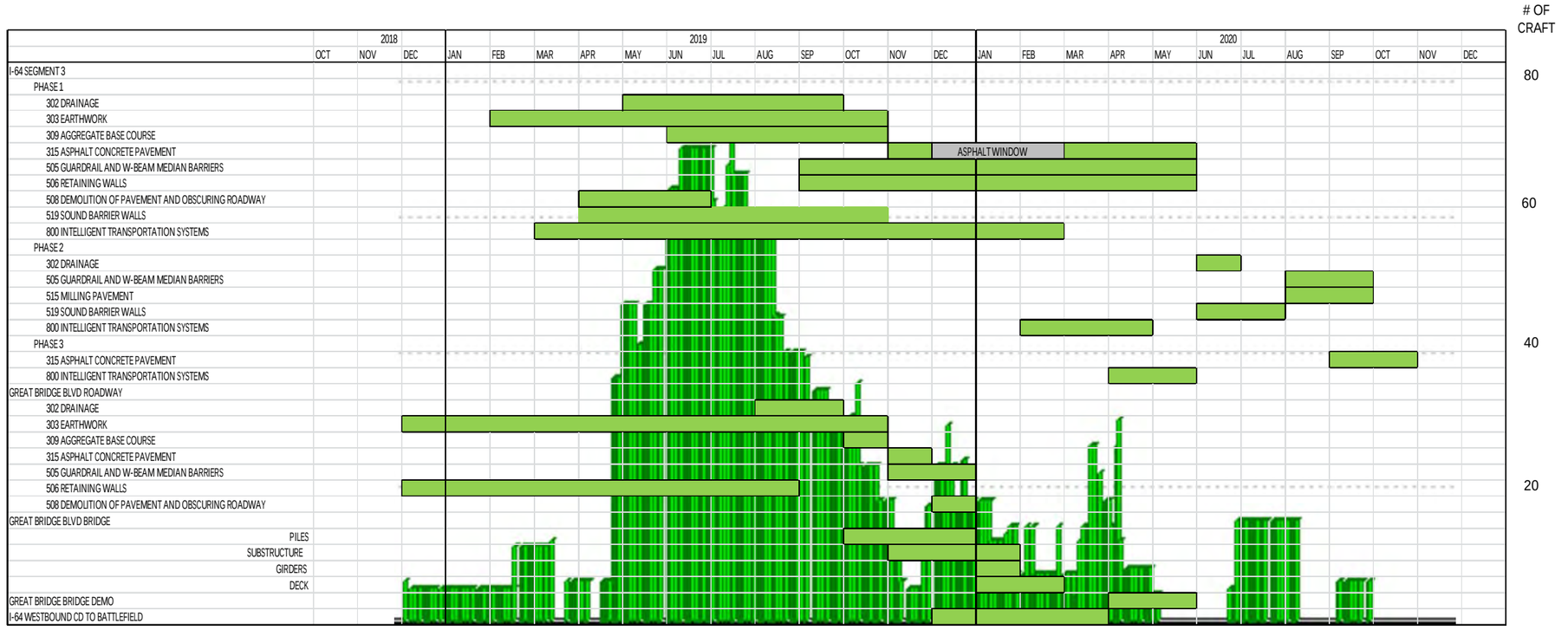


Figure 4.7-4: Segment 3 Manpower Resource Schedule Summary

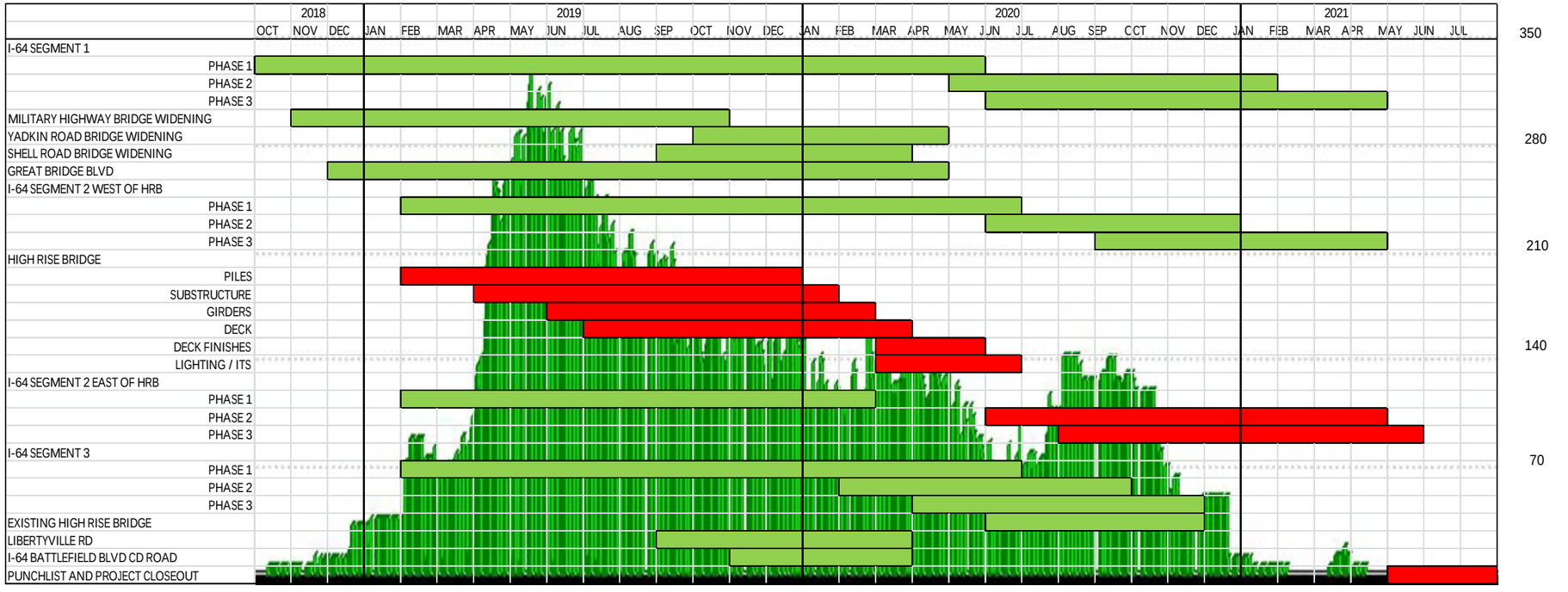


Figure 4.7-5: Overall Project Manpower Resource Schedule Summary

Figure 4.7-6: Manpower curve for noise walls with SAW2JV self-performing

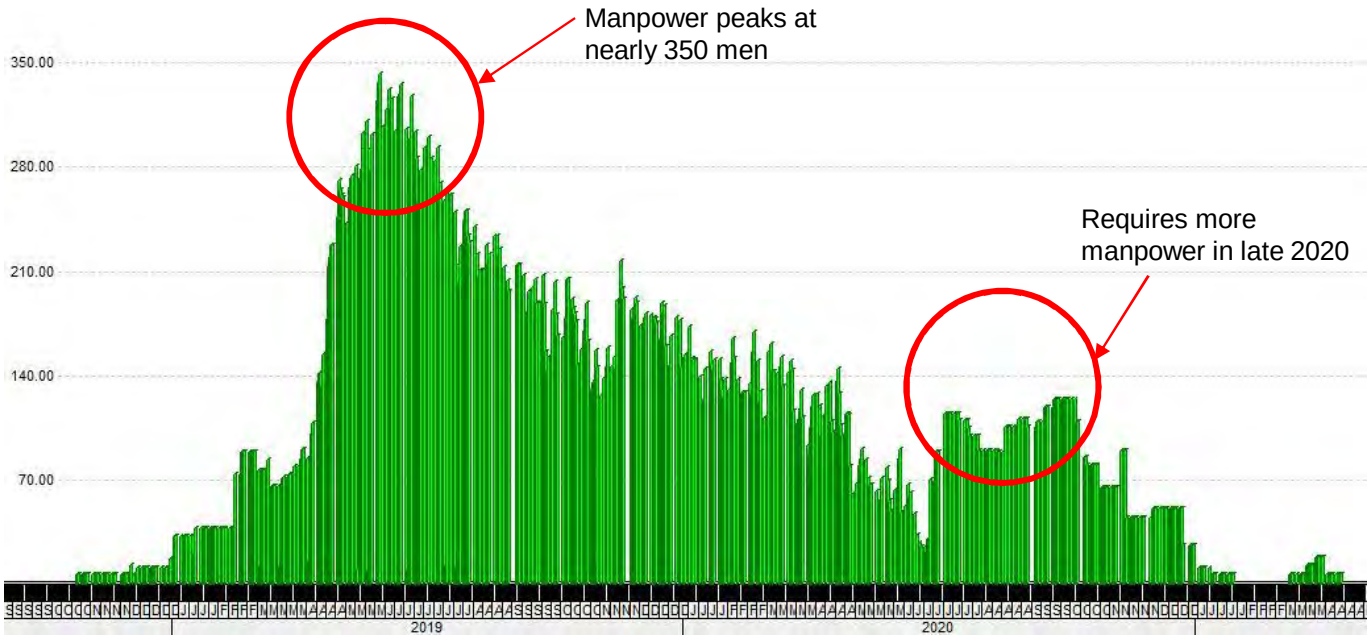
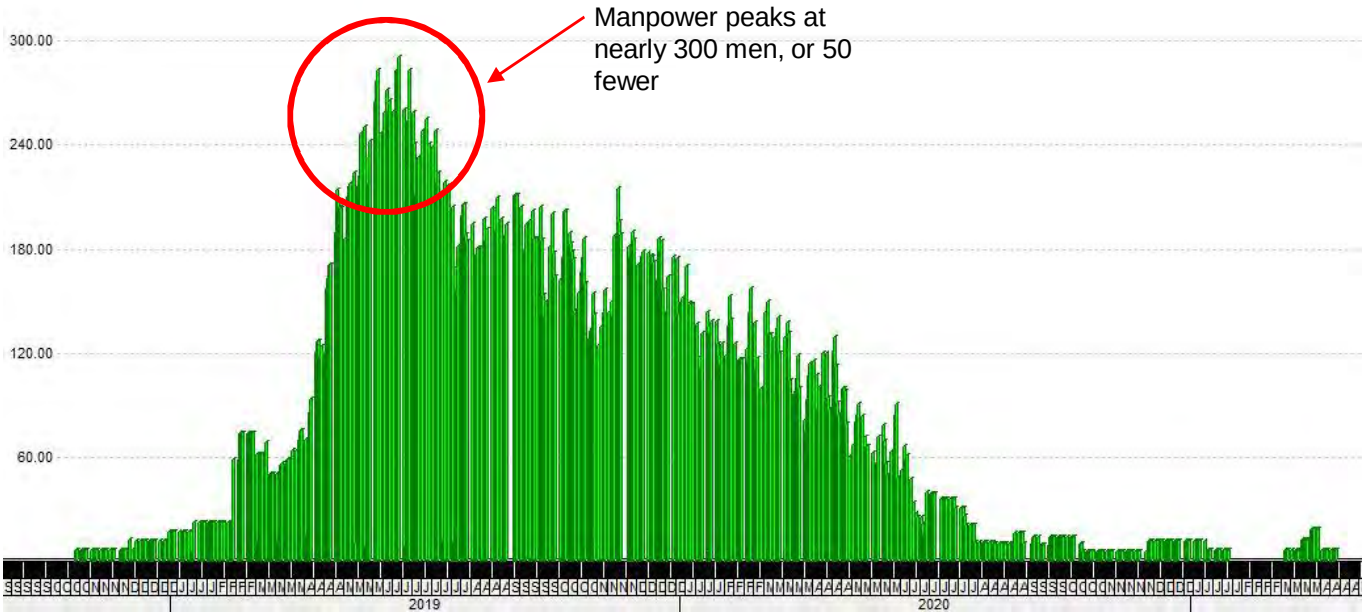


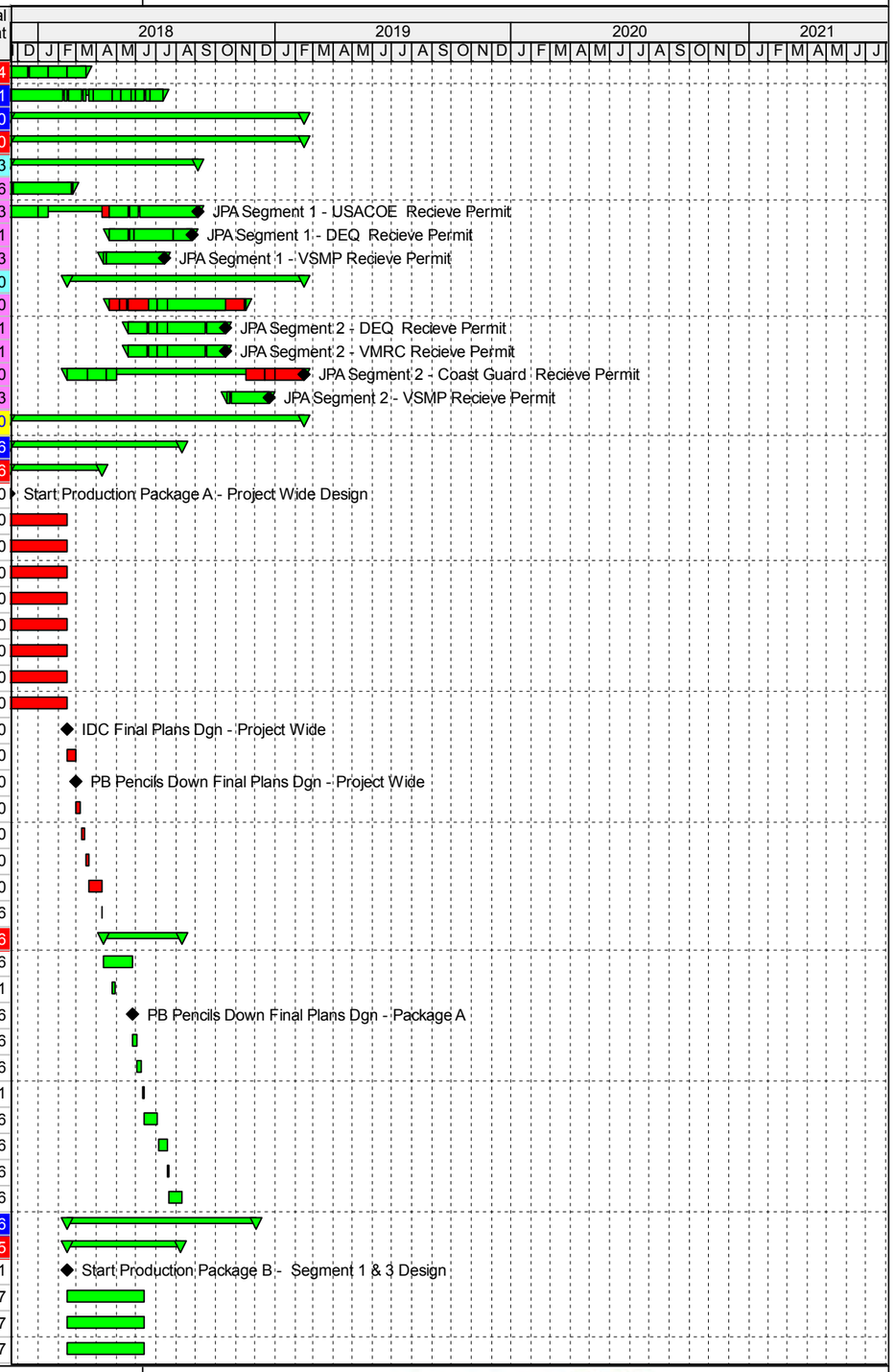
Figure 4.7-7: Manpower curve for noise walls using subcontractors



4.7.1 ROLL-UP SCHEDULE

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
C00106692DB93 - I-64 SOUTHSIDE WIDENING & HRB, PHASE 1 - TECH PROPOSAL SCHEDU		1352	11-17-17	07-30-21	0
MILESTONES		1352	11-17-17	07-30-21	0
MS100100	NTP (11-17-17)	0	11-17-17		0
MS900900	FINAL COMPLETION (7-30-21)	0		07-30-21	0
PROJECT MANAGEMENT		1352	11-17-17	07-30-21	0
PM100100	SUBMIT APPLICATION FOR PROPOSAL PAYMENT (@ NOTICE OF INTENT TO AWARD)	0		11-17-17	0
PM100110	SUBMIT EPDs (W/IN 3 DAYS AFTER NOTICE OF INTENT TO AWARD)	0		11-17-17	0
PM100120	SUBMIT PERFORMANCE & PAYMENT BOND (W/IN 15 DAYS AFTER NOTICE OF INTENT TO A	0		11-17-17	0
PM100130	SUBMIT WORKERS' COMPENSATION & EMPLOYER'S LIABILITY INS (W/IN 15 DAYS AFTER N	0		11-17-17	0
PM100140	SUBMIT COMMERCIAL GEN LIABILITY INS (W/IN 15 DAYS AFTER NOTICE OF INTENT TO AW	0		11-17-17	0
PM100150	SUBMIT AUTOMOBILE LIABILITY INS (W/IN 15 DAYS AFTER NOTICE OF INTENT TO AWARD)	0		11-17-17	0
PM100160	SUBMIT UMBRELLA/EXCES LIABILITY INS (W/IN 15 DAYS AFTER NOTICE OF INTENT TO AW	0		11-17-17	0
PM100170	SUBMIT ARCHITECT'S / ENGINEER'S PROFESSIONAL LIABILITY INS (W/IN 15 DAYS AFTER N	0		11-17-17	0
PM100180	SUBMIT CONTRACTOR'S POLLUTION LIABILITY INS (W/IN 15 DAYS AFTER NOTICE OF INTE	0		11-17-17	0
PM100190	SUBMIT BUILDER'S RISK INS (W/IN 15 DAYS AFTER NOTICE OF INTENT TO AWARD)	0		11-17-17	0
PM100200	SUBMIT MARINE PROTECTION & INDEMNITY INS (W/IN 15 DAYS AFTER NOTICE OF INTENT	0		11-17-17	0
PM100210	SUBMIT RAILROAD PROTECTIVE INS (W/IN 15 DAYS AFTER NOTICE OF INTENT TO AWARD	0		11-17-17	0
PM100220	CONDUCT KICKOFF MEETING WITH VDOT (TO BE HELD THE DAY AFTER NTP)	0		11-17-17	0
PM100230	SUBMIT DESIGN QA/QC PLANS (SUBMITTED AT KICKOFF MEETING)	0		11-17-17	0
PM100250	GROUNDBREAKING CEREMONY (W/IN 7 DAYS OF NTP)	0		11-17-17	0
PM100280	SUBMIT DESIGN PHASE C-111, C-112, & C-48 FORMS (W/IN 30 DAYS AFTER NTP)	0		11-17-17	0
PM100290	SUBMIT CONSTRUCTION PHASE C-111, C-112, & C-48 FORMS (W/IN 30 DAYS AFTER NTP O	0		11-17-17	0
PM100260	SUBMIT PRELIMINARY SCHEDULE (W/IN 15 DAYS AFTER NTP)	0		11-30-17	0
PM100300	MEET W/ VDOT REGIONAL UTILITIES MANAGER (W/IN 45 DAYS AFTER NTP)	0		12-01-17	0
PM100310	SUBMIT PUBLIC INFORMATION AND COMMUNICATION PLAN (W/IN 90 DAYS AFTER CONTR	0		01-01-18	0
PM100320	SUBMIT LIST OF AFFECTED STAKHOLDERS (W/IN 90 DAYS AFTER CONTRACT EXECUTION	0		01-01-18	0
PM100330	SUBMIT BASELINE SCHEDULE (W/IN 90 DAYS AFTER CONTRACT EXECUTION)	0		01-01-18	0
PM100340	SUBMIT PRELIMINARY UTILITY STATUS REPORT (W/IN 120 DAYS AFTER NTP)	0		02-16-18	0
PM100240	SUBMIT CONSTRUCTION QA/QC PLANS (NO LATER THAN 21 DAYS PRIOR TO CONSTRUCT	0		07-13-18	0
PM100270	SUBMIT HS&W PLAN (W/IN 15 DAYS AFTER NTP OR 21 DAYS PRIOR TO CONSTRUCTION)	0		07-13-18	0
PM100350	PUNCHLIST AND PROJECT CLOSEOUT	63	05-29-21	07-30-21	0
SCOPE VALIDATION PERIOD		120	11-17-17	03-16-18	173
RIGHT OF WAY		295	12-06-17	09-26-18	0
DESIGN		455	11-17-17	02-14-19	0
I-64 Project Milestones		95	09-26-18	02-14-19	0
Project-Wide Milestones		95	09-26-18	02-14-19	0
00.MILE.PKG1.PW	Package A - Project Wide Design RFC	0		09-26-18	0
00.MILE.PKG2.Rdwy	Package B - Segment 1 & 3 Design RFC	0		12-03-18	12
00.MILE.PKG3.HPBF	Package C - Segment 2 Design RFC	0		02-14-19	0
Early Works		455	11-17-17	02-14-19	0
Design Validation		141	11-17-17	04-06-18	173
Surveying		102	11-17-17	02-26-18	80
Utility Location		74	11-17-17	01-29-18	6
EW.DGN.UTL.020	Develop Utility SUE - Permits & Work Plans	14	11-17-17	11-30-17	6
EW.DGN.UTL.030	Conduct Utility SUE - Field Work	45	12-01-17	01-14-18	6
EW.DGN.UTL.040	Produce Utility SUE - Report	15	01-15-18	01-29-18	6
Geotechnical Investigation		179	11-17-17	05-14-18	75
Final Geotechnical Report		110	11-17-17	03-06-18	1
Land Geotechnical Investigation		179	11-17-17	05-14-18	18

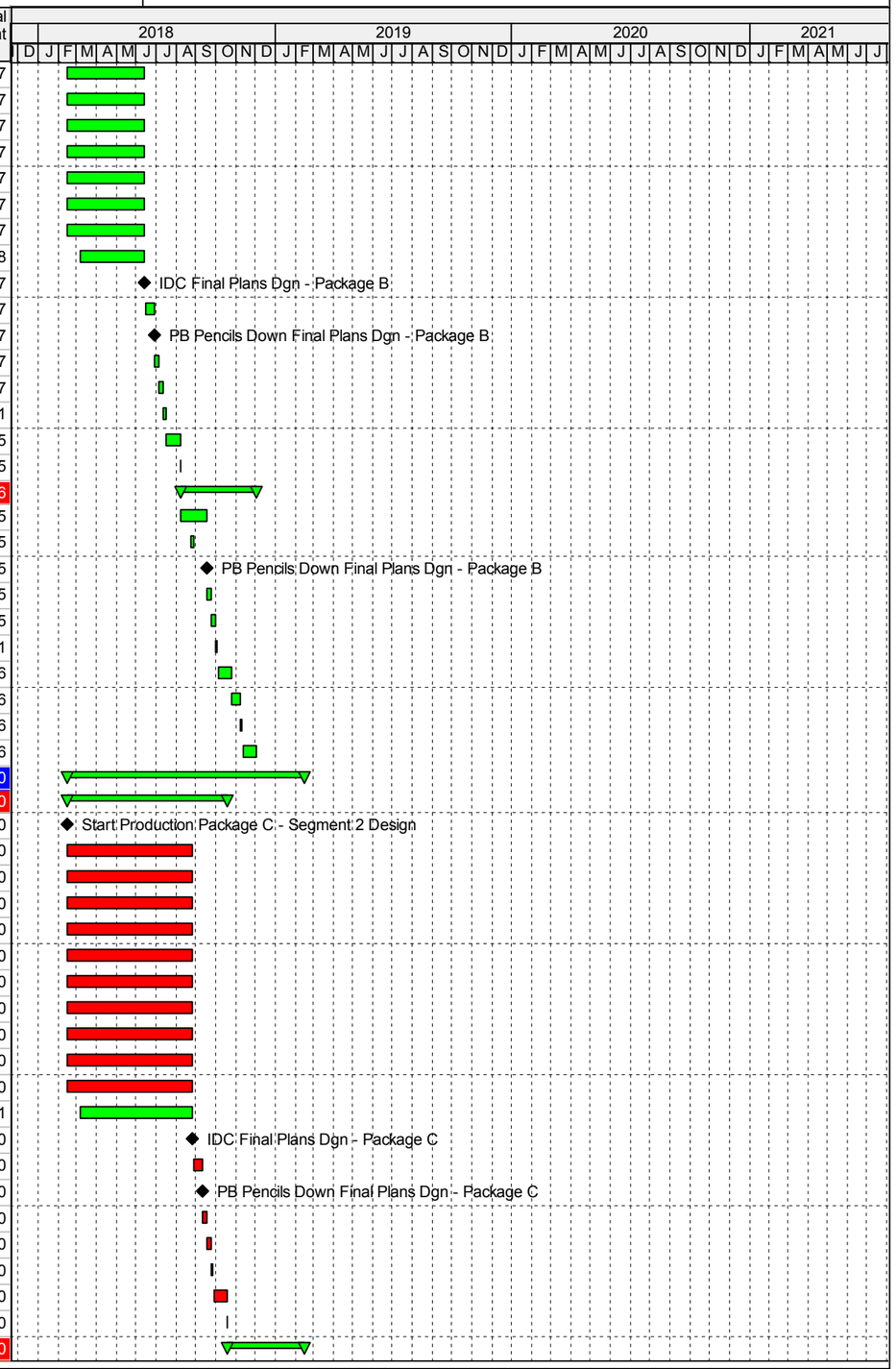
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
River Geotechnical Investigation		120	11-17-17	03-16-18	134
Noise Abatement Design Report		239	11-17-17	07-13-18	41
Permitting		455	11-17-17	02-14-19	0
Joint Permit Application Section 408/404/401/10		455	11-17-17	02-14-19	0
JPA Segment 1 & 3		291	11-17-17	09-03-18	23
CZMA Permit		98	11-17-17	02-22-18	46
USACOE Permit		291	11-17-17	09-03-18	23
DEQ Permit		128	04-21-18	08-26-18	31
VSMP Permit		96	04-11-18	07-15-18	73
JPA Segment 2		365	02-15-18	02-14-19	0
USACOE Permit		210	04-21-18	11-16-18	0
DEQ Permit		150	05-20-18	10-16-18	31
VMRC Permit		150	05-20-18	10-16-18	121
Coast Guard Permit		365	02-15-18	02-14-19	0
VSMP Permit		66	10-19-18	12-23-18	53
Design		455	11-17-17	02-14-19	0
Package A - Project Wide Design		268	11-17-17	08-11-18	46
Package A Project Wide Final Plans		145	11-17-17	04-10-18	46
PKGA.DGN.1000	Start Production Package A - Project Wide Design	0		11-17-17	0
PKGA.DGN.1010	Produce Package A - Project Wide ROW Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1270	Produce Package A - Project Wide E&S Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1280	Produce Package A - Project Wide SWM Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1290	Produce Package A - Project Wide Rough Grading Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1300	Produce Package A - Project Wide MOT/TMP Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1310	Produce Package A - Project Wide Bridge TS&L's Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1320	Produce Package A - Project Wide Utility Relocation Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1360	Produce Package A - HRB H&HA Report	90	11-17-17	02-14-18	0
PKGA.DGN.1020	IDC Final Plans Dgn - Project Wide	0		02-14-18	0
PKGA.DGN.1030	PB Incorporate IDC Comments Final Plans Dgn - Project Wide	14	02-15-18	02-28-18	0
PKGA.DGN.1040	PB Pencils Down Final Plans Dgn - Project Wide	0		02-28-18	0
PKGA.DGN.1050	PB Internal Review Final Plans QC Dgn - Project Wide	7	03-01-18	03-07-18	0
PKGA.DGN.1060	PB Address Comm/Package & Submit ROW Plans Dgn - Project Wide	7	03-08-18	03-14-18	0
PKGA.DGN.1070	SAW Internal Review ROW Plans Dgn - Project Wide	3	03-15-18	03-19-18	0
PKGA.DGN.1080	VDOT Review/Cmnt ROW Plans Dgn - Project Wide	21	03-20-18	04-09-18	0
PKGA.DGN.1090	PB Interdisciplinary Coordination Mtg Construction Plan Dgn - Project Wide	1	04-10-18	04-10-18	46
Package A - Project Wide RFC Plans		123	04-11-18	08-11-18	46
PKGA.DGN.1210	PB Produce RFC Dgn Pkg - Sign/Seal/Submit - Package A	45	04-11-18	05-25-18	46
PKGA.DGN.1215	PB Conduct VDOT RFC Pkg Coordination Meeting - Package A	5	04-26-18	04-30-18	71
PKGA.DGN.1330	PB Pencils Down Final Plans Dgn - Package A	0		05-25-18	46
PKGA.DGN.1340	PB Internal Review Final Plans QC Dgn - Package A	7	05-26-18	06-01-18	46
PKGA.DGN.1350	PB Address Comm/Package & Submit ROW Plans Dgn - Package A	7	06-02-18	06-08-18	46
PKGA.DGN.1220	SAW Internal Review RFC Dgn - Package A	3	06-11-18	06-13-18	31
PKGA.DGN.1230	VDOT Review/Comment RFC Plans - Package A	21	06-14-18	07-04-18	46
PKGA.DGN.1240	PB Address Comm/Pkg - Sign/Seal/Submit - Package A	14	07-05-18	07-18-18	46
PKGA.DGN.1250	SAW Internal Review RFC Plans - Package A	3	07-19-18	07-21-18	46
PKGA.DGN.1260	VDOT Issue Package 1 RFC Plans - Package A (Seg 1 & 3)	21	07-22-18	08-11-18	46
Package B - Segment 1 & 3		291	02-14-18	12-02-18	16
Package B - Segment 1 & 3 Final Plans		175	02-14-18	08-08-18	15
PKGB.DGN.1490	Start Production Package B - Segment 1 & 3 Design	0		02-14-18	11
PKGB.DGN.1500	Produce Package B - Final Roadway Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1510	Produce Package B - MOT/TMP Update Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1520	Produce Package B - ITS Tolling Dgn - Proj Wide	120	02-15-18	06-14-18	17



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PKGB.DGN.1530	Produce Package B - Lighting Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1540	Produce Package B - Signage Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1550	Produce Package B - Striping Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1560	Produce Package B - Military Highway Bridge Widening Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1570	Produce Package B - Yadkin Road Bridge Widening Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1580	Produce Package B - GBB Bridge Replacement Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1680	Produce Package B - Utility Relocation Plans Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1590	Produce Package B - Final Geotechnical Report Addendum	99	03-07-18	06-13-18	18
PKGB.DGN.1600	IDC Final Plans Dgn - Package B	0		06-14-18	17
PKGB.DGN.1610	PB Incorporate IDC Comments Final Plans Dgn - Package B	14	06-15-18	06-28-18	17
PKGB.DGN.1620	PB Pencils Down Final Plans Dgn - Package B	0		06-28-18	17
PKGB.DGN.1630	PB Internal Review Final Plans QC Dgn - Package B	7	06-29-18	07-05-18	17
PKGB.DGN.1640	PB Address Comm/Package & Submit ROW Plans Dgn - Package B	7	07-06-18	07-12-18	17
PKGB.DGN.1650	SAW Internal Review ROW Plans Dgn - Package B	3	07-13-18	07-17-18	11
PKGB.DGN.1660	VDOT Review/Cmnt ROW Plans Dgn - Package B	21	07-18-18	08-07-18	15
PKGB.DGN.1670	PB Interdisciplinary Coordination Mtg Construction Plan Dgn - Package B	1	08-08-18	08-08-18	15
Package B - Segment 1 & 3 RFC Plans		116	08-09-18	12-02-18	16
PKGB.DGN.1390	PB Produce RFC Dgn Pkg - Sign/Seal/Submit - Package B	40	08-09-18	09-17-18	15
PKGB.DGN.1400	PB Conduct VDOT RFC Pkg Coordination Meeting - Package B	5	08-24-18	08-28-18	35
PKGB.DGN.1410	PB Pencils Down Final Plans Dgn - Package B	0		09-17-18	15
PKGB.DGN.1420	PB Internal Review Final Plans QC Dgn - Package B	7	09-18-18	09-24-18	15
PKGB.DGN.1430	PB Address Comm/Package & Submit ROW Plans Dgn - Package B	7	09-25-18	10-01-18	15
PKGB.DGN.1440	SAW Internal Review RFC Dgn - Package B	3	10-02-18	10-04-18	11
PKGB.DGN.1450	VDOT Review/Comment RFC Plans - Package B	21	10-05-18	10-25-18	16
PKGB.DGN.1460	PB Address Comm/Pkg - Sign/Seal/Submit - Package B	14	10-26-18	11-08-18	16
PKGB.DGN.1470	SAW Internal Review RFC Plans - Package B	3	11-09-18	11-11-18	16
PKGB.DGN.1480	VDOT Issue RFC Plans - Package B	21	11-12-18	12-02-18	16
Package C - Segment 2		365	02-14-18	02-14-19	0
Package C - Segment 2 Final Plans		247	02-14-18	10-19-18	0
PKGC.DGN.1370	Start Production Package C - Segment 2 Design	0		02-14-18	0
PKGC.DGN.1640	Produce Package C - Flood Gate Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1650	Produce Package C - Modifications to Exsisting HRB Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1380	Produce Package C - Final Roadway Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1390	Produce Package C - MOT/TMP Update Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1400	Produce Package C - ITS Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1410	Produce Package C - Lighting Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1420	Produce Package C - Signage Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1430	Produce Package C - Striping Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1440	Produce Package C - Shell Road Bridge widenings Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1450	Produce Package C - HRB DGN	194	02-15-18	08-27-18	0
PKGC.DGN.1660	Produce Package C - Final Geotechnical Report Addendum	173	03-07-18	08-26-18	1
PKGC.DGN.1460	IDC Final Plans Dgn - Package C	0		08-27-18	0
PKGC.DGN.1470	PB Incorporate IDC Comments Final Plans Dgn - Package C	14	08-28-18	09-10-18	0
PKGC.DGN.1480	PB Pencils Down Final Plans Dgn - Package C	0		09-10-18	0
PKGC.DGN.1490	PB Internal Review Final Plans QC Dgn - Package C	7	09-11-18	09-17-18	0
PKGC.DGN.1500	PB Address Comm/Package & Submit ROW Plans Dgn - Package C	7	09-18-18	09-24-18	0
PKGC.DGN.1510	SAW Internal Review ROW Plans Dgn - Package C	3	09-25-18	09-27-18	0
PKGC.DGN.1520	VDOT Review/Cmnt ROW Plans Dgn - Package C	21	09-28-18	10-18-18	0
PKGC.DGN.1530	PB Interdisciplinary Coordination Mtg Construction Plan Dgn - Package C	1	10-19-18	10-19-18	0
Package C - Segment 2 RFC Plans		118	10-20-18	02-14-19	0



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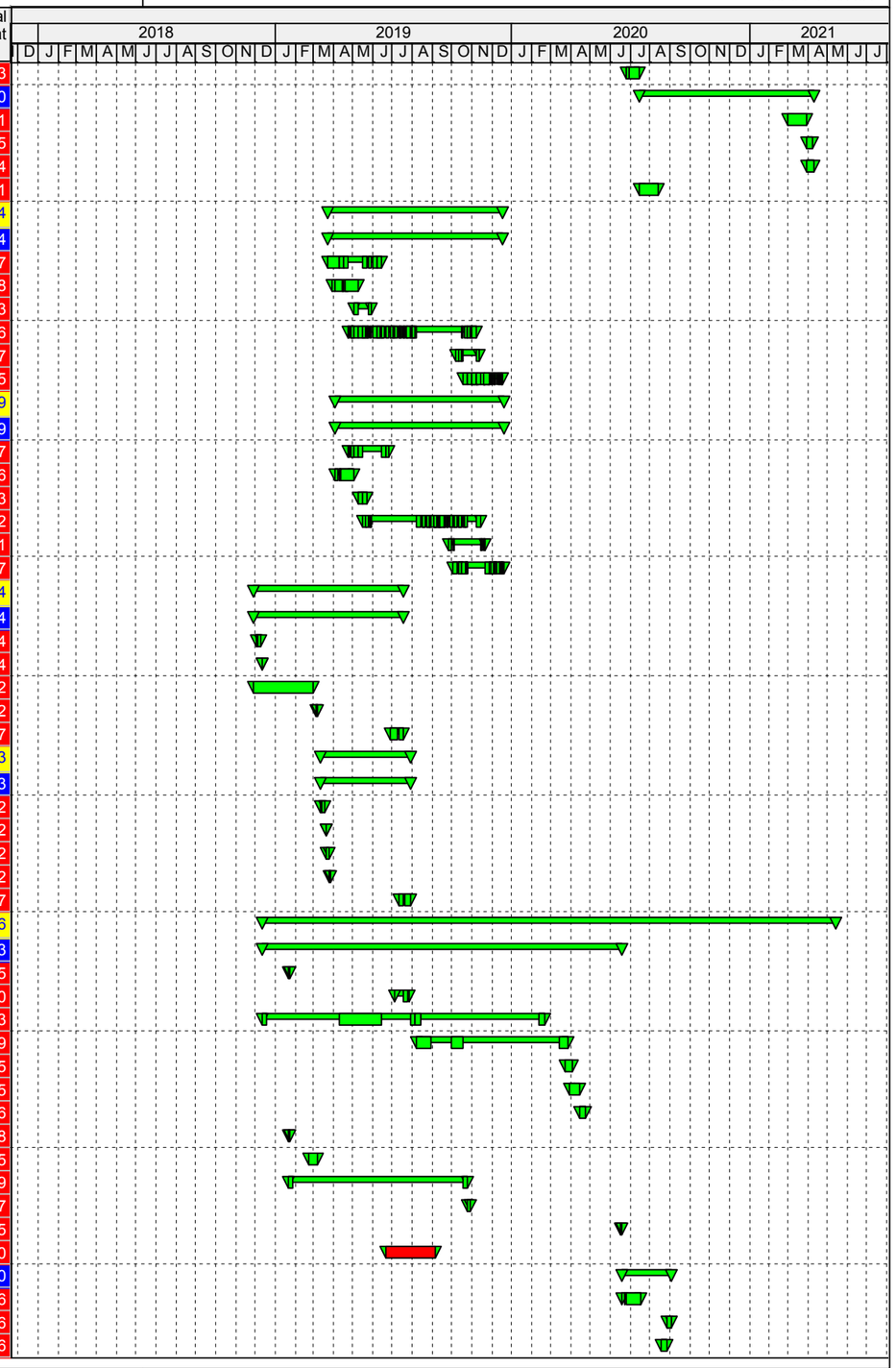
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PKGC.DGN.1540	PB Produce RFC Dgn Pkg - Sign/Seal/Submit - Package C	40	10-20-18	11-28-18	0
PKGC.DGN.1550	PB Conduct VDOT RFC Pkg Coordination Meeting - Package C	5	11-04-18	11-08-18	20
PKGC.DGN.1560	PB Pencils Down Final Plans Dgn - Package C	0		11-28-18	0
PKGC.DGN.1570	PB Internal Review Final Plans QC Dgn - Package C	7	11-29-18	12-05-18	0
PKGC.DGN.1580	PB Address Comm/Package & Submit ROW Plans Dgn - Package C	7	12-06-18	12-12-18	0
PKGC.DGN.1590	SAW Internal Review RFC Dgn - Package C	3	12-13-18	12-17-18	0
PKGC.DGN.1600	VDOT Review/Comment RFC Plans - Package C	21	12-18-18	01-07-19	0
PKGC.DGN.1610	PB Address Comm/Pkg - Sign/Seal/Submit - Package C	14	01-08-19	01-21-19	0
PKGC.DGN.1620	SAW Internal Review RFC Plans - Package C	3	01-22-19	01-24-19	0
PKGC.DGN.1630	VDOT Issue Package 1 RFC Plans - Package C	21	01-25-19	02-14-19	0
UTILITY		305	11-17-17	09-17-18	592
PROCUREMENT		566	03-08-18	09-24-19	675
PRECAST		320	12-03-18	01-03-20	98
CONSTRUCTION		947	10-25-18	05-28-21	63
I-64 WESTBOUND FROM 1030+57.06 TO SOUTH MILITARY HWY BRIDGE		926	10-25-18	11-18-20	189
PHASE 1		523	10-25-18	10-25-19	234
303 EARTHWORK		142	10-25-18	04-17-19	174
305 SUGRADE AND SHOULDERS		84	04-03-19	05-28-19	173
309 AGGREGATE BASE COURSE		22	04-29-19	06-03-19	120
315 ASPHALT CONCRETE PAVEMENT		22	05-06-19	06-12-19	120
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		2	06-13-19	06-14-19	209
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		4	12-14-18	12-19-18	233
602 TOPSOIL		172	12-14-18	06-13-19	150
603 SEEDING		3	06-14-19	06-19-19	160
704 PAVEMENT MARKINGS AND MARKERS		4	10-22-19	10-25-19	140
800 INTELLIGENT TRANSPORTATION SYSTEMS		125	11-26-18	06-19-19	0
PHASE 2		34	05-26-20	06-24-20	282
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		7	06-15-20	06-24-20	169
515 MILLING PAVEMENT		12	05-26-20	06-12-20	89
800 INTELLIGENT TRANSPORTATION SYSTEMS		10	05-26-20	06-10-20	174
PHASE 3		298	06-11-20	11-18-20	189
315 ASPHALT CONCRETE PAVEMENT		13	10-16-20	11-04-20	60
701 TRAFFIC SIGNS		9	11-05-20	11-18-20	115
704 PAVEMENT MARKINGS AND MARKERS		8	11-05-20	11-17-20	114
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	06-11-20	07-10-20	292
I-64 EASTBOUND FROM 1489+33.00 TO SOUTH MILITARY HWY BRIDGE		883	10-25-18	11-30-20	170
PHASE 1		498	10-25-18	10-25-19	340
301 CLEARING AND GRUBBING		21	11-09-18	12-14-18	83
302 DRAINAGE STRUCTURES		38	01-02-19	02-01-19	159
303 EARTHWORK		245	10-25-18	04-30-19	158
305 SUGRADE AND SHOULDERS		168	04-18-19	06-17-19	158
309 AGGREGATE BASE COURSE		26	05-13-19	06-25-19	104
315 ASPHALT CONCRETE PAVEMENT		26	05-22-19	07-03-19	104
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		3	07-05-19	07-10-19	193
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		6	12-14-18	12-21-18	222
519 SOUND BARRIER WALLS		30	12-17-18	02-04-19	361
602 TOPSOIL		120	12-14-18	06-28-19	140
603 SEEDING		3	07-01-19	07-05-19	150
704 PAVEMENT MARKINGS AND MARKERS		4	10-22-19	10-25-19	140
800 INTELLIGENT TRANSPORTATION SYSTEMS		125	11-26-18	06-19-19	0
PHASE 2		53	05-26-20	07-13-20	259
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		12	06-24-20	07-13-20	129
515 MILLING PAVEMENT		18	05-26-20	06-23-20	75

Date	Revision	Checked	Approved

SKANSKA

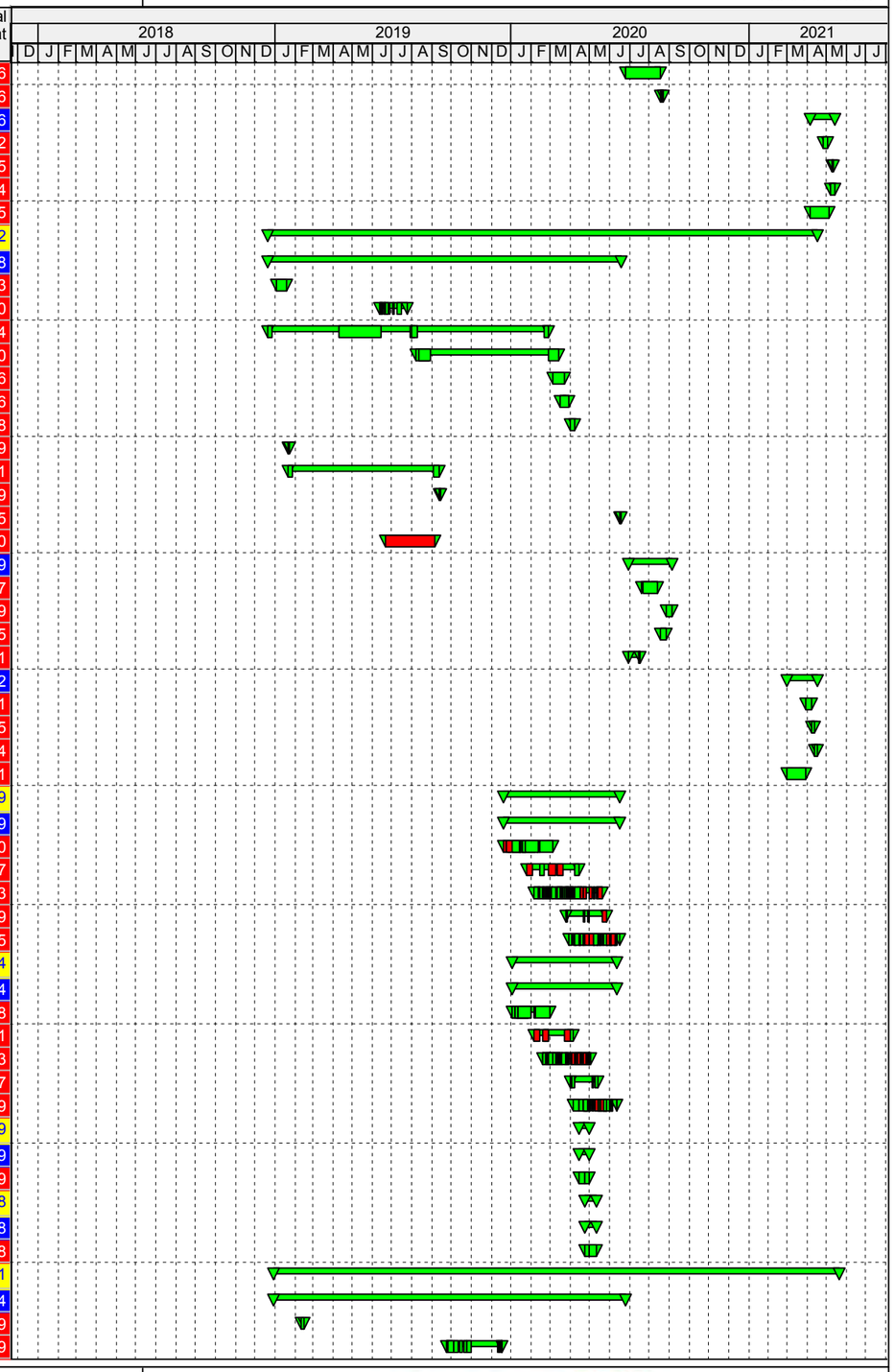
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
	800 INTELLIGENT TRANSPORTATION SYSTEMS	11	05-26-20	06-11-20	173
	PHASE 3	268	06-12-20	11-30-20	170
	315 ASPHALT CONCRETE PAVEMENT	18	10-20-20	11-16-20	31
	701 TRAFFIC SIGNS	7	11-17-20	11-25-20	105
	704 PAVEMENT MARKINGS AND MARKERS	8	11-17-20	11-30-20	94
	800 INTELLIGENT TRANSPORTATION SYSTEMS	30	06-12-20	07-11-20	291
	WESTBOUND MILITARY HWY BRIDGE	271	03-22-19	10-04-19	74
	PHASE 1	271	03-22-19	10-04-19	74
	DRILLED SHAFTS	52	03-22-19	06-13-19	37
	TEST PILES	41	03-29-19	05-08-19	98
	PRODUCTION PILES	16	05-03-19	05-30-19	53
	SUBSTRUCTURE	119	04-23-19	07-22-19	66
	GIRDERS	24	08-08-19	08-28-19	47
	BRIDGE DECK	38	08-21-19	10-04-19	45
	EASTBOUND MILITARY HWY BRIDGE	260	04-04-19	10-21-19	59
	PHASE 1	260	04-04-19	10-21-19	59
	DRILLED SHAFTS	40	04-23-19	06-26-19	37
	TEST PILES	30	04-04-19	05-03-19	96
	PRODUCTION PILES	8	05-10-19	05-23-19	53
	SUBSTRUCTURE	107	05-03-19	07-29-19	72
	GIRDERS	36	07-30-19	09-09-19	51
	BRIDGE DECK	50	08-02-19	10-21-19	37
	WESTBOUND MILITARY HWY ROADWAY WORK	233	11-28-18	07-18-19	64
	PHASE 1	233	11-28-18	07-18-19	64
	303 EARTHWORK	5	12-03-18	12-10-18	94
	305 SUGRADE AND SHOULDERS	1	12-12-18	12-12-18	94
	309 AGGREGATE BASE COURSE	3	11-28-18	03-01-19	52
	315 ASPHALT CONCRETE PAVEMENT	3	03-06-19	03-08-19	52
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	12	06-27-19	07-18-19	37
	EASTBOUND MILITARY HWY ROADWAY WORK	141	03-11-19	07-29-19	63
	PHASE 1	141	03-11-19	07-29-19	63
	303 EARTHWORK	5	03-11-19	03-18-19	52
	305 SUGRADE AND SHOULDERS	1	03-20-19	03-20-19	52
	309 AGGREGATE BASE COURSE	3	03-21-19	03-25-19	52
	315 ASPHALT CONCRETE PAVEMENT	3	03-26-19	03-28-19	52
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	12	07-10-19	07-29-19	37
	I-64 WESTBOUND FROM SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	883	11-09-18	11-23-20	186
	PHASE 1	554	11-09-18	04-21-20	153
	301 CLEARING AND GRUBBING	2	01-03-19	01-04-19	365
	302 DRAINAGE STRUCTURES	13	06-14-19	06-26-19	100
	303 EARTHWORK	259	11-09-18	07-25-19	133
	305 SUGRADE AND SHOULDERS	140	07-10-19	08-09-19	139
	309 AGGREGATE BASE COURSE	10	08-02-19	08-19-19	85
	315 ASPHALT CONCRETE PAVEMENT	10	08-12-19	08-28-19	85
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	6	08-29-19	09-09-19	166
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	2	01-03-19	01-04-19	248
	519 SOUND BARRIER WALLS	8	01-07-19	01-18-19	365
	602 TOPSOIL	168	01-03-19	08-14-19	119
	603 SEEDING	2	08-15-19	08-16-19	127
	704 PAVEMENT MARKINGS AND MARKERS	2	04-20-20	04-21-20	35
	800 INTELLIGENT TRANSPORTATION SYSTEMS	44	06-20-19	09-04-19	0
	PHASE 2	77	04-22-20	07-02-20	300
	302 DRAINAGE STRUCTURES	18	04-22-20	05-20-20	86
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	4	06-29-20	07-02-20	166
	515 MILLING PAVEMENT	6	06-19-20	06-26-20	86



Date	Revision	Checked	Approved

SKANSKA

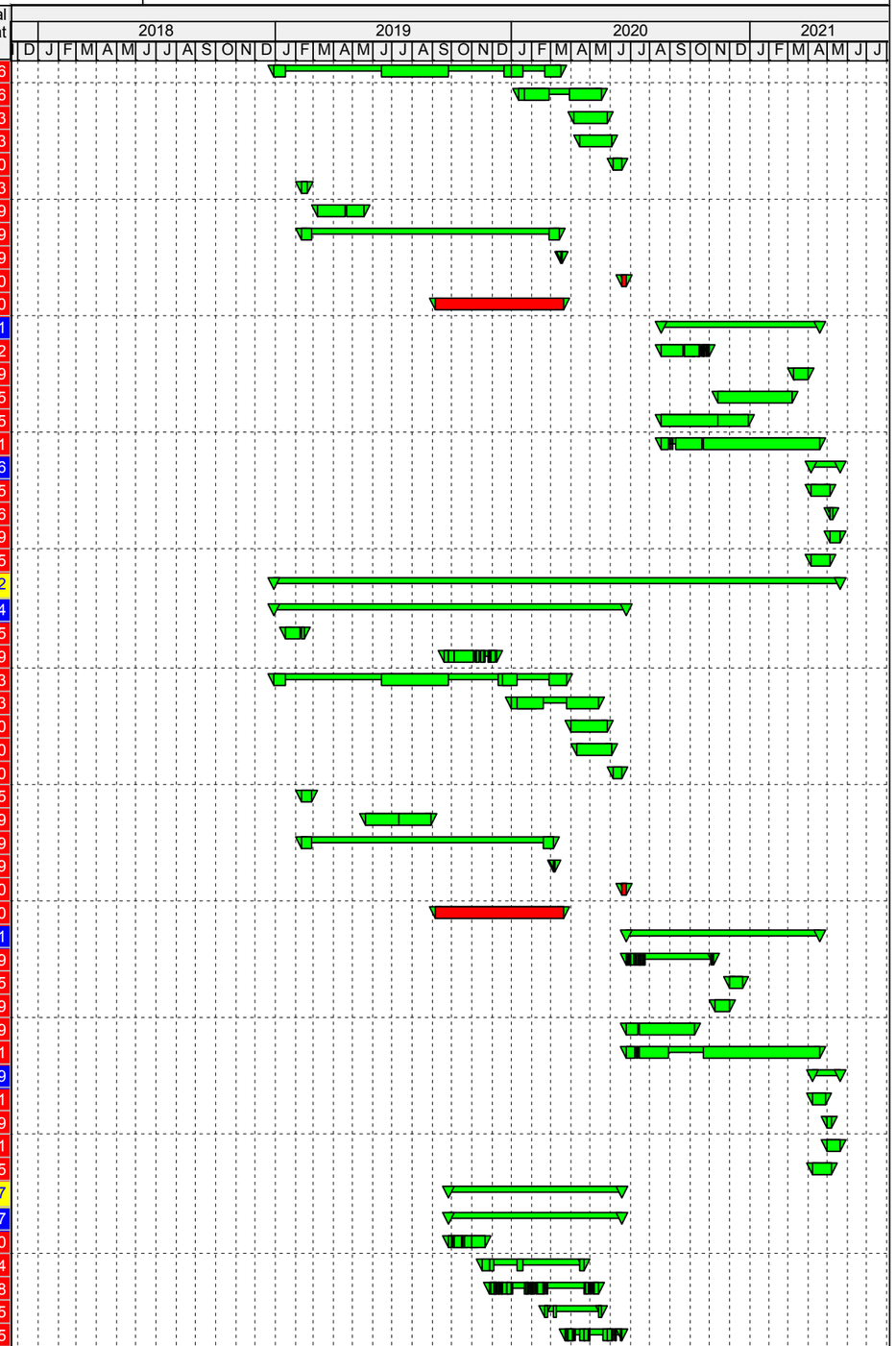
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
519	SOUND BARRIER WALLS	32	04-27-20	06-18-20	86
800	INTELLIGENT TRANSPORTATION SYSTEMS	3	06-19-20	06-23-20	186
	PHASE 3	39	10-16-20	11-23-20	186
315	ASPHALT CONCRETE PAVEMENT	6	11-05-20	11-13-20	62
701	TRAFFIC SIGNS	2	11-19-20	11-20-20	115
704	PAVEMENT MARKINGS AND MARKERS	4	11-18-20	11-23-20	114
800	INTELLIGENT TRANSPORTATION SYSTEMS	30	10-16-20	11-14-20	195
	I-64 EASTBOUND FROM SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	849	11-09-18	12-07-20	172
	PHASE 1	547	11-09-18	04-21-20	58
301	CLEARING AND GRUBBING	10	12-17-18	01-02-19	83
302	DRAINAGE STRUCTURES	26	05-24-19	06-25-19	100
303	EARTHWORK	259	11-09-18	07-18-19	134
305	SUGRADE AND SHOULDERS	132	07-10-19	08-02-19	140
309	AGGREGATE BASE COURSE	10	07-29-19	08-12-19	86
315	ASPHALT CONCRETE PAVEMENT	10	08-05-19	08-21-19	86
505	GUARDRAIL AND W-BEAM MEDIAN BARRIERS	6	08-22-19	08-30-19	168
508	DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	3	01-03-19	01-07-19	239
602	TOPSOIL	140	01-03-19	08-09-19	121
603	SEEDING	2	08-12-19	08-14-19	129
704	PAVEMENT MARKINGS AND MARKERS	2	04-20-20	04-21-20	35
800	INTELLIGENT TRANSPORTATION SYSTEMS	44	06-20-19	09-04-19	0
	PHASE 2	67	04-22-20	07-23-20	279
302	DRAINAGE STRUCTURES	16	04-22-20	05-15-20	97
505	GUARDRAIL AND W-BEAM MEDIAN BARRIERS	6	07-15-20	07-23-20	129
515	MILLING PAVEMENT	6	06-24-20	07-01-20	75
800	INTELLIGENT TRANSPORTATION SYSTEMS	11	05-28-20	06-15-20	191
	PHASE 3	47	10-20-20	12-07-20	172
315	ASPHALT CONCRETE PAVEMENT	6	11-17-20	11-24-20	31
701	TRAFFIC SIGNS	2	11-30-20	12-02-20	105
704	PAVEMENT MARKINGS AND MARKERS	4	12-02-20	12-07-20	94
800	INTELLIGENT TRANSPORTATION SYSTEMS	30	10-20-20	11-18-20	191
	WESTBOUND YADKIN ROAD BRIDGE	179	10-22-19	04-17-20	59
	PHASE 1	179	10-22-19	04-17-20	59
	TEST PILES	77	10-22-19	12-04-19	130
	PRODUCTION PILES	50	11-27-19	01-24-20	57
	SUBSTRUCTURE	106	12-04-19	02-27-20	83
	GIRDERS	39	01-13-20	03-24-20	39
	BRIDGE DECK	48	01-17-20	04-17-20	35
	EASTBOUND YADKIN ROAD BRIDGE	163	10-25-19	04-09-20	64
	PHASE 1	163	10-25-19	04-09-20	64
	TEST PILES	58	10-25-19	12-09-19	108
	PRODUCTION PILES	39	12-04-19	02-05-20	41
	SUBSTRUCTURE	75	12-18-19	03-09-20	63
	GIRDERS	28	01-21-20	03-19-20	37
	BRIDGE DECK	42	01-27-20	04-09-20	39
	WESTBOUND YADKIN ROAD ROADWAY WORK	12	01-27-20	02-13-20	69
	PHASE 1	12	01-27-20	02-13-20	69
505	GUARDRAIL AND W-BEAM MEDIAN BARRIERS	12	01-27-20	02-13-20	69
	EASTBOUND YADKIN ROAD ROADWAY WORK	12	02-06-20	02-25-20	68
	PHASE 1	12	02-06-20	02-25-20	68
505	GUARDRAIL AND W-BEAM MEDIAN BARRIERS	12	02-06-20	02-25-20	68
	I-64 WESTBOUND FROM YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	873	12-03-18	01-20-21	191
	PHASE 1	543	12-03-18	05-22-20	34
301	CLEARING AND GRUBBING	4	01-16-19	01-22-19	149
302	DRAINAGE STRUCTURES	55	09-05-19	10-18-19	39



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
	303 EARTHWORK	265	12-03-18	11-25-19	76
	305 SUGRADE AND SHOULDERS	80	11-07-19	01-17-20	76
	309 AGGREGATE BASE COURSE	31	03-02-20	04-20-20	23
	315 ASPHALT CONCRETE PAVEMENT	31	03-11-20	04-27-20	23
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	8	04-28-20	05-14-20	20
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	6	01-16-19	01-24-19	243
	519 SOUND BARRIER WALLS	46	01-23-19	04-05-19	149
	602 TOPSOIL	239	01-16-19	01-13-20	39
	603 SEEDING	2	01-15-20	01-16-20	39
	704 PAVEMENT MARKINGS AND MARKERS	5	05-15-20	05-22-20	20
	800 INTELLIGENT TRANSPORTATION SYSTEMS	120	09-05-19	03-20-20	0
	PHASE 2	245	05-26-20	01-20-21	191
	302 DRAINAGE STRUCTURES	46	05-26-20	07-22-20	72
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	17	09-18-20	10-15-20	109
	515 MILLING PAVEMENT	15	08-21-20	09-17-20	55
	519 SOUND BARRIER WALLS	82	05-26-20	10-09-20	55
	800 INTELLIGENT TRANSPORTATION SYSTEMS	243	05-26-20	01-20-21	191
	PHASE 3	47	10-16-20	12-03-20	176
	315 ASPHALT CONCRETE PAVEMENT	20	10-16-20	11-16-20	55
	701 TRAFFIC SIGNS	3	11-17-20	11-19-20	116
	704 PAVEMENT MARKINGS AND MARKERS	10	11-17-20	12-03-20	109
	800 INTELLIGENT TRANSPORTATION SYSTEMS	30	10-16-20	11-14-20	195
	I-64 EASTBOUND FROM YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	873	12-03-18	04-09-21	112
	PHASE 1	543	12-03-18	05-22-20	34
	301 CLEARING AND GRUBBING	19	12-19-18	01-22-19	195
	302 DRAINAGE STRUCTURES	51	08-30-19	10-18-19	39
	303 EARTHWORK	270	12-03-18	11-25-19	73
	305 SUGRADE AND SHOULDERS	83	11-07-19	01-17-20	73
	309 AGGREGATE BASE COURSE	34	03-02-20	04-23-20	20
	315 ASPHALT CONCRETE PAVEMENT	34	03-11-20	04-30-20	20
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	8	05-01-20	05-14-20	20
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	11	01-16-19	01-31-19	235
	519 SOUND BARRIER WALLS	60	04-08-19	07-15-19	149
	602 TOPSOIL	233	01-16-19	01-13-20	39
	603 SEEDING	2	01-15-20	01-16-20	39
	704 PAVEMENT MARKINGS AND MARKERS	5	05-15-20	05-22-20	20
	800 INTELLIGENT TRANSPORTATION SYSTEMS	120	09-05-19	03-20-20	0
	PHASE 2	297	05-26-20	01-20-21	191
	302 DRAINAGE STRUCTURES	79	05-26-20	06-25-20	79
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	13	09-28-20	10-19-20	85
	515 MILLING PAVEMENT	13	09-04-20	09-25-20	39
	519 SOUND BARRIER WALLS	60	05-26-20	09-03-20	39
	800 INTELLIGENT TRANSPORTATION SYSTEMS	297	05-26-20	01-20-21	191
	PHASE 3	44	11-25-20	04-09-21	49
	315 ASPHALT CONCRETE PAVEMENT	15	11-25-20	03-22-21	31
	701 TRAFFIC SIGNS	5	03-23-21	03-29-21	39
	704 PAVEMENT MARKINGS AND MARKERS	13	03-23-21	04-09-21	31
	800 INTELLIGENT TRANSPORTATION SYSTEMS	30	11-25-20	12-24-20	155
	WESTBOUND SHELL ROAD BRIDGE	266	09-11-19	03-02-20	107
	PHASE 1	266	09-11-19	03-02-20	107
	TEST PILES	57	09-11-19	10-18-19	150
	PRODUCTION PILES	94	10-15-19	12-19-19	74
	SUBSTRUCTURE	168	10-21-19	01-27-20	108
	GIRDERS	56	12-06-19	02-05-20	65
	BRIDGE DECK	54	12-12-19	03-02-20	65



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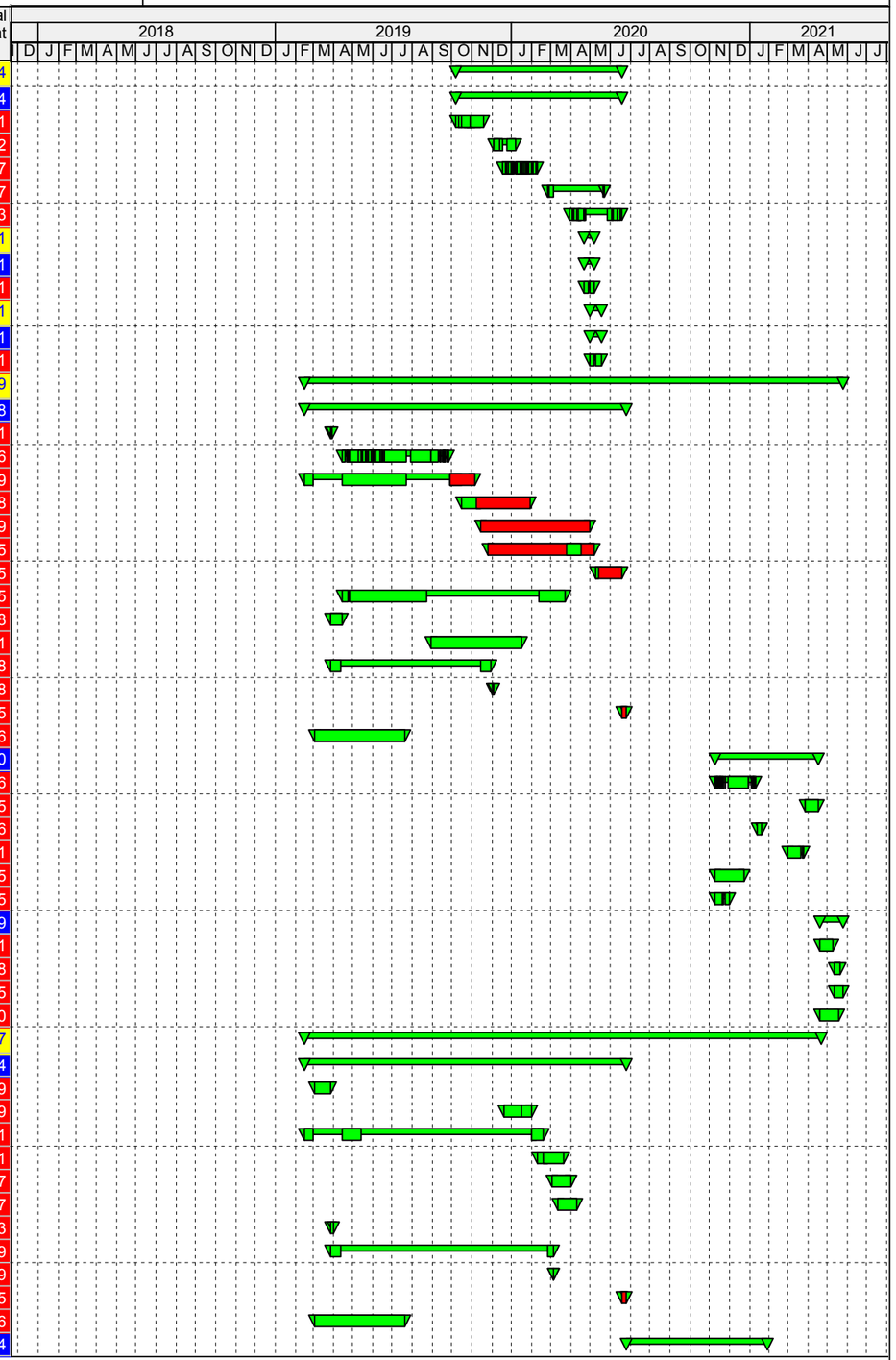
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
	EASTBOUND SHELL ROAD BRIDGE	256	09-16-19	03-06-20	104
	PHASE 1	256	09-16-19	03-06-20	104
	TEST PILES	43	09-16-19	10-15-19	141
	PRODUCTION PILES	19	10-29-19	12-09-19	72
	SUBSTRUCTURE	55	11-04-19	01-16-20	127
	GIRDERS	56	12-23-19	02-10-20	67
	BRIDGE DECK	50	12-30-19	03-06-20	63
	NORTHBOUND SHELL ROAD ROADWAY WORK	12	12-20-19	01-10-20	91
	PHASE 1	12	12-20-19	01-10-20	91
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	12	12-20-19	01-10-20	91
	SOUTHBOUND SHELL ROAD ROADWAY WORK	12	01-02-20	01-22-20	91
	PHASE 1	12	01-02-20	01-22-20	91
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	12	01-02-20	01-22-20	91
	I-64 WESTBOUND FROM SHELL ROAD BRIDGE TO NEW HRB	832	02-15-19	10-21-20	219
	PHASE 1	497	02-15-19	06-01-20	228
	301 CLEARING AND GRUBBING	2	03-28-19	03-29-19	311
	302 DRAINAGE STRUCTURES	99	04-15-19	06-21-19	56
	303 EARTHWORK	159	02-15-19	10-07-19	19
	305 SUGRADE AND SHOULDERS	65	07-31-19	12-27-19	38
	309 AGGREGATE BASE COURSE	48	10-16-19	03-31-20	19
	315 ASPHALT CONCRETE PAVEMENT	48	10-23-19	04-15-20	15
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	24	04-16-20	05-22-20	15
	506 RETAINING WALLS	206	04-15-19	03-23-20	15
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	11	03-28-19	04-15-19	98
	519 SOUND BARRIER WALLS	82	04-01-19	08-14-19	311
	602 TOPSOIL	149	03-28-19	09-20-19	108
	603 SEEDING	2	09-23-19	09-24-19	108
	704 PAVEMENT MARKINGS AND MARKERS	5	05-26-20	06-01-20	15
	800 INTELLIGENT TRANSPORTATION SYSTEMS	84	03-04-19	07-19-19	146
	PHASE 2	159	06-03-20	09-10-20	230
	302 DRAINAGE STRUCTURES	38	06-03-20	07-15-20	146
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	13	08-19-20	09-10-20	135
	507 FENCES	4	07-16-20	07-22-20	146
	515 MILLING PAVEMENT	17	07-20-20	08-17-20	81
	519 SOUND BARRIER WALLS	28	06-03-20	07-17-20	135
	800 INTELLIGENT TRANSPORTATION SYSTEMS	14	06-03-20	06-24-20	185
	PHASE 3	38	09-11-20	10-21-20	219
	315 ASPHALT CONCRETE PAVEMENT	15	09-11-20	10-02-20	81
	701 TRAFFIC SIGNS	7	10-05-20	10-16-20	138
	704 PAVEMENT MARKINGS AND MARKERS	10	10-05-20	10-21-20	135
	800 INTELLIGENT TRANSPORTATION SYSTEMS	30	09-11-20	10-10-20	230
	I-64 EASTBOUND FROM SHELL ROAD BRIDGE TO EXIST HRB	797	02-15-19	04-21-21	37
	PHASE 1	497	02-15-19	06-01-20	24
	301 CLEARING AND GRUBBING	15	03-04-19	03-27-19	19
	302 DRAINAGE STRUCTURES	25	05-15-19	06-25-19	139
	303 EARTHWORK	220	02-15-19	07-12-19	151
	305 SUGRADE AND SHOULDERS	25	07-05-19	08-15-19	151
	309 AGGREGATE BASE COURSE	20	07-24-19	08-23-19	97
	315 ASPHALT CONCRETE PAVEMENT	20	07-31-19	09-04-19	97
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	3	03-28-19	04-01-19	203
	602 TOPSOIL	205	03-28-19	07-30-19	139
	603 SEEDING	1	07-31-19	07-31-19	139
	704 PAVEMENT MARKINGS AND MARKERS	5	05-26-20	06-01-20	15
	800 INTELLIGENT TRANSPORTATION SYSTEMS	84	03-04-19	07-19-19	146
	PHASE 2	217	06-26-20	12-15-20	134



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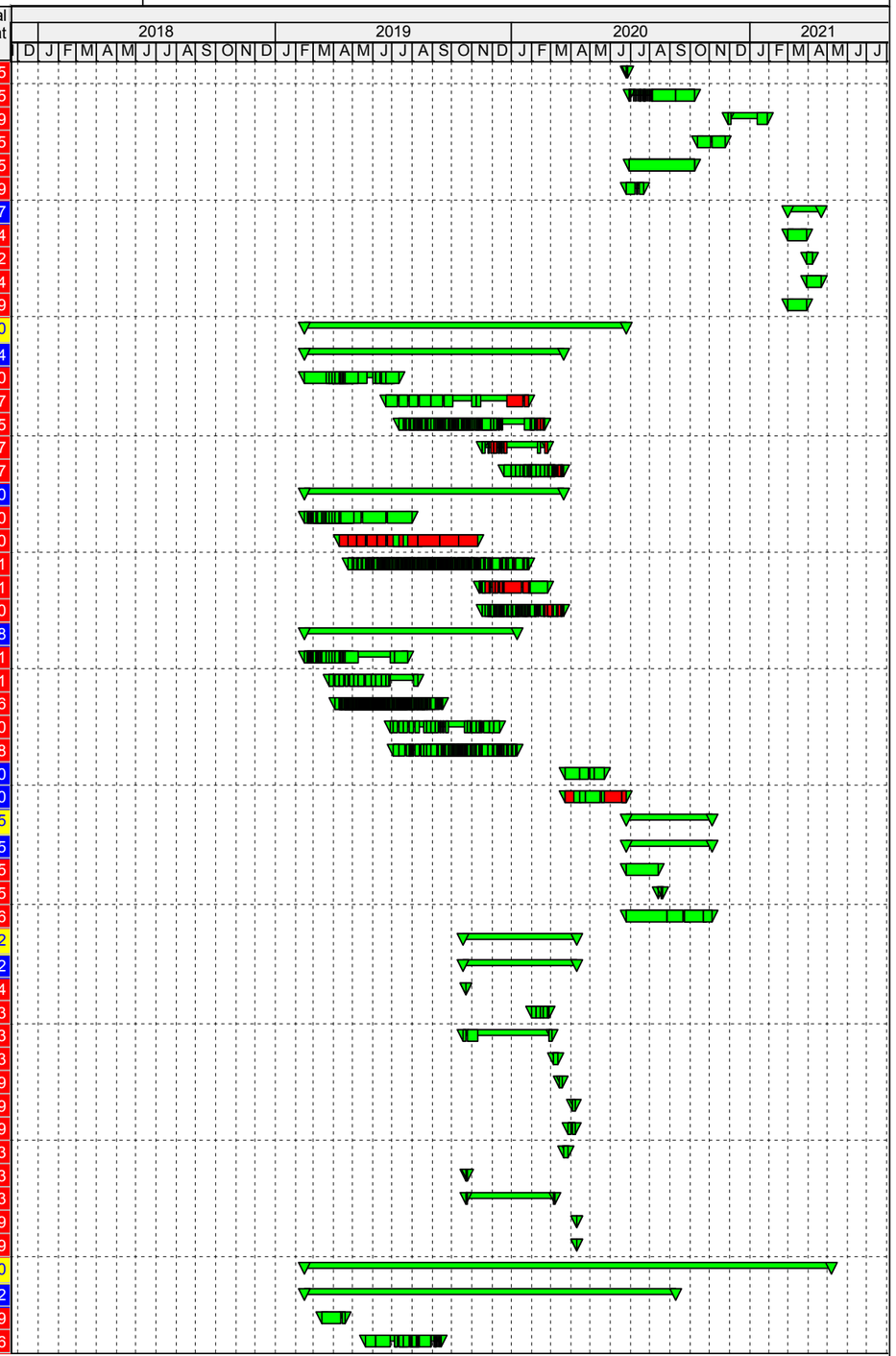
SKANSKA

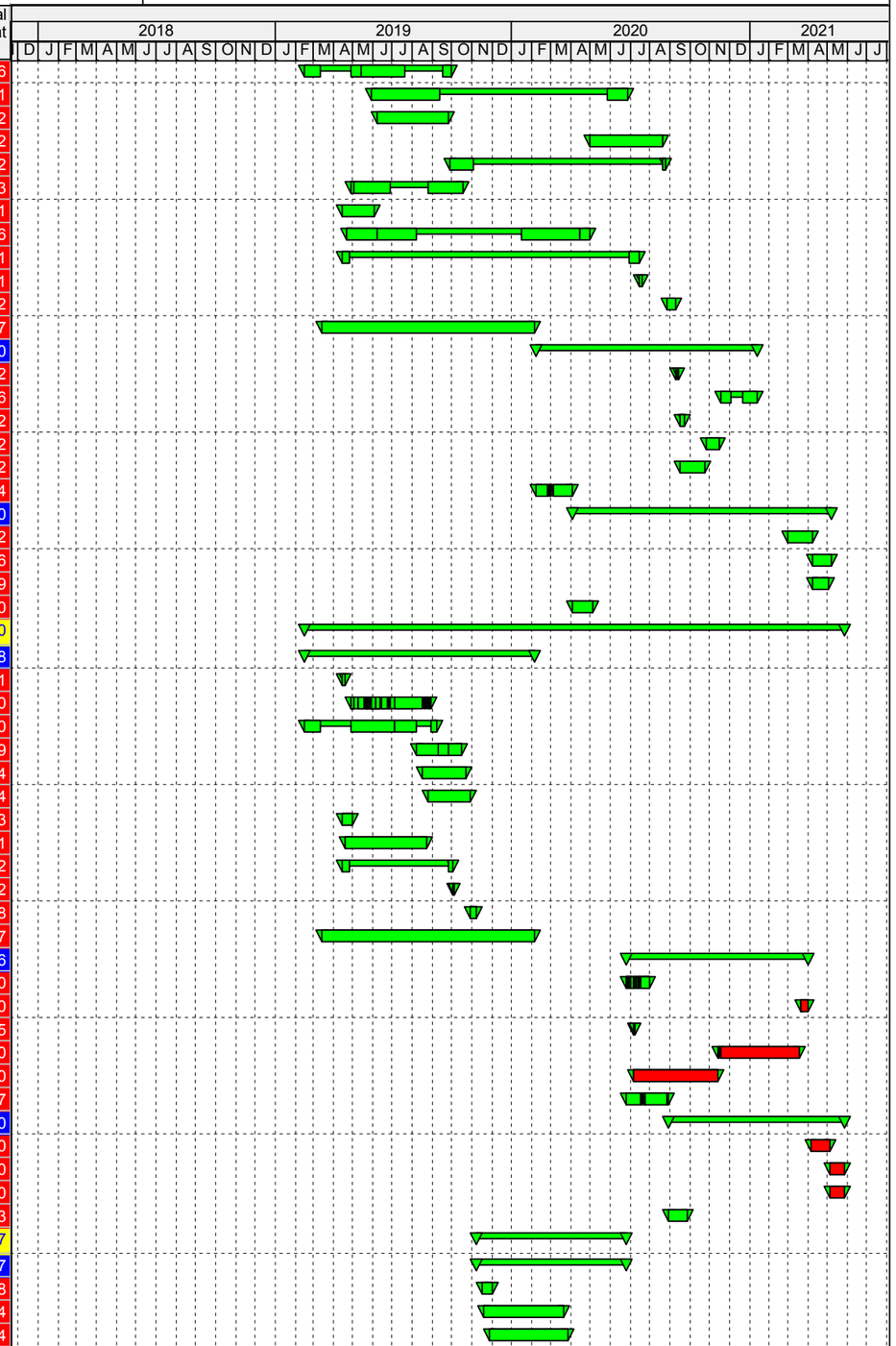
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
	301 CLEARING AND GRUBBING	1	06-26-20	06-26-20	15
	302 DRAINAGE STRUCTURES	61	06-29-20	10-09-20	15
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	37	11-30-20	12-15-20	69
	515 MILLING PAVEMENT	29	10-14-20	11-25-20	15
	519 SOUND BARRIER WALLS	60	06-30-20	10-09-20	15
	800 INTELLIGENT TRANSPORTATION SYSTEMS	15	06-26-20	07-22-20	169
	PHASE 3	52	03-01-21	04-21-21	37
	315 ASPHALT CONCRETE PAVEMENT	18	03-01-21	03-29-21	24
	701 TRAFFIC SIGNS	7	03-30-21	04-08-21	32
	704 PAVEMENT MARKINGS AND MARKERS	15	03-30-21	04-21-21	24
	800 INTELLIGENT TRANSPORTATION SYSTEMS	30	03-01-21	03-30-21	59
	NEW WESTBOUND HRB	497	02-15-19	06-25-20	0
	ABUTMENT A THROUGH PIER 9	400	02-15-19	02-05-20	44
	TEST PILES	147	02-15-19	05-24-19	230
	PRODUCTION PILES	130	05-06-19	12-11-19	27
	SUBSTRUCTURE	226	05-23-19	01-06-20	45
	GIRDERS	60	08-30-19	01-10-20	27
	BRIDGE DECK	54	09-06-19	02-05-20	27
	PIER 10 THROUGH 22	400	02-15-19	03-20-20	0
	TEST PILES	167	02-15-19	07-31-19	90
	PRODUCTION PILES	140	04-09-19	11-08-19	0
	SUBSTRUCTURE	279	04-23-19	01-26-20	1
	GIRDERS	62	11-11-19	02-24-20	1
	BRIDGE DECK	75	11-15-19	03-20-20	0
	PIER 23 THROUGH ABUTMENT B	328	02-15-19	12-13-19	98
	TEST PILES	160	02-15-19	07-24-19	151
	PRODUCTION PILES	84	03-26-19	08-09-19	91
	SUBSTRUCTURE	166	04-03-19	09-15-19	156
	GIRDERS	100	06-27-19	11-14-19	60
	BRIDGE DECK	112	07-03-19	12-13-19	58
	BRIDGE DECK FINISHES	40	03-23-20	05-22-20	20
	BRIDGE LIGHTING / ITS	60	03-23-20	06-25-20	0
	EXISTING EASTBOUND HRB	132	06-26-20	11-04-20	205
	PHASE 2	132	06-26-20	11-04-20	205
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	27	06-26-20	08-12-20	75
	704 PAVEMENT MARKINGS AND MARKERS	5	08-13-20	08-20-20	75
	800 INTELLIGENT TRANSPORTATION SYSTEMS	77	06-26-20	11-04-20	126
	LIBERTYVILLE ROAD ROADWAY WORK	175	09-04-19	03-05-20	112
	PHASE 1	175	09-04-19	03-05-20	112
	301 CLEARING AND GRUBBING	1	09-06-19	09-06-19	124
	302 DRAINAGE STRUCTURES	16	09-27-19	10-22-19	123
	303 EARTHWORK	82	09-04-19	10-25-19	123
	305 SUGRADE AND SHOULDERS	6	10-28-19	11-04-19	123
	309 AGGREGATE BASE COURSE	4	11-06-19	11-11-19	69
	315 ASPHALT CONCRETE PAVEMENT	4	11-28-19	03-04-20	69
	504 SIDEWALKS, STEPS, AND HANDRAILS	8	11-20-19	03-04-20	69
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	5	11-13-19	11-19-19	123
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	3	09-06-19	09-11-19	123
	602 TOPSOIL	82	09-09-19	10-30-19	143
	603 SEEDING	1	03-05-20	03-05-20	69
	704 PAVEMENT MARKINGS AND MARKERS	1	03-05-20	03-05-20	69
	I-64 WESTBOUND FROM NEW HRB TO 1442+08.47	813	02-15-19	11-19-20	190
	PHASE 1	573	02-15-19	06-05-20	112
	301 CLEARING AND GRUBBING	25	03-13-19	04-19-19	169
	302 DRAINAGE STRUCTURES	68	05-20-19	09-13-19	46



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
	303 EARTHWORK	136	02-15-19	09-30-19	46
	305 SUGRADE AND SHOULDERS	237	05-30-19	10-30-19	181
	309 AGGREGATE BASE COURSE	65	06-07-19	09-26-19	62
	315 ASPHALT CONCRETE PAVEMENT	65	11-04-19	05-18-20	62
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	200	09-27-19	05-22-20	62
	506 RETAINING WALLS	102	04-29-19	08-30-19	123
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	32	04-15-19	06-03-19	81
	519 SOUND BARRIER WALLS	226	04-22-19	10-02-19	216
	602 TOPSOIL	276	04-15-19	11-15-19	181
	603 SEEDING	3	11-18-19	11-20-19	181
	704 PAVEMENT MARKINGS AND MARKERS	8	05-26-20	06-05-20	62
	800 INTELLIGENT TRANSPORTATION SYSTEMS	198	03-13-19	02-05-20	27
	PHASE 2	343	02-06-20	09-10-20	230
	302 DRAINAGE STRUCTURES	3	06-08-20	06-11-20	62
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	34	08-19-20	09-10-20	116
	507 FENCES	5	06-12-20	06-19-20	62
	515 MILLING PAVEMENT	14	07-24-20	08-17-20	62
	519 SOUND BARRIER WALLS	25	06-12-20	07-23-20	62
	800 INTELLIGENT TRANSPORTATION SYSTEMS	37	02-06-20	04-03-20	234
	PHASE 3	399	04-04-20	11-19-20	190
	315 ASPHALT CONCRETE PAVEMENT	25	09-11-20	10-21-20	62
	701 TRAFFIC SIGNS	19	10-22-20	11-19-20	116
	704 PAVEMENT MARKINGS AND MARKERS	16	10-22-20	11-16-20	119
	800 INTELLIGENT TRANSPORTATION SYSTEMS	30	04-04-20	05-03-20	390
	I-64 EASTBOUND FROM EXIST HRB TO 1925+58.03	834	02-15-19	05-28-21	0
	PHASE 1	356	02-15-19	02-05-20	148
	301 CLEARING AND GRUBBING	4	04-15-19	04-18-19	191
	302 DRAINAGE STRUCTURES	72	04-29-19	08-28-19	60
	303 EARTHWORK	122	02-15-19	09-06-19	60
	305 SUGRADE AND SHOULDERS	40	08-08-19	10-15-19	149
	309 AGGREGATE BASE COURSE	40	08-16-19	10-22-19	54
	315 ASPHALT CONCRETE PAVEMENT	40	08-26-19	10-29-19	54
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	11	04-15-19	04-29-19	93
	519 SOUND BARRIER WALLS	75	04-19-19	08-22-19	191
	602 TOPSOIL	102	04-15-19	10-02-19	162
	603 SEEDING	1	10-03-19	10-03-19	162
	704 PAVEMENT MARKINGS AND MARKERS	5	10-30-19	11-06-19	108
	800 INTELLIGENT TRANSPORTATION SYSTEMS	198	03-13-19	02-05-20	27
	PHASE 2	281	06-26-20	04-02-21	26
	302 DRAINAGE STRUCTURES	20	06-26-20	07-30-20	70
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	10	03-22-21	04-02-21	0
	507 FENCES	2	07-06-20	07-08-20	75
	515 MILLING PAVEMENT	22	11-13-20	03-19-21	0
	519 SOUND BARRIER WALLS	77	07-06-20	11-12-20	0
	800 INTELLIGENT TRANSPORTATION SYSTEMS	37	06-26-20	08-28-20	147
	PHASE 3	273	08-29-20	05-28-21	0
	315 ASPHALT CONCRETE PAVEMENT	20	04-05-21	05-05-21	0
	701 TRAFFIC SIGNS	15	05-06-21	05-28-21	0
	704 PAVEMENT MARKINGS AND MARKERS	15	05-06-21	05-28-21	0
	800 INTELLIGENT TRANSPORTATION SYSTEMS	30	08-29-20	09-27-20	243
	I-64 WESTBOUND CD TO BATTLEFIELD BLVD	231	11-07-19	03-30-20	87
	PHASE 1	231	11-07-19	03-30-20	87
	305 SUGRADE AND SHOULDERS	10	11-15-19	12-02-19	108
	309 AGGREGATE BASE COURSE	20	11-18-19	03-20-20	54
	315 ASPHALT CONCRETE PAVEMENT	20	11-27-19	03-27-20	54



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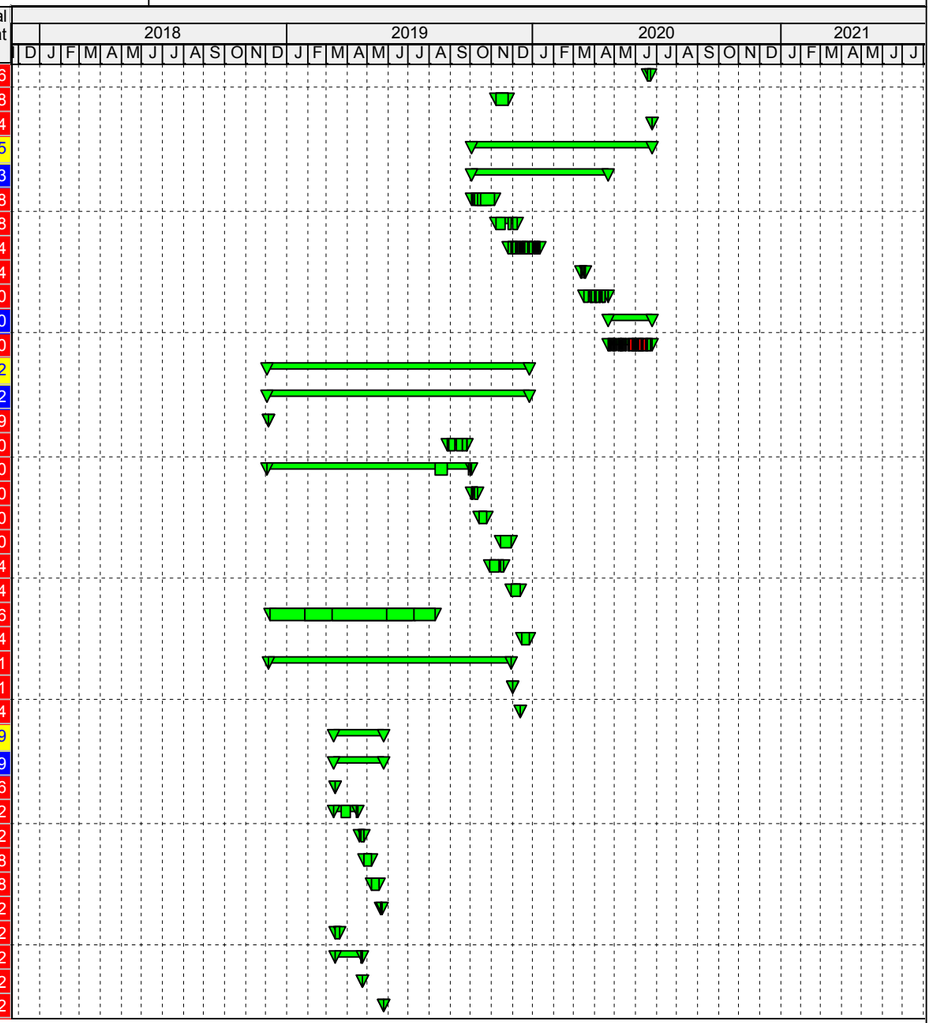
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	3	03-23-20	03-25-20	56
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	10	11-07-19	11-25-19	108
	704 PAVEMENT MARKINGS AND MARKERS	1	03-30-20	03-30-20	54
	GREAT BRIDGE OVERPASS BRIDGE	268	10-02-19	04-21-20	65
	PHASE 1	203	10-02-19	02-24-20	63
	TEST PILES	35	10-02-19	11-05-19	98
	PRODUCTION PILES	20	11-06-19	12-09-19	48
	SUBSTRUCTURE	47	11-25-19	01-10-20	74
	GIRDERS	6	01-10-20	01-16-20	44
	BRIDGE DECK	24	01-16-20	02-24-20	40
	PHASE 2	40	02-25-20	04-21-20	40
	413 DISMANTLING AND REMOVING EXISTING STRUCTURES	40	02-25-20	04-21-20	40
	GREAT BRIDGE BLVD ROADWAY WORK	390	12-03-18	12-27-19	122
	PHASE 1	390	12-03-18	12-27-19	122
	301 CLEARING AND GRUBBING	1	12-05-18	12-05-18	19
	302 DRAINAGE STRUCTURES	18	08-28-19	09-26-19	20
	303 EARTHWORK	181	12-03-18	10-02-19	20
	305 SUGRADE AND SHOULDERS	6	10-03-19	10-11-19	20
	309 AGGREGATE BASE COURSE	10	10-14-19	10-25-19	20
	315 ASPHALT CONCRETE PAVEMENT	10	11-13-19	11-28-19	20
	504 SIDEWALKS, STEPS, AND HANDRAILS	14	10-28-19	11-18-19	34
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	8	11-29-19	12-12-19	74
	506 RETAINING WALLS	245	12-07-18	08-08-19	36
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	8	12-16-19	12-27-19	74
	602 TOPSOIL	216	12-06-18	11-29-19	81
	603 SEEDING	1	12-02-19	12-02-19	81
	704 PAVEMENT MARKINGS AND MARKERS	1	12-13-19	12-13-19	74
	GREAT BRIDGE BLVD RAMP WORK	75	03-11-19	05-24-19	339
	PHASE 1	75	03-11-19	05-24-19	339
	301 CLEARING AND GRUBBING	1	03-13-19	03-13-19	206
	303 EARTHWORK	24	03-11-19	04-17-19	202
	305 SUGRADE AND SHOULDERS	6	04-18-19	04-25-19	202
	309 AGGREGATE BASE COURSE	7	04-26-19	05-06-19	148
	315 ASPHALT CONCRETE PAVEMENT	7	05-08-19	05-17-19	148
	505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS	3	05-20-19	05-23-19	202
	508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY	6	03-13-19	03-21-19	202
	602 TOPSOIL	25	03-14-19	04-22-19	222
	603 SEEDING	1	04-23-19	04-23-19	222
	704 PAVEMENT MARKINGS AND MARKERS	1	05-24-19	05-24-19	202



Date	Revision	Checked	Approved

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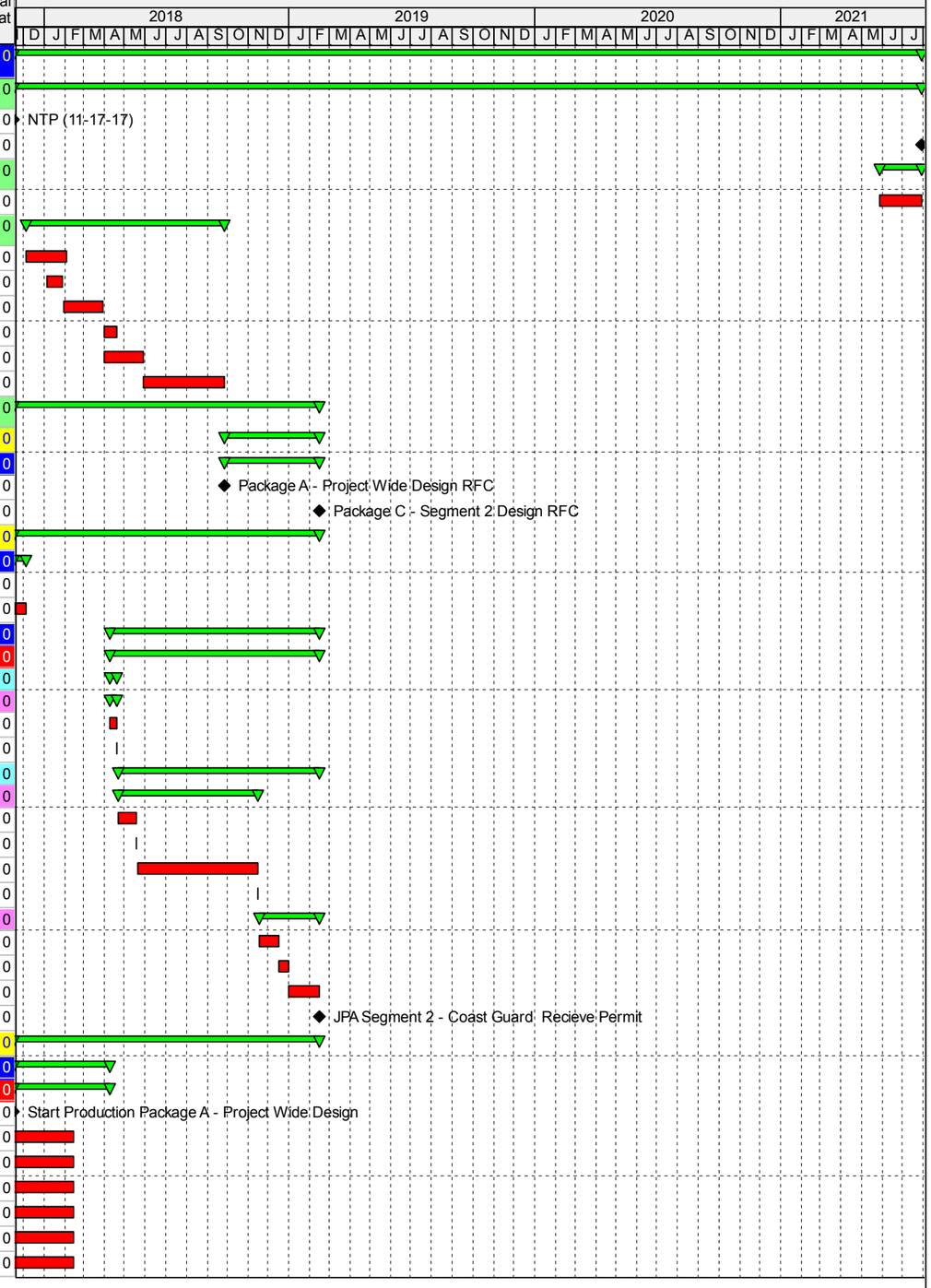
4.7.1 CRITICAL PATH

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
C00106692DB93 - I-64 SOUTHSIDE WIDENING & HRB, PHASE 1 - TECH PROPOSAL SCHEDU		1352	11-17-17	07-30-21	0
MILESTONES		1352	11-17-17	07-30-21	0
MS100100	NTP (11-17-17)	0	11-17-17		0
MS900900	FINAL COMPLETION (7-30-21)	0		07-30-21	0
PROJECT MANAGEMENT		63	05-29-21	07-30-21	0
PM100350	PUNCHLIST AND PROJECT CLOSEOUT	63	05-29-21	07-30-21	0
RIGHT OF WAY		295	12-06-17	09-26-18	0
ROW100100	PREPARE ROW STUDY	60	12-06-17	02-03-18	0
ROW100120	PREPARE AND SUBMIT ACQUISITION AND RELOCATION PLAN	25	01-05-18	01-29-18	0
ROW100130	IDENTIFY FINAL ROW, PERM & tEMP EASMENTS, AND UTILITY EASEMENTS AND COMPLETI	60	01-30-18	03-30-18	0
ROW100140	VDOT REVIEW AND APPROVE ACQUISITION AND RELOCATION PLAN	21	03-31-18	04-20-18	0
ROW100150	APPRAISALS, APPRAISAL REVIEW, TITLES, REPORT	60	03-31-18	05-29-18	0
ROW100160	INITIATE ROW NEGOTIATIONS, ACQUISITION REPORTS, CONDEMNATION LITIGATION SUPF	120	05-30-18	09-26-18	0
DESIGN		455	11-17-17	02-14-19	0
I-64 Project Milestones		95	09-26-18	02-14-19	0
Project-Wide Milestones		95	09-26-18	02-14-19	0
00.MILE.PKG1.PW	Package A - Project Wide Design RFC	0		09-26-18	0
00.MILE.PKG3.HPBF	Package C - Segment 2 Design RFC	0		02-14-19	0
Early Works		455	11-17-17	02-14-19	0
Surveying		19	11-17-17	12-05-17	0
EW.DGN.PMT.010	Develop Project Wide Survey - Permit & Workplans	1	11-17-17	11-17-17	0
EW.DGN.SVY.120	Develop Early Action Survey for Permits	18	11-18-17	12-05-17	0
Permitting		311	04-10-18	02-14-19	0
Joint Permit Application Section 408/404/401/10		311	04-10-18	02-14-19	0
JPA Segment 1 & 3		11	04-10-18	04-20-18	0
USACOE Permit		11	04-10-18	04-20-18	0
EW.DGN.PMT.880	JPA Segment 1 & 3 - Prepare Permit Application	10	04-10-18	04-19-18	0
EW.DGN.PMT.890	JPA Segment 1 & 3 - Submit Application	1	04-20-18	04-20-18	0
JPA Segment 2		300	04-21-18	02-14-19	0
USACOE Permit		210	04-21-18	11-16-18	0
EW.DGN.PMT.1070	JPA Segment 2 - Prepare Permit Application	28	04-21-18	05-18-18	0
EW.DGN.PMT.1080	JPA Segment 2 - Submit Application	1	05-19-18	05-19-18	0
EW.DGN.PMT.1100	JPA Segment 2 - Section 408 Review	180	05-20-18	11-15-18	0
EW.DGN.PMT.1140	JPA Segment 2 - USACOE Recieve Permit	1	11-16-18	11-16-18	0
Coast Guard Permit		90	11-17-18	02-14-19	0
EW.DGN.PMT.1330	JPA Segment 2 - Coast Guard Public Notice	30	11-17-18	12-16-18	0
EW.DGN.PMT.1340	JPA Segment 2 - District Assemble Documentation	15	12-17-18	12-31-18	0
EW.DGN.PMT.1350	JPA Segment 2 - Coast Guard HQ Review and Processing	45	01-01-19	02-14-19	0
EW.DGN.PMT.1360	JPA Segment 2 - Coast Guard Recieve Permit	0		02-14-19	0
Design		455	11-17-17	02-14-19	0
Package A - Project Wide Design		144	11-17-17	04-09-18	0
Package A Project Wide Final Plans		144	11-17-17	04-09-18	0
PKGA.DGN.1000	Start Production Package A - Project Wide Design	0		11-17-17	0
PKGA.DGN.1010	Produce Package A - Project Wide ROW Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1270	Produce Package A - Project Wide E&S Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1280	Produce Package A - Project Wide SWM Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1290	Produce Package A - Project Wide Rough Grading Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1300	Produce Package A - Project Wide MOT/TMP Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1310	Produce Package A - Project Wide Bridge TS&L's Plans Dgn	90	11-17-17	02-14-18	0



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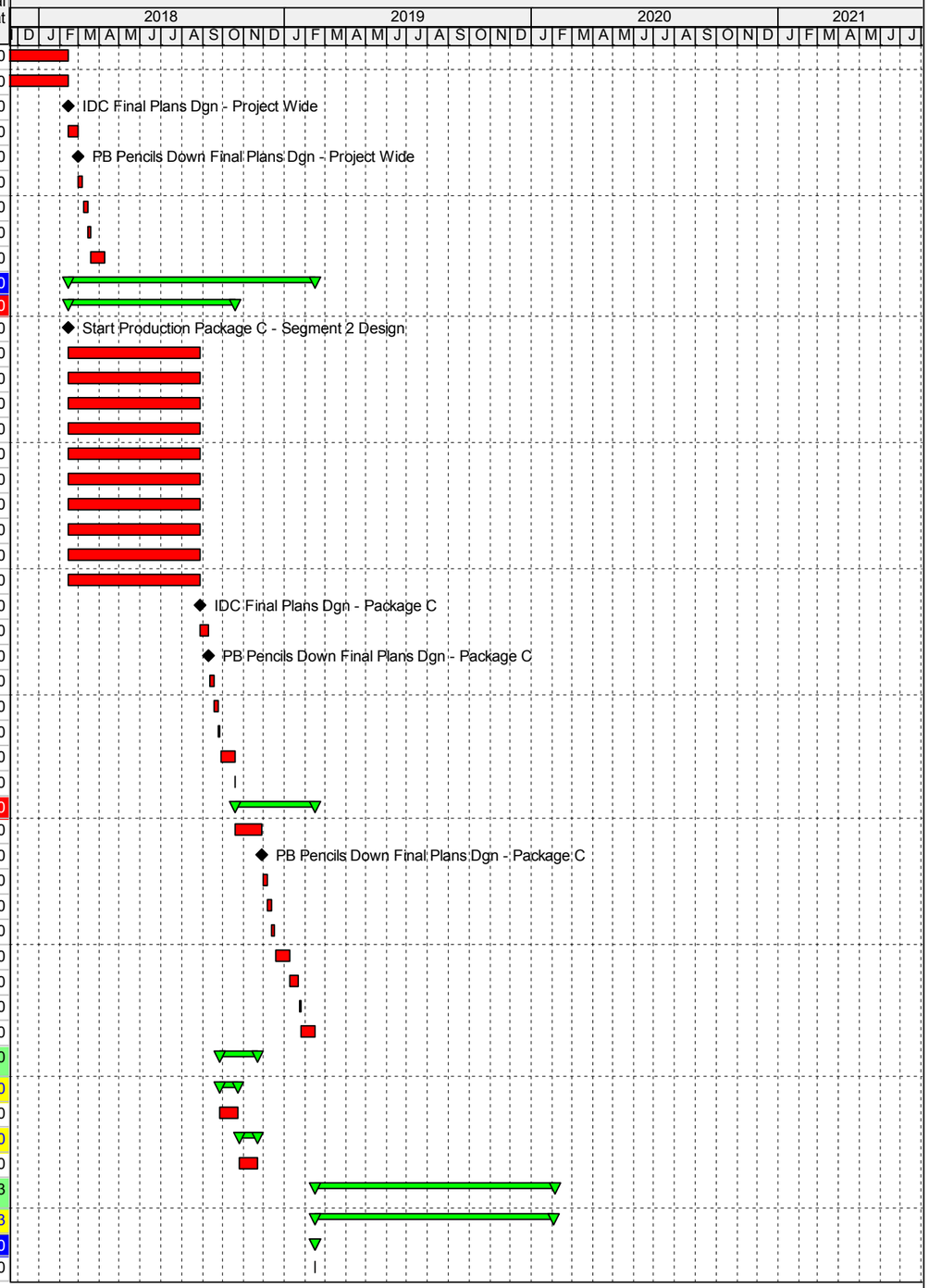
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PKGA.DGN.1320	Produce Package A - Project Wide Utility Relocation Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1360	Produce Package A - HRB H&HA Report	90	11-17-17	02-14-18	0
PKGA.DGN.1020	IDC Final Plans Dgn - Project Wide	0		02-14-18	0
PKGA.DGN.1030	PB Incorporate IDC Comments Final Plans Dgn - Project Wide	14	02-15-18	02-28-18	0
PKGA.DGN.1040	PB Pencils Down Final Plans Dgn - Project Wide	0		02-28-18	0
PKGA.DGN.1050	PB Internal Review Final Plans QC Dgn - Project Wide	7	03-01-18	03-07-18	0
PKGA.DGN.1060	PB Address Comm/Package & Submit ROW Plans Dgn - Project Wide	7	03-08-18	03-14-18	0
PKGA.DGN.1070	SAW Internal Review ROW Plans Dgn - Project Wide	3	03-15-18	03-19-18	0
PKGA.DGN.1080	VDOT Review/Cmnt ROW Plans Dgn - Project Wide	21	03-20-18	04-09-18	0
Package C - Segment 2		365	02-14-18	02-14-19	0
Package C - Segment 2 Final Plans		247	02-14-18	10-19-18	0
PKGC.DGN.1370	Start Production Package C - Segment 2 Design	0		02-14-18	0
PKGC.DGN.1640	Produce Package C - Flood Gate Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1650	Produce Package C - Modifications to Exsisting HRB Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1380	Produce Package C - Final Roadway Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1390	Produce Package C - MOT/TMP Update Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1400	Produce Package C - ITS Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1410	Produce Package C - Lighting Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1420	Produce Package C - Signage Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1430	Produce Package C - Striping Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1440	Produce Package C - Shell Road Bridge widenings Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1450	Produce Package C - HRB DGN	194	02-15-18	08-27-18	0
PKGC.DGN.1460	IDC Final Plans Dgn - Package C	0		08-27-18	0
PKGC.DGN.1470	PB Incorporate IDC Comments Final Plans Dgn - Package C	14	08-28-18	09-10-18	0
PKGC.DGN.1480	PB Pencils Down Final Plans Dgn - Package C	0		09-10-18	0
PKGC.DGN.1490	PB Internal Review Final Plans QC Dgn - Package C	7	09-11-18	09-17-18	0
PKGC.DGN.1500	PB Address Comm/Package & Submit ROW Plans Dgn - Package C	7	09-18-18	09-24-18	0
PKGC.DGN.1510	SAW Internal Review ROW Plans Dgn - Package C	3	09-25-18	09-27-18	0
PKGC.DGN.1520	VDOT Review/Cmnt ROW Plans Dgn - Package C	21	09-28-18	10-18-18	0
PKGC.DGN.1530	PB Interdisciplinary Coordination Mtg Construction Plan Dgn - Package C	1	10-19-18	10-19-18	0
Package C - Segment 2 RFC Plans		118	10-20-18	02-14-19	0
PKGC.DGN.1540	PB Produce RFC Dgn Pkg - Sign/Seal/Submit - Package C	40	10-20-18	11-28-18	0
PKGC.DGN.1560	PB Pencils Down Final Plans Dgn - Package C	0		11-28-18	0
PKGC.DGN.1570	PB Internal Review Final Plans QC Dgn - Package C	7	11-29-18	12-05-18	0
PKGC.DGN.1580	PB Address Comm/Package & Submit ROW Plans Dgn - Package C	7	12-06-18	12-12-18	0
PKGC.DGN.1590	SAW Internal Review RFC Dgn - Package C	3	12-13-18	12-17-18	0
PKGC.DGN.1600	VDOT Review/Comment RFC Plans - Package C	21	12-18-18	01-07-19	0
PKGC.DGN.1610	PB Address Comm/Pkg - Sign/Seal/Submit - Package C	14	01-08-19	01-21-19	0
PKGC.DGN.1620	SAW Internal Review RFC Plans - Package C	3	01-22-19	01-24-19	0
PKGC.DGN.1630	VDOT Issue Package 1 RFC Plans - Package C	21	01-25-19	02-14-19	0
PROCUREMENT		40	09-27-18	11-21-18	0
FABRICATION		20	09-27-18	10-24-18	0
F2380000	FABRICATE 238—ELECTRICAL AND SIGNAL COMPONENTS	20	09-27-18	10-24-18	0
DELIVERY		20	10-25-18	11-21-18	0
D2380000	DELIVER 238—ELECTRICAL AND SIGNAL COMPONENTS	20	10-25-18	11-21-18	0
PRECAST		243	02-15-19	12-03-19	43
FABRICATE		242	02-15-19	12-02-19	43
TEST PILES		1	02-15-19	02-15-19	0
FWBHRB.400.TP.10	FABRICATE TEST PILE HRB 10	1	02-15-19	02-15-19	0



Date	Revision	Checked	Approved

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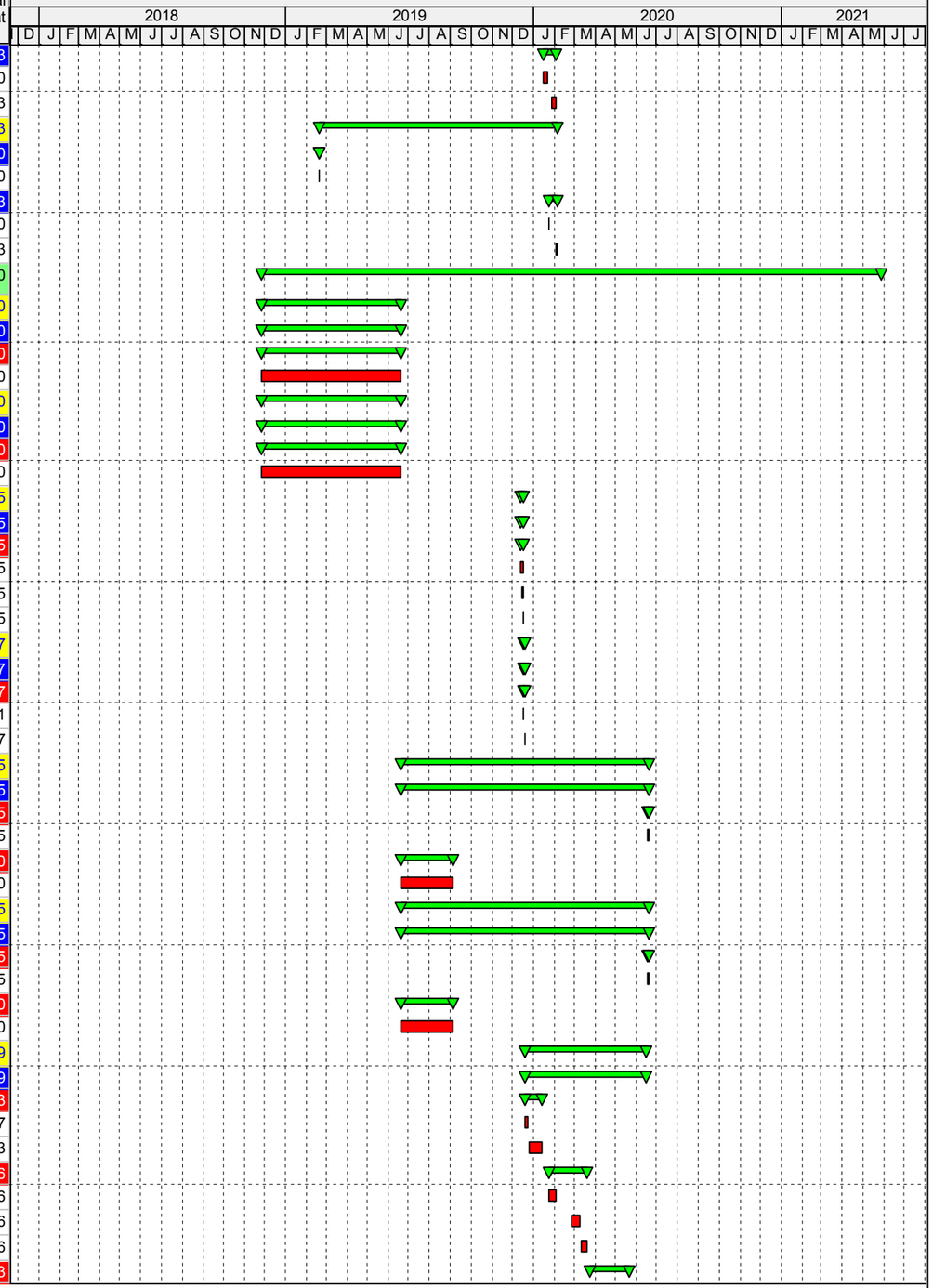
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PRODUCTION PILES		13	11-15-19	12-02-19	43
FWBYRB.400.PP.01	FAB PRODUCTION PILE WB YADKIN PIER 01	5	11-15-19	11-25-19	40
FEBYRB.400.PP.01	FAB PRODUCTION PILE EB YADKIN PIER 01	5	11-26-19	12-02-19	43
DELIVERY		242	02-19-19	12-03-19	43
TEST PILES		1	02-19-19	02-19-19	0
DWBHRB.400.TP.10	DELIVER TEST PILE HRB 10	1	02-19-19	02-19-19	0
PRODUCTION PILES		9	11-26-19	12-03-19	43
DWBYRB.400.PP.01	DELIVER PRODUCTION PILE WB YADKIN PIER 01	1	11-26-19	11-26-19	40
DEBYRB.400.PP.01	DELIVER PRODUCTION PILE EB YADKIN PIER 01	1	12-03-19	12-03-19	43
CONSTRUCTION		915	11-26-18	05-28-21	0
I-64 WESTBOUND FROM 1030+57.06 TO SOUTH MILITARY HWY BRIDGE		125	11-26-18	06-19-19	0
PHASE 1		125	11-26-18	06-19-19	0
800 INTELLIGENT TRANSPORTATION SYSTEMS		125	11-26-18	06-19-19	0
WBRW.800.1000000	RUN DISTRIBUTION AND FIBER WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	125	11-26-18	06-19-19	0
I-64 EASTBOUND FROM 1489+33.00 TO SOUTH MILITARY HWY BRIDGE		125	11-26-18	06-19-19	0
PHASE 1		125	11-26-18	06-19-19	0
800 INTELLIGENT TRANSPORTATION SYSTEMS		125	11-26-18	06-19-19	0
EBRW.800.1000000	RUN DISTRIBUTION AND FIBER FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	125	11-26-18	06-19-19	0
WESTBOUND MILITARY HWY BRIDGE		3	10-02-19	10-04-19	45
PHASE 1		3	10-02-19	10-04-19	45
BRIDGE DECK		3	10-02-19	10-04-19	45
WBMHB.400.1000380	WB MILITARY HWY BRIDGE SETUP BIDWELL SPAN 4	2	10-02-19	10-03-19	45
WBMHB.400.1000385	WB MILITARY HWY BRIDGE DRY RUN SPAN 4	1	10-03-19	10-03-19	45
WBMHB.400.1000390	WB MILITARY HWY BRIDGE DECK POUR SPAN 4	1	10-04-19	10-04-19	45
EASTBOUND MILITARY HWY BRIDGE		2	10-14-19	10-21-19	37
PHASE 1		2	10-14-19	10-21-19	37
BRIDGE DECK		2	10-14-19	10-21-19	37
EBMHB.400.1000350	EB MILITARY HWY BRIDGE DECK POUR SPAN 3	1	10-14-19	10-14-19	41
EBMHB.400.1000390	EB MILITARY HWY BRIDGE DECK POUR SPAN 4	1	10-21-19	10-21-19	37
I-64 WESTBOUND FROM SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE		219	06-20-19	04-21-20	35
PHASE 1		219	06-20-19	04-21-20	35
704 PAVEMENT MARKINGS AND MARKERS		2	04-20-20	04-21-20	35
WBRW.704.1000100	APPLY PAVEMENT MARKINGS WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	2	04-20-20	04-21-20	35
800 INTELLIGENT TRANSPORTATION SYSTEMS		44	06-20-19	09-04-19	0
WBRW.800.1000100	RUN DISTRIBUTION AND FIBER FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD	44	06-20-19	09-04-19	0
I-64 EASTBOUND FROM SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE		219	06-20-19	04-21-20	35
PHASE 1		219	06-20-19	04-21-20	35
704 PAVEMENT MARKINGS AND MARKERS		2	04-20-20	04-21-20	35
EBRW.704.1000100	APPLY PAVEMENT MARKINGS EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	2	04-20-20	04-21-20	35
800 INTELLIGENT TRANSPORTATION SYSTEMS		44	06-20-19	09-04-19	0
EBRW.800.1000100	RUN DISTRIBUTION AND FIBER FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD	44	06-20-19	09-04-19	0
WESTBOUND YADKIN ROAD BRIDGE		179	10-22-19	04-17-20	59
PHASE 1		179	10-22-19	04-17-20	59
TEST PILES		26	10-22-19	11-14-19	63
WBYRB.400.1000000	WB YADKIN RD BRIDGE TEST PILE 1	3	10-22-19	10-24-19	37
WBYRB.400.1000450	WB YADKIN RD BRIDGE TEST PILE 1 - TEST	21	10-25-19	11-14-19	63
PRODUCTION PILES		35	11-27-19	01-24-20	36
WBYRB.400.1000005	WB YADKIN RD BRIDGE DRIVE PILE 1	7	11-27-19	12-06-19	36
WBYRB.400.1000075	WB YADKIN RD BRIDGE DRIVE PILE 2	7	01-02-20	01-13-20	36
WBYRB.400.1000145	WB YADKIN RD BRIDGE DRIVE PILE 3	7	01-15-20	01-24-20	36
SUBSTRUCTURE		57	01-23-20	02-27-20	83



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WBYRB.400.1000100	WB YADKIN RD BRIDGE CIP COLUMN 2-1A	3	01-23-20	01-27-20	38
WBYRB.400.1000105	WB YADKIN RD BRIDGE CIP COLUMN 2-2A	3	01-24-20	01-28-20	38
WBYRB.400.1000265	WB YADKIN RD BRIDGE BACK WALL ABUTMENT B	3	01-24-20	01-28-20	61
WBYRB.400.1000115	WB YADKIN RD BRIDGE CURE COLUMN 2-2A	3	01-29-20	01-31-20	62
WBYRB.400.1000270	WB YADKIN RD BRIDGE BEAM SEATS ABUTMENT B	2	01-29-20	01-30-20	61
WBYRB.400.1000275	WB YADKIN RD BRIDGE WING WALLS ABUTMENT B	3	01-29-20	01-31-20	61
WBYRB.400.1000120	WB YADKIN RD BRIDGE CIP CAP 2	5	02-03-20	02-10-20	38
WBYRB.400.1000280	WB YADKIN RD BRIDGE FILL ABUTMENT B	2	02-03-20	02-05-20	61
WBYRB.400.1000285	WB YADKIN RD BRIDGE SLOPE PROTECTION ABUTMENT B	4	02-06-20	02-12-20	61
WBYRB.400.1000125	WB YADKIN RD BRIDGE CURE CAP 2	3	02-11-20	02-13-20	62
WBYRB.400.1000130	WB YADKIN RD BRIDGE BEAM SEATS 2	3	02-12-20	02-14-20	38
WBYRB.400.1000135	WB YADKIN RD BRIDGE CURE BEAM SEAT 2	3	02-15-20	02-17-20	62
WBYRB.400.1000200	WB YADKIN RD BRIDGE BEAM SEATS 3	3	02-20-20	02-24-20	38
WBYRB.400.1000205	WB YADKIN RD BRIDGE CURE BEAM SEAT 3	3	02-25-20	02-27-20	59
GIRDERS		23	02-18-20	03-24-20	39
WBYRB.400.1000330	WB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 2	3	02-18-20	02-20-20	39
WBYRB.400.1000370	WB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 3	3	02-28-20	03-04-20	36
WBYRB.400.1000410	WB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 4	3	03-20-20	03-24-20	39
BRIDGE DECK		32	02-21-20	04-17-20	35
WBYRB.400.1000335	WB YADKIN RD BRIDGE FORM & SIP SPAN 2	5	02-21-20	02-27-20	39
WBYRB.400.1000375	WB YADKIN RD BRIDGE FORM & SIP SPAN 3	5	03-05-20	03-12-20	36
WBYRB.400.1000365	WB YADKIN RD BRIDGE DECK POUR SPAN 2	1	03-11-20	03-11-20	55
WBYRB.400.1000405	WB YADKIN RD BRIDGE DECK POUR SPAN 3	1	03-24-20	03-24-20	48
WBYRB.400.1000415	WB YADKIN RD BRIDGE FORM & SIP SPAN 4	5	03-31-20	04-06-20	35
WBYRB.400.1000420	WB YADKIN RD BRIDGE FORM OVERHANG SPAN 4	3	04-03-20	04-08-20	35
WBYRB.400.1000425	WB YADKIN RD BRIDGE REBAR SPAN 4	5	04-06-20	04-13-20	35
WBYRB.400.1000430	WB YADKIN RD BRIDGE INSTALL BULKHEAD SPAN 4	2	04-13-20	04-15-20	35
WBYRB.400.1000435	WB YADKIN RD BRIDGE SETUP BIDWELL SPAN 4	2	04-15-20	04-16-20	35
WBYRB.400.1000440	WB YADKIN RD BRIDGE DRY RUN SPAN 4	1	04-16-20	04-16-20	35
WBYRB.400.1000445	WB YADKIN RD BRIDGE DECK POUR SPAN 4	1	04-17-20	04-17-20	35
EASTBOUND YADKIN ROAD BRIDGE		163	10-25-19	04-09-20	64
PHASE 1		163	10-25-19	04-09-20	64
TEST PILES		26	10-25-19	11-19-19	71
EBYRB.400.1000000	EB YADKIN RD BRIDGE TEST PILE 1	3	10-25-19	10-29-19	41
EBYRB.400.1000450	EB YADKIN RD BRIDGE TEST PILE 1 - TEST	21	10-30-19	11-19-19	71
PRODUCTION PILES		35	12-09-19	02-05-20	36
EBYRB.400.1000005	EB YADKIN RD BRIDGE DRIVE PILE 1	7	12-09-19	12-18-19	36
EBYRB.400.1000075	EB YADKIN RD BRIDGE DRIVE PILE 2	7	12-19-19	12-31-19	36
EBYRB.400.1000145	EB YADKIN RD BRIDGE DRIVE PILE 3	7	01-27-20	02-05-20	36
SUBSTRUCTURE		32	02-06-20	03-09-20	55
EBYRB.400.1000150	EB YADKIN RD BRIDGE CIP FOOTER 3-1	4	02-06-20	02-12-20	36
EBYRB.400.1000155	EB YADKIN RD BRIDGE CIP FOOTER 3-2	4	02-07-20	02-13-20	36
EBYRB.400.1000160	EB YADKIN RD BRIDGE CURE FOOTER 3-1	3	02-13-20	02-15-20	57
EBYRB.400.1000165	EB YADKIN RD BRIDGE CURE FOOTER 3-2	3	02-14-20	02-16-20	58
EBYRB.400.1000170	EB YADKIN RD BRIDGE CIP COLUMN 3-1A	3	02-18-20	02-20-20	35
EBYRB.400.1000175	EB YADKIN RD BRIDGE CIP COLUMN 3-2A	3	02-19-20	02-21-20	35
EBYRB.400.1000180	EB YADKIN RD BRIDGE CURE COLUMN 3-1A	3	02-21-20	02-23-20	57
EBYRB.400.1000185	EB YADKIN RD BRIDGE CURE COLUMN 3-2A	3	02-22-20	02-24-20	56
EBYRB.400.1000190	EB YADKIN RD BRIDGE CIP CAP 3	5	02-25-20	03-02-20	35
EBYRB.400.1000195	EB YADKIN RD BRIDGE CURE CAP 3	3	03-03-20	03-05-20	56

Date	Revision	Checked	Approved

SKANSKA

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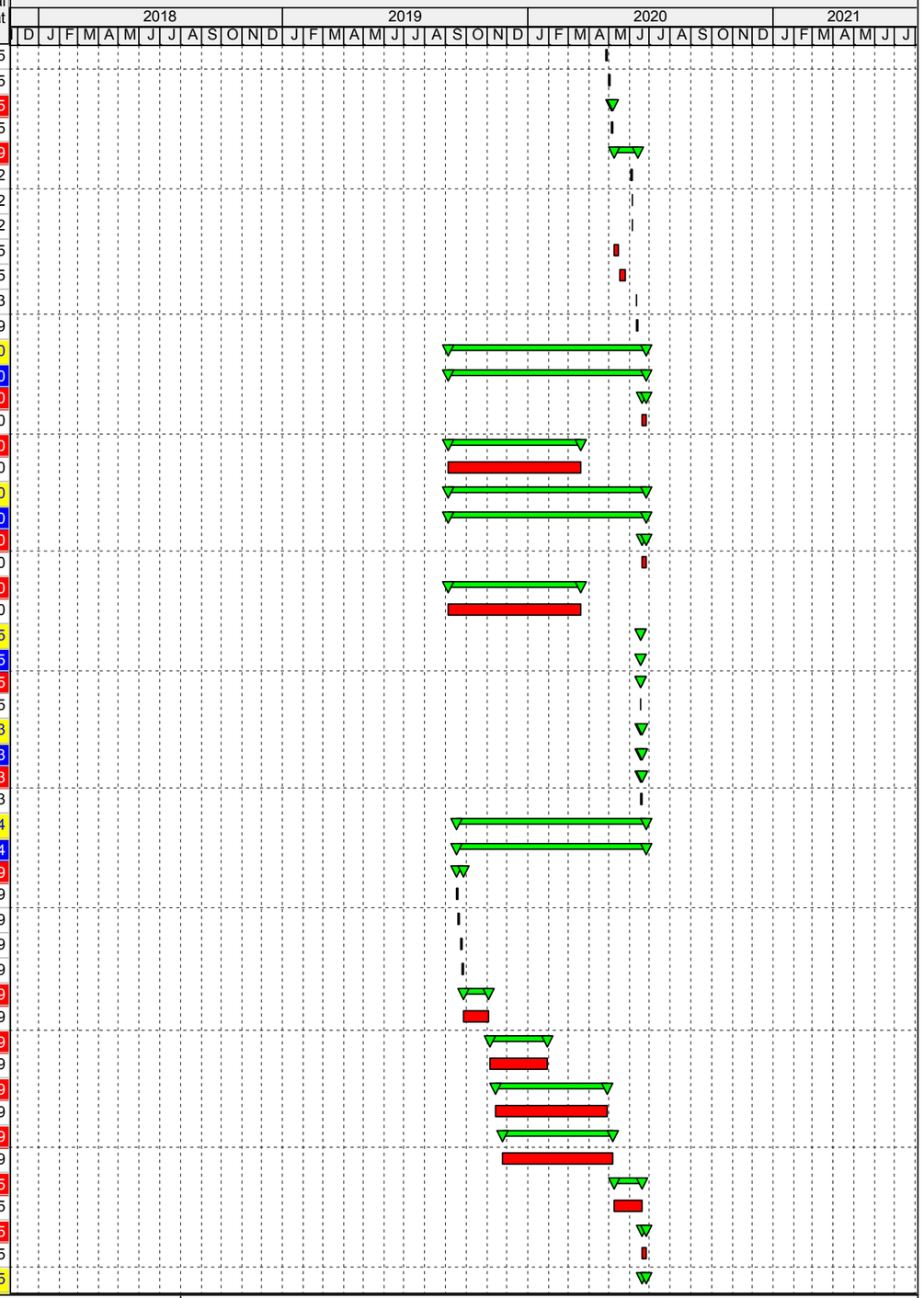
EBYRB.400.1000200	EB YADKIN RD BRIDGE BEAM SEATS 3	3	03-04-20	03-06-20	35
EBYRB.400.1000205	EB YADKIN RD BRIDGE CURE BEAM SEAT 3	3	03-07-20	03-09-20	55
GIRDERS		3	03-11-20	03-13-20	35
EBYRB.400.1000370	EB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 3	3	03-11-20	03-13-20	35
BRIDGE DECK		21	02-24-20	04-09-20	39
EBYRB.400.1000355	EB YADKIN RD BRIDGE SETUP BIDWELL SPAN 2	2	02-24-20	02-25-20	62
EBYRB.400.1000360	EB YADKIN RD BRIDGE DRY RUN SPAN 2	1	02-25-20	02-25-20	62
EBYRB.400.1000365	EB YADKIN RD BRIDGE DECK POUR SPAN 2	1	02-26-20	02-26-20	62
EBYRB.400.1000375	EB YADKIN RD BRIDGE FORM & SIP SPAN 3	5	03-16-20	03-23-20	35
EBYRB.400.1000415	EB YADKIN RD BRIDGE FORM & SIP SPAN 4	5	03-24-20	03-30-20	35
EBYRB.400.1000405	EB YADKIN RD BRIDGE DECK POUR SPAN 3	1	04-01-20	04-01-20	43
EBYRB.400.1000445	EB YADKIN RD BRIDGE DECK POUR SPAN 4	1	04-09-20	04-09-20	39
I-64 WESTBOUND FROM YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE		180	09-05-19	05-22-20	20
PHASE 1		180	09-05-19	05-22-20	20
704 PAVEMENT MARKINGS AND MARKERS		5	05-15-20	05-22-20	20
WBRW.704.1000200	APPLY PAVEMENT MARKINGS FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	5	05-15-20	05-22-20	20
800 INTELLIGENT TRANSPORTATION SYSTEMS		120	09-05-19	03-20-20	0
WBRW.800.1000200	RUN DISTRIBUTION AND FIBER WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	120	09-05-19	03-20-20	0
I-64 EASTBOUND FROM YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE		180	09-05-19	05-22-20	20
PHASE 1		180	09-05-19	05-22-20	20
704 PAVEMENT MARKINGS AND MARKERS		5	05-15-20	05-22-20	20
EBRW.704.1000200	APPLY PAVEMENT MARKINGS FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	5	05-15-20	05-22-20	20
800 INTELLIGENT TRANSPORTATION SYSTEMS		120	09-05-19	03-20-20	0
EBRW.800.1000200	RUN DISTRIBUTION AND FIBER FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	120	09-05-19	03-20-20	0
WESTBOUND SHELL ROAD BRIDGE		1	03-02-20	03-02-20	65
PHASE 1		1	03-02-20	03-02-20	65
BRIDGE DECK		1	03-02-20	03-02-20	65
WBSRB.400.1000405	WB SHELL RD BRIDGE DECK POUR SPAN 3	1	03-02-20	03-02-20	65
EASTBOUND SHELL ROAD BRIDGE		1	03-06-20	03-06-20	63
PHASE 1		1	03-06-20	03-06-20	63
BRIDGE DECK		1	03-06-20	03-06-20	63
EBSRB.400.1000405	EB SHELL RD BRIDGE DECK POUR SPAN 3	1	03-06-20	03-06-20	63
I-64 WESTBOUND FROM SHELL ROAD BRIDGE TO NEW HRB		284	06-05-19	06-01-20	24
PHASE 1		284	06-05-19	06-01-20	24
302 DRAINAGE STRUCTURES		8	06-05-19	06-17-19	59
WBRW.302.1000410	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1287	2	06-05-19	06-06-19	59
WBRW.302.1000415	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1288	2	06-07-19	06-10-19	59
WBRW.302.1000420	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1290	2	06-12-19	06-13-19	59
WBRW.302.1000425	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1293	2	06-14-19	06-17-19	59
303 EARTHWORK		25	08-26-19	10-07-19	19
WBRW.303.1000320	ROUGH GRADE MAINLINE FROM WB SHELL ROAD BRIDGE TO NEW HRB	25	08-26-19	10-07-19	19
305 SUGRADE AND SHOULDERS		50	10-09-19	12-27-19	19
WBRW.305.1000320	FINE GRADE MAINLINE FROM WB SHELL ROAD BRIDGE TO NEW HRB	50	10-09-19	12-27-19	19
309 AGGREGATE BASE COURSE		48	10-16-19	03-31-20	19
WBRW.309.1000320	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM WB SHELL ROAD BRIDGE TO N	48	10-16-19	03-31-20	19
315 ASPHALT CONCRETE PAVEMENT		48	10-23-19	04-08-20	19
WBRW.315.1000320	PLACE ASPHALT PAVING FROM WB SHELL ROAD BRIDGE TO NEW HRB	48	10-23-19	04-08-20	19
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		24	04-16-20	05-22-20	15
WBRW.505.1000300	INSTALL BARRIER WALLS WB SHELL ROAD BRIDGE TO NEW HRB	24	04-16-20	05-22-20	15
704 PAVEMENT MARKINGS AND MARKERS		5	05-26-20	06-01-20	15
WBRW.704.1000300	APPLY PAVEMENT MARKINGS FROM WB SHELL ROAD BRIDGE TO NEW HRB	5	05-26-20	06-01-20	15
I-64 EASTBOUND FROM SHELL ROAD BRIDGE TO EXIST HRB		5	05-26-20	06-01-20	15



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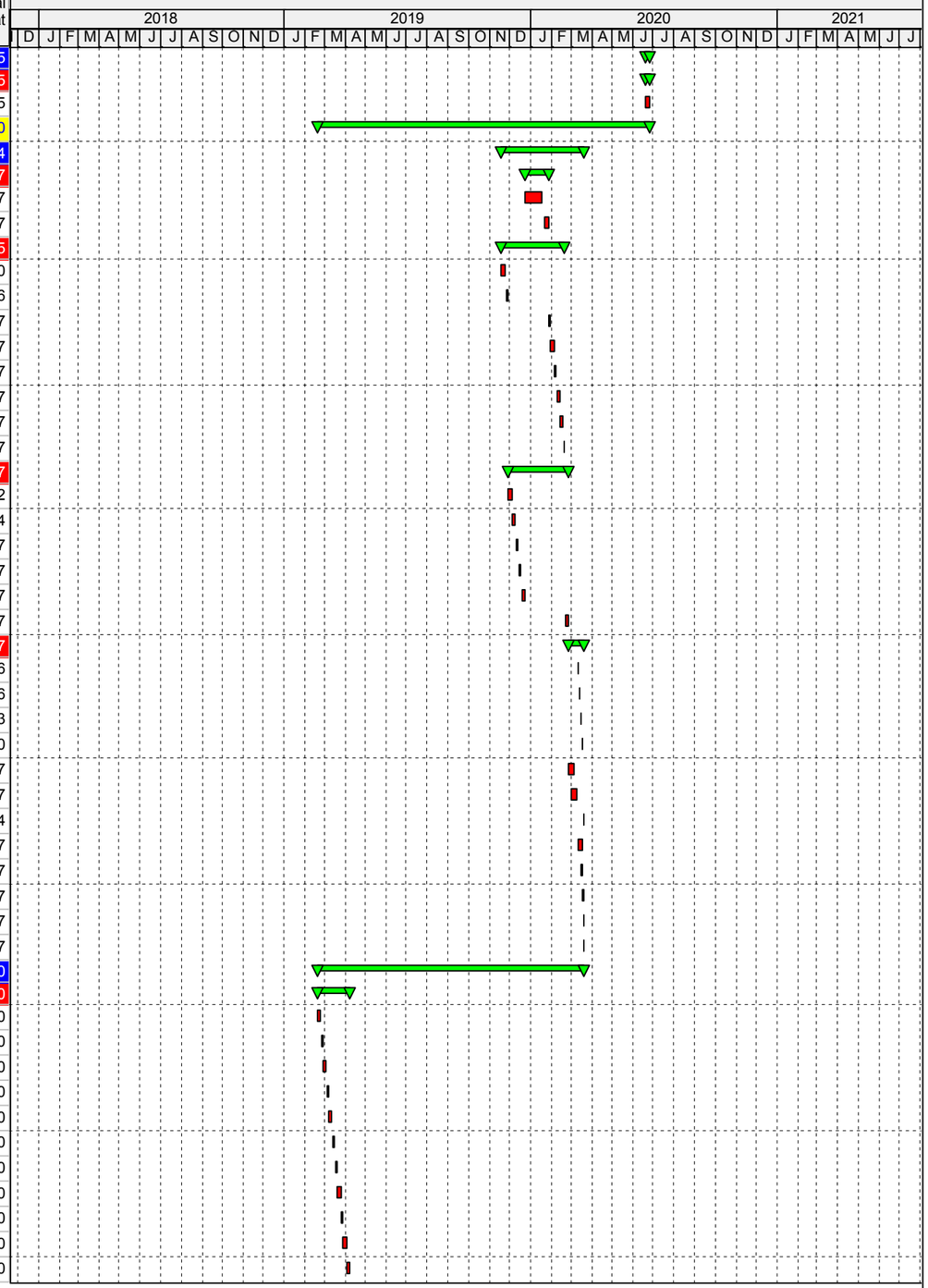
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PHASE 1		5	05-26-20	06-01-20	15
704 PAVEMENT MARKINGS AND MARKERS		5	05-26-20	06-01-20	15
EBRW.704.1000300	APPLY PAVEMENT MARKINGS FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	5	05-26-20	06-01-20	15
NEW WESTBOUND HRB		492	02-20-19	06-25-20	0
ABUTMENT A THROUGH PIER 9		123	09-18-19	02-05-20	44
PRODUCTION PILES		19	11-08-19	12-11-19	27
WBHRB.400.PP001	HRB PRODUCTION PILE PIER 01	14	11-08-19	12-02-19	27
WBHRB.400.PP00A	HRB PRODUCTION PILE ABUTMENT 0A	5	12-04-19	12-11-19	27
SUBSTRUCTURE		94	09-18-19	01-06-20	45
WBHRB.400.BS006	BEAM SEATS 06	3	09-18-19	09-20-19	40
WBHRB.400.CBS006	CURE BEAM SEAT 06	3	09-21-19	09-23-19	66
WBHRB.400.CAP00A	BUILD CAP ABUTMENT 0A	3	12-12-19	12-16-19	27
WBHRB.400.BW00A	BACK WALL ABUTMENT 0A	3	12-17-19	12-19-19	27
WBHRB.400.BS00A	BEAM SEATS ABUTMENT 0A	2	12-20-19	12-23-19	27
WBHRB.400.WW00A	WING WALLS ABUTMENT 0A	3	12-24-19	12-30-19	27
WBHRB.400.FA00A	FILL ABUTMENT 0A	2	12-31-19	01-02-20	27
WBHRB.400.SP00A	SLOPE PROTECTION ABUTMENT 0A	2	01-03-20	01-06-20	27
GIRDERS		52	09-24-19	01-10-20	27
WBHRB.400.G07.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 07	3	09-24-19	09-26-19	42
WBHRB.400.G06.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 06	3	10-11-19	10-15-19	34
WBHRB.400.G05.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 05	3	10-25-19	10-29-19	27
WBHRB.400.G04.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 04	3	10-30-19	11-01-19	27
WBHRB.400.G03.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 03	3	11-04-19	11-07-19	27
WBHRB.400.G01.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 01	3	01-08-20	01-10-20	27
BRIDGE DECK		15	11-20-19	02-05-20	27
WBHRB.400.S05.1025	DRY RUN FOR SPAN 05	1	11-20-19	11-20-19	66
WBHRB.400.S05.1030	DECK POUR SPAN 05	1	11-25-19	11-25-19	66
WBHRB.400.S04.1030	DECK POUR SPAN 04	1	11-29-19	11-29-19	63
WBHRB.400.S03.1030	DECK POUR SPAN 03	1	12-06-19	12-06-19	60
WBHRB.400.S01.1000	SIP SPAN 01	5	01-13-20	01-21-20	27
WBHRB.400.S01.1005	FORM OVERHANG SPAN 01	5	01-17-20	01-24-20	27
WBHRB.400.S02.1030	DECK POUR SPAN 02	1	01-23-20	01-23-20	34
WBHRB.400.S01.1010	REBAR SPAN 01	5	01-27-20	01-31-20	27
WBHRB.400.S01.1015	SETUP BIDWELL FOR SPAN 01 POUR	2	01-30-20	01-31-20	27
WBHRB.400.S01.1020	INSTALL BULKHEAD SPAN 01	2	01-31-20	02-03-20	27
WBHRB.400.S01.1025	DRY RUN FOR SPAN 01	1	02-03-20	02-03-20	27
WBHRB.400.S01.1030	DECK POUR SPAN 01	1	02-05-20	02-05-20	27
PIER 10 THROUGH 22		395	02-20-19	03-20-20	0
TEST PILES		33	02-20-19	04-08-19	0
WBHRB.400.TP010	HRB TEST PILE PIER 10	3	02-20-19	02-22-19	0
WBHRB.400.TP011	HRB TEST PILE PIER 11	3	02-25-19	02-27-19	0
WBHRB.400.TP012	HRB TEST PILE PIER 12	3	02-28-19	03-04-19	0
WBHRB.400.TP013	HRB TEST PILE PIER 13	3	03-05-19	03-07-19	0
WBHRB.400.TP014	HRB TEST PILE PIER 14	3	03-08-19	03-12-19	0
WBHRB.400.TP015	HRB TEST PILE PIER 15	3	03-13-19	03-15-19	0
WBHRB.400.TP016	HRB TEST PILE PIER 16	3	03-18-19	03-20-19	0
WBHRB.400.TP017	HRB TEST PILE PIER 17	3	03-21-19	03-25-19	0
WBHRB.400.TP018	HRB TEST PILE PIER 18	3	03-26-19	03-28-19	0
WBHRB.400.TP019	HRB TEST PILE PIER 19	3	03-29-19	04-03-19	0
WBHRB.400.TP020	HRB TEST PILE PIER 20	3	04-04-19	04-08-19	0



Date	Revision	Checked	Approved

SKANSKA

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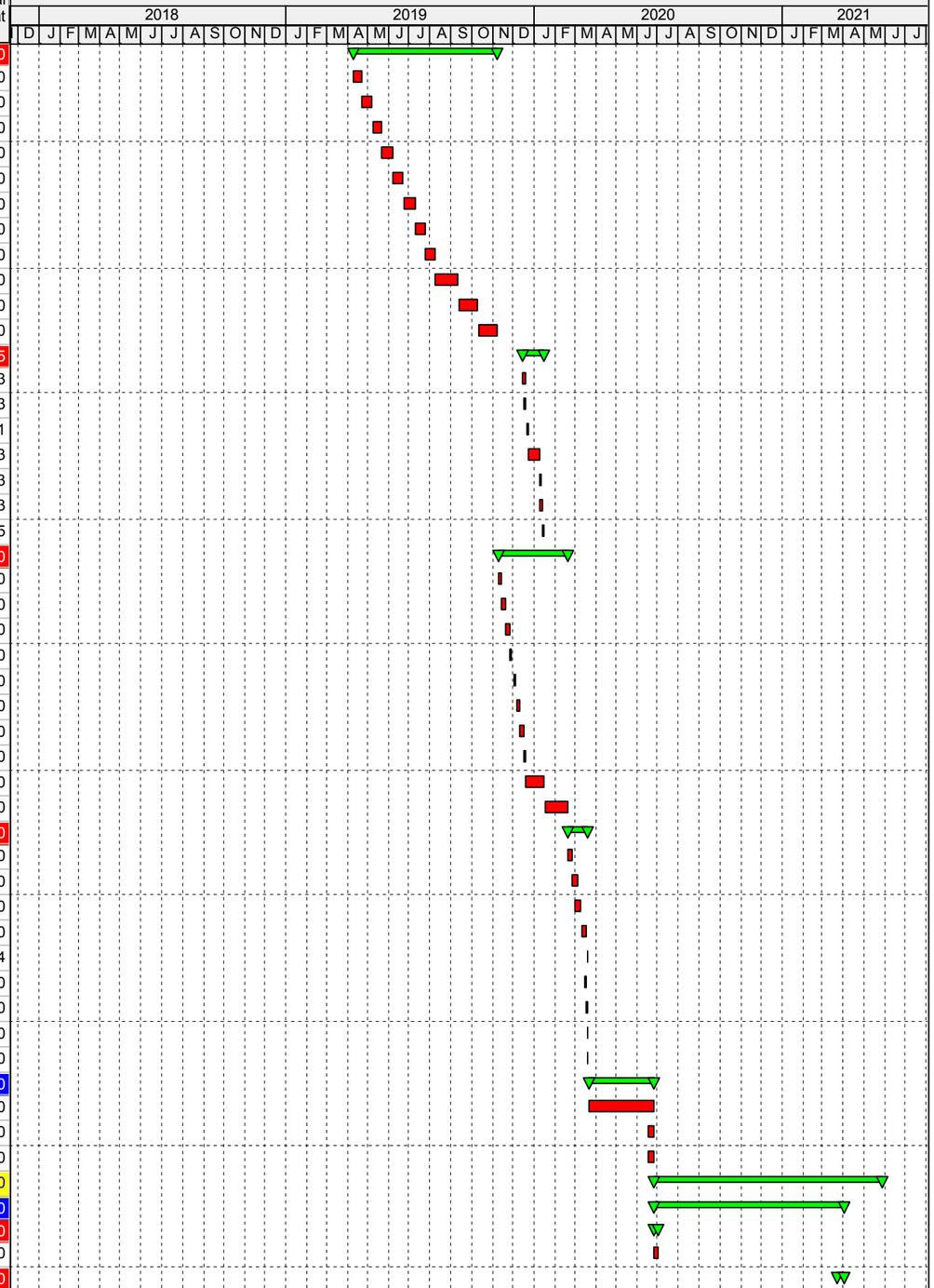
PRODUCTION PILES		140	04-09-19	11-08-19	0
WBHRB.400.PP010	HRB PRODUCTION PILE PIER 10	10	04-09-19	04-22-19	0
WBHRB.400.PP011	HRB PRODUCTION PILE PIER 11	10	04-23-19	05-06-19	0
WBHRB.400.PP012	HRB PRODUCTION PILE PIER 12	10	05-08-19	05-21-19	0
WBHRB.400.PP013	HRB PRODUCTION PILE PIER 13	10	05-22-19	06-06-19	0
WBHRB.400.PP014	HRB PRODUCTION PILE PIER 14	10	06-07-19	06-21-19	0
WBHRB.400.PP015	HRB PRODUCTION PILE PIER 15	10	06-24-19	07-10-19	0
WBHRB.400.PP016	HRB PRODUCTION PILE PIER 16	10	07-11-19	07-24-19	0
WBHRB.400.PP017	HRB PRODUCTION PILE PIER 17	10	07-25-19	08-08-19	0
WBHRB.400.PP018	HRB PRODUCTION PILE PIER 18	20	08-09-19	09-11-19	0
WBHRB.400.PP019	HRB PRODUCTION PILE PIER 19	20	09-12-19	10-10-19	0
WBHRB.400.PP020	HRB PRODUCTION PILE PIER 20	20	10-11-19	11-08-19	0
SUBSTRUCTURE		32	11-25-19	12-22-19	25
WBHRB.400.COL19-1C	CIP COLUMN 19-1C	4	11-25-19	11-28-19	13
WBHRB.400.COL19-2C	CIP COLUMN 19-2C	4	11-26-19	11-29-19	13
WBHRB.400.CCOL19-2C	CURE COLUMN 19-2C	3	11-30-19	12-02-19	21
WBHRB.400.CAP019	CIP CAP 19	8	12-04-19	12-16-19	13
WBHRB.400.CCAP019	CURE CAP 19	3	12-17-19	12-19-19	23
WBHRB.400.BS019	BEAM SEATS 19	3	12-17-19	12-19-19	13
WBHRB.400.CBS019	CURE BEAM SEAT 19	3	12-20-19	12-22-19	25
GIRDERS		59	11-11-19	02-19-20	0
WBHRB.400.G10.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 10	3	11-11-19	11-14-19	0
WBHRB.400.G11.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 11	3	11-15-19	11-19-19	0
WBHRB.400.G12.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 12	3	11-20-19	11-26-19	0
WBHRB.400.G13.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 13	3	11-27-19	11-29-19	0
WBHRB.400.G14.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 14	3	12-02-19	12-05-19	0
WBHRB.400.G15.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 15	3	12-06-19	12-11-19	0
WBHRB.400.G16.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 16	3	12-12-19	12-16-19	0
WBHRB.400.G17.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 17	3	12-17-19	12-19-19	0
WBHRB.400.G18.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 18	15	12-20-19	01-16-20	0
WBHRB.400.G19.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 19	20	01-17-20	02-19-20	0
BRIDGE DECK		19	02-20-20	03-20-20	0
WBHRB.400.S19.1000	SIP SPAN 19	5	02-20-20	02-26-20	0
WBHRB.400.S20.1000	SIP SPAN 20	5	02-26-20	03-04-20	0
WBHRB.400.S20.1005	FORM OVERHANG SPAN 20	5	03-02-20	03-09-20	0
WBHRB.400.S20.1010	REBAR SPAN 20	5	03-11-20	03-18-20	0
WBHRB.400.S19.1030	DECK POUR SPAN 19	1	03-13-20	03-13-20	4
WBHRB.400.S20.1015	SETUP BIDWELL FOR SPAN 20 POUR	2	03-16-20	03-18-20	0
WBHRB.400.S20.1020	INSTALL BULKHEAD SPAN 20	2	03-18-20	03-19-20	0
WBHRB.400.S20.1025	DRY RUN FOR SPAN 20	1	03-19-20	03-19-20	0
WBHRB.400.S20.1030	DECK POUR SPAN 20	1	03-20-20	03-20-20	0
BRIDGE LIGHTING / ITS		60	03-23-20	06-25-20	0
WBHRB.800.1000040	RUN ITS FIBER	60	03-23-20	06-25-20	0
WBHRB.800.1000020	INSTALL CCTV ASSEMBLY	6	06-18-20	06-25-20	0
WBHRB.800.1000030	INSTALL MVDS	6	06-18-20	06-25-20	0
I-64 EASTBOUND FROM EXIST HRB TO 1925+58.03		337	06-26-20	05-28-21	0
PHASE 2		281	06-26-20	04-02-21	0
302 DRAINAGE STRUCTURES		5	06-26-20	07-02-20	0
EBRW.302.2000600	INSTALL DRAINAGE PIPE AND STRUCTURES FROM EB 1846+50 TO 1840+50	5	06-26-20	07-02-20	0
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		10	03-22-21	04-02-21	0



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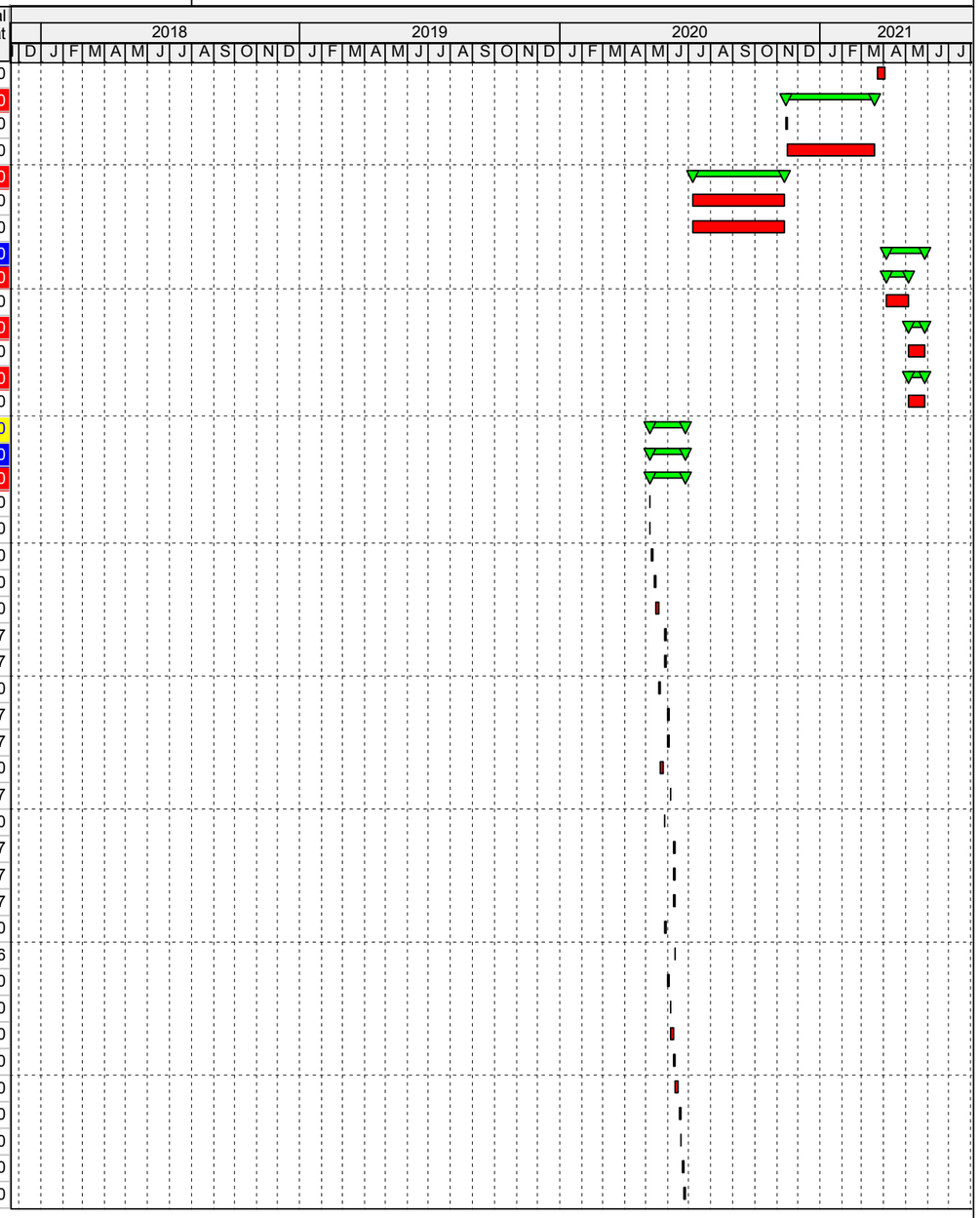
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EBRW.505.2000500	INSTALL BARRIER WALLS EB EXISTING HRB TO 1925+58.03	10	03-22-21	04-02-21	0
515 MILLING PAVEMENT		22	11-13-20	03-19-21	0
EBRW.515.2000510	REBUILD SHOULDER TO FULL DEPTH FROM EB EXISTING HRB TO 1925+58.03	2	11-13-20	11-16-20	0
EBRW.515.2000500	MILL AND OVERLAY FROM EB EXISTING HRB TO 1925+58.03	20	11-17-20	03-19-21	0
519 SOUND BARRIER WALLS		77	07-06-20	11-12-20	0
EBRW.519.2000500	INSTALL SOUND BARRIER WALL 10 FROM EB EXISTING HRB TO 1925+58.03	77	07-06-20	11-12-20	0
EBRW.519.2000510	INSTALL SOUND BARRIER WALL 12 FROM EB EXISTING HRB TO 1925+58.03	77	07-06-20	11-12-20	0
PHASE 3		54	04-05-21	05-28-21	0
315 ASPHALT CONCRETE PAVEMENT		20	04-05-21	05-05-21	0
EBRW.315.3000520	PLACE ASPHALT PAVING FROM EB EXISTING HRB TO 1925+58.03	20	04-05-21	05-05-21	0
701 TRAFFIC SIGNS		15	05-06-21	05-28-21	0
EBRW.701.3000500	INSTALL TRAFFIC SIGNS FROM EB EXISTING HRB TO 1925+58.03	15	05-06-21	05-28-21	0
704 PAVEMENT MARKINGS AND MARKERS		15	05-06-21	05-28-21	0
EBRW.704.3000500	APPLY PAVEMENT MARKINGS FROM EB EXISTING HRB TO 1925+58.03	15	05-06-21	05-28-21	0
GREAT BRIDGE OVERPASS BRIDGE		31	03-04-20	04-21-20	40
PHASE 2		31	03-04-20	04-21-20	40
413 DISMANTLING AND REMOVING EXISTING STRUCTURES		31	03-04-20	04-21-20	40
GBOP.413.2000035	INSTALL SPAN 2.2 FALSEWORK	1	03-04-20	03-04-20	40
GBOP.413.2000050	INSTALL SPAN 2.1 FALSEWORK	1	03-05-20	03-05-20	40
GBOP.413.2000040	REMOVE SPAN 2.2 DECK & BARRIER	2	03-06-20	03-09-20	40
GBOP.413.2000045	REMOVE PIER 2 DIAPHRAM	2	03-11-20	03-12-20	40
GBOP.413.2000055	REMOVE SPAN 2.1 DECK & BARRIER	2	03-13-20	03-16-20	40
GBOP.413.2000115	REMOVE SPAN 4.2 DECK & BARRIER	2	03-13-20	03-16-20	47
GBOP.413.2000120	REMOVE PIER 3 DIAPHRAM	2	03-13-20	03-16-20	47
GBOP.413.2000060	REMOVE SPAN 2 DIAPHRAM	2	03-18-20	03-19-20	40
GBOP.413.2000130	REMOVE SPAN 4.1 DECK & BARRIER	2	03-18-20	03-19-20	47
GBOP.413.2000135	REMOVE SPAN 4 DIAPHRAM	2	03-18-20	03-19-20	47
GBOP.413.2000065	REMOVE SPAN 2 GIRDERS	2	03-20-20	03-23-20	40
GBOP.413.2000155	REMOVE SPAN 5 BARRIER WALLS	2	03-20-20	03-23-20	47
GBOP.413.2000100	REMOVE SPAN 1 GIRDERS	1	03-24-20	03-24-20	40
GBOP.413.2000160	REMOVE SPAN 5 DECK	2	03-24-20	03-25-20	47
GBOP.413.2000165	REMOVE PIER 4 DIPHRAMS	2	03-24-20	03-25-20	47
GBOP.413.2000170	REMOVE SPAN 5 DIAPHRAMS	2	03-24-20	03-25-20	47
GBOP.413.2000185	REMOVE ABUUTMENT A SLOPE PROTECTION	2	03-25-20	03-26-20	40
GBOP.413.2000175	REMOVE SPAN 5 GIRDERS	1	03-27-20	03-27-20	46
GBOP.413.2000190	REMOVE APPROACH SLAB	2	03-27-20	03-30-20	40
GBOP.413.2000195	REMOVE ABUTMENT A WING WALLS	1	03-31-20	03-31-20	40
GBOP.413.2000200	REMOVE ABUTMENT A	2	04-01-20	04-02-20	40
GBOP.413.2000205	REMOVE ABUTMENT A MICROPILES	2	04-03-20	04-06-20	40
GBOP.413.2000215	REMOVE ABUUTMENT B SLOPE PROTECTION	2	04-08-20	04-09-20	40
GBOP.413.2000220	REMOVE APPROACH SLAB	2	04-10-20	04-13-20	40
GBOP.413.2000225	REMOVE ABUTMENT B WING WALLS	1	04-15-20	04-15-20	40
GBOP.413.2000230	REMOVE ABUTMENT B	2	04-16-20	04-17-20	40
GBOP.413.2000235	REMOVE ABUTMENT B MICROPILES	2	04-20-20	04-21-20	40



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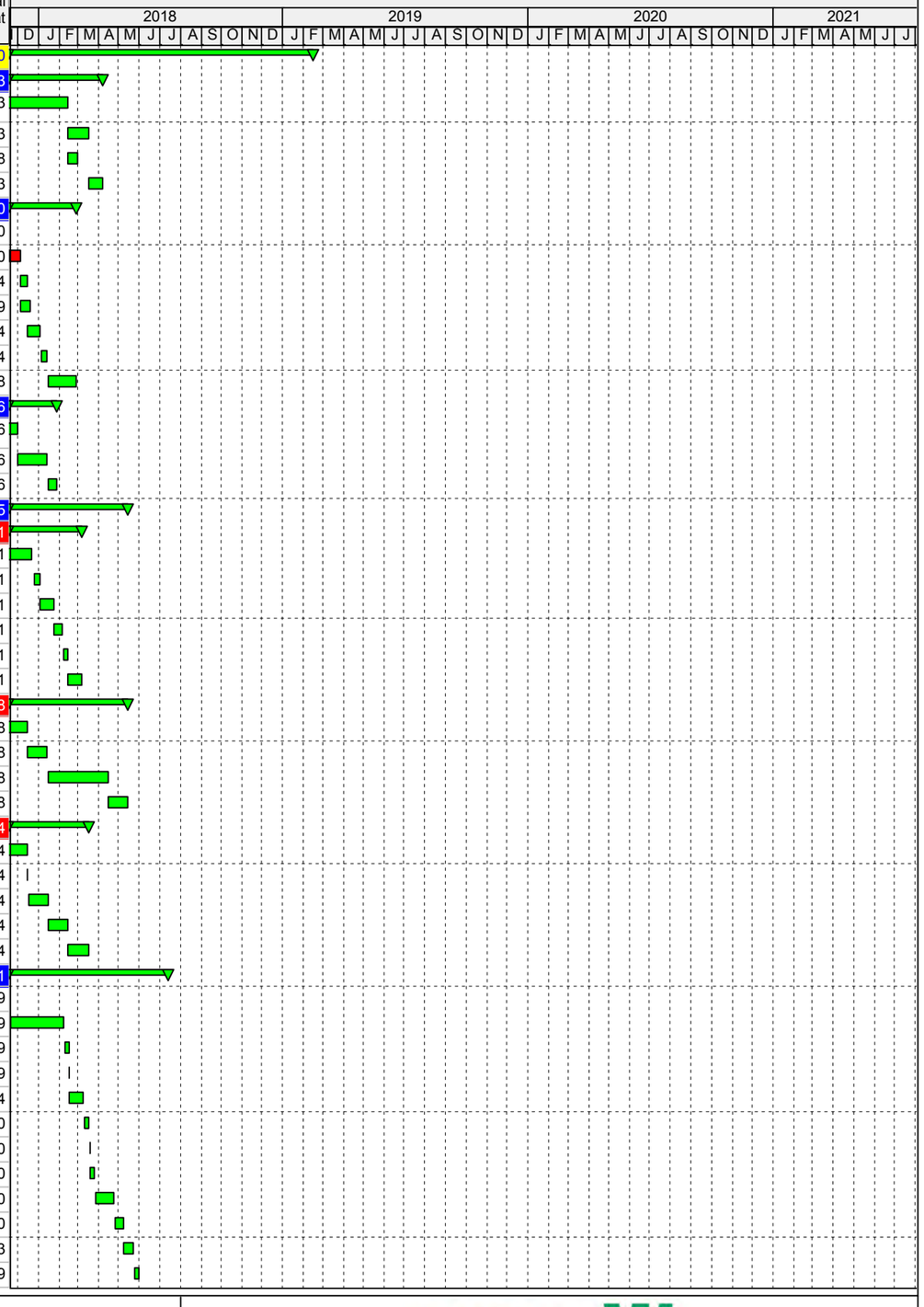
4.7.1 EXPANDED SCHEDULE

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
C00106692DB93 - I-64 SOUTHSIDE WIDENING & HRB, PHASE 1 - TECH PROPOSAL SCHEDU		1352	11-17-17	07-30-21	0
MILESTONES		1352	11-17-17	07-30-21	0
MS100100	NTP (11-17-17)	0	11-17-17		0
MS900900	FINAL COMPLETION (7-30-21)	0		07-30-21	0
PROJECT MANAGEMENT		1352	11-17-17	07-30-21	0
PM100100	SUBMIT APPLICATION FOR PROPOSAL PAYMENT (@ NOTICE OF INTENT TO AWARD)	0		11-17-17	0
PM100110	SUBMIT EPDs (W/IN 3 DAYS AFTER NOTICE OF INTENT TO AWARD)	0		11-17-17	0
PM100120	SUBMIT PERFORMANCE & PAYMENT BOND (W/IN 15 DAYS AFTER NOTICE OF INTENT TO A	0		11-17-17	0
PM100130	SUBMIT WORKERS' COMPENSATION & EMPLOYER'S LIABILITY INS (W/IN 15 DAYS AFTER N	0		11-17-17	0
PM100140	SUBMIT COMMERCIAL GEN LIABILITY INS (W/IN 15 DAYS AFTER NOTICE OF INTENT TO AW	0		11-17-17	0
PM100150	SUBMIT AUTOMOBILE LIABILITY INS (W/IN 15 DAYS AFTER NOTICE OF INTENT TO AWARD)	0		11-17-17	0
PM100160	SUBMIT UMBRELLA/EXCES LIABILITY INS (W/IN 15 DAYS AFTER NOTICE OF INTENT TO AW	0		11-17-17	0
PM100170	SUBMIT ARCHITECT'S / ENGINEER'S PROFESSIONAL LIABILITY INS (W/IN 15 DAYS AFTER N	0		11-17-17	0
PM100180	SUBMIT CONTRACTOR'S POLLUTION LIABILITY INS (W/IN 15 DAYS AFTER NOTICE OF INTE	0		11-17-17	0
PM100190	SUBMIT BUILDER'S RISK INS (W/IN 15 DAYS AFTER NOTICE OF INTENT TO AWARD)	0		11-17-17	0
PM100200	SUBMIT MARINE PROTECTION & INDEMNITY INS (W/IN 15 DAYS AFTER NOTICE OF INTENT	0		11-17-17	0
PM100210	SUBMIT RAILROAD PROTECTIVE INS (W/IN 15 DAYS AFTER NOTICE OF INTENT TO AWARD	0		11-17-17	0
PM100220	CONDUCT KICKOFF MEETING WITH VDOT (TO BE HELD THE DAY AFTER NTP)	0		11-17-17	0
PM100230	SUBMIT DESIGN QA/QC PLANS (SUBMITTED AT KICKOFF MEETING)	0		11-17-17	0
PM100250	GROUNDBREAKING CEREMONY (W/IN 7 DAYS OF NTP)	0		11-17-17	0
PM100280	SUBMIT DESIGN PHASE C-111, C-112, & C-48 FORMS (W/IN 30 DAYS AFTER NTP)	0		11-17-17	0
PM100290	SUBMIT CONSTRUCTION PHASE C-111, C-112, & C-48 FORMS (W/IN 30 DAYS AFTER NTP OI	0		11-17-17	0
PM100260	SUBMIT PRELIMINARY SCHEDULE (W/IN 15 DAYS AFTER NTP)	0		11-30-17	0
PM100300	MEET W/ VDOT REGIONAL UTILITIES MANAGER (W/IN 45 DAYS AFTER NTP)	0		12-01-17	0
PM100310	SUBMIT PUBLIC INFORMATION AND COMMUNICATION PLAN (W/IN 90 DAYS AFTER CONTR	0		01-01-18	0
PM100320	SUBMIT LIST OF AFFECTED STAKHOLDERS (W/IN 90 DAYS AFTER CONTRACT EXECUTION	0		01-01-18	0
PM100330	SUBMIT BASELINE SCHEDULE (W/IN 90 DAYS AFTER CONTRACT EXECUTION)	0		01-01-18	0
PM100340	SUBMIT PRELIMINARY UTILITY STATUS REPORT (W/IN 120 DAYS AFTER NTP)	0		02-16-18	0
PM100240	SUBMIT CONSTRUCTION QA/QC PLANS (NO LATER THAN 21 DAYS PRIOR TO CONSTRUCT	0		07-13-18	0
PM100270	SUBMIT HS&W PLAN (W/IN 15 DAYS AFTER NTP OR 21 DAYS PRIOR TO CONSTRUCTION)	0		07-13-18	0
PM100350	PUNCHLIST AND PROJECT CLOSEOUT	63	05-29-21	07-30-21	0
SCOPE VALIDATION PERIOD		120	11-17-17	03-16-18	173
SV100100	SCOPE VAILDATION INVESTIGATIONS & FINDINGS REPORT SUBMITTAL (W/IN 120 DAYS AF	120	11-17-17	03-16-18	173
RIGHT OF WAY		295	12-06-17	09-26-18	0
ROW100100	PREPARE ROW STUDY	60	12-06-17	02-03-18	0
ROW100110	VDOT ISSUE NOTICE TO COMMENCE ROW	1	12-06-17	12-06-17	29
ROW100120	PREPARE AND SUBMIT ACQUISITION AND RELOCATION PLAN	25	01-05-18	01-29-18	0
ROW100130	IDENTIFY FINAL ROW, PERM & tEMP EASMENTS, AND UTILITY EASEMENTS AND COMPLETI	60	01-30-18	03-30-18	0
ROW100140	VDOT REVIEW AND APPROVE ACQUISITION AND RELOCATION PLAN	21	03-31-18	04-20-18	0
ROW100150	APPRAISALS, APPRAISAL REVIEW, TITLES, REPORT	60	03-31-18	05-29-18	0
ROW100160	INITIATE ROW NEGOTIATIONS, ACQUISITION REPORTS, CONDEMNATION LITIGATION SUPF	120	05-30-18	09-26-18	0
DESIGN		455	11-17-17	02-14-19	0
I-64 Project Milestones		95	09-26-18	02-14-19	0
Project-Wide Milestones		95	09-26-18	02-14-19	0
00.MILE.PKG1.PW	Package A - Project Wide Design RFC	0		09-26-18	0
00.MILE.PKG2.Rdwy	Package B - Segment 1 & 3 Design RFC	0		12-03-18	12
00.MILE.PKG3.HPBF	Package C - Segment 2 Design RFC	0		02-14-19	0

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
Early Works		455	11-17-17	02-14-19	0
Design Validation		141	11-17-17	04-06-18	173
EW.DGN.DSV.010	Conduct Initial Project Wide Scope Validation	90	11-17-17	02-14-18	173
EW.DGN.DSV.030	Develop Final Project Wide Scope Validation	30	02-15-18	03-16-18	173
EW.DGN.DSV.020	SAW Review Initial Project Wide Scope Validation	15	02-15-18	03-01-18	188
EW.DGN.DSV.040	VDOT Review Project Wide Scope Validation	21	03-17-18	04-06-18	173
Surveying		102	11-17-17	02-26-18	80
EW.DGN.PMT.010	Develop Project Wide Survey - Permit & Workplans	1	11-17-17	11-17-17	0
EW.DGN.SVY.120	Develop Early Action Survey for Permits	18	11-18-17	12-05-17	0
EW.DGN.SVY.030	Set Project Wide Survey Aerial Markers	10	12-06-17	12-15-17	84
EW.DGN.SVY.110	Develop Bridge Survey	15	12-06-17	12-20-17	109
EW.DGN.SVY.040	Fly & Produce Project Wide Aerial Survey	20	12-16-17	01-04-18	84
EW.DGN.SVY.050	LIDAR & Pick-up Project Wide Survey	10	01-05-18	01-14-18	84
EW.DGN.SVY.060	Produce Final Mapping Project Wide Survey	29	01-16-18	02-26-18	58
Utility Location		74	11-17-17	01-29-18	6
EW.DGN.UTL.020	Develop Utility SUE - Permits & Work Plans	14	11-17-17	11-30-17	6
EW.DGN.UTL.030	Conduct Utility SUE - Field Work	45	12-01-17	01-14-18	6
EW.DGN.UTL.040	Produce Utility SUE - Report	15	01-15-18	01-29-18	6
Geotechnical Investigation		179	11-17-17	05-14-18	75
Final Geotechnical Report		110	11-17-17	03-06-18	1
EW.DGN.GEO.200	PB Prepare Final Geotechnical Report	24	11-17-17	12-22-17	1
EW.DGN.GEO.210	SAW Internal Review Final Report Submission	5	12-27-17	01-03-18	1
EW.DGN.GEO.220	VDOT Review/Comment Final Report	21	01-04-18	01-24-18	1
EW.DGN.GEO.230	PB Address VDOT Comments/Package & Submit Final Report	9	01-25-18	02-06-18	1
EW.DGN.GEO.240	SAW Internal Review Final Report Submission	5	02-07-18	02-13-18	1
EW.DGN.GEO.250	VDOT Review/Comment Final Geotechnical Report	21	02-14-18	03-06-18	1
Land Geotechnical Investigation		179	11-17-17	05-14-18	18
EW.DGN.GEO.010	PB Develop Geotechnical Borings - Land Use Permit & Work Plans	29	11-17-17	12-15-17	18
EW.DGN.GEO.020	VDOT Issue Land Use Permit	30	12-16-17	01-14-18	18
EW.DGN.GEO.030	PB Conduct Geotechnical Borings	90	01-15-18	04-14-18	18
EW.DGN.GEO.035	PB Conduct Materials Testing	30	04-15-18	05-14-18	18
River Geotechnical Investigation		120	11-17-17	03-16-18	134
EW.DGN.GEO.150	PB Develop Elizabeth River Boring Permits Application & Work PLans	29	11-17-17	12-15-17	134
EW.DGN.GEO.160	PB Submits River Boring Application to VMRC/USCG	1	12-16-17	12-16-17	134
EW.DGN.GEO.170	VMRC/USCG Review & Issue River Boring Permits	30	12-17-17	01-15-18	134
EW.DGN.GEO.180	PB Conduct River Borings	30	01-16-18	02-14-18	134
EW.DGN.GEO.185	PB conduct Materials Testing	30	02-15-18	03-16-18	134
Noise Abatement Design Report		239	11-17-17	07-13-18	41
EW.DGN.NADR.010	NADR - Develop Entrada Worksheets	1	11-17-17	11-17-17	29
EW.DGN.NADR.020	NADR - Noise Modeling & Draft Preperation	53	11-20-17	02-08-18	29
EW.DGN.NADR.030	NADR - QA/QC Draft Report	5	02-09-18	02-15-18	29
EW.DGN.NADR.040	NADR - Submit Draft NADAR for Review	1	02-16-18	02-16-18	29
EW.DGN.NADR.050	NADR - VDOT Review Draft NADAR	21	02-17-18	03-09-18	44
EW.DGN.NADR.060	NADR - Noise Plans Certification	5	03-12-18	03-16-18	30
EW.DGN.NADR.070	NADR - Final NADAR Concurrence from Chief Engineer	1	03-19-18	03-19-18	30
EW.DGN.NADR.080	NADR - Sumbit Public Notification Letters	5	03-20-18	03-26-18	30
EW.DGN.NADR.090	NADR - Reciept of Comments from Public	21	03-27-18	04-24-18	30
EW.DGN.NADR.100	NADR - Prepare Formal Response to Public Comments	10	04-25-18	05-08-18	30
EW.DGN.NADR.110	NADR - VDOT Review Response	15	05-09-18	05-23-18	43
EW.DGN.NADR.120	NADR - Submit Public Notification Letters	5	05-24-18	05-31-18	29



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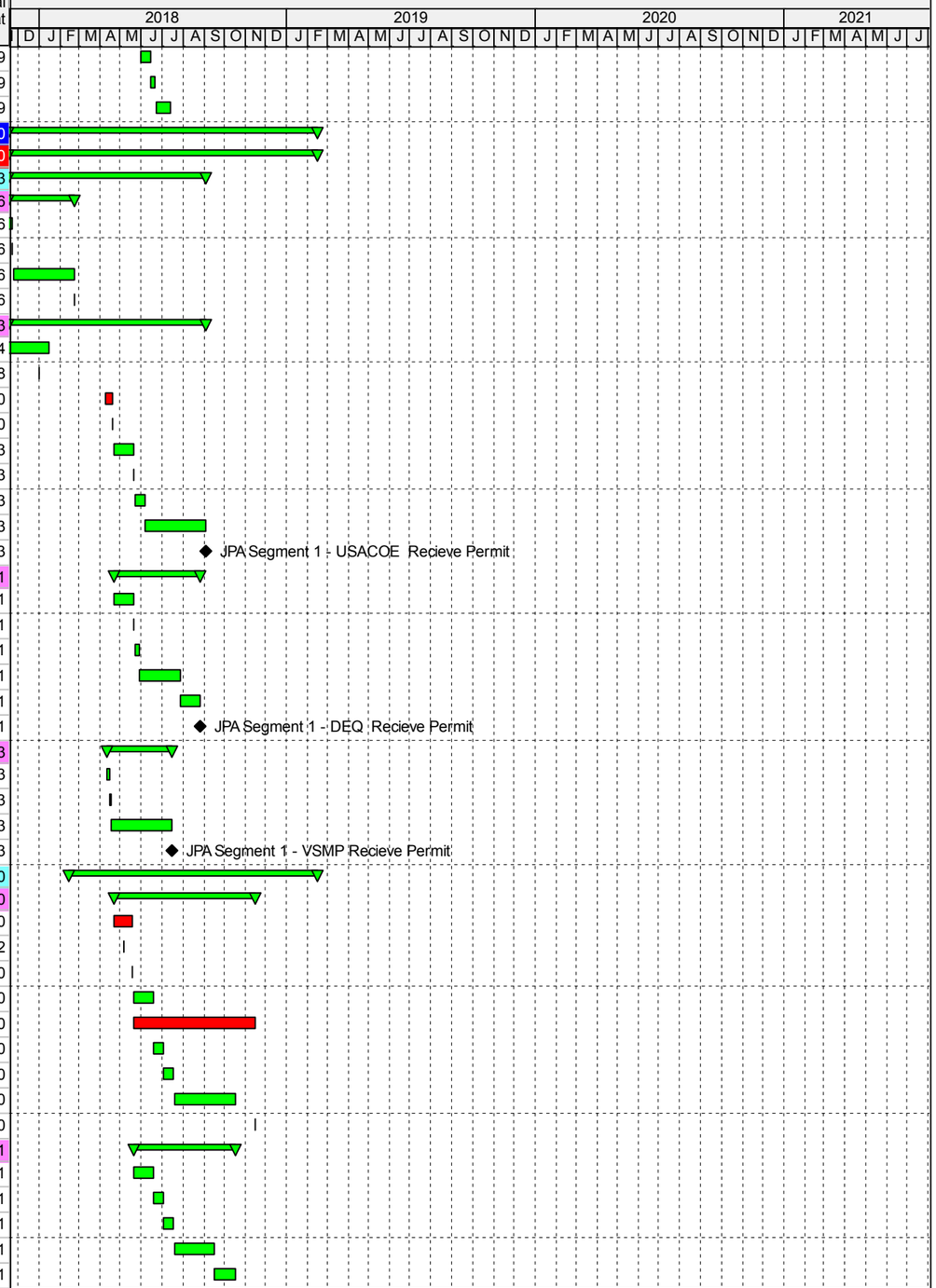
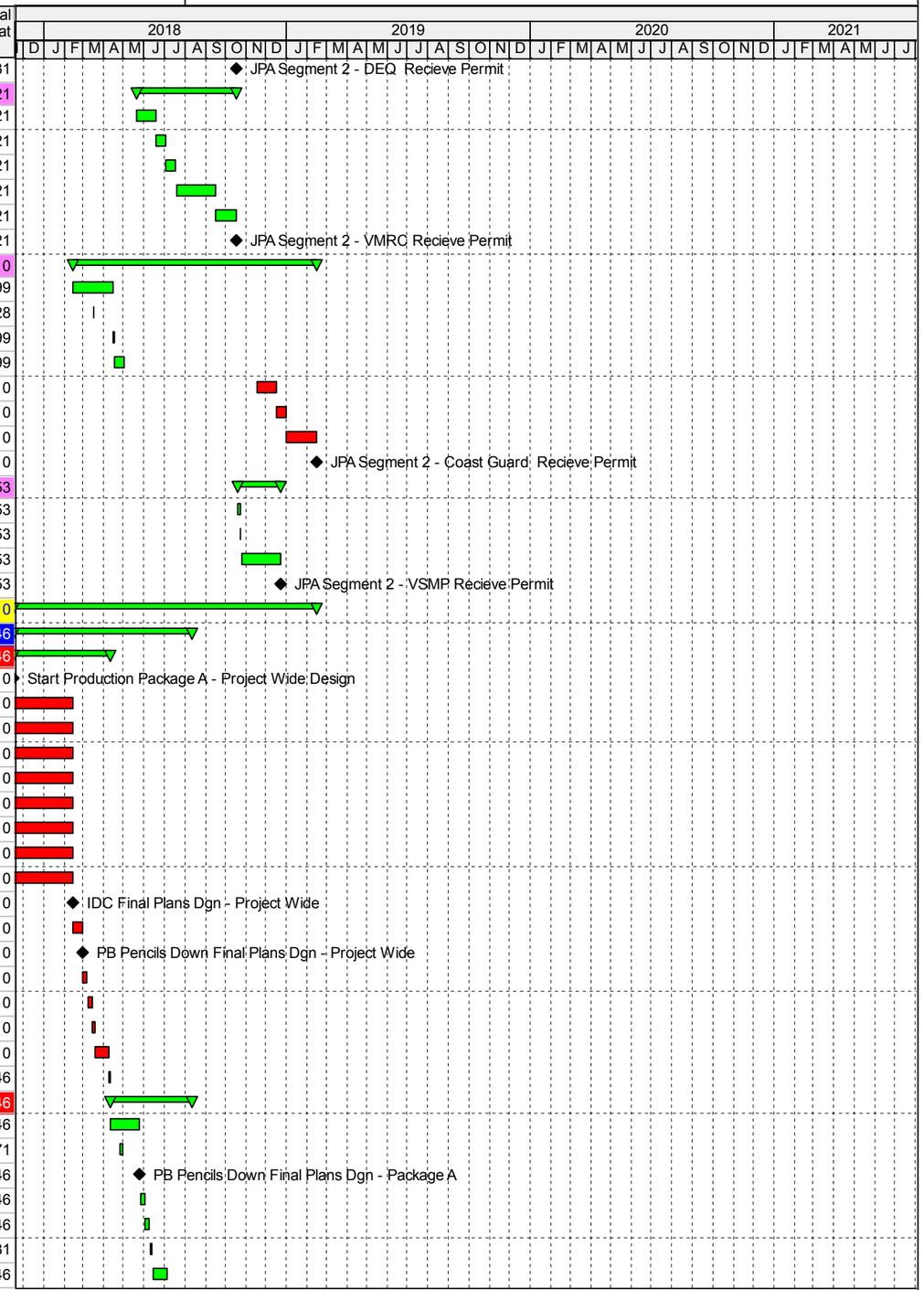
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EW.DGN.NADR.130	NADR - Reciept of Comments from the Public	10	06-01-18	06-14-18	29
EW.DGN.NADR.140	NADR - Develop Summary of Comments and Recommendation Letter	5	06-15-18	06-21-18	29
EW.DGN.NADR.150	NADR - VDOT Approval of Noise Barrier Location	15	06-22-18	07-13-18	29
Permitting		455	11-17-17	02-14-19	0
Joint Permit Application Section 408/404/401/10		455	11-17-17	02-14-19	0
JPA Segment 1 & 3		291	11-17-17	09-03-18	23
CZMA Permit		98	11-17-17	02-22-18	46
EW.DGN.PMT.820	CZMA Consistency Determination Request	6	11-17-17	11-22-17	46
EW.DGN.PMT.830	Submit CZMA to DEQ	1	11-23-17	11-23-17	46
EW.DGN.PMT.840	DEQ review CZMA	90	11-24-17	02-21-18	46
EW.DGN.PMT.850	Recieve CZMA	1	02-22-18	02-22-18	46
USACOE Permit		291	11-17-17	09-03-18	23
EW.DGN.PMT.870	JPA Segment 1 & 3 - Preliminary JPA Work	60	11-17-17	01-15-18	84
EW.DGN.PMT.860	JPA Pre-Application Meeting (USACOE, DEQ & EPA)	1	01-01-18	01-01-18	98
EW.DGN.PMT.880	JPA Segment 1 & 3 - Prepare Permit Application	10	04-10-18	04-19-18	0
EW.DGN.PMT.890	JPA Segment 1 & 3 - Submit Application	1	04-20-18	04-20-18	0
EW.DGN.PMT.900	JPA Segment 1 & 3 - USACOE Completeness Review/Public Notice	30	04-21-18	05-20-18	23
EW.DGN.PMT.910	JPA Segment 1 & 3 - USACOE Request for Additional Information	1	05-21-18	05-21-18	23
EW.DGN.PMT.920	JPA Segment 1 - Respond to USACOE Request	15	05-22-18	06-05-18	23
EW.DGN.PMT.930	JPA Segment 1 - USACOE Review and Processing	90	06-06-18	09-03-18	23
EW.DGN.PMT.940	JPA Segment 1 - USACOE Recieve Permit	0		09-03-18	23
DEQ Permit		128	04-21-18	08-26-18	31
EW.DGN.PMT.950	JPA Segment 1 - DEQ Completeness Review	30	04-21-18	05-20-18	31
EW.DGN.PMT.960	JPA Segment 1 - DEQ Request for Additional Information	1	05-21-18	05-21-18	31
EW.DGN.PMT.970	JPA Segment 1 - Respond to DEQ Request	7	05-22-18	05-28-18	31
EW.DGN.PMT.980	JPA Segment 1 - DEQ Review and Processing	60	05-29-18	07-27-18	31
EW.DGN.PMT.990	JPA Segment 1 - DEQ Draft Permit/Public Notice	30	07-28-18	08-26-18	31
EW.DGN.PMT.1000	JPA Segment 1 - DEQ Recieve Permit	0		08-26-18	31
VSMP Permit		96	04-11-18	07-15-18	73
EW.DGN.PMT.1010	JPA Segment 1 - VSMP Prepare	5	04-11-18	04-15-18	73
EW.DGN.PMT.1020	JPA Segment 1 - VSMP Submittal	1	04-16-18	04-16-18	73
EW.DGN.PMT.1030	JPA Segment 1 - VSMP VDOT Completeness Review	90	04-17-18	07-15-18	73
EW.DGN.PMT.1040	JPA Segment 1 - VSMP Recieve Permit	0		07-15-18	73
JPA Segment 2		365	02-15-18	02-14-19	0
USACOE Permit		210	04-21-18	11-16-18	0
EW.DGN.PMT.1070	JPA Segment 2 - Prepare Permit Application	28	04-21-18	05-18-18	0
EW.DGN.PMT.1050	JPA Pre-Application Meeting (USACOE, DEQ & EPA)	1	05-06-18	05-06-18	12
EW.DGN.PMT.1080	JPA Segment 2 - Submit Application	1	05-19-18	05-19-18	0
EW.DGN.PMT.1090	JPA Segment 2 - USACOE Completeness Review/Public Notice	30	05-20-18	06-18-18	30
EW.DGN.PMT.1100	JPA Segment 2 - Section 408 Review	180	05-20-18	11-15-18	0
EW.DGN.PMT.1110	JPA Segment 2 - USACOE Request for Additional Information	15	06-19-18	07-03-18	30
EW.DGN.PMT.1120	JPA Segment 2 - Respond to USACOE Request	15	07-04-18	07-18-18	30
EW.DGN.PMT.1130	JPA Segment 2 - USACOE Review and Processing	90	07-19-18	10-16-18	30
EW.DGN.PMT.1140	JPA Segment 2 - USACOE Recieve Permit	1	11-16-18	11-16-18	0
DEQ Permit		150	05-20-18	10-16-18	31
EW.DGN.PMT.1150	JPA Segment 2 - DEQ Completeness Review	30	05-20-18	06-18-18	31
EW.DGN.PMT.1160	JPA Segment 2 - DEQ Request for Additional Information	15	06-19-18	07-03-18	31
EW.DGN.PMT.1170	JPA Segment 2 - Respond to DEQ Request	15	07-04-18	07-18-18	31
EW.DGN.PMT.1180	JPA Segment 2 - DEQ Review and Processing	60	07-19-18	09-16-18	31
EW.DGN.PMT.1190	JPA Segment 2 - DEQ Draft Permit/Public Notice	30	09-17-18	10-16-18	31



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EW.DGN.PMT.1200	JPA Segment 2 - DEQ Recieve Permit	0		10-16-18	31
VMRC Permit		150	05-20-18	10-16-18	121
EW.DGN.PMT.1210	JPA Segment 2 - VMRC Completeness Review	30	05-20-18	06-18-18	121
EW.DGN.PMT.1220	JPA Segment 2 - VMRC Request for Additional Information	15	06-19-18	07-03-18	121
EW.DGN.PMT.1230	JPA Segment 2 - Respond to VMRC Request	15	07-04-18	07-18-18	121
EW.DGN.PMT.1240	JPA Segment 2 - VMRC Review and Processing	60	07-19-18	09-16-18	121
EW.DGN.PMT.1250	JPA Segment 2 - VMRC Board Meeting	30	09-17-18	10-16-18	121
EW.DGN.PMT.1260	JPA Segment 2 - VMRC Recieve Permit	0		10-16-18	121
Coast Guard Permit		365	02-15-18	02-14-19	0
EW.DGN.PMT.700	JPA Segment 2 - Prepare Section 10 Permit Application	60	02-15-18	04-15-18	199
EW.DGN.PMT.680	JPA Segment 2 - Pre-Application Meeting Coast Guard	1	03-17-18	03-17-18	228
EW.DGN.PMT.1310	JPA Segment 2 - Submit Section 10 Permit Application	1	04-16-18	04-16-18	199
EW.DGN.PMT.1320	JPA Segment 2 - Coast Guard Completeness Review	15	04-17-18	05-01-18	199
EW.DGN.PMT.1330	JPA Segment 2 - Coast Guard Public Notice	30	11-17-18	12-16-18	0
EW.DGN.PMT.1340	JPA Segment 2 - District Assemble Documentation	15	12-17-18	12-31-18	0
EW.DGN.PMT.1350	JPA Segment 2 - Coast Guard HQ Review and Processing	45	01-01-19	02-14-19	0
EW.DGN.PMT.1360	JPA Segment 2 - Coast Guard Recieve Permit	0		02-14-19	0
VSMP Permit		66	10-19-18	12-23-18	53
EW.DGN.PMT.1270	JPA Segment 2 - VSMP Prepare	5	10-19-18	10-23-18	53
EW.DGN.PMT.1280	JPA Segment 2 - VSMP Submittal	1	10-24-18	10-24-18	53
EW.DGN.PMT.1290	JPA Segment 2 - VSMP VDOT Completeness Review	60	10-25-18	12-23-18	53
EW.DGN.PMT.1300	JPA Segment 2 - VSMP Recieve Permit	0		12-23-18	53
Design		455	11-17-17	02-14-19	0
Package A - Project Wide Design		268	11-17-17	08-11-18	46
Package A Project Wide Final Plans		145	11-17-17	04-10-18	46
PKGA.DGN.1000	Start Production Package A - Project Wide Design	0		11-17-17	0
PKGA.DGN.1010	Produce Package A - Project Wide ROW Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1270	Produce Package A - Project Wide E&S Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1280	Produce Package A - Project Wide SWM Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1290	Produce Package A - Project Wide Rough Grading Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1300	Produce Package A - Project Wide MOT/TMP Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1310	Produce Package A - Project Wide Bridge TS&L's Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1320	Produce Package A - Project Wide Utility Relocation Plans Dgn	90	11-17-17	02-14-18	0
PKGA.DGN.1360	Produce Package A - HRB H&HA Report	90	11-17-17	02-14-18	0
PKGA.DGN.1020	IDC Final Plans Dgn - Project Wide	0		02-14-18	0
PKGA.DGN.1030	PB Incorporate IDC Comments Final Plans Dgn - Project Wide	14	02-15-18	02-28-18	0
PKGA.DGN.1040	PB Pencils Down Final Plans Dgn - Project Wide	0		02-28-18	0
PKGA.DGN.1050	PB Internal Review Final Plans QC Dgn - Project Wide	7	03-01-18	03-07-18	0
PKGA.DGN.1060	PB Address Comm/Package & Submit ROW Plans Dgn - Project Wide	7	03-08-18	03-14-18	0
PKGA.DGN.1070	SAW Internal Review ROW Plans Dgn - Project Wide	3	03-15-18	03-19-18	0
PKGA.DGN.1080	VDOT Review/Cmnt ROW Plans Dgn - Project Wide	21	03-20-18	04-09-18	0
PKGA.DGN.1090	PB Interdisciplinary Coordination Mtg Construction Plan Dgn - Project Wide	1	04-10-18	04-10-18	46
Package A - Project Wide RFC Plans		123	04-11-18	08-11-18	46
PKGA.DGN.1210	PB Produce RFC Dgn Pkg - Sign/Seal/Submit - Package A	45	04-11-18	05-25-18	46
PKGA.DGN.1215	PB Conduct VDOT RFC Pkg Coordination Meeting - Package A	5	04-26-18	04-30-18	71
PKGA.DGN.1330	PB Pencils Down Final Plans Dgn - Package A	0		05-25-18	46
PKGA.DGN.1340	PB Internal Review Final Plans QC Dgn - Package A	7	05-26-18	06-01-18	46
PKGA.DGN.1350	PB Address Comm/Package & Submit ROW Plans Dgn - Package A	7	06-02-18	06-08-18	46
PKGA.DGN.1220	SAW Internal Review RFC Dgn - Package A	3	06-11-18	06-13-18	31
PKGA.DGN.1230	VDOT Review/Comment RFC Plans - Package A	21	06-14-18	07-04-18	46



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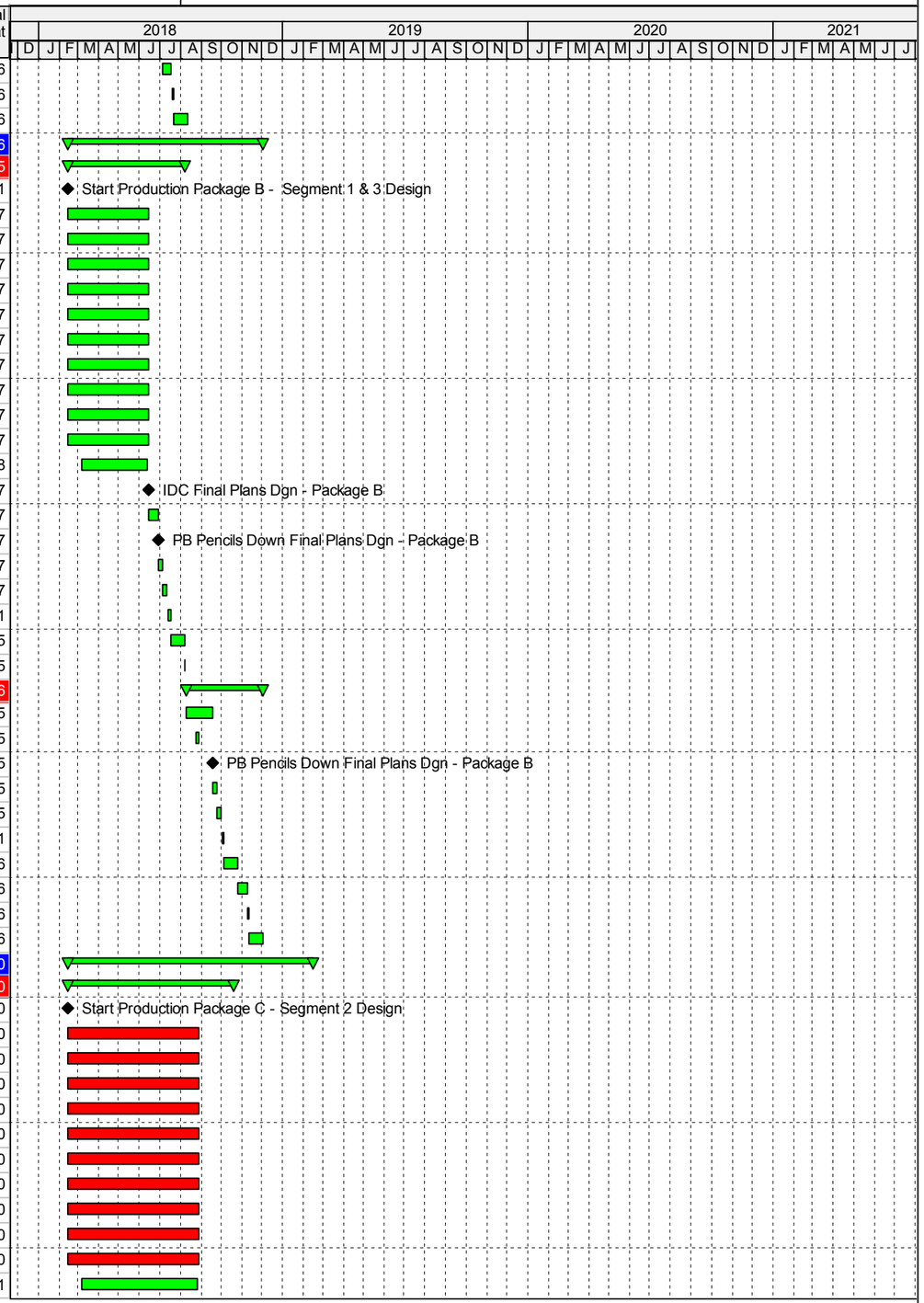
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PKGA.DGN.1240	PB Address Comm/Pkg - Sign/Seal/Submit - Package A	14	07-05-18	07-18-18	46
PKGA.DGN.1250	SAW Internal Review RFC Plans - Package A	3	07-19-18	07-21-18	46
PKGA.DGN.1260	VDOT Issue Package 1 RFC Plans - Package A (Seg 1 & 3)	21	07-22-18	08-11-18	46
Package B - Segment 1 & 3		291	02-14-18	12-02-18	16
Package B - Segment 1 & 3 Final Plans		175	02-14-18	08-08-18	15
PKGB.DGN.1490	Start Production Package B - Segment 1 & 3 Design	0		02-14-18	11
PKGB.DGN.1500	Produce Package B - Final Roadway Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1510	Produce Package B - MOT/TMP Update Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1520	Produce Package B - ITS Tolling Dgn - Proj Wide	120	02-15-18	06-14-18	17
PKGB.DGN.1530	Produce Package B - Lighting Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1540	Produce Package B - Signage Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1550	Produce Package B - Striping Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1560	Produce Package B - Military Highway Bridge Widening Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1570	Produce Package B - Yadkin Road Bridge Widening Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1580	Produce Package B - GBB Bridge Replacement Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1680	Produce Package B - Utility Relocation Plans Dgn	120	02-15-18	06-14-18	17
PKGB.DGN.1590	Produce Package B - Final Geotechnical Report Addendum	99	03-07-18	06-13-18	18
PKGB.DGN.1600	IDC Final Plans Dgn - Package B	0		06-14-18	17
PKGB.DGN.1610	PB Incorporate IDC Comments Final Plans Dgn - Package B	14	06-15-18	06-28-18	17
PKGB.DGN.1620	PB Pencils Down Final Plans Dgn - Package B	0		06-28-18	17
PKGB.DGN.1630	PB Internal Review Final Plans QC Dgn - Package B	7	06-29-18	07-05-18	17
PKGB.DGN.1640	PB Address Comm/Package & Submit ROW Plans Dgn - Package B	7	07-06-18	07-12-18	17
PKGB.DGN.1650	SAW Internal Review ROW Plans Dgn - Package B	3	07-13-18	07-17-18	11
PKGB.DGN.1660	VDOT Review/Cmnt ROW Plans Dgn - Package B	21	07-18-18	08-07-18	15
PKGB.DGN.1670	PB Interdisciplinary Coordination Mtg Construction Plan Dgn - Package B	1	08-08-18	08-08-18	15
Package B - Segment 1 & 3 RFC Plans		116	08-09-18	12-02-18	16
PKGB.DGN.1390	PB Produce RFC Dgn Pkg - Sign/Seal/Submit - Package B	40	08-09-18	09-17-18	15
PKGB.DGN.1400	PB Conduct VDOT RFC Pkg Coordination Meeting - Package B	5	08-24-18	08-28-18	35
PKGB.DGN.1410	PB Pencils Down Final Plans Dgn - Package B	0		09-17-18	15
PKGB.DGN.1420	PB Internal Review Final Plans QC Dgn - Package B	7	09-18-18	09-24-18	15
PKGB.DGN.1430	PB Address Comm/Package & Submit ROW Plans Dgn - Package B	7	09-25-18	10-01-18	15
PKGB.DGN.1440	SAW Internal Review RFC Dgn - Package B	3	10-02-18	10-04-18	11
PKGB.DGN.1450	VDOT Review/Comment RFC Plans - Package B	21	10-05-18	10-25-18	16
PKGB.DGN.1460	PB Address Comm/Pkg - Sign/Seal/Submit - Package B	14	10-26-18	11-08-18	16
PKGB.DGN.1470	SAW Internal Review RFC Plans - Package B	3	11-09-18	11-11-18	16
PKGB.DGN.1480	VDOT Issue RFC Plans - Package B	21	11-12-18	12-02-18	16
Package C - Segment 2		365	02-14-18	02-14-19	0
Package C - Segment 2 Final Plans		247	02-14-18	10-19-18	0
PKGC.DGN.1370	Start Production Package C - Segment 2 Design	0		02-14-18	0
PKGC.DGN.1640	Produce Package C - Flood Gate Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1650	Produce Package C - Modifications to Exsisting HRB Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1380	Produce Package C - Final Roadway Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1390	Produce Package C - MOT/TMP Update Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1400	Produce Package C - ITS Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1410	Produce Package C - Lighting Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1420	Produce Package C - Signage Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1430	Produce Package C - Striping Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1440	Produce Package C - Shell Road Bridge widenings Dgn	194	02-15-18	08-27-18	0
PKGC.DGN.1450	Produce Package C - HRB DGN	194	02-15-18	08-27-18	0
PKGC.DGN.1660	Produce Package C - Final Geotechnical Report Addendum	173	03-07-18	08-26-18	1



Date	Revision	Checked	Approved

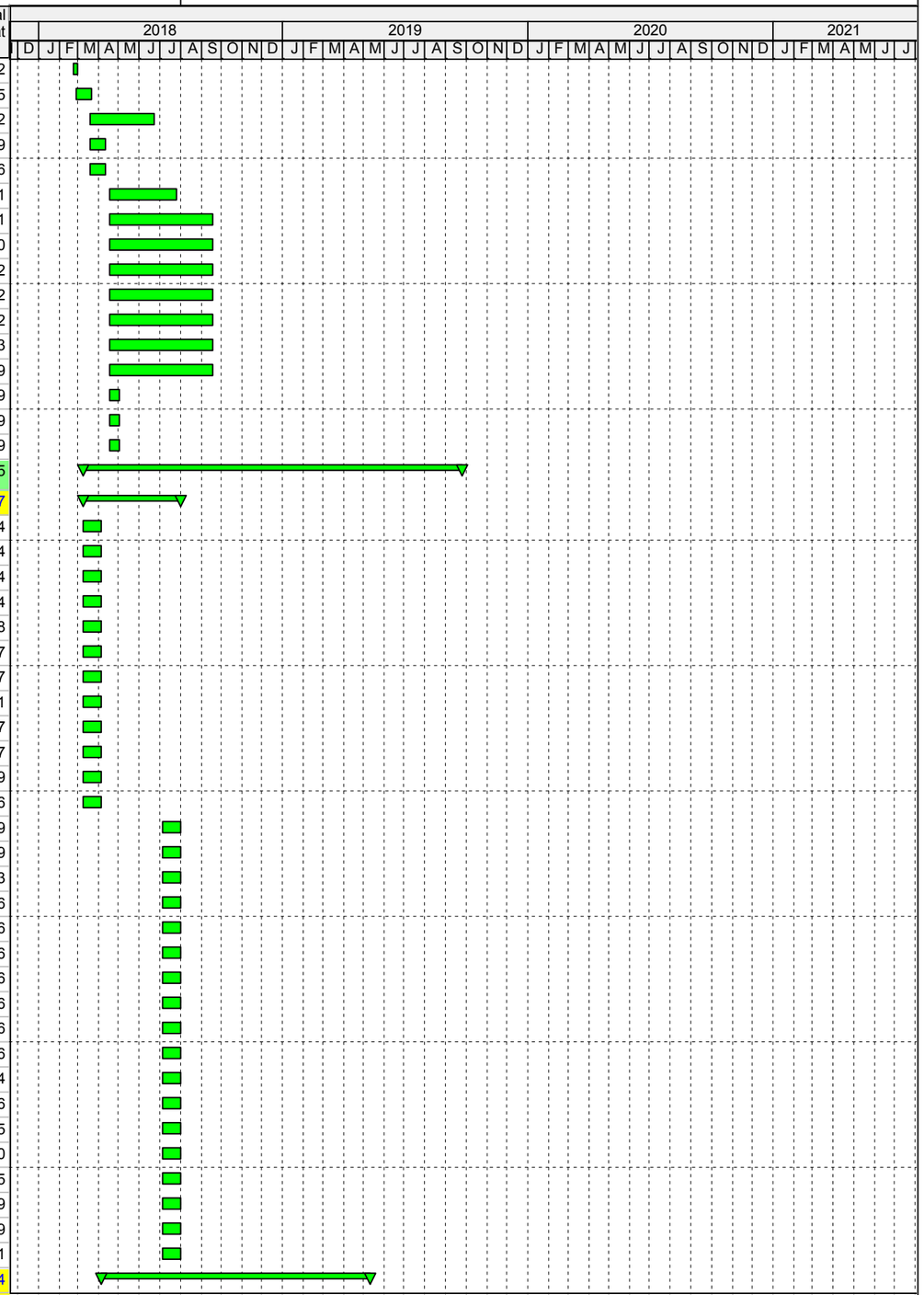
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PKGC.DGN.1460	IDC Final Plans Dgn - Package C	0		08-27-18	0
PKGC.DGN.1470	PB Incorporate IDC Comments Final Plans Dgn - Package C	14	08-28-18	09-10-18	0
PKGC.DGN.1480	PB Pencils Down Final Plans Dgn - Package C	0		09-10-18	0
PKGC.DGN.1490	PB Internal Review Final Plans QC Dgn - Package C	7	09-11-18	09-17-18	0
PKGC.DGN.1500	PB Address Comm/Package & Submit ROW Plans Dgn - Package C	7	09-18-18	09-24-18	0
PKGC.DGN.1510	SAW Internal Review ROW Plans Dgn - Package C	3	09-25-18	09-27-18	0
PKGC.DGN.1520	VDOT Review/Cmnt ROW Plans Dgn - Package C	21	09-28-18	10-18-18	0
PKGC.DGN.1530	PB Interdisciplinary Coordination Mtg Construction Plan Dgn - Package C	1	10-19-18	10-19-18	0
Package C - Segment 2 RFC Plans		118	10-20-18	02-14-19	0
PKGC.DGN.1540	PB Produce RFC Dgn Pkg - Sign/Seal/Submit - Package C	40	10-20-18	11-28-18	0
PKGC.DGN.1550	PB Conduct VDOT RFC Pkg Coordination Meeting - Package C	5	11-04-18	11-08-18	20
PKGC.DGN.1560	PB Pencils Down Final Plans Dgn - Package C	0		11-28-18	0
PKGC.DGN.1570	PB Internal Review Final Plans QC Dgn - Package C	7	11-29-18	12-05-18	0
PKGC.DGN.1580	PB Address Comm/Package & Submit ROW Plans Dgn - Package C	7	12-06-18	12-12-18	0
PKGC.DGN.1590	SAW Internal Review RFC Dgn - Package C	3	12-13-18	12-17-18	0
PKGC.DGN.1600	VDOT Review/Comment RFC Plans - Package C	21	12-18-18	01-07-19	0
PKGC.DGN.1610	PB Address Comm/Pkg - Sign/Seal/Submit - Package C	14	01-08-19	01-21-19	0
PKGC.DGN.1620	SAW Internal Review RFC Plans - Package C	3	01-22-19	01-24-19	0
PKGC.DGN.1630	VDOT Issue Package 1 RFC Plans - Package C	21	01-25-19	02-14-19	0
UTILITY		305	11-17-17	09-17-18	592
UTILITY.010.1000000	DESIGN UNDERGROUND VERIZON TRANSITE LINE @ MILITARY HWY 1100+52 (ITEM 10)	60	11-17-17	01-15-18	328
UTILITY.059.1000000	DOMINION TRANS TOWER CONTRACT 4-2-18 TO 7-1-18 (ITEM 59)	255	11-17-17	07-29-18	485
UTILITY.010.1000010	RELOCATE UNDERGROUND VERIZON TRANSITE LINE @ MILITARY HWY 1100+52 (ITEM 10)	90	01-16-18	06-07-18	199
UTILITY.016.1000000	DESIGN UNDERGROUND COX LINE @ MILITARY HWY 1101+43 (ITEM 16)	60	02-17-18	04-17-18	287
UTILITY.017.1000000	DESIGN UNDERGROUND DOMINION DIST LINE @ MILITARY HWY 1100+45 (ITEM 17)	60	02-17-18	04-17-18	236
UTILITY.113.1000000	DESIGN OH COX LINE @ RTE 17 1200+10 (ITEM 113)	30	02-17-18	03-18-18	501
UTILITY.044.1000000	DESIGN OH DOMINION DIST LINE @SHELL RD 1219+90 (ITEM 44)	60	02-17-18	04-17-18	468
UTILITY.052.1000000	DESIGN UNDERGROUND UNKNOWN UTILITY @ SOUTHWAY 1247+01 (ITEM 52)	30	02-17-18	03-18-18	396
UTILITY.110.1000000	DESIGN UNDERGROUND VERIZON LINE @ BAINBRIDGE 1335+00 (ITEM 110)	60	02-17-18	04-17-18	435
UTILITY.064.1000000	DESIGN CHESAPEAKE FIRE HYDRANT @ 1353+74 NEAR BAINBRIDGE (ITEM 64)	1	02-17-18	02-17-18	645
UTILITY.068.1000000	DESIGN UNDERGROUND VERIZON LINE @ BAINBRIDGE 1354+07 (ITEM 68)	60	02-17-18	04-17-18	435
UTILITY.107.1000000	DESIGN 10" CHESAPEAKE WATER LINE @ LIBERTYVILLE RD 1355+00 (ITEM 107)	5	02-17-18	02-21-18	616
UTILITY.108.1000000	DESIGN OH DOMINION DIST LINE @ LIBERTYVILLE RD 1355+00 (ITEM 108)	60	02-17-18	04-17-18	435
UTILITY.067.1000000	DESIGN OH LIGHTOWER @ LIBERTYVILLE RD 1355+00 (ITEM 67)	30	02-17-18	03-18-18	591
UTILITY.070.1000000	DESIGN OH DOMINION DIST LINE @ GREAT BRIDGE 1384+08 (ITEM 70)	60	02-17-18	04-17-18	456
UTILITY.112.1000000	DESIGN OH VERIZON LINE @GREAT BRIDGE 1384+08 (ITEM 112)	0	02-17-18	02-17-18	649
UTILITY.115.1000000	DESIGN UNDERGROUND 8" SFM CHESAPEAK @ GREAT BRIDGE 1394+80 (ITEM 115)	5	02-17-18	02-21-18	652
UTILITY.105.1000000	DESIGN SEWER MANHOLES CHESAPEAK @ BULLDOG 1450+00 (ITEM 105)	1	02-17-18	02-17-18	801
UTILITY.109.1000000	DESIGN FIRE HYDRANT CHESAPEAK @ BULLDOG 1450+00 (ITEM 109)	1	02-17-18	02-17-18	802
UTILITY.104.1000000	DESIGN OH DOMINION DIST LINE @ BULLDOG 1450+00 (ITEM 104)	60	02-17-18	04-17-18	600
UTILITY.103.1000000	DESIGN UNDERGROUND VERIZON LINE @ BULLDOG 1450+00 (ITEM 103)	10	02-17-18	02-26-18	773
UTILITY.079.1000000	DESIGN CASING COX LINE @ BATTLEFIELD 1459+38 (ITEM 79)	60	02-17-18	04-17-18	733
UTILITY.080.1000000	DESIGN CASING DOMINION DIST LINE @ BATTLEFIELD 1459+38 (ITEM 80)	60	02-17-18	04-17-18	733
UTILITY.081.1000000	DESIGN CASING VERIZON LINE @ BATTLEFIELD 1459+38 (ITEM 81)	60	02-17-18	04-17-18	733
UTILITY.064.1000010	ADD CHESAPEAKE FIRE HYDRANT @ 1353+74 NEAR BAINBRIDGE (ITEM 64)	2	02-20-18	02-21-18	386
UTILITY.112.1000010	RELOCATE OH VERIZON LINE @GREAT BRIDGE 1384+08 (ITEM 112)	10	02-20-18	03-05-18	389
UTILITY.105.1000010	ADJUST SEWER MANHOLES CHESAPEAK @ BULLDOG 1450+00 (ITEM 105)	3	02-20-18	02-22-18	482
UTILITY.109.1000010	ADD FIRE HYDRANT CHESAPEAK @ BULLDOG 1450+00 (ITEM 109)	2	02-20-18	02-21-18	483
UTILITY.107.1000010	RELOCATE 10" CHESAPEAKE WATER LINE @ LIBERTYVILLE RD 1355+00 (ITEM 107)	15	02-22-18	03-16-18	371

Date	Revision	Checked	Approved

SKANSKA

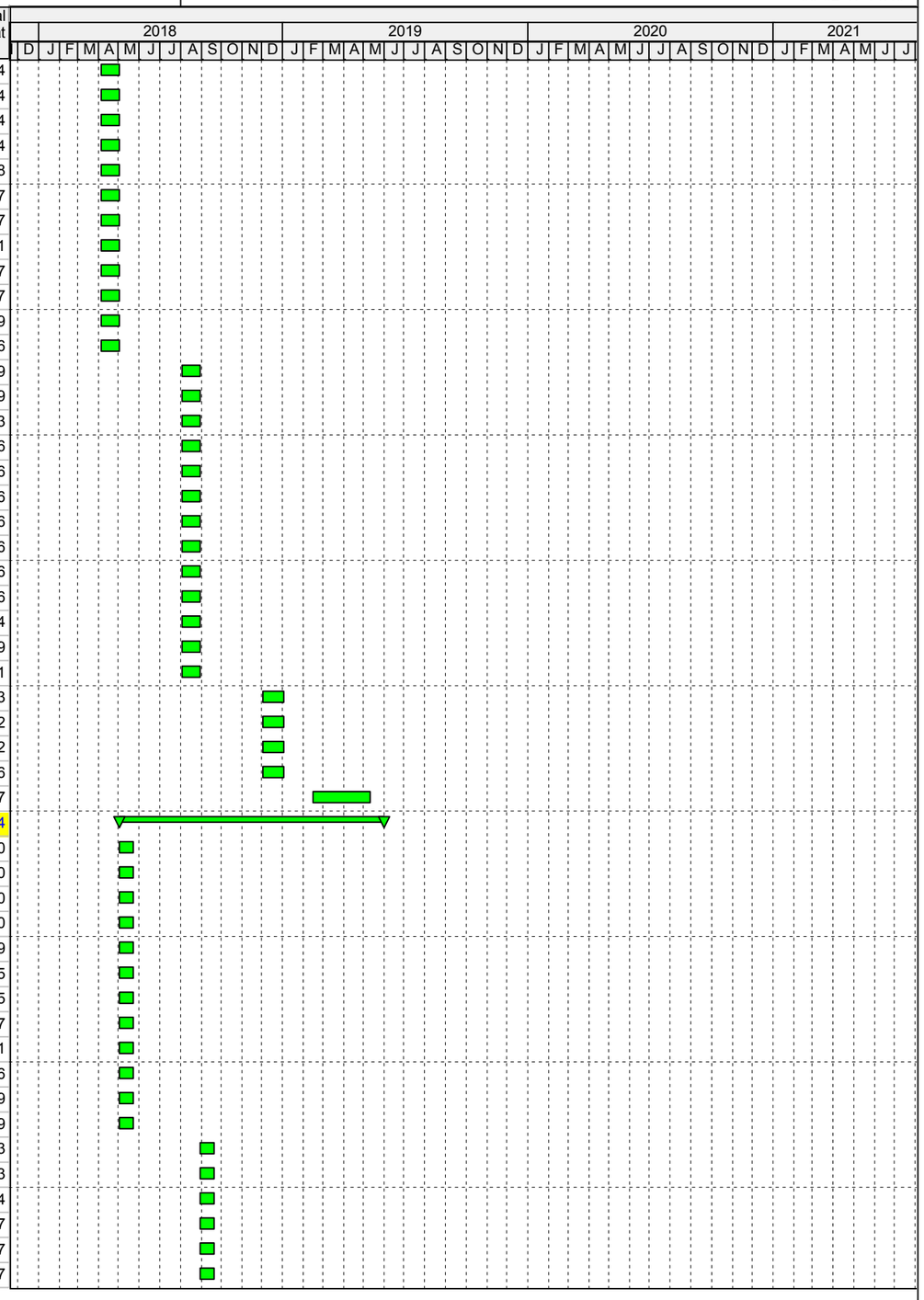
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
UTILITY.115.1000010	RELOCATE UNDERGROUND 8" SFM CHESAPEAK @ GREAT BRIDGE 1394+80 (ITEM 115)	5	02-22-18	02-28-18	392
UTILITY.103.1000010	RELOCATE UNDERGROUND VERIZON LINE @ BULLDOG 1450+00 (ITEM 103)	15	02-27-18	03-22-18	465
UTILITY.113.1000010	RELOCATE OH COX LINE @ RTE 17 1200+10 (ITEM 113)	60	03-19-18	06-22-18	302
UTILITY.052.1000010	RELOCATE UNDERGROUND UNKNOWN UTILITY @ SOUTHWAY 1247+01 (ITEM 52)	15	03-19-18	04-11-18	239
UTILITY.067.1000010	RELOCATE OH LIGHTOWER @ LIBERTYVILLE RD 1355+00 (ITEM 67)	15	03-19-18	04-11-18	356
UTILITY.016.1000010	RELOCATE UNDERGROUND COX LINE @ MILITARY HWY 1101+43 (ITEM 16)	60	04-18-18	07-26-18	171
UTILITY.017.1000010	RELOCATE UNDERGROUND DOMINION DIST LINE @ MILITARY HWY 1100+45 (ITEM 17)	90	04-18-18	09-17-18	141
UTILITY.044.1000010	RELOCATE OH DOMINION DIST LINE @SHELL RD 1219+90 (ITEM 44)	90	04-18-18	09-17-18	280
UTILITY.110.1000010	RELOCATE UNDERGROUND VERIZON LINE @ BAINBRIDGE 1335+00 (ITEM 110)	90	04-18-18	09-17-18	262
UTILITY.068.1000010	RELOCATE UNDERGROUND VERIZON LINE @ BAINBRIDGE 1354+07 (ITEM 68)	90	04-18-18	09-17-18	262
UTILITY.108.1000010	RELOCATE OH DOMINION DIST LINE @ LIBERTYVILLE RD 1355+00 (ITEM 108)	90	04-18-18	09-17-18	262
UTILITY.070.1000010	RELOCATE OH DOMINION DIST LINE @ GREAT BRIDGE 1384+08 (ITEM 70)	90	04-18-18	09-17-18	273
UTILITY.104.1000010	RELOCATE OH DOMINION DIST LINE @ BULLDOG 1450+00 (ITEM 104)	90	04-18-18	09-17-18	359
UTILITY.079.1000010	EXTEND CASING COX LINE @ BATTLEFIELD 1459+38 (ITEM 79)	10	04-18-18	05-02-18	439
UTILITY.080.1000010	EXTEND CASING DOMINION DIST LINE @ BATTLEFIELD 1459+38 (ITEM 80)	10	04-18-18	05-02-18	439
UTILITY.081.1000010	EXTEND CASING VERIZON LINE @ BATTLEFIELD 1459+38 (ITEM 81)	10	04-18-18	05-02-18	439
PROCUREMENT		566	03-08-18	09-24-19	675
PURCHASE		104	03-08-18	08-02-18	677
P2020000	PURCHASE 202—FINE AGGREGATE	20	03-08-18	04-04-18	204
P2030000	PURCHASE 203—COARSE AGGREGATE	20	03-08-18	04-04-18	204
P2050000	PURCHASE 205—CRUSHER RUN AGGREGATE	20	03-08-18	04-04-18	204
P2060000	PURCHASE 206—LIGHTWEIGHT AGGREGATE	20	03-08-18	04-04-18	204
P2070000	PURCHASE 207—SELECT MATERIAL	20	03-08-18	04-04-18	158
P2080000	PURCHASE 208—SUBBASE AND AGGREGATE BASE MATERIAL	20	03-08-18	04-04-18	207
P2090000	PURCHASE 209—OPEN-GRADED SHOULDER MATERIAL	20	03-08-18	04-04-18	207
P2190000	PURCHASE 219—RIGHT-OF-WAY MONUMENTS	20	03-08-18	04-04-18	761
P2320000	PURCHASE 232—PIPE AND PIPE ARCHES	20	03-08-18	04-04-18	247
P2380000	PURCHASE 238—ELECTRICAL AND SIGNAL COMPONENTS	20	03-08-18	04-04-18	87
P2420000	PURCHASE 242—FENCES	20	03-08-18	04-04-18	549
P2440000	PURCHASE 244—ROADSIDE DEVELOPMENT MATERIALS	20	03-08-18	04-04-18	96
P2100000	PURCHASE 210—ASPHALT MATERIALS	20	07-06-18	08-02-18	129
P2110000	PURCHASE 211—ASPHALT CONCRETE	20	07-06-18	08-02-18	129
P2120000	PURCHASE 212—JOINT MATERIALS	20	07-06-18	08-02-18	263
P2130000	PURCHASE 213—DAMP-PROOFING AND WATERPROOFING MATERIALS	20	07-06-18	08-02-18	196
P2140000	PURCHASE 214—HYDRAULIC CEMENT	20	07-06-18	08-02-18	196
P2150000	PURCHASE 215—HYDRAULIC CEMENT CONCRETE ADMIXTURES	20	07-06-18	08-02-18	196
P2160000	PURCHASE 216—WATER FOR USE WITH CEMENT OR LIME	20	07-06-18	08-02-18	196
P2170000	PURCHASE 217—HYDRAULIC CEMENT CONCRETE	20	07-06-18	08-02-18	196
P2180000	PURCHASE 218—HYDRAULIC CEMENT MORTAR AND GROUT	20	07-06-18	08-02-18	196
P2200000	PURCHASE 220—CONCRETE CURING MATERIALS	20	07-06-18	08-02-18	196
P2210000	PURCHASE 221—GUARDRAIL	20	07-06-18	08-02-18	204
P2230000	PURCHASE 223—STEEL REINFORCEMENT	20	07-06-18	08-02-18	196
P2240000	PURCHASE 224—CASTINGS	20	07-06-18	08-02-18	95
P2260000	PURCHASE 226—STRUCTURAL STEEL	20	07-06-18	08-02-18	210
P2280000	PURCHASE 228—STEEL PILES	20	07-06-18	08-02-18	95
P2310000	PURCHASE 231—PAINT	20	07-06-18	08-02-18	289
P2370000	PURCHASE 237—STRUCTURE BEDDING MATERIAL AND BEARING PADS	20	07-06-18	08-02-18	509
P2460000	PURCHASE 246—PAVEMENT MARKING	20	07-06-18	08-02-18	351
SUBMITTALS		277	04-05-18	05-10-19	504



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
S2020000	SUBMIT 202—FINE AGGREGATE	20	04-05-18	05-02-18	204
S2030000	SUBMIT 203—COARSE AGGREGATE	20	04-05-18	05-02-18	204
S2050000	SUBMIT 205—CRUSHER RUN AGGREGATE	20	04-05-18	05-02-18	204
S2060000	SUBMIT 206—LIGHTWEIGHT AGGREGATE	20	04-05-18	05-02-18	204
S2070000	SUBMIT 207—SELECT MATERIAL	20	04-05-18	05-02-18	158
S2080000	SUBMIT 208—SUBBASE AND AGGREGATE BASE MATERIAL	20	04-05-18	05-02-18	207
S2090000	SUBMIT 209—OPEN-GRADED SHOULDER MATERIAL	20	04-05-18	05-02-18	207
S2190000	SUBMIT 219—RIGHT-OF-WAY MONUMENTS	20	04-05-18	05-02-18	761
S2320000	SUBMIT 232—PIPE AND PIPE ARCHES	20	04-05-18	05-02-18	247
S2380000	SUBMIT 238—ELECTRICAL AND SIGNAL COMPONENTS	20	04-05-18	05-02-18	87
S2420000	SUBMIT 242—FENCES	20	04-05-18	05-02-18	549
S2440000	SUBMIT 244—ROADSIDE DEVELOPMENT MATERIALS	20	04-05-18	05-02-18	96
S2100000	SUBMIT 210—ASPHALT MATERIALS	20	08-03-18	08-30-18	129
S2110000	SUBMIT 211—ASPHALT CONCRETE	20	08-03-18	08-30-18	129
S2120000	SUBMIT 212—JOINT MATERIALS	20	08-03-18	08-30-18	263
S2130000	SUBMIT 213—DAMP-PROOFING AND WATERPROOFING MATERIALS	20	08-03-18	08-30-18	196
S2140000	SUBMIT 214—HYDRAULIC CEMENT	20	08-03-18	08-30-18	196
S2150000	SUBMIT 215—HYDRAULIC CEMENT CONCRETE ADMIXTURES	20	08-03-18	08-30-18	196
S2160000	SUBMIT 216—WATER FOR USE WITH CEMENT OR LIME	20	08-03-18	08-30-18	196
S2170000	SUBMIT 217—HYDRAULIC CEMENT CONCRETE	20	08-03-18	08-30-18	196
S2180000	SUBMIT 218—HYDRAULIC CEMENT MORTAR AND GROUT	20	08-03-18	08-30-18	196
S2200000	SUBMIT 220—CONCRETE CURING MATERIALS	20	08-03-18	08-30-18	196
S2210000	SUBMIT 221—GUARDRAIL	20	08-03-18	08-30-18	204
S2310000	SUBMIT 231—PAINT	20	08-03-18	08-30-18	289
S2460000	SUBMIT 246—PAVEMENT MARKING	20	08-03-18	08-30-18	351
S2230000	SUBMIT 223—STEEL REINFORCEMENT	20	12-03-18	01-02-19	113
S2240000	SUBMIT 224—CASTINGS	20	12-03-18	01-02-19	12
S2280000	SUBMIT 228—STEEL PILES	20	12-03-18	01-02-19	12
S2370000	SUBMIT 237—STRUCTURE BEDDING MATERIAL AND BEARING PADS	20	12-03-18	01-02-19	426
S2260000	SUBMIT 226—STRUCTURAL STEEL	60	02-15-19	05-10-19	77
VDOT SUBMITTAL REVIEW / APPROVAL		394	05-03-18	05-31-19	734
A2020000	APPROVE 202—FINE AGGREGATE	21	05-03-18	05-23-18	300
A2030000	APPROVE 203—COARSE AGGREGATE	21	05-03-18	05-23-18	300
A2050000	APPROVE 205—CRUSHER RUN AGGREGATE	21	05-03-18	05-23-18	300
A2060000	APPROVE 206—LIGHTWEIGHT AGGREGATE	21	05-03-18	05-23-18	300
A2070000	APPROVE 207—SELECT MATERIAL	21	05-03-18	05-23-18	229
A2080000	APPROVE 208—SUBBASE AND AGGREGATE BASE MATERIAL	21	05-03-18	05-23-18	305
A2090000	APPROVE 209—OPEN-GRADED SHOULDER MATERIAL	21	05-03-18	05-23-18	305
A2190000	APPROVE 219—RIGHT-OF-WAY MONUMENTS	21	05-03-18	05-23-18	1107
A2320000	APPROVE 232—PIPE AND PIPE ARCHES	21	05-03-18	05-23-18	361
A2380000	APPROVE 238—ELECTRICAL AND SIGNAL COMPONENTS	21	05-03-18	05-23-18	126
A2420000	APPROVE 242—FENCES	21	05-03-18	05-23-18	799
A2440000	APPROVE 244—ROADSIDE DEVELOPMENT MATERIALS	21	05-03-18	05-23-18	139
A2100000	APPROVE 210—ASPHALT MATERIALS	21	08-31-18	09-20-18	193
A2110000	APPROVE 211—ASPHALT CONCRETE	21	08-31-18	09-20-18	193
A2120000	APPROVE 212—JOINT MATERIALS	21	08-31-18	09-20-18	384
A2130000	APPROVE 213—DAMP-PROOFING AND WATERPROOFING MATERIALS	21	08-31-18	09-20-18	287
A2140000	APPROVE 214—HYDRAULIC CEMENT	21	08-31-18	09-20-18	287
A2150000	APPROVE 215—HYDRAULIC CEMENT CONCRETE ADMIXTURES	21	08-31-18	09-20-18	287



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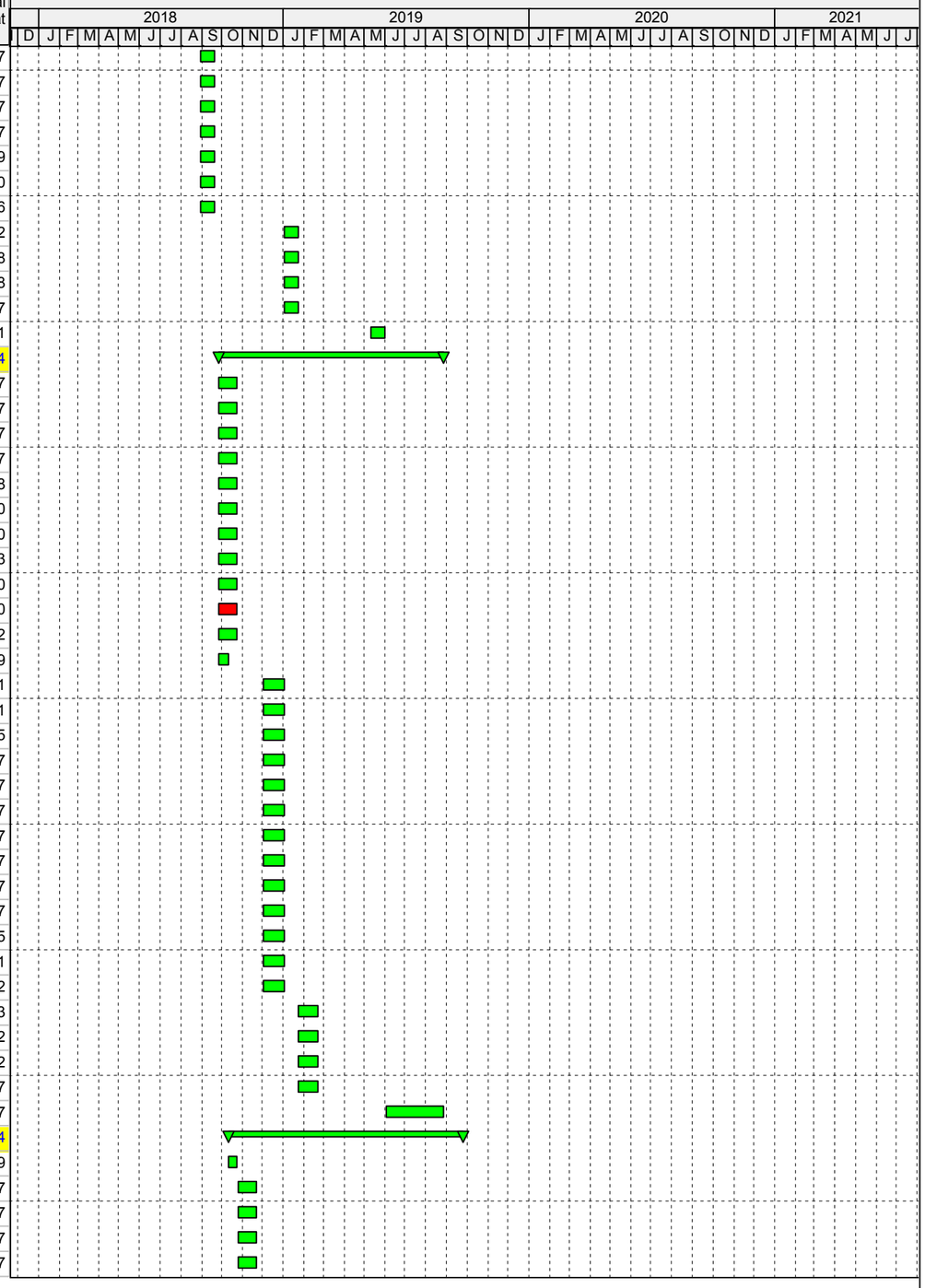
SKANSKA

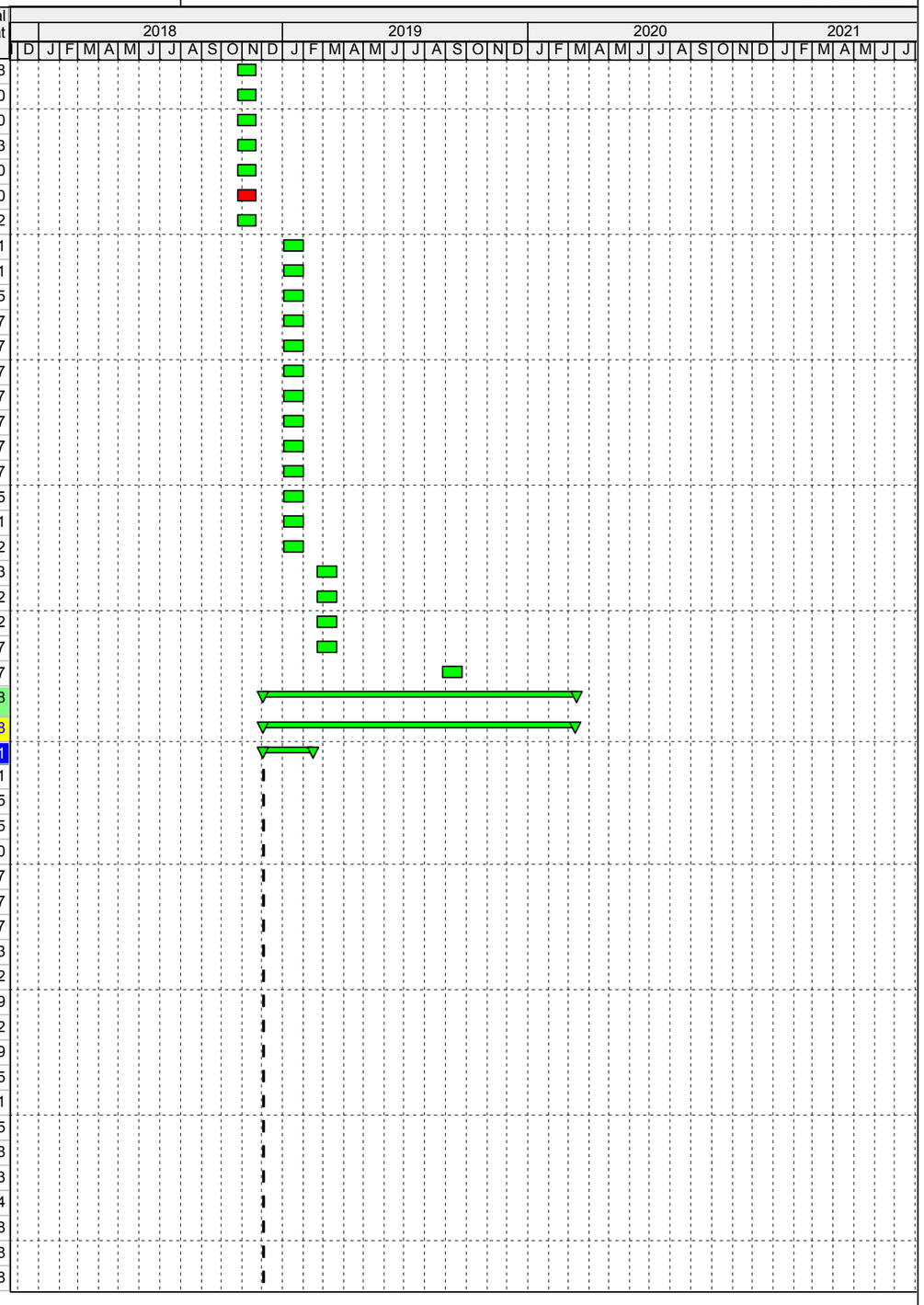
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
A2160000	APPROVE 216—WATER FOR USE WITH CEMENT OR LIME	21	08-31-18	09-20-18	287
A2170000	APPROVE 217—HYDRAULIC CEMENT CONCRETE	21	08-31-18	09-20-18	287
A2180000	APPROVE 218—HYDRAULIC CEMENT MORTAR AND GROUT	21	08-31-18	09-20-18	287
A2200000	APPROVE 220—CONCRETE CURING MATERIALS	21	08-31-18	09-20-18	287
A2210000	APPROVE 221—GUARDRAIL	21	08-31-18	09-20-18	299
A2310000	APPROVE 231—PAINT	21	08-31-18	09-20-18	420
A2460000	APPROVE 246—PAVEMENT MARKING	21	08-31-18	09-20-18	516
A2230000	APPROVE 223—STEEL REINFORCEMENT	21	01-03-19	01-23-19	162
A2240000	APPROVE 224—CASTINGS	21	01-03-19	01-23-19	18
A2280000	APPROVE 228—STEEL PILES	21	01-03-19	01-23-19	18
A2370000	APPROVE 237—STRUCTURE BEDDING MATERIAL AND BEARING PADS	21	01-03-19	01-23-19	617
A2260000	APPROVE 226—STRUCTURAL STEEL	21	05-11-19	05-31-19	111
FABRICATION		229	09-27-18	08-26-19	464
F2020000	FABRICATE 202—FINE AGGREGATE	20	09-27-18	10-24-18	117
F2030000	FABRICATE 203—COARSE AGGREGATE	20	09-27-18	10-24-18	117
F2050000	FABRICATE 205—CRUSHER RUN AGGREGATE	20	09-27-18	10-24-18	117
F2060000	FABRICATE 206—LIGHTWEIGHT AGGREGATE	20	09-27-18	10-24-18	117
F2070000	FABRICATE 207—SELECT MATERIAL	20	09-27-18	10-24-18	68
F2080000	FABRICATE 208—SUBBASE AND AGGREGATE BASE MATERIAL	20	09-27-18	10-24-18	120
F2090000	FABRICATE 209—OPEN-GRADED SHOULDER MATERIAL	20	09-27-18	10-24-18	120
F2190000	FABRICATE 219—RIGHT-OF-WAY MONUMENTS	20	09-27-18	10-24-18	673
F2320000	FABRICATE 232—PIPE AND PIPE ARCHES	20	09-27-18	10-24-18	160
F2380000	FABRICATE 238—ELECTRICAL AND SIGNAL COMPONENTS	20	09-27-18	10-24-18	0
F2420000	FABRICATE 242—FENCES	20	09-27-18	10-24-18	462
F2440000	FABRICATE 244—ROADSIDE DEVELOPMENT MATERIALS	10	09-27-18	10-10-18	9
F2100000	FABRICATE 210—ASPHALT MATERIALS	20	12-03-18	01-02-19	81
F2110000	FABRICATE 211—ASPHALT CONCRETE	20	12-03-18	01-02-19	81
F2120000	FABRICATE 212—JOINT MATERIALS	20	12-03-18	01-02-19	215
F2130000	FABRICATE 213—DAMP-PROOFING AND WATERPROOFING MATERIALS	20	12-03-18	01-02-19	147
F2140000	FABRICATE 214—HYDRAULIC CEMENT	20	12-03-18	01-02-19	147
F2150000	FABRICATE 215—HYDRAULIC CEMENT CONCRETE ADMIXTURES	20	12-03-18	01-02-19	147
F2160000	FABRICATE 216—WATER FOR USE WITH CEMENT OR LIME	20	12-03-18	01-02-19	147
F2170000	FABRICATE 217—HYDRAULIC CEMENT CONCRETE	20	12-03-18	01-02-19	147
F2180000	FABRICATE 218—HYDRAULIC CEMENT MORTAR AND GROUT	20	12-03-18	01-02-19	147
F2200000	FABRICATE 220—CONCRETE CURING MATERIALS	20	12-03-18	01-02-19	147
F2210000	FABRICATE 221—GUARDRAIL	20	12-03-18	01-02-19	155
F2310000	FABRICATE 231—PAINT	20	12-03-18	01-02-19	241
F2460000	FABRICATE 246—PAVEMENT MARKING	20	12-03-18	01-02-19	302
F2230000	FABRICATE 223—STEEL REINFORCEMENT	20	01-24-19	02-21-19	113
F2240000	FABRICATE 224—CASTINGS	20	01-24-19	02-21-19	12
F2280000	FABRICATE 228—STEEL PILES	20	01-24-19	02-21-19	12
F2370000	FABRICATE 237—STRUCTURE BEDDING MATERIAL AND BEARING PADS	20	01-24-19	02-21-19	427
F2260000	FABRICATE 226—STRUCTURAL STEEL	60	06-03-19	08-26-19	77
DELIVERY		239	10-11-18	09-24-19	464
D2440000	DELIVER 244—ROADSIDE DEVELOPMENT MATERIALS	10	10-11-18	10-24-18	9
D2020000	DELIVER 202—FINE AGGREGATE	20	10-25-18	11-21-18	117
D2030000	DELIVER 203—COARSE AGGREGATE	20	10-25-18	11-21-18	117
D2050000	DELIVER 205—CRUSHER RUN AGGREGATE	20	10-25-18	11-21-18	117
D2060000	DELIVER 206—LIGHTWEIGHT AGGREGATE	20	10-25-18	11-21-18	117



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
D2070000	DELIVER 207—SELECT MATERIAL	20	10-25-18	11-21-18	68
D2080000	DELIVER 208—SUBBASE AND AGGREGATE BASE MATERIAL	20	10-25-18	11-21-18	120
D2090000	DELIVER 209—OPEN-GRADED SHOULDER MATERIAL	20	10-25-18	11-21-18	120
D2190000	DELIVER 219—RIGHT-OF-WAY MONUMENTS	20	10-25-18	11-21-18	673
D2320000	DELIVER 232—PIPE AND PIPE ARCHES	20	10-25-18	11-21-18	160
D2380000	DELIVER 238—ELECTRICAL AND SIGNAL COMPONENTS	20	10-25-18	11-21-18	0
D2420000	DELIVER 242—FENCES	20	10-25-18	11-21-18	462
D2100000	DELIVER 210—ASPHALT MATERIALS	20	01-03-19	01-31-19	81
D2110000	DELIVER 211—ASPHALT CONCRETE	20	01-03-19	01-31-19	81
D2120000	DELIVER 212—JOINT MATERIALS	20	01-03-19	01-31-19	215
D2130000	DELIVER 213—DAMP-PROOFING AND WATERPROOFING MATERIALS	20	01-03-19	01-31-19	147
D2140000	DELIVER 214—HYDRAULIC CEMENT	20	01-03-19	01-31-19	147
D2150000	DELIVER 215—HYDRAULIC CEMENT CONCRETE ADMIXTURES	20	01-03-19	01-31-19	147
D2160000	DELIVER 216—WATER FOR USE WITH CEMENT OR LIME	20	01-03-19	01-31-19	147
D2170000	DELIVER 217—HYDRAULIC CEMENT CONCRETE	20	01-03-19	01-31-19	147
D2180000	DELIVER 218—HYDRAULIC CEMENT MORTAR AND GROUT	20	01-03-19	01-31-19	147
D2200000	DELIVER 220—CONCRETE CURING MATERIALS	20	01-03-19	01-31-19	147
D2210000	DELIVER 221—GUARDRAIL	20	01-03-19	01-31-19	155
D2310000	DELIVER 231—PAINT	20	01-03-19	01-31-19	241
D2460000	DELIVER 246—PAVEMENT MARKING	20	01-03-19	01-31-19	302
D2230000	DELIVER 223—STEEL REINFORCEMENT	20	02-22-19	03-21-19	113
D2240000	DELIVER 224—CASTINGS	20	02-22-19	03-21-19	12
D2280000	DELIVER 228—STEEL PILES	20	02-22-19	03-21-19	12
D2370000	DELIVER 237—STRUCTURE BEDDING MATERIAL AND BEARING PADS	20	02-22-19	03-21-19	427
D2260000	DELIVER 226—STRUCTURAL STEEL	20	08-27-19	09-24-19	77
PRECAST		320	12-03-18	01-03-20	98
FABRICATE		319	12-03-18	01-02-20	98
TEST PILES		51	12-03-18	02-15-19	251
FWBMHB.400.TP.0A	FABRICATE TEST PILE WB MILITARY HWY ABUTMENT A	1	12-03-18	12-03-18	141
FWBMHB.400.TP.0B	FABRICATE TEST PILE WB MILITARY HWY ABUTMENT B	1	12-03-18	12-03-18	155
FEBMHB.400.TP.0A	FABRICATE TEST PILE EB MILITARY HWY ABUTMENT A	1	12-03-18	12-03-18	145
FEBMHB.400.TP.0B	FABRICATE TEST PILE EB MILITARY HWY ABUTMENT B	1	12-03-18	12-03-18	150
FWBYRB.400.TP.0A	FABRICATE TEST PILE WB YADKIN ABUTMENT A	1	12-03-18	12-03-18	277
FWBYRB.400.TP.0B	FABRICATE TEST PILE WB YADKIN ABUTMENT B	1	12-03-18	12-03-18	297
FEBYRB.400.TP.0A	FABRICATE TEST PILE EB YADKIN ABUTMENT A	1	12-03-18	12-03-18	287
FEBYRB.400.TP.0B	FABRICATE TEST PILE EB YADKIN ABUTMENT B	1	12-03-18	12-03-18	293
FWBYRB.400.TP.01	FABRICATE TEST PILE WB YADKIN PIER 01	1	12-03-18	12-03-18	262
FWBYRB.400.TP.02	FABRICATE TEST PILE WB YADKIN PIER 02	1	12-03-18	12-03-18	279
FWBYRB.400.TP.03	FABRICATE TEST PILE WB YADKIN PIER 03	1	12-03-18	12-03-18	282
FEBYRB.400.TP.01	FABRICATE TEST PILE EB YADKIN PIER 01	1	12-03-18	12-03-18	269
FEBYRB.400.TP.02	FABRICATE TEST PILE EB YADKIN PIER 02	1	12-03-18	12-03-18	275
FEBYRB.400.TP.03	FABRICATE TEST PILE EB YADKIN PIER 03	1	12-03-18	12-03-18	301
FWBSRB.400.TP.0A	FABRICATE TEST PILE WB SHELL ABUTMENT A	1	12-03-18	12-03-18	265
FWBSRB.400.TP.0B	FABRICATE TEST PILE WB SHELL ABUTMENT B	1	12-03-18	12-03-18	288
FEBSRB.400.TP.0A	FABRICATE TEST PILE EB SHELL ABUTMENT A	1	12-03-18	12-03-18	273
FEBSRB.400.TP.0B	FABRICATE TEST PILE EB SHELL ABUTMENT B	1	12-03-18	12-03-18	284
FWBSRB.400.TP.01	FABRICATE TEST PILE WB SHELL PIER 01	1	12-03-18	12-03-18	268
FWBSRB.400.TP.02	FABRICATE TEST PILE WB SHELL PIER 02	1	12-03-18	12-03-18	298
FEBSRB.400.TP.01	FABRICATE TEST PILE EB SHELL PIER 01	1	12-03-18	12-03-18	278



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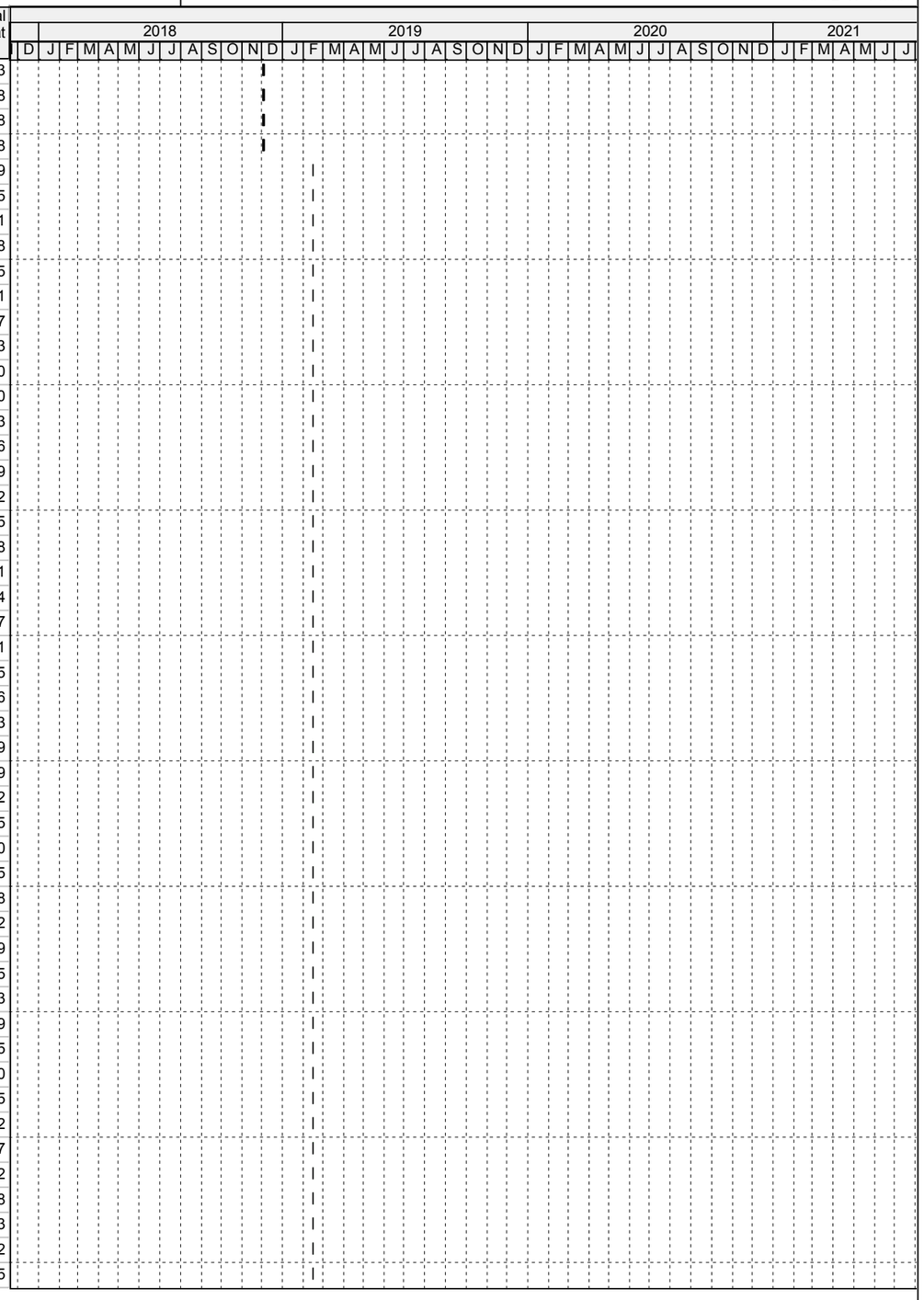
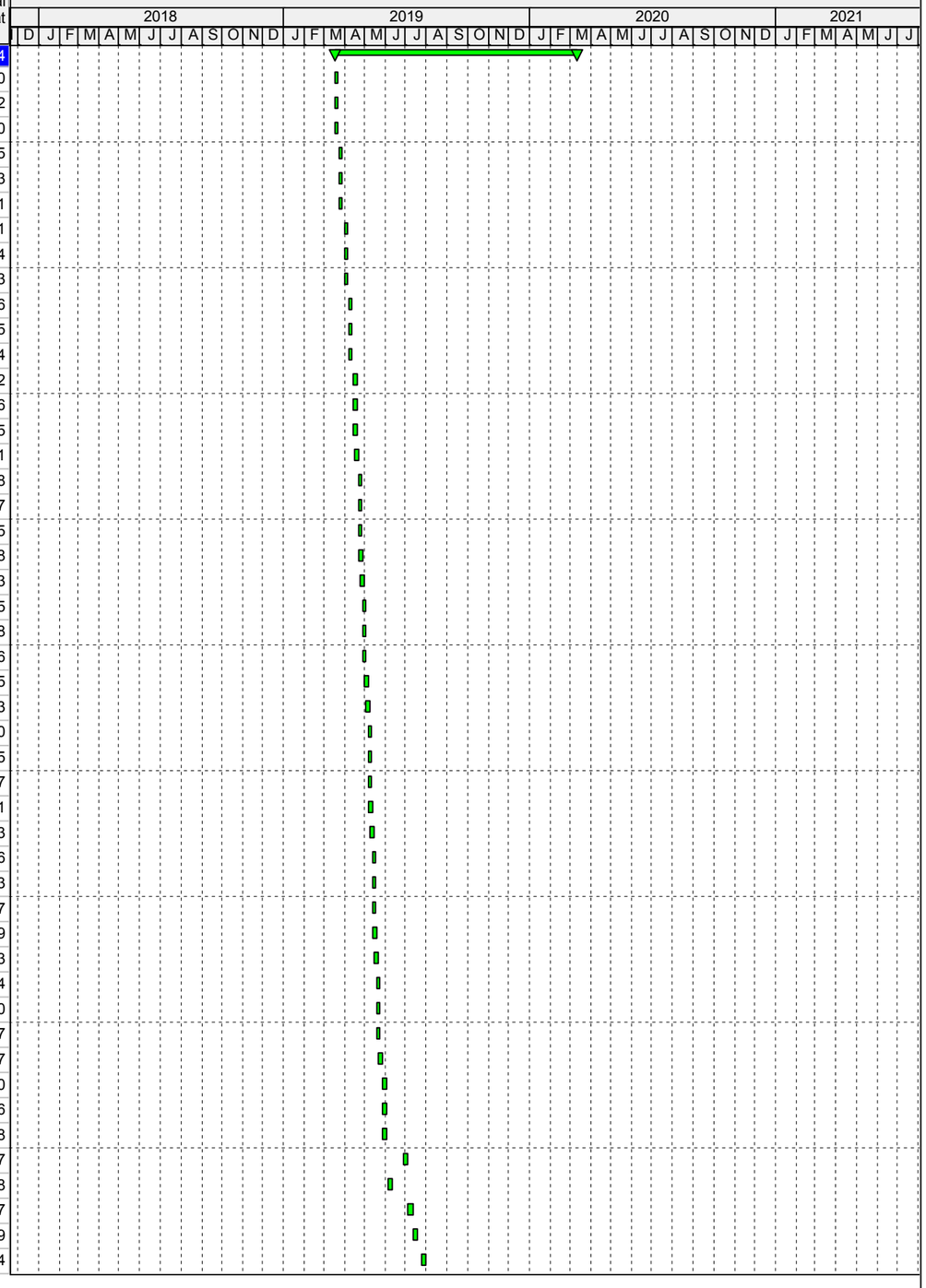
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
FEBSRB.400.TP.02	FABRICATE TEST PILE EB SHELL PIER 02	1	12-03-18	12-03-18	293
FGBOP.400.TP.0A	FABRICATE TEST PILE GREAT BRIDGE ABUTMENT A	1	12-03-18	12-03-18	268
FGBOP.400.TP.0B	FABRICATE TEST PILE GREAT BRIDGE ABUTMENT B	1	12-03-18	12-03-18	278
FGBOP.400.TP.01	FABRICATE TEST PILE GREAT BRIDGE PIER 01	1	12-03-18	12-03-18	258
FWBHRB.400.TP.01	FABRICATE TEST PILE HRB 01	1	02-15-19	02-15-19	79
FWBHRB.400.TP.02	FABRICATE TEST PILE HRB 02	1	02-15-19	02-15-19	75
FWBHRB.400.TP.03	FABRICATE TEST PILE HRB 03	1	02-15-19	02-15-19	71
FWBHRB.400.TP.04	FABRICATE TEST PILE HRB 04	1	02-15-19	02-15-19	68
FWBHRB.400.TP.05	FABRICATE TEST PILE HRB 05	1	02-15-19	02-15-19	65
FWBHRB.400.TP.06	FABRICATE TEST PILE HRB 06	1	02-15-19	02-15-19	61
FWBHRB.400.TP.07	FABRICATE TEST PILE HRB 07	1	02-15-19	02-15-19	57
FWBHRB.400.TP.08	FABRICATE TEST PILE HRB 08	1	02-15-19	02-15-19	53
FWBHRB.400.TP.09	FABRICATE TEST PILE HRB 09	1	02-15-19	02-15-19	50
FWBHRB.400.TP.10	FABRICATE TEST PILE HRB 10	1	02-15-19	02-15-19	0
FWBHRB.400.TP.11	FABRICATE TEST PILE HRB 11	1	02-15-19	02-15-19	3
FWBHRB.400.TP.12	FABRICATE TEST PILE HRB 12	1	02-15-19	02-15-19	6
FWBHRB.400.TP.13	FABRICATE TEST PILE HRB 13	1	02-15-19	02-15-19	9
FWBHRB.400.TP.14	FABRICATE TEST PILE HRB 14	1	02-15-19	02-15-19	12
FWBHRB.400.TP.15	FABRICATE TEST PILE HRB 15	1	02-15-19	02-15-19	15
FWBHRB.400.TP.16	FABRICATE TEST PILE HRB 16	1	02-15-19	02-15-19	18
FWBHRB.400.TP.17	FABRICATE TEST PILE HRB 17	1	02-15-19	02-15-19	21
FWBHRB.400.TP.18	FABRICATE TEST PILE HRB 18	1	02-15-19	02-15-19	24
FWBHRB.400.TP.19	FABRICATE TEST PILE HRB 19	1	02-15-19	02-15-19	27
FWBHRB.400.TP.20	FABRICATE TEST PILE HRB 20	1	02-15-19	02-15-19	31
FWBHRB.400.TP.21	FABRICATE TEST PILE HRB 21	1	02-15-19	02-15-19	135
FWBHRB.400.TP.22	FABRICATE TEST PILE HRB 22	1	02-15-19	02-15-19	126
FWBHRB.400.TP.23	FABRICATE TEST PILE HRB 23	1	02-15-19	02-15-19	113
FWBHRB.400.TP.24	FABRICATE TEST PILE HRB 24	1	02-15-19	02-15-19	99
FWBHRB.400.TP.25	FABRICATE TEST PILE HRB 25	1	02-15-19	02-15-19	89
FWBHRB.400.TP.26	FABRICATE TEST PILE HRB 26	1	02-15-19	02-15-19	82
FWBHRB.400.TP.27	FABRICATE TEST PILE HRB 27	1	02-15-19	02-15-19	75
FWBHRB.400.TP.28	FABRICATE TEST PILE HRB 28	1	02-15-19	02-15-19	70
FWBHRB.400.TP.29	FABRICATE TEST PILE HRB 29	1	02-15-19	02-15-19	65
FWBHRB.400.TP.30	FABRICATE TEST PILE HRB 30	1	02-15-19	02-15-19	58
FWBHRB.400.TP.31	FABRICATE TEST PILE HRB 31	1	02-15-19	02-15-19	52
FWBHRB.400.TP.32	FABRICATE TEST PILE HRB 32	1	02-15-19	02-15-19	99
FWBHRB.400.TP.33	FABRICATE TEST PILE HRB 33	1	02-15-19	02-15-19	105
FWBHRB.400.TP.34	FABRICATE TEST PILE HRB 34	1	02-15-19	02-15-19	113
FWBHRB.400.TP.35	FABRICATE TEST PILE HRB 35	1	02-15-19	02-15-19	119
FWBHRB.400.TP.36	FABRICATE TEST PILE HRB 36	1	02-15-19	02-15-19	125
FWBHRB.400.TP.37	FABRICATE TEST PILE HRB 37	1	02-15-19	02-15-19	130
FWBHRB.400.TP.38	FABRICATE TEST PILE HRB 38	1	02-15-19	02-15-19	135
FWBHRB.400.TP.39	FABRICATE TEST PILE HRB 39	1	02-15-19	02-15-19	142
FWBHRB.400.TP.40	FABRICATE TEST PILE HRB 40	1	02-15-19	02-15-19	147
FWBHRB.400.TP.41	FABRICATE TEST PILE HRB 41	1	02-15-19	02-15-19	152
FWBHRB.400.TP.42	FABRICATE TEST PILE HRB 42	1	02-15-19	02-15-19	158
FWBHRB.400.TP.43	FABRICATE TEST PILE HRB 43	1	02-15-19	02-15-19	163
FWBHRB.400.TP.0A	FABRICATE TEST PILE HRB ABUTMENT A	1	02-15-19	02-15-19	82
FWBHRB.400.TP.OB	FABRICATE TEST PILE HRB ABUTMENT B	1	02-15-19	02-15-19	195



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PRODUCTION PILES		249	03-18-19	01-02-20	74
FWBHRB.400.PP.10	FAB PRODUCTION PILE HRB 10	5	03-18-19	03-22-19	10
FWBHRB.400.PP.31	FAB PRODUCTION PILE HRB 31	5	03-18-19	03-22-19	52
FWBHRB.400.PP.32	FAB PRODUCTION PILE HRB 32	5	03-18-19	03-22-19	100
FWBHRB.400.PP.11	FAB PRODUCTION PILE HRB 11	5	03-25-19	03-29-19	15
FWBHRB.400.PP.30	FAB PRODUCTION PILE HRB 30	5	03-25-19	03-29-19	53
FWBHRB.400.PP.33	FAB PRODUCTION PILE HRB 33	5	03-25-19	03-29-19	101
FWBHRB.400.PP.12	FAB PRODUCTION PILE HRB 12	5	04-01-19	04-05-19	21
FWBHRB.400.PP.29	FAB PRODUCTION PILE HRB 29	5	04-01-19	04-05-19	54
FWBHRB.400.PP.34	FAB PRODUCTION PILE HRB 34	5	04-01-19	04-05-19	103
FWBHRB.400.PP.13	FAB PRODUCTION PILE HRB 13	5	04-08-19	04-12-19	26
FWBHRB.400.PP.28	FAB PRODUCTION PILE HRB 28	5	04-08-19	04-12-19	55
FWBHRB.400.PP.35	FAB PRODUCTION PILE HRB 35	5	04-08-19	04-12-19	104
FWBHRB.400.PP.14	FAB PRODUCTION PILE HRB 14	5	04-15-19	04-19-19	32
FWBHRB.400.PP.27	FAB PRODUCTION PILE HRB 27	5	04-15-19	04-19-19	56
FWBHRB.400.PP.36	FAB PRODUCTION PILE HRB 36	5	04-15-19	04-19-19	105
FWBHRB.400.PP.09	FAB PRODUCTION PILE HRB 09	5	04-16-19	04-22-19	41
FWBHRB.400.PP.15	FAB PRODUCTION PILE HRB 15	5	04-22-19	04-26-19	38
FWBHRB.400.PP.26	FAB PRODUCTION PILE HRB 26	5	04-22-19	04-26-19	57
FWBHRB.400.PP.37	FAB PRODUCTION PILE HRB 37	5	04-22-19	04-26-19	105
FWBHRB.400.PP.08	FAB PRODUCTION PILE HRB 08	5	04-23-19	04-29-19	48
FWBMHB.400.PP.0A	FAB PRODUCTION PILE WB MILITARY HWY ABUTMENT A	5	04-25-19	05-01-19	63
FWBHRB.400.PP.16	FAB PRODUCTION PILE HRB 16	5	04-29-19	05-03-19	45
FWBHRB.400.PP.25	FAB PRODUCTION PILE HRB 25	5	04-29-19	05-03-19	58
FWBHRB.400.PP.38	FAB PRODUCTION PILE HRB 38	5	04-29-19	05-03-19	106
FWBHRB.400.PP.07	FAB PRODUCTION PILE HRB 07	5	04-30-19	05-06-19	55
FEBMHB.400.PP.0A	FAB PRODUCTION PILE EB MILITARY HWY ABUTMENT A	5	05-02-19	05-08-19	63
FWBHRB.400.PP.17	FAB PRODUCTION PILE HRB 17	5	05-06-19	05-10-19	50
FWBHRB.400.PP.24	FAB PRODUCTION PILE HRB 24	5	05-06-19	05-10-19	65
FWBHRB.400.PP.39	FAB PRODUCTION PILE HRB 39	5	05-06-19	05-10-19	107
FWBHRB.400.PP.06	FAB PRODUCTION PILE HRB 06	5	05-07-19	05-13-19	61
FEBMHB.400.PP.0B	FAB PRODUCTION PILE EB MILITARY HWY ABUTMENT B	5	05-09-19	05-15-19	63
FWBHRB.400.PP.18	FAB PRODUCTION PILE HRB 18	5	05-13-19	05-17-19	56
FWBHRB.400.PP.23	FAB PRODUCTION PILE HRB 23	5	05-13-19	05-17-19	73
FWBHRB.400.PP.40	FAB PRODUCTION PILE HRB 40	5	05-13-19	05-17-19	107
FWBHRB.400.PP.05	FAB PRODUCTION PILE HRB 05	5	05-14-19	05-20-19	69
FWBMHB.400.PP.0B	FAB PRODUCTION PILE WB MILITARY HWY ABUTMENT B	5	05-16-19	05-22-19	63
FWBHRB.400.PP.19	FAB PRODUCTION PILE HRB 19	5	05-20-19	05-24-19	74
FWBHRB.400.PP.22	FAB PRODUCTION PILE HRB 22	5	05-20-19	05-24-19	80
FWBHRB.400.PP.41	FAB PRODUCTION PILE HRB 41	5	05-20-19	05-24-19	107
FWBHRB.400.PP.04	FAB PRODUCTION PILE HRB 04	5	05-21-19	05-28-19	77
FWBHRB.400.PP.20	FAB PRODUCTION PILE HRB 20	5	05-28-19	06-03-19	90
FWBHRB.400.PP.21	FAB PRODUCTION PILE HRB 21	5	05-28-19	06-03-19	86
FWBHRB.400.PP.42	FAB PRODUCTION PILE HRB 42	5	05-28-19	06-03-19	108
FWBHRB.400.PP.03	FAB PRODUCTION PILE HRB 03	5	05-29-19	06-04-19	107
FWBHRB.400.PP.43	FAB PRODUCTION PILE HRB 43	5	06-04-19	06-10-19	108
FWBHRB.400.PP.02	FAB PRODUCTION PILE HRB 02	5	06-05-19	06-11-19	107
FWBHRB.400.PP.01	FAB PRODUCTION PILE HRB 01	5	06-12-19	06-18-19	129
FWBHRB.400.PP.OB	FAB PRODUCTION PILE HRB ABUTMENT B	5	07-25-19	07-31-19	104



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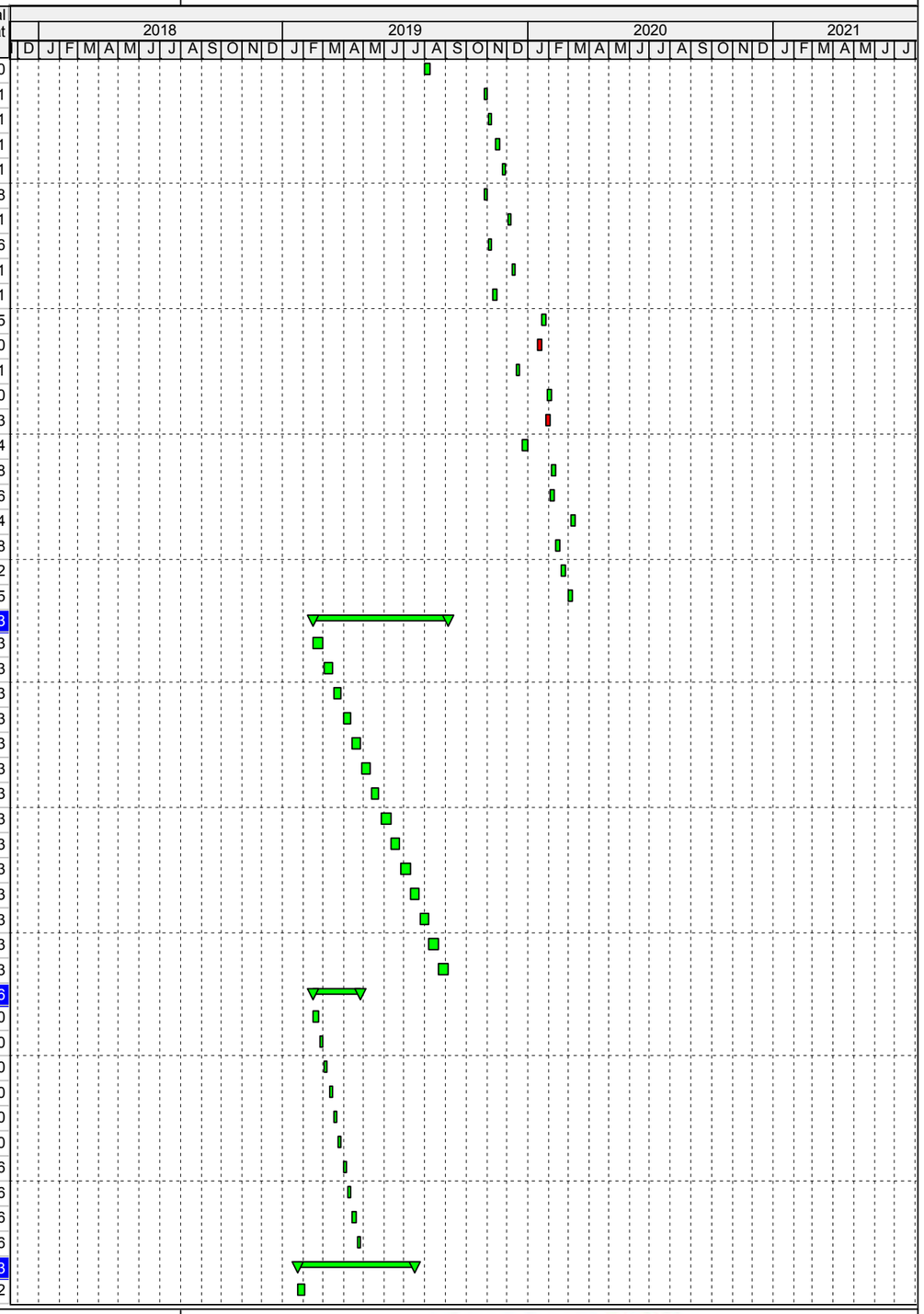
SKANSKA

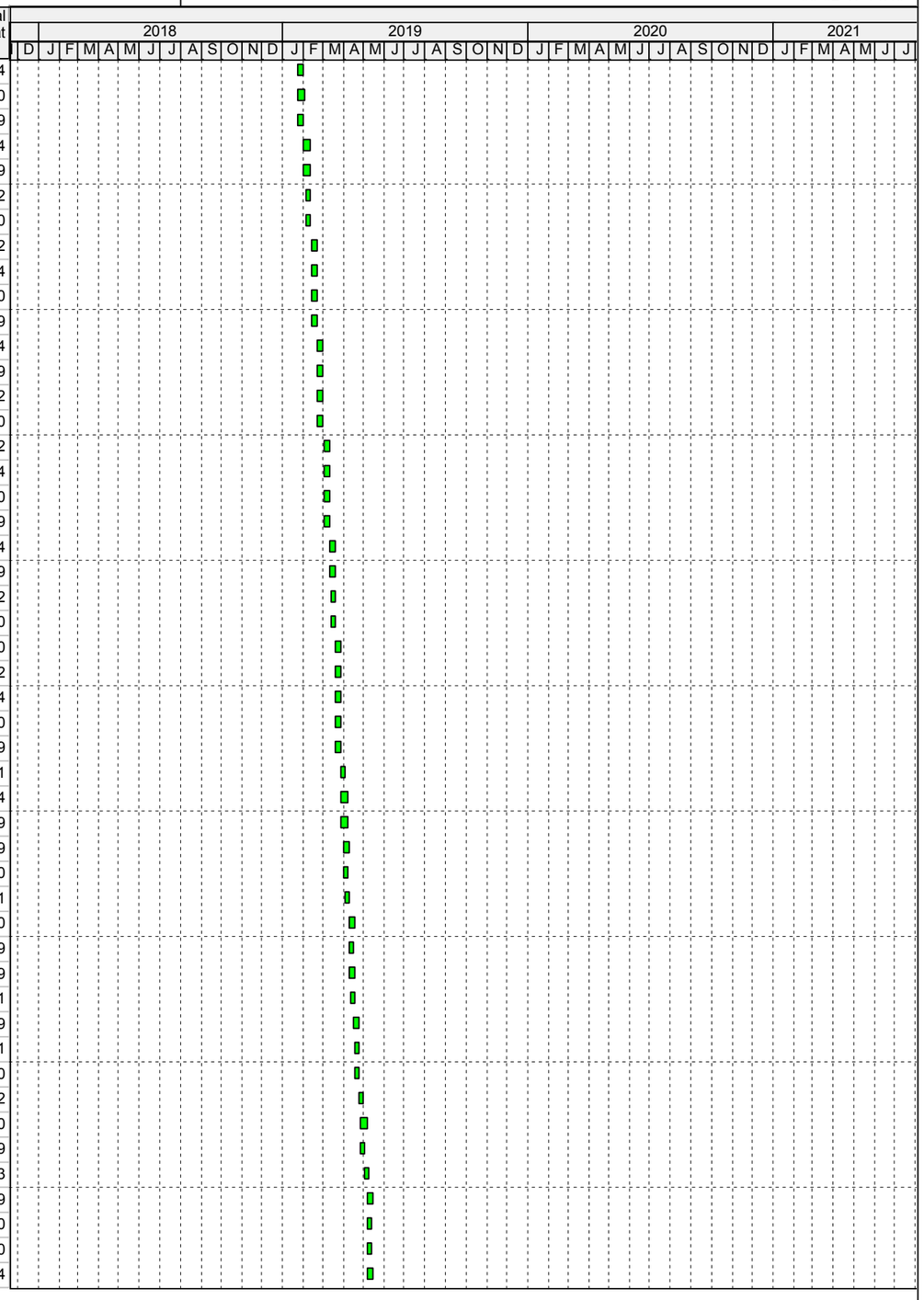
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
FWBHRB.400.PP.0A	FAB PRODUCTION PILE HRB ABUTMENT A	5	08-01-19	08-07-19	110
FWBSRB.400.PP.0A	FAB PRODUCTION PILE WB SHELL ABUTMENT A	5	10-07-19	10-11-19	71
FWBSRB.400.PP.01	FAB PRODUCTION PILE WB SHELL PIER 01	5	10-14-19	10-18-19	71
FEBSRB.400.PP.0A	FAB PRODUCTION PILE EB SHELL ABUTMENT A	5	10-21-19	10-25-19	71
FEBSRB.400.PP.01	FAB PRODUCTION PILE EB SHELL PIER 01	5	10-28-19	11-01-19	71
FGBOP.400.PP.01	FAB PRODUCTION PILE GREAT BRIDGE PIER 01	5	10-28-19	11-01-19	48
FEBSRB.400.PP.0B	FAB PRODUCTION PILE EB SHELL ABUTMENT B	5	11-04-19	11-08-19	71
FGBOP.400.PP.0A	FAB PRODUCTION PILE GREAT BRIDGE ABUTMENT A	5	11-04-19	11-08-19	56
FWBSRB.400.PP.0B	FAB PRODUCTION PILE WB SHELL ABUTMENT B	5	11-11-19	11-15-19	71
FGBOP.400.PP.0B	FAB PRODUCTION PILE GREAT BRIDGE ABUTMENT B	5	11-11-19	11-15-19	61
FWBYRB.400.PP.0A	FAB PRODUCTION PILE WB YADKIN ABUTMENT A	5	11-15-19	11-25-19	55
FWBYRB.400.PP.01	FAB PRODUCTION PILE WB YADKIN PIER 01	5	11-15-19	11-25-19	40
FEBSRB.400.PP.02	FAB PRODUCTION PILE EB SHELL PIER 02	5	11-18-19	11-26-19	71
FEBYRB.400.PP.0A	FAB PRODUCTION PILE EB YADKIN ABUTMENT A	5	11-26-19	12-02-19	60
FEBYRB.400.PP.01	FAB PRODUCTION PILE EB YADKIN PIER 01	5	11-26-19	12-02-19	43
FWBSRB.400.PP.02	FAB PRODUCTION PILE WB SHELL PIER 02	5	11-27-19	12-03-19	74
FEBYRB.400.PP.0B	FAB PRODUCTION PILE EB YADKIN ABUTMENT B	5	12-03-19	12-09-19	78
FEBYRB.400.PP.02	FAB PRODUCTION PILE EB YADKIN PIER 02	5	12-03-19	12-09-19	46
FWBYRB.400.PP.0B	FAB PRODUCTION PILE WB YADKIN ABUTMENT B	5	12-10-19	12-16-19	84
FWBYRB.400.PP.02	FAB PRODUCTION PILE WB YADKIN PIER 02	5	12-10-19	12-16-19	48
FWBYRB.400.PP.03	FAB PRODUCTION PILE WB YADKIN PIER 03	5	12-17-19	12-23-19	52
FEBYRB.400.PP.03	FAB PRODUCTION PILE EB YADKIN PIER 03	5	12-24-19	01-02-20	55
FOOTINGS		140	02-15-19	09-04-19	43
FWBHRB.400.FT.09	FAB FOOTINGS HRB 09	10	02-15-19	03-01-19	43
FWBHRB.400.FT.10	FAB FOOTINGS HRB 10	10	03-04-19	03-15-19	43
FWBHRB.400.FT.11	FAB FOOTINGS HRB 11	10	03-18-19	03-29-19	43
FWBHRB.400.FT.12	FAB FOOTINGS HRB 12	10	04-01-19	04-12-19	43
FWBHRB.400.FT.13	FAB FOOTINGS HRB 13	10	04-15-19	04-26-19	43
FWBHRB.400.FT.14	FAB FOOTINGS HRB 14	10	04-29-19	05-10-19	43
FWBHRB.400.FT.15	FAB FOOTINGS HRB 15	10	05-13-19	05-24-19	43
FWBHRB.400.FT.16	FAB FOOTINGS HRB 16	10	05-28-19	06-10-19	43
FWBHRB.400.FT.17	FAB FOOTINGS HRB 17	10	06-11-19	06-24-19	43
FWBHRB.400.FT.18	FAB FOOTINGS HRB 18	10	06-25-19	07-09-19	43
FWBHRB.400.FT.19	FAB FOOTINGS HRB 19	10	07-10-19	07-23-19	43
FWBHRB.400.FT.20	FAB FOOTINGS HRB 20	10	07-24-19	08-06-19	43
FWBHRB.400.FT.21	FAB FOOTINGS HRB 21	10	08-07-19	08-20-19	43
FWBHRB.400.FT.22	FAB FOOTINGS HRB 22	10	08-21-19	09-04-19	43
STRUTS		50	02-15-19	04-26-19	146
FWBHRB.400.ST.13	FAB PRECAST STRUT 13-1	5	02-15-19	02-22-19	140
FWBHRB.400.ST.14	FAB PRECAST STRUT 14-1	5	02-25-19	03-01-19	140
FWBHRB.400.ST.15	FAB PRECAST STRUT 15-1	5	03-04-19	03-08-19	140
FWBHRB.400.ST.16	FAB PRECAST STRUT 16-1	5	03-11-19	03-15-19	140
FWBHRB.400.ST.17	FAB PRECAST STRUT 17-1	5	03-18-19	03-22-19	140
FWBHRB.400.ST.18	FAB PRECAST STRUT 18-1	5	03-25-19	03-29-19	140
FWBHRB.400.ST.19	FAB PRECAST STRUT 19-1	5	04-01-19	04-05-19	146
FWBHRB.400.ST.20	FAB PRECAST STRUT 20-1	5	04-08-19	04-12-19	146
FWBHRB.400.ST.21	FAB PRECAST STRUT 21-1	5	04-15-19	04-19-19	146
FWBHRB.400.ST.22	FAB PRECAST STRUT 22-1	5	04-22-19	04-26-19	146
GIRDERS		122	01-24-19	07-17-19	213
FWBHRB.400.09	FAB GIRDERS HRB SPAN 09	7	01-24-19	02-01-19	182



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
FWBHRB.400.10	FAB GIRDERS HRB SPAN 10	6	01-24-19	01-31-19	174
FWBHRB.400.32	FAB GIRDERS HRB SPAN 32	7	01-24-19	02-01-19	130
FWBHRB.400.33	FAB GIRDERS HRB SPAN 33	6	01-24-19	01-31-19	189
FWBHRB.400.11	FAB GIRDERS HRB SPAN 11	7	02-01-19	02-11-19	174
FWBHRB.400.34	FAB GIRDERS HRB SPAN 34	7	02-01-19	02-11-19	189
FWBHRB.400.08	FAB GIRDERS HRB SPAN 08	6	02-04-19	02-11-19	182
FWBHRB.400.31	FAB GIRDERS HRB SPAN 31	6	02-04-19	02-11-19	130
FWBHRB.400.07	FAB GIRDERS HRB SPAN 07	7	02-12-19	02-21-19	182
FWBHRB.400.12	FAB GIRDERS HRB SPAN 12	6	02-12-19	02-20-19	174
FWBHRB.400.30	FAB GIRDERS HRB SPAN 30	7	02-12-19	02-21-19	130
FWBHRB.400.35	FAB GIRDERS HRB SPAN 35	6	02-12-19	02-20-19	189
FWBHRB.400.13	FAB GIRDERS HRB SPAN 13	7	02-21-19	03-01-19	174
FWBHRB.400.36	FAB GIRDERS HRB SPAN 36	7	02-21-19	03-01-19	189
FWBHRB.400.06	FAB GIRDERS HRB SPAN 06	6	02-22-19	03-01-19	182
FWBHRB.400.29	FAB GIRDERS HRB SPAN 29	6	02-22-19	03-01-19	130
FWBHRB.400.05	FAB GIRDERS HRB SPAN 05	7	03-04-19	03-12-19	182
FWBHRB.400.14	FAB GIRDERS HRB SPAN 14	6	03-04-19	03-11-19	174
FWBHRB.400.28	FAB GIRDERS HRB SPAN 28	7	03-04-19	03-12-19	130
FWBHRB.400.37	FAB GIRDERS HRB SPAN 37	6	03-04-19	03-11-19	189
FWBHRB.400.15	FAB GIRDERS HRB SPAN 15	7	03-12-19	03-20-19	174
FWBHRB.400.38	FAB GIRDERS HRB SPAN 38	7	03-12-19	03-20-19	189
FWBHRB.400.04	FAB GIRDERS HRB SPAN 04	6	03-13-19	03-20-19	182
FWBHRB.400.27	FAB GIRDERS HRB SPAN 27	6	03-13-19	03-20-19	130
FEBMHB.400.GR.01	FAB GIRDERS EB MILITARY HWY BRIDGE SPAN 01	5	03-21-19	03-27-19	130
FWBHRB.400.03	FAB GIRDERS HRB SPAN 03	7	03-21-19	03-29-19	182
FWBHRB.400.16	FAB GIRDERS HRB SPAN 16	6	03-21-19	03-28-19	174
FWBHRB.400.26	FAB GIRDERS HRB SPAN 26	7	03-21-19	03-29-19	170
FWBHRB.400.39	FAB GIRDERS HRB SPAN 39	6	03-21-19	03-28-19	189
FEBMHB.400.GR.02	FAB GIRDERS EB MILITARY HWY BRIDGE SPAN 02	5	03-28-19	04-03-19	131
FWBHRB.400.17	FAB GIRDERS HRB SPAN 17	7	03-29-19	04-08-19	174
FWBHRB.400.40	FAB GIRDERS HRB SPAN 40	7	03-29-19	04-08-19	189
FWBHRB.400.02	FAB GIRDERS HRB SPAN 02	7	04-01-19	04-09-19	209
FWBHRB.400.25	FAB GIRDERS HRB SPAN 25	6	04-01-19	04-08-19	170
FWBMHB.400.GR.01	FAB GIRDERS WB MILITARY HWY BRIDGE SPAN 01	5	04-04-19	04-10-19	131
FWBHRB.400.24	FAB GIRDERS HRB SPAN 24	7	04-09-19	04-17-19	170
FWBHRB.400.41	FAB GIRDERS HRB SPAN 41	6	04-09-19	04-16-19	189
FWBHRB.400.01	FAB GIRDERS HRB SPAN 01	7	04-10-19	04-18-19	209
FWBMHB.400.GR.02	FAB GIRDERS WB MILITARY HWY BRIDGE SPAN 02	5	04-11-19	04-17-19	131
FWBHRB.400.42	FAB GIRDERS HRB SPAN 42	7	04-17-19	04-25-19	189
FWBMHB.400.GR.03	FAB GIRDERS WB MILITARY HWY BRIDGE SPAN 03	5	04-18-19	04-24-19	131
FWBHRB.400.23	FAB GIRDERS HRB SPAN 23	6	04-18-19	04-25-19	170
FWBMHB.400.GR.04	FAB GIRDERS WB MILITARY HWY BRIDGE SPAN 04	5	04-25-19	05-01-19	132
FWBHRB.400.22	FAB GIRDERS HRB SPAN 22	7	04-26-19	05-06-19	170
FWBHRB.400.43	FAB GIRDERS HRB SPAN 43	6	04-26-19	05-03-19	189
FEBMHB.400.GR.03	FAB GIRDERS EB MILITARY HWY BRIDGE SPAN 03	5	05-02-19	05-08-19	133
FWBHRB.400.44	FAB GIRDERS HRB SPAN 44	7	05-06-19	05-14-19	189
FWBYRB.400.GR.01	FAB GIRDERS WB YADKIN SPAN 01	5	05-07-19	05-13-19	170
FWBSRB.400.GR.01	FAB GIRDERS WB SHELL SPAN 01	5	05-07-19	05-13-19	230
FWBHRB.400.21	FAB GIRDERS HRB SPAN 21	6	05-07-19	05-14-19	174



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
FEBMHB.400.GR.04	FAB GIRDERS EB MILITARY HWY BRIDGE SPAN 04	5	05-09-19	05-15-19	133
FEBYRB.400.GR.01	FAB GIRDERS EB YADKIN SPAN 01	5	05-14-19	05-20-19	170
FEBSRB.400.GR.01	FAB GIRDERS EB SHELL SPAN 01	5	05-14-19	05-20-19	230
FEBYRB.400.GR.02	FAB GIRDERS EB YADKIN SPAN 02	5	05-21-19	05-28-19	170
FEBSRB.400.GR.02	FAB GIRDERS EB SHELL SPAN 02	5	05-21-19	05-28-19	230
FWBYRB.400.GR.02	FAB GIRDERS WB YADKIN SPAN 02	5	05-29-19	06-04-19	170
FWBSRB.400.GR.02	FAB GIRDERS WB SHELL SPAN 02	5	05-29-19	06-04-19	231
FWBYRB.400.GR.03	FAB GIRDERS WB YADKIN SPAN 03	5	06-05-19	06-11-19	170
FWBSRB.400.GR.03	FAB GIRDERS WB SHELL SPAN 03	5	06-05-19	06-11-19	232
FEBYRB.400.GR.03	FAB GIRDERS EB YADKIN SPAN 03	5	06-12-19	06-18-19	170
FEBSRB.400.GR.03	FAB GIRDERS EB SHELL SPAN 03	5	06-12-19	06-18-19	233
FEBYRB.400.GR.04	FAB GIRDERS EB YADKIN SPAN 04	5	06-19-19	06-25-19	170
FWBYRB.400.GR.04	FAB GIRDERS WB YADKIN SPAN 04	5	06-26-19	07-02-19	170
FGBOP.400.GR.01	FAB GIRDERS GREAT BRIDGE SPAN 01	5	07-03-19	07-10-19	170
FGBOP.400.GR.02	FAB GIRDERS GREAT BRIDGE SPAN 02	5	07-11-19	07-17-19	170
DELIVERY		319	12-04-18	01-03-20	98
TEST PILES		51	12-04-18	02-19-19	251
DWBMHB.400.TP.0A	DELIVER TEST PILE WB MILITARY HWY ABUTMENT A	1	12-04-18	12-04-18	141
DWBMHB.400.TP.0B	DELIVER TEST PILE WB MILITARY HWY ABUTMENT B	1	12-04-18	12-04-18	155
DEBMHB.400.TP.0A	DELIVER TEST PILE EB MILITARY HWY ABUTMENT A	1	12-04-18	12-04-18	145
DEBMHB.400.TP.0B	DELIVER TEST PILE EB MILITARY HWY ABUTMENT B	1	12-04-18	12-04-18	150
DWBYRB.400.TP.0A	DELIVER TEST PILE WB YADKIN ABUTMENT A	1	12-04-18	12-04-18	277
DWBYRB.400.TP.0B	DELIVER TEST PILE WB YADKIN ABUTMENT B	1	12-04-18	12-04-18	297
DEBYRB.400.TP.0A	DELIVER TEST PILE EB YADKIN ABUTMENT A	1	12-04-18	12-04-18	287
DEBYRB.400.TP.0B	DELIVER TEST PILE EB YADKIN ABUTMENT B	1	12-04-18	12-04-18	293
DWBYRB.400.TP.01	DELIVER TEST PILE WB YADKIN PIER 01	1	12-04-18	12-04-18	262
DWBYRB.400.TP.02	DELIVER TEST PILE WB YADKIN PIER 02	1	12-04-18	12-04-18	279
DWBYRB.400.TP.03	DELIVER TEST PILE WB YADKIN PIER 03	1	12-04-18	12-04-18	282
DEBYRB.400.TP.01	DELIVER TEST PILE EB YADKIN PIER 01	1	12-04-18	12-04-18	269
DEBYRB.400.TP.02	DELIVER TEST PILE EB YADKIN PIER 02	1	12-04-18	12-04-18	275
DEBYRB.400.TP.03	DELIVER TEST PILE EB YADKIN PIER 03	1	12-04-18	12-04-18	301
DWBSRB.400.TP.0A	DELIVER TEST PILE WB SHELL ABUTMENT A	1	12-04-18	12-04-18	265
DWBSRB.400.TP.0B	DELIVER TEST PILE WB SHELL ABUTMENT B	1	12-04-18	12-04-18	288
DEBSRB.400.TP.0A	DELIVER TEST PILE EB SHELL ABUTMENT A	1	12-04-18	12-04-18	273
DEBSRB.400.TP.0B	DELIVER TEST PILE EB SHELL ABUTMENT B	1	12-04-18	12-04-18	284
DWBSRB.400.TP.01	DELIVER TEST PILE WB SHELL PIER 01	1	12-04-18	12-04-18	268
DWBSRB.400.TP.02	DELIVER TEST PILE WB SHELL PIER 02	1	12-04-18	12-04-18	298
DEBSRB.400.TP.01	DELIVER TEST PILE EB SHELL PIER 01	1	12-04-18	12-04-18	278
DEBSRB.400.TP.02	DELIVER TEST PILE EB SHELL PIER 02	1	12-04-18	12-04-18	293
DGBOP.400.TP.0A	DELIVER TEST PILE GREAT BRIDGE ABUTMENT A	1	12-04-18	12-04-18	268
DGBOP.400.TP.0B	DELIVER TEST PILE GREAT BRIDGE ABUTMENT B	1	12-04-18	12-04-18	278
DGBOP.400.TP.01	DELIVER TEST PILE GREAT BRIDGE PIER 01	1	12-04-18	12-04-18	258
DWBHRB.400.TP.01	DELIVER TEST PILE HRB 01	1	02-19-19	02-19-19	79
DWBHRB.400.TP.02	DELIVER TEST PILE HRB 02	1	02-19-19	02-19-19	75
DWBHRB.400.TP.03	DELIVER TEST PILE HRB 03	1	02-19-19	02-19-19	71
DWBHRB.400.TP.04	DELIVER TEST PILE HRB 04	1	02-19-19	02-19-19	68
DWBHRB.400.TP.05	DELIVER TEST PILE HRB 05	1	02-19-19	02-19-19	65
DWBHRB.400.TP.06	DELIVER TEST PILE HRB 06	1	02-19-19	02-19-19	61
DWBHRB.400.TP.07	DELIVER TEST PILE HRB 07	1	02-19-19	02-19-19	57

Date	Revision	Checked	Approved

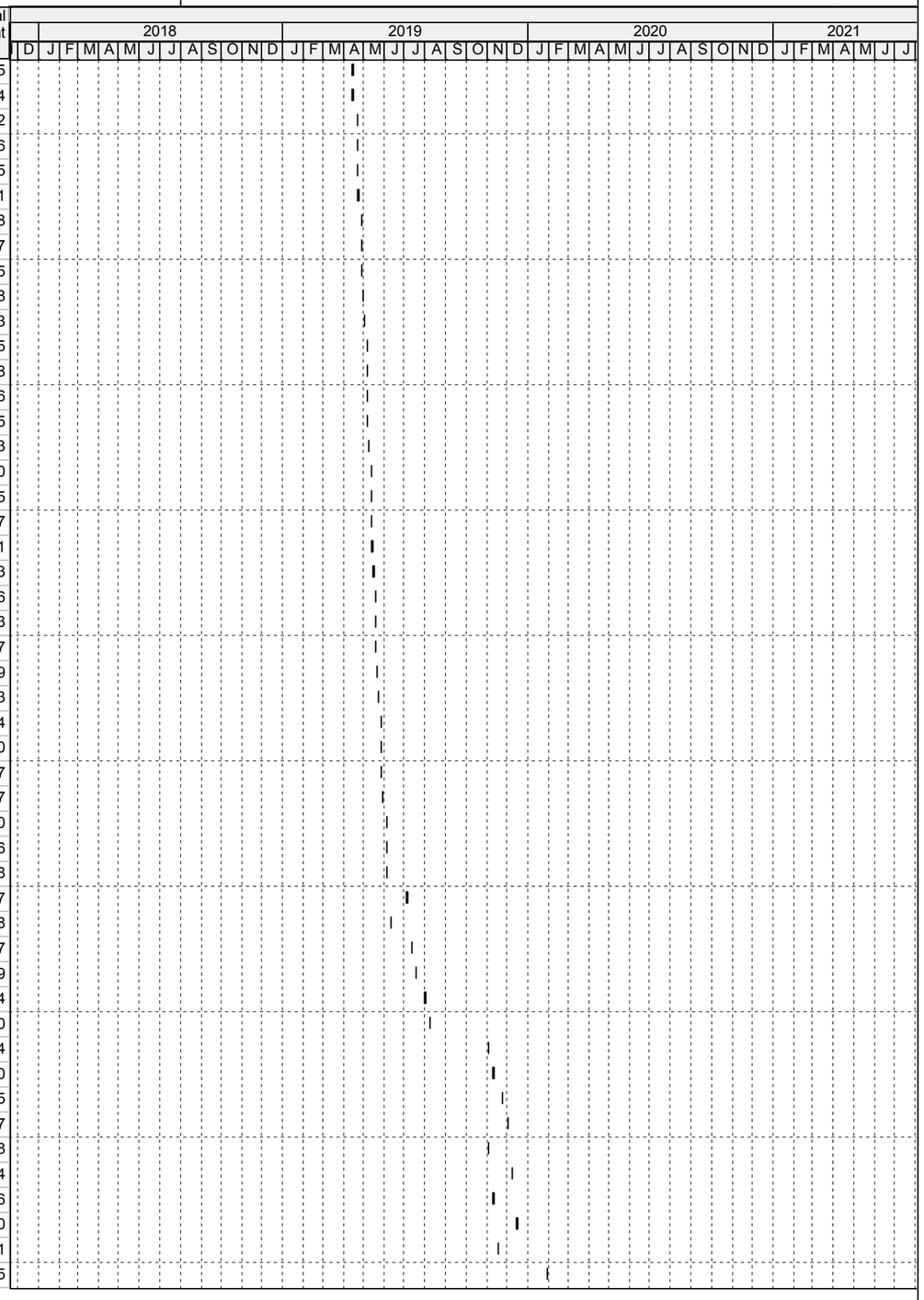
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
DWBHRB.400.TP.08	DELIVER TEST PILE HRB 08	1	02-19-19	02-19-19	53
DWBHRB.400.TP.09	DELIVER TEST PILE HRB 09	1	02-19-19	02-19-19	50
DWBHRB.400.TP.10	DELIVER TEST PILE HRB 10	1	02-19-19	02-19-19	0
DWBHRB.400.TP.11	DELIVER TEST PILE HRB 11	1	02-19-19	02-19-19	3
DWBHRB.400.TP.12	DELIVER TEST PILE HRB 12	1	02-19-19	02-19-19	6
DWBHRB.400.TP.13	DELIVER TEST PILE HRB 13	1	02-19-19	02-19-19	9
DWBHRB.400.TP.14	DELIVER TEST PILE HRB 14	1	02-19-19	02-19-19	12
DWBHRB.400.TP.15	DELIVER TEST PILE HRB 15	1	02-19-19	02-19-19	15
DWBHRB.400.TP.16	DELIVER TEST PILE HRB 16	1	02-19-19	02-19-19	18
DWBHRB.400.TP.17	DELIVER TEST PILE HRB 17	1	02-19-19	02-19-19	21
DWBHRB.400.TP.18	DELIVER TEST PILE HRB 18	1	02-19-19	02-19-19	24
DWBHRB.400.TP.19	DELIVER TEST PILE HRB 19	1	02-19-19	02-19-19	27
DWBHRB.400.TP.20	DELIVER TEST PILE HRB 20	1	02-19-19	02-19-19	31
DWBHRB.400.TP.21	DELIVER TEST PILE HRB 21	1	02-19-19	02-19-19	135
DWBHRB.400.TP.22	DELIVER TEST PILE HRB 22	1	02-19-19	02-19-19	126
DWBHRB.400.TP.23	DELIVER TEST PILE HRB 23	1	02-19-19	02-19-19	113
DWBHRB.400.TP.24	DELIVER TEST PILE HRB 24	1	02-19-19	02-19-19	99
DWBHRB.400.TP.25	DELIVER TEST PILE HRB 25	1	02-19-19	02-19-19	89
DWBHRB.400.TP.26	DELIVER TEST PILE HRB 26	1	02-19-19	02-19-19	82
DWBHRB.400.TP.27	DELIVER TEST PILE HRB 27	1	02-19-19	02-19-19	75
DWBHRB.400.TP.28	DELIVER TEST PILE HRB 28	1	02-19-19	02-19-19	70
DWBHRB.400.TP.29	DELIVER TEST PILE HRB 29	1	02-19-19	02-19-19	65
DWBHRB.400.TP.30	DELIVER TEST PILE HRB 30	1	02-19-19	02-19-19	58
DWBHRB.400.TP.31	DELIVER TEST PILE HRB 31	1	02-19-19	02-19-19	52
DWBHRB.400.TP.32	DELIVER TEST PILE HRB 32	1	02-19-19	02-19-19	99
DWBHRB.400.TP.33	DELIVER TEST PILE HRB 33	1	02-19-19	02-19-19	105
DWBHRB.400.TP.34	DELIVER TEST PILE HRB 34	1	02-19-19	02-19-19	113
DWBHRB.400.TP.35	DELIVER TEST PILE HRB 35	1	02-19-19	02-19-19	119
DWBHRB.400.TP.36	DELIVER TEST PILE HRB 36	1	02-19-19	02-19-19	125
DWBHRB.400.TP.37	DELIVER TEST PILE HRB 37	1	02-19-19	02-19-19	130
DWBHRB.400.TP.38	DELIVER TEST PILE HRB 38	1	02-19-19	02-19-19	135
DWBHRB.400.TP.39	DELIVER TEST PILE HRB 39	1	02-19-19	02-19-19	142
DWBHRB.400.TP.40	DELIVER TEST PILE HRB 40	1	02-19-19	02-19-19	147
DWBHRB.400.TP.41	DELIVER TEST PILE HRB 41	1	02-19-19	02-19-19	152
DWBHRB.400.TP.42	DELIVER TEST PILE HRB 42	1	02-19-19	02-19-19	158
DWBHRB.400.TP.43	DELIVER TEST PILE HRB 43	1	02-19-19	02-19-19	163
DWBHRB.400.TP.0A	DELIVER TEST PILE HRB ABUTMENT A	1	02-19-19	02-19-19	82
DWBHRB.400.TP.OB	DELIVER TEST PILE HRB ABUTMENT B	1	02-19-19	02-19-19	195
PRODUCTION PILES		245	03-25-19	01-03-20	74
DWBHRB.400.PP.10	DELIVER PRODUCTION PILE HRB 10	1	03-25-19	03-25-19	10
DWBHRB.400.PP.31	DELIVER PRODUCTION PILE HRB 31	1	03-25-19	03-25-19	52
DWBHRB.400.PP.32	DELIVER PRODUCTION PILE HRB 32	1	03-25-19	03-25-19	100
DWBHRB.400.PP.11	DELIVER PRODUCTION PILE HRB 11	1	04-01-19	04-01-19	15
DWBHRB.400.PP.30	DELIVER PRODUCTION PILE HRB 30	1	04-01-19	04-01-19	53
DWBHRB.400.PP.33	DELIVER PRODUCTION PILE HRB 33	1	04-01-19	04-01-19	101
DWBHRB.400.PP.12	DELIVER PRODUCTION PILE HRB 12	1	04-08-19	04-08-19	21
DWBHRB.400.PP.29	DELIVER PRODUCTION PILE HRB 29	1	04-08-19	04-08-19	54
DWBHRB.400.PP.34	DELIVER PRODUCTION PILE HRB 34	1	04-08-19	04-08-19	103
DWBHRB.400.PP.13	DELIVER PRODUCTION PILE HRB 13	1	04-15-19	04-15-19	26

Date	Revision	Checked	Approved

SKANSKA

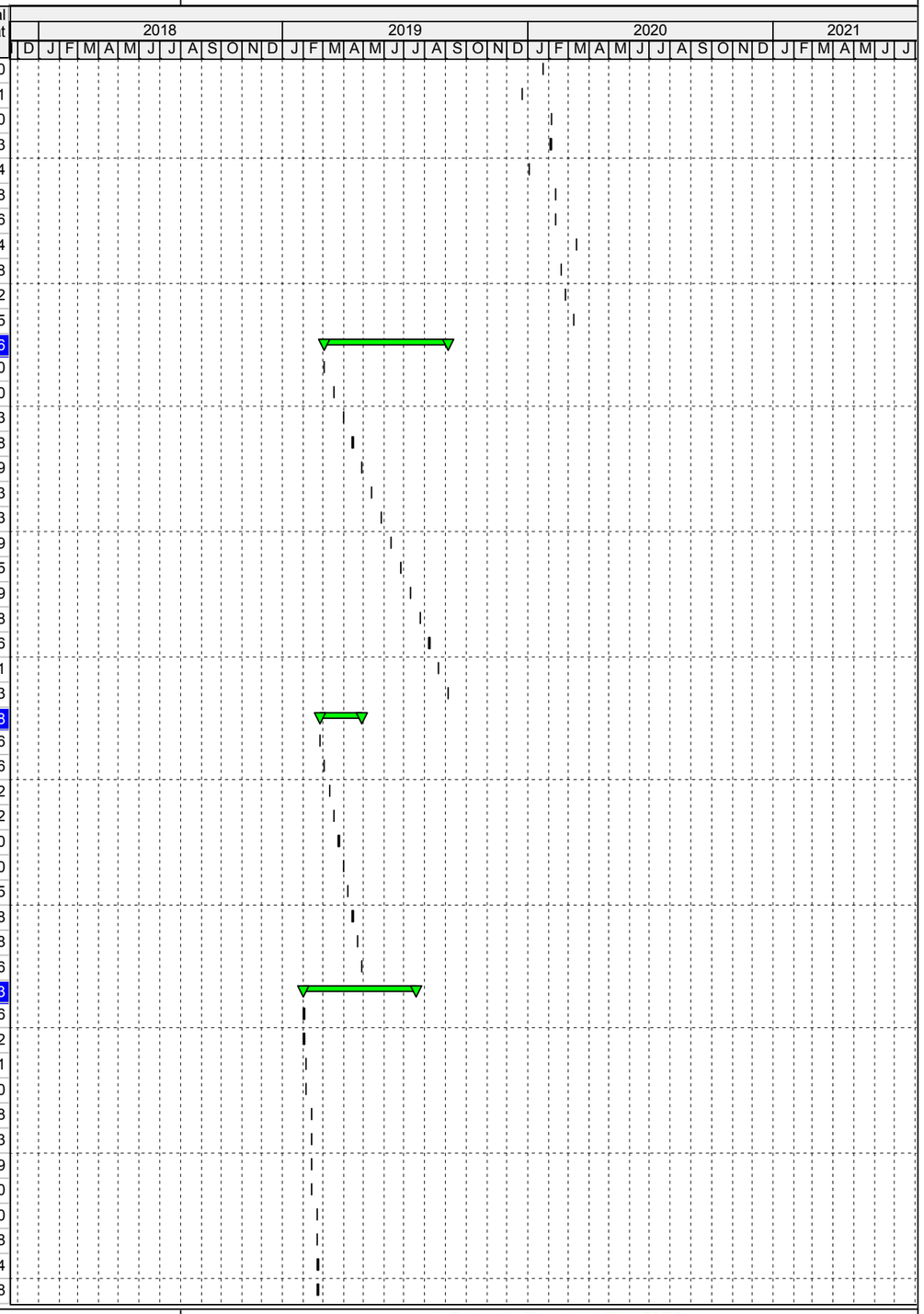
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
DWBHRB.400.PP.28	DELIVER PRODUCTION PILE HRB 28	1	04-15-19	04-15-19	55
DWBHRB.400.PP.35	DELIVER PRODUCTION PILE HRB 35	1	04-15-19	04-15-19	104
DWBHRB.400.PP.14	DELIVER PRODUCTION PILE HRB 14	1	04-22-19	04-22-19	32
DWBHRB.400.PP.27	DELIVER PRODUCTION PILE HRB 27	1	04-22-19	04-22-19	56
DWBHRB.400.PP.36	DELIVER PRODUCTION PILE HRB 36	1	04-22-19	04-22-19	105
DWBHRB.400.PP.09	DELIVER PRODUCTION PILE HRB 09	1	04-23-19	04-23-19	41
DWBHRB.400.PP.15	DELIVER PRODUCTION PILE HRB 15	1	04-29-19	04-29-19	38
DWBHRB.400.PP.26	DELIVER PRODUCTION PILE HRB 26	1	04-29-19	04-29-19	57
DWBHRB.400.PP.37	DELIVER PRODUCTION PILE HRB 37	1	04-29-19	04-29-19	105
DWBHRB.400.PP.08	DELIVER PRODUCTION PILE HRB 08	1	04-30-19	04-30-19	48
DWBMHB.400.PP.0A	DELIVER PRODUCTION PILE WB MILITARY HWY ABUTMENT A	1	05-02-19	05-02-19	63
DWBHRB.400.PP.16	DELIVER PRODUCTION PILE HRB 16	1	05-06-19	05-06-19	45
DWBHRB.400.PP.25	DELIVER PRODUCTION PILE HRB 25	1	05-06-19	05-06-19	58
DWBHRB.400.PP.38	DELIVER PRODUCTION PILE HRB 38	1	05-06-19	05-06-19	106
DWBHRB.400.PP.07	DELIVER PRODUCTION PILE HRB 07	1	05-07-19	05-07-19	55
DEBMHB.400.PP.0A	DELIVER PRODUCTION PILE EB MILITARY HWY ABUTMENT A	1	05-09-19	05-09-19	63
DWBHRB.400.PP.17	DELIVER PRODUCTION PILE HRB 17	1	05-13-19	05-13-19	50
DWBHRB.400.PP.24	DELIVER PRODUCTION PILE HRB 24	1	05-13-19	05-13-19	65
DWBHRB.400.PP.39	DELIVER PRODUCTION PILE HRB 39	1	05-13-19	05-13-19	107
DWBHRB.400.PP.06	DELIVER PRODUCTION PILE HRB 06	1	05-14-19	05-14-19	61
DEBMHB.400.PP.0B	DELIVER PRODUCTION PILE EB MILITARY HWY ABUTMENT B	1	05-16-19	05-16-19	63
DWBHRB.400.PP.18	DELIVER PRODUCTION PILE HRB 18	1	05-20-19	05-20-19	56
DWBHRB.400.PP.23	DELIVER PRODUCTION PILE HRB 23	1	05-20-19	05-20-19	73
DWBHRB.400.PP.40	DELIVER PRODUCTION PILE HRB 40	1	05-20-19	05-20-19	107
DWBHRB.400.PP.05	DELIVER PRODUCTION PILE HRB 05	1	05-21-19	05-21-19	69
DWBMHB.400.PP.0B	DELIVER PRODUCTION PILE WB MILITARY HWY ABUTMENT B	1	05-23-19	05-23-19	63
DWBHRB.400.PP.19	DELIVER PRODUCTION PILE HRB 19	1	05-28-19	05-28-19	74
DWBHRB.400.PP.22	DELIVER PRODUCTION PILE HRB 22	1	05-28-19	05-28-19	80
DWBHRB.400.PP.41	DELIVER PRODUCTION PILE HRB 41	1	05-28-19	05-28-19	107
DWBHRB.400.PP.04	DELIVER PRODUCTION PILE HRB 04	1	05-29-19	05-29-19	77
DWBHRB.400.PP.20	DELIVER PRODUCTION PILE HRB 20	1	06-04-19	06-04-19	90
DWBHRB.400.PP.21	DELIVER PRODUCTION PILE HRB 21	1	06-04-19	06-04-19	86
DWBHRB.400.PP.42	DELIVER PRODUCTION PILE HRB 42	1	06-04-19	06-04-19	108
DWBHRB.400.PP.03	DELIVER PRODUCTION PILE HRB 03	1	06-05-19	06-05-19	107
DWBHRB.400.PP.43	DELIVER PRODUCTION PILE HRB 43	1	06-11-19	06-11-19	108
DWBHRB.400.PP.02	DELIVER PRODUCTION PILE HRB 02	1	06-12-19	06-12-19	107
DWBHRB.400.PP.01	DELIVER PRODUCTION PILE HRB 01	1	06-19-19	06-19-19	129
DWBHRB.400.PP.OB	DELIVER PRODUCTION PILE HRB ABUTMENT B	1	08-01-19	08-01-19	104
DWBHRB.400.PP.0A	DELIVER PRODUCTION PILE HRB ABUTMENT A	1	08-08-19	08-08-19	110
DWBSRB.400.PP.0A	DELIVER PRODUCTION PILE WB SHELL ABUTMENT A	1	10-14-19	10-14-19	94
DWBSRB.400.PP.01	DELIVER PRODUCTION PILE WB SHELL PIER 01	1	10-21-19	10-21-19	80
DEBSRB.400.PP.0A	DELIVER PRODUCTION PILE EB SHELL ABUTMENT A	1	10-28-19	10-28-19	95
DEBSRB.400.PP.01	DELIVER PRODUCTION PILE EB SHELL PIER 01	1	11-04-19	11-04-19	77
DGBOP.400.PP.01	DELIVER PRODUCTION PILE GREAT BRIDGE PIER 01	1	11-04-19	11-04-19	48
DEBSRB.400.PP.0B	DELIVER PRODUCTION PILE EB SHELL ABUTMENT B	1	11-11-19	11-11-19	94
DGBOP.400.PP.0A	DELIVER PRODUCTION PILE GREAT BRIDGE ABUTMENT A	1	11-11-19	11-11-19	56
DWBSRB.400.PP.0B	DELIVER PRODUCTION PILE WB SHELL ABUTMENT B	1	11-18-19	11-18-19	100
DGBOP.400.PP.0B	DELIVER PRODUCTION PILE GREAT BRIDGE ABUTMENT B	1	11-18-19	11-18-19	61
DWBYRB.400.PP.0A	DELIVER PRODUCTION PILE WB YADKIN ABUTMENT A	1	11-26-19	11-26-19	55



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
DWBYRB.400.PP.01	DELIVER PRODUCTION PILE WB YADKIN PIER 01	1	11-26-19	11-26-19	40
DEBSRB.400.PP.02	DELIVER PRODUCTION PILE EB SHELL PIER 02	1	11-27-19	11-27-19	71
DEBYRB.400.PP.0A	DELIVER PRODUCTION PILE EB YADKIN ABUTMENT A	1	12-03-19	12-03-19	60
DEBYRB.400.PP.01	DELIVER PRODUCTION PILE EB YADKIN PIER 01	1	12-03-19	12-03-19	43
DWBSRB.400.PP.02	DELIVER PRODUCTION PILE WB SHELL PIER 02	1	12-04-19	12-04-19	74
DEBYRB.400.PP.0B	DELIVER PRODUCTION PILE EB YADKIN ABUTMENT B	1	12-10-19	12-10-19	78
DEBYRB.400.PP.02	DELIVER PRODUCTION PILE EB YADKIN PIER 02	1	12-10-19	12-10-19	46
DWBYRB.400.PP.0B	DELIVER PRODUCTION PILE WB YADKIN ABUTMENT B	1	12-17-19	12-17-19	84
DWBYRB.400.PP.02	DELIVER PRODUCTION PILE WB YADKIN PIER 02	1	12-17-19	12-17-19	48
DWBYRB.400.PP.03	DELIVER PRODUCTION PILE WB YADKIN PIER 03	1	12-24-19	12-24-19	52
DEBYRB.400.PP.03	DELIVER PRODUCTION PILE EB YADKIN PIER 03	1	01-03-20	01-03-20	55
FOOTINGS		131	03-04-19	09-05-19	46
DWBHRB.400.FT.09	DELIVER FOOTINGS HRB 09	1	03-04-19	03-04-19	130
DWBHRB.400.FT.10	DELIVER FOOTINGS HRB 10	1	03-18-19	03-18-19	120
DWBHRB.400.FT.11	DELIVER FOOTINGS HRB 11	1	04-01-19	04-01-19	113
DWBHRB.400.FT.12	DELIVER FOOTINGS HRB 12	1	04-15-19	04-15-19	108
DWBHRB.400.FT.13	DELIVER FOOTINGS HRB 13	1	04-29-19	04-29-19	99
DWBHRB.400.FT.14	DELIVER FOOTINGS HRB 14	1	05-13-19	05-13-19	93
DWBHRB.400.FT.15	DELIVER FOOTINGS HRB 15	1	05-28-19	05-28-19	83
DWBHRB.400.FT.16	DELIVER FOOTINGS HRB 16	1	06-11-19	06-11-19	79
DWBHRB.400.FT.17	DELIVER FOOTINGS HRB 17	1	06-25-19	06-25-19	75
DWBHRB.400.FT.18	DELIVER FOOTINGS HRB 18	1	07-10-19	07-10-19	59
DWBHRB.400.FT.19	DELIVER FOOTINGS HRB 19	1	07-24-19	07-24-19	68
DWBHRB.400.FT.20	DELIVER FOOTINGS HRB 20	1	08-07-19	08-07-19	66
DWBHRB.400.FT.21	DELIVER FOOTINGS HRB 21	1	08-21-19	08-21-19	51
DWBHRB.400.FT.22	DELIVER FOOTINGS HRB 22	1	09-05-19	09-05-19	43
STRUTS		46	02-25-19	04-29-19	148
DWBHRB.400.ST.13	DELIVER PRECAST STRUT 13-1	1	02-25-19	02-25-19	156
DWBHRB.400.ST.14	DELIVER PRECAST STRUT 14-1	1	03-04-19	03-04-19	156
DWBHRB.400.ST.15	DELIVER PRECAST STRUT 15-1	1	03-11-19	03-11-19	152
DWBHRB.400.ST.16	DELIVER PRECAST STRUT 16-1	1	03-18-19	03-18-19	152
DWBHRB.400.ST.17	DELIVER PRECAST STRUT 17-1	1	03-25-19	03-25-19	150
DWBHRB.400.ST.18	DELIVER PRECAST STRUT 18-1	1	04-01-19	04-01-19	140
DWBHRB.400.ST.19	DELIVER PRECAST STRUT 19-1	1	04-08-19	04-08-19	155
DWBHRB.400.ST.20	DELIVER PRECAST STRUT 20-1	1	04-15-19	04-15-19	158
DWBHRB.400.ST.21	DELIVER PRECAST STRUT 21-1	1	04-22-19	04-22-19	148
DWBHRB.400.ST.22	DELIVER PRECAST STRUT 22-1	1	04-29-19	04-29-19	146
GIRDERS		117	02-01-19	07-18-19	213
DWBHRB.400.10	DELIVER GIRDERS HRB SPAN 10	1	02-01-19	02-01-19	196
DWBHRB.400.33	DELIVER GIRDERS HRB SPAN 33	1	02-01-19	02-01-19	202
DWBHRB.400.09	DELIVER GIRDERS HRB SPAN 09	1	02-04-19	02-04-19	201
DWBHRB.400.32	DELIVER GIRDERS HRB SPAN 32	1	02-04-19	02-04-19	200
DWBHRB.400.08	DELIVER GIRDERS HRB SPAN 08	1	02-12-19	02-12-19	198
DWBHRB.400.11	DELIVER GIRDERS HRB SPAN 11	1	02-12-19	02-12-19	193
DWBHRB.400.31	DELIVER GIRDERS HRB SPAN 31	1	02-12-19	02-12-19	199
DWBHRB.400.34	DELIVER GIRDERS HRB SPAN 34	1	02-12-19	02-12-19	200
DWBHRB.400.12	DELIVER GIRDERS HRB SPAN 12	1	02-21-19	02-21-19	190
DWBHRB.400.35	DELIVER GIRDERS HRB SPAN 35	1	02-21-19	02-21-19	198
DWBHRB.400.07	DELIVER GIRDERS HRB SPAN 07	1	02-22-19	02-22-19	194
DWBHRB.400.30	DELIVER GIRDERS HRB SPAN 30	1	02-22-19	02-22-19	198



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SKANSKA

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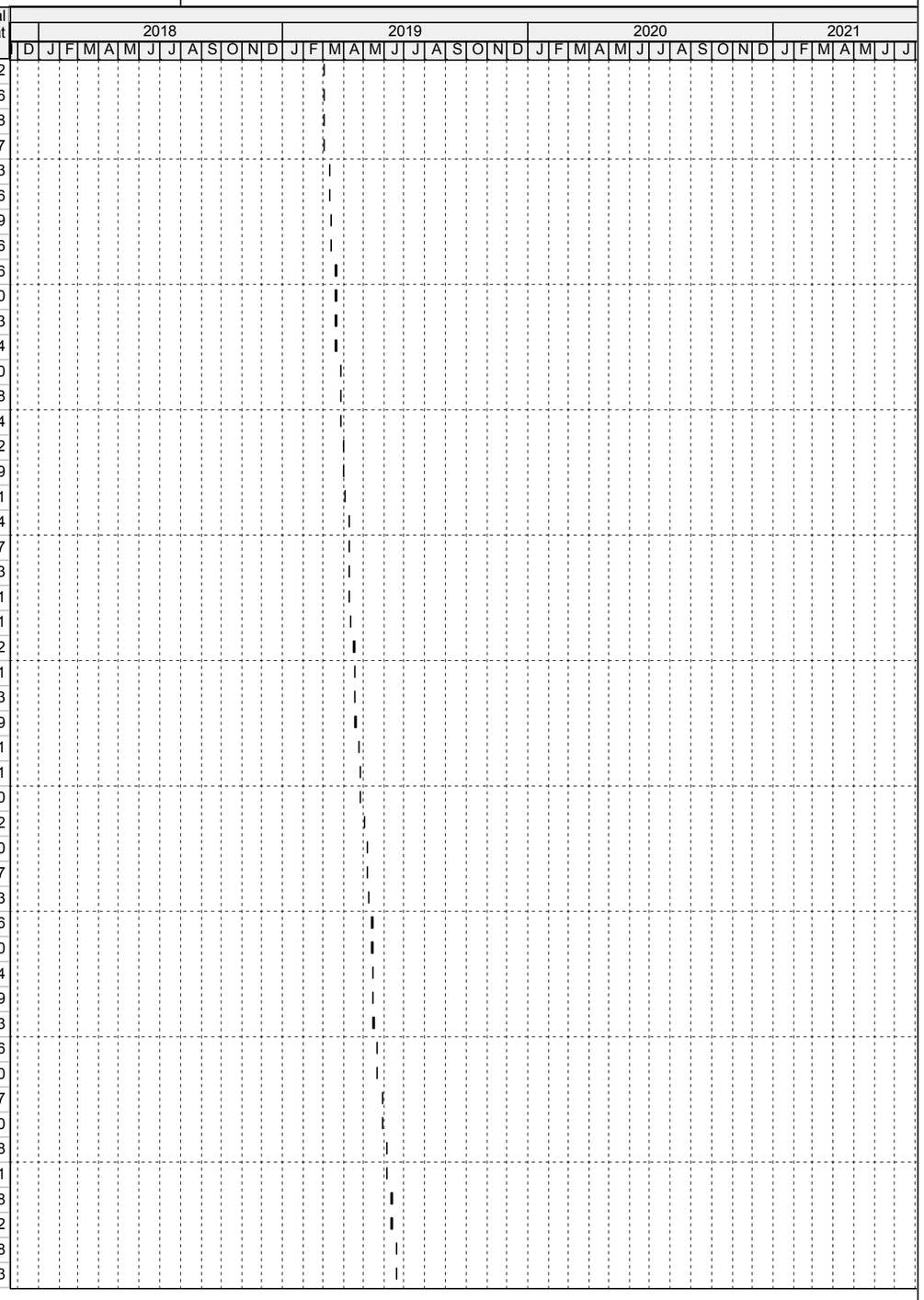
DWBHRB.400.06	DELIVER GIRDERS HRB SPAN 06	1	03-04-19	03-04-19	192
DWBHRB.400.13	DELIVER GIRDERS HRB SPAN 13	1	03-04-19	03-04-19	186
DWBHRB.400.29	DELIVER GIRDERS HRB SPAN 29	1	03-04-19	03-04-19	198
DWBHRB.400.36	DELIVER GIRDERS HRB SPAN 36	1	03-04-19	03-04-19	197
DWBHRB.400.14	DELIVER GIRDERS HRB SPAN 14	1	03-12-19	03-12-19	183
DWBHRB.400.37	DELIVER GIRDERS HRB SPAN 37	1	03-12-19	03-12-19	196
DWBHRB.400.05	DELIVER GIRDERS HRB SPAN 05	1	03-13-19	03-13-19	189
DWBHRB.400.28	DELIVER GIRDERS HRB SPAN 28	1	03-13-19	03-13-19	196
DWBHRB.400.04	DELIVER GIRDERS HRB SPAN 04	1	03-21-19	03-21-19	186
DWBHRB.400.15	DELIVER GIRDERS HRB SPAN 15	1	03-21-19	03-21-19	180
DWBHRB.400.27	DELIVER GIRDERS HRB SPAN 27	1	03-21-19	03-21-19	193
DWBHRB.400.38	DELIVER GIRDERS HRB SPAN 38	1	03-21-19	03-21-19	194
DEBMHB.400.GR.01	DELIVER GIRDERS EB MILITARY HWY BRIDGE SPAN 01	1	03-28-19	03-28-19	130
DWBHRB.400.16	DELIVER GIRDERS HRB SPAN 16	1	03-29-19	03-29-19	178
DWBHRB.400.39	DELIVER GIRDERS HRB SPAN 39	1	03-29-19	03-29-19	194
DWBHRB.400.03	DELIVER GIRDERS HRB SPAN 03	1	04-01-19	04-01-19	182
DWBHRB.400.26	DELIVER GIRDERS HRB SPAN 26	1	04-01-19	04-01-19	189
DEBMHB.400.GR.02	DELIVER GIRDERS EB MILITARY HWY BRIDGE SPAN 02	1	04-04-19	04-04-19	131
DWBHRB.400.17	DELIVER GIRDERS HRB SPAN 17	1	04-09-19	04-09-19	174
DWBHRB.400.25	DELIVER GIRDERS HRB SPAN 25	1	04-09-19	04-09-19	187
DWBHRB.400.40	DELIVER GIRDERS HRB SPAN 40	1	04-09-19	04-09-19	193
DWBHRB.400.02	DELIVER GIRDERS HRB SPAN 02	1	04-10-19	04-10-19	211
DWBMHB.400.GR.01	DELIVER GIRDERS WB MILITARY HWY BRIDGE SPAN 01	1	04-11-19	04-11-19	131
DWBHRB.400.41	DELIVER GIRDERS HRB SPAN 41	1	04-17-19	04-17-19	192
DWBMHB.400.GR.02	DELIVER GIRDERS WB MILITARY HWY BRIDGE SPAN 02	1	04-18-19	04-18-19	131
DWBHRB.400.24	DELIVER GIRDERS HRB SPAN 24	1	04-18-19	04-18-19	183
DWBHRB.400.01	DELIVER GIRDERS HRB SPAN 01	1	04-19-19	04-19-19	209
DWBMHB.400.GR.03	DELIVER GIRDERS WB MILITARY HWY BRIDGE SPAN 03	1	04-25-19	04-25-19	131
DWBHRB.400.23	DELIVER GIRDERS HRB SPAN 23	1	04-26-19	04-26-19	181
DWBHRB.400.42	DELIVER GIRDERS HRB SPAN 42	1	04-26-19	04-26-19	190
DWBMHB.400.GR.04	DELIVER GIRDERS WB MILITARY HWY BRIDGE SPAN 04	1	05-02-19	05-02-19	132
DWBHRB.400.43	DELIVER GIRDERS HRB SPAN 43	1	05-06-19	05-06-19	190
DWBHRB.400.22	DELIVER GIRDERS HRB SPAN 22	1	05-07-19	05-07-19	177
DEBMHB.400.GR.03	DELIVER GIRDERS EB MILITARY HWY BRIDGE SPAN 03	1	05-09-19	05-09-19	133
DWBYRB.400.GR.01	DELIVER GIRDERS WB YADKIN SPAN 01	1	05-14-19	05-14-19	216
DWBSRB.400.GR.01	DELIVER GIRDERS WB SHELL SPAN 01	1	05-14-19	05-14-19	230
DWBHRB.400.21	DELIVER GIRDERS HRB SPAN 21	1	05-15-19	05-15-19	174
DWBHRB.400.44	DELIVER GIRDERS HRB SPAN 44	1	05-15-19	05-15-19	189
DEBMHB.400.GR.04	DELIVER GIRDERS EB MILITARY HWY BRIDGE SPAN 04	1	05-16-19	05-16-19	133
DEBYRB.400.GR.01	DELIVER GIRDERS EB YADKIN SPAN 01	1	05-21-19	05-21-19	216
DEBSRB.400.GR.01	DELIVER GIRDERS EB SHELL SPAN 01	1	05-21-19	05-21-19	230
DEBYRB.400.GR.02	DELIVER GIRDERS EB YADKIN SPAN 02	1	05-29-19	05-29-19	217
DEBSRB.400.GR.02	DELIVER GIRDERS EB SHELL SPAN 02	1	05-29-19	05-29-19	230
DWBYRB.400.GR.02	DELIVER GIRDERS WB YADKIN SPAN 02	1	06-05-19	06-05-19	218
DWBSRB.400.GR.02	DELIVER GIRDERS WB SHELL SPAN 02	1	06-05-19	06-05-19	231
DWBYRB.400.GR.03	DELIVER GIRDERS WB YADKIN SPAN 03	1	06-12-19	06-12-19	218
DWBSRB.400.GR.03	DELIVER GIRDERS WB SHELL SPAN 03	1	06-12-19	06-12-19	232
DEBYRB.400.GR.03	DELIVER GIRDERS EB YADKIN SPAN 03	1	06-19-19	06-19-19	218
DEBSRB.400.GR.03	DELIVER GIRDERS EB SHELL SPAN 03	1	06-19-19	06-19-19	233



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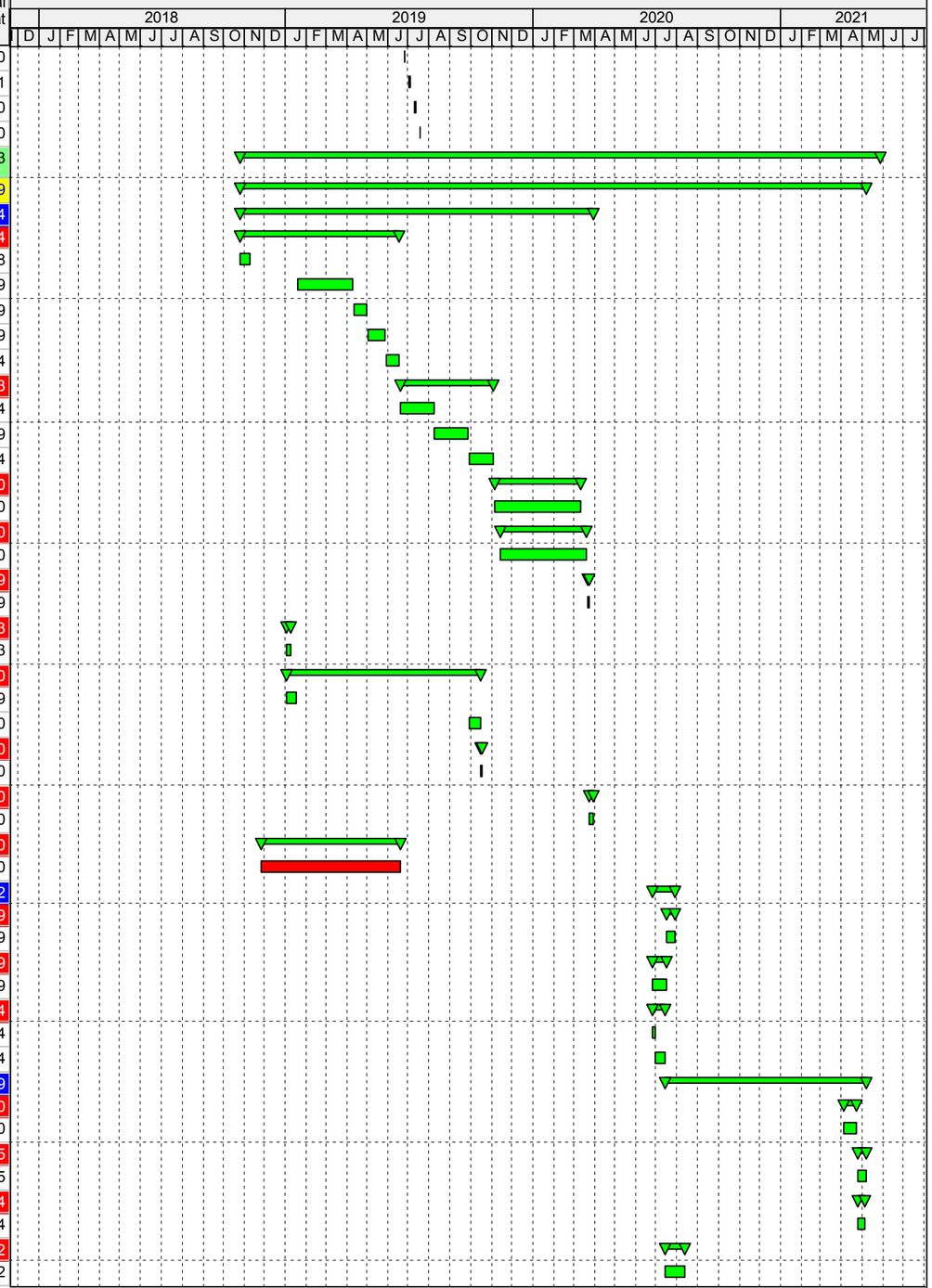
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
DEBYRB.400.GR.04	DELIVER GIRDERS EB YADKIN SPAN 04	1	06-26-19	06-26-19	220
DWBYRB.400.GR.04	DELIVER GIRDERS WB YADKIN SPAN 04	1	07-03-19	07-03-19	221
DGBOP.400.GR.01	DELIVER GIRDERS GREAT BRIDGE SPAN 01	1	07-11-19	07-11-19	170
DGBOP.400.GR.02	DELIVER GIRDERS GREAT BRIDGE SPAN 02	1	07-18-19	07-18-19	170
CONSTRUCTION		947	10-25-18	05-28-21	63
I-64 WESTBOUND FROM 1030+57.06 TO SOUTH MILITARY HWY BRIDGE		926	10-25-18	11-18-20	189
PHASE 1		523	10-25-18	10-25-19	234
303 EARTHWORK		142	10-25-18	04-17-19	174
WBRW.303.1000000	INSTALL SILT FENCE AND EROSION CONTROL FROM WB 1030.57.06 TO SOUTH MILITARY H	10	10-25-18	11-08-18	8
WBRW.303.1000005	CUT / BORROW TO FILL FROM WB 1030+57.06 TO SOUTH MILITARY HWY BRIDGE	50	01-02-19	03-25-19	49
WBRW.303.1000010	ROUGH GRADE SLOPES FROM WB 1030+57.06 TO SOUTH MILITARY HWY BRIDGE	15	03-08-19	04-01-19	129
WBRW.303.1000015	ROUGH GRADE MEDIAN FROM WB 1030+57.06 TO SOUTH MILITARY HWY BRIDGE	15	03-18-19	04-10-19	129
WBRW.303.1000020	ROUGH GRADE MAINLINE FROM WB 1030+57.06 TO SOUTH MILITARY HWY BRIDGE	12	03-29-19	04-17-19	174
305 SUGRADE AND SHOULDERS		84	04-03-19	05-28-19	173
WBRW.305.1000010	FINE GRADE SLOPES FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	30	04-03-19	05-17-19	134
WBRW.305.1000015	FINE GRADE MEDIAN FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	30	04-11-19	05-28-19	129
WBRW.305.1000020	FINE GRADE MAINLINE FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	24	04-18-19	05-24-19	174
309 AGGREGATE BASE COURSE		22	04-29-19	06-03-19	120
WBRW.309.1000020	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM WB 1030.57.06 TO SOUTH MILI	22	04-29-19	06-03-19	120
315 ASPHALT CONCRETE PAVEMENT		22	05-06-19	06-12-19	120
WBRW.315.1000020	PLACE ASPHALT PAVING FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	22	05-06-19	06-12-19	120
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		2	06-13-19	06-14-19	209
WBRW.505.1000010	INSTALL GUARDRAIL WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	2	06-13-19	06-14-19	209
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		4	12-14-18	12-19-18	233
WBRW.508.1000000	DEMO PAVING FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	4	12-14-18	12-19-18	233
602 TOPSOIL		172	12-14-18	06-13-19	150
WBRW.602.1000000	STRIP TOPSOIL FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	10	12-14-18	12-31-18	49
WBRW.602.1000010	SPREAD TOPSOIL FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	10	05-29-19	06-13-19	150
603 SEEDING		3	06-14-19	06-19-19	160
WBRW.603.1000000	PERMENANT SEED FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	3	06-14-19	06-19-19	160
704 PAVEMENT MARKINGS AND MARKERS		4	10-22-19	10-25-19	140
WBRW.704.1000000	APPLY PAVEMENT MARKINGS WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	4	10-22-19	10-25-19	140
800 INTELLIGENT TRANSPORTATION SYSTEMS		125	11-26-18	06-19-19	0
WBRW.800.1000000	RUN DISTRIBUTION AND FIBER WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	125	11-26-18	06-19-19	0
PHASE 2		34	05-26-20	06-24-20	282
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		7	06-15-20	06-24-20	169
WBRW.505.2000010	INSTALL GUARDRAIL WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	7	06-15-20	06-24-20	169
515 MILLING PAVEMENT		12	05-26-20	06-12-20	89
WBRW.515.2000000	MILL AND OVERLAY FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	12	05-26-20	06-12-20	89
800 INTELLIGENT TRANSPORTATION SYSTEMS		10	05-26-20	06-10-20	174
WBRW.800.2000020	GROUND-MOUNTED EQUIPMENT CABINET FROM WB 1030.57.06 TO SOUTH MILITARY HWY	2	05-26-20	05-27-20	174
WBRW.800.2000060	DYNAMIC MESSAGE SIGN FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	8	05-28-20	06-10-20	174
PHASE 3		298	06-11-20	11-18-20	189
315 ASPHALT CONCRETE PAVEMENT		13	10-16-20	11-04-20	60
WBRW.315.3000020	PLACE ASPHALT PAVING FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	13	10-16-20	11-04-20	60
701 TRAFFIC SIGNS		9	11-05-20	11-18-20	115
WBRW.701.3000000	INSTALL TRAFFIC SIGNS FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	9	11-05-20	11-18-20	115
704 PAVEMENT MARKINGS AND MARKERS		8	11-05-20	11-17-20	114
WBRW.704.3000000	APPLY PAVEMENT MARKINGS FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	8	11-05-20	11-17-20	114
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	06-11-20	07-10-20	292
WBRW.800.3000090	ITS BURN IN PERIOD FROM WB 1030.57.06 TO SOUTH MILITARY HWY BRIDGE	30	06-11-20	07-10-20	292



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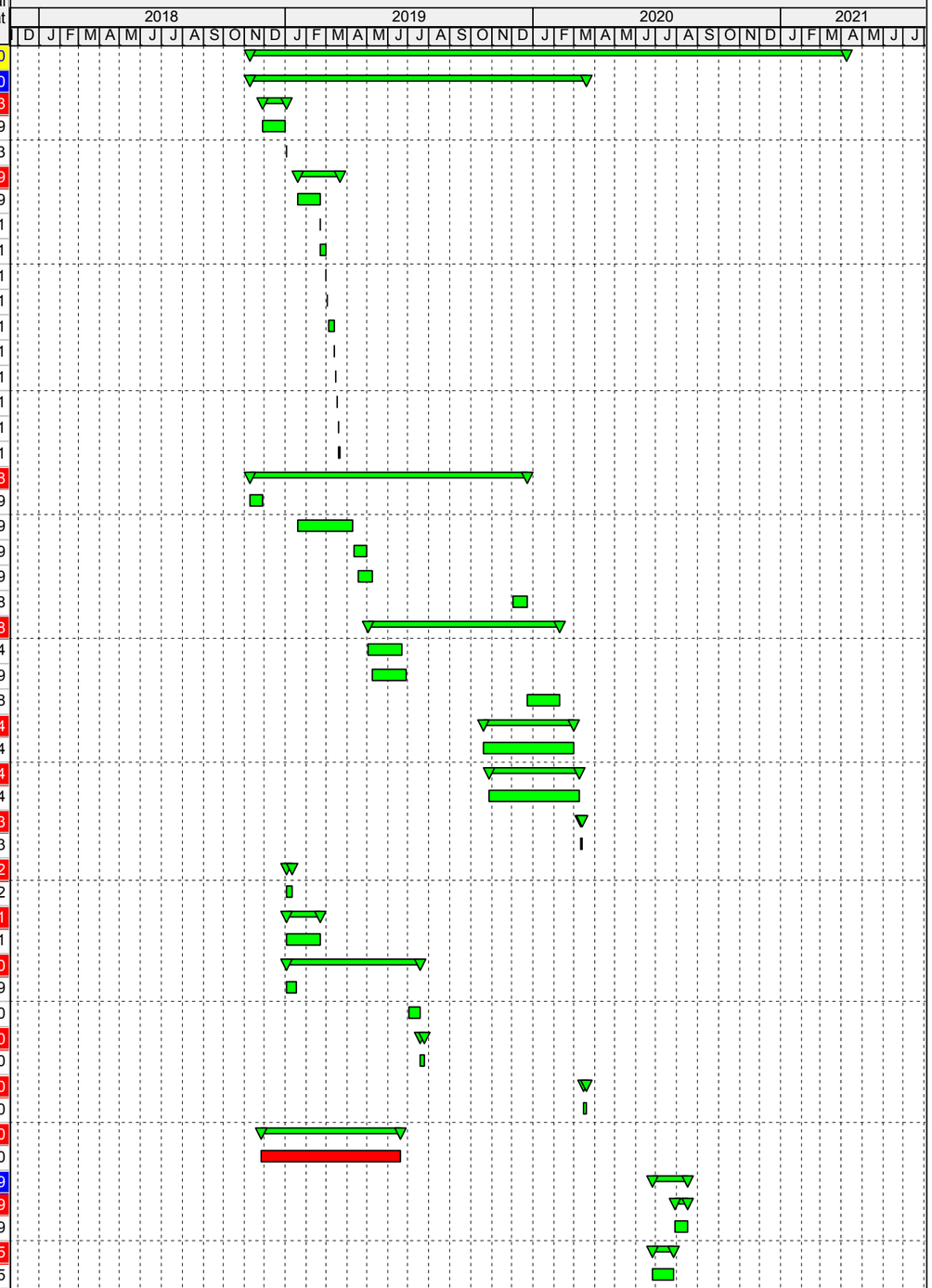
SKANSKA

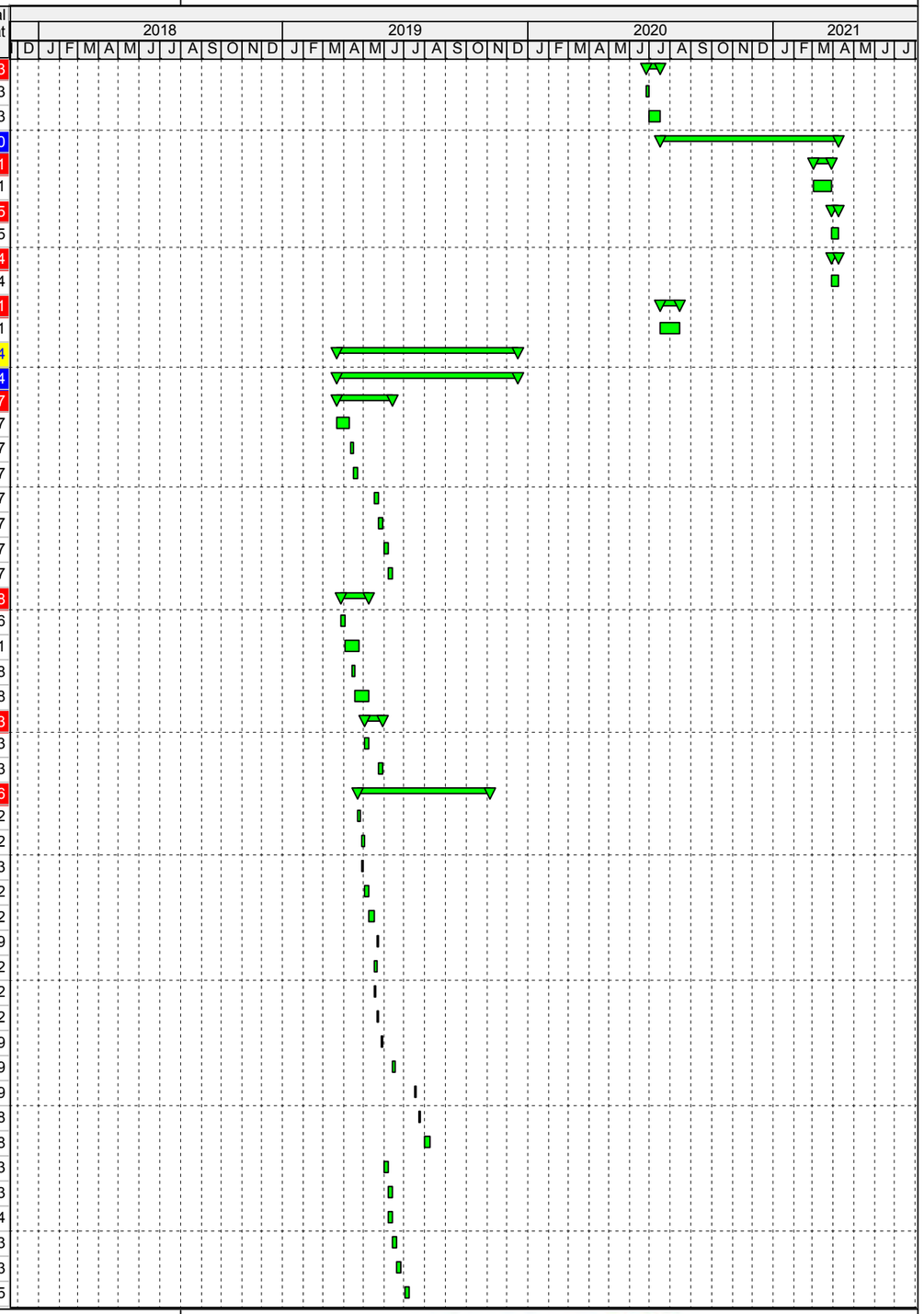
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
I-64 EASTBOUND FROM 1489+33.00 TO SOUTH MILITARY HWY BRIDGE		883	10-25-18	11-30-20	170
PHASE 1		498	10-25-18	10-25-19	340
301 CLEARING AND GRUBBING		21	11-09-18	12-14-18	83
EBRW.301.1000000	CLEAR AND GRUB FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	20	11-09-18	12-13-18	39
EBRW.301.1000010	CLEAR AND GRUB FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE FOR SOUND W.	1	12-14-18	12-14-18	83
302 DRAINAGE STRUCTURES		38	01-02-19	02-01-19	159
EBRW.302.1000000	INSTALL WATER QUALITY SWALE FROM EB 1501 TO 1586	20	01-02-19	02-01-19	159
EBRW.302.1000005	EXTEND DRAINAGE PIPE EB 1524 TO WATER QUALITY SWALE	1	01-02-19	01-02-19	161
EBRW.302.1000010	JACK AND BORE DRAINAGE PIPE EB 1534	5	01-03-19	01-10-19	161
EBRW.302.1000015	EXTEND DRAINAGE PIPE EB 1544 TO WATER QUALITY SWALE	1	01-11-19	01-11-19	161
EBRW.302.1000020	EXTEND DRAINAGE PIPE EB 1552 TO WATER QUALITY SWALE	1	01-14-19	01-14-19	161
EBRW.302.1000025	JACK AND BORE DRAINAGE PIPE EB 1564	5	01-16-19	01-23-19	161
EBRW.302.1000030	EXTEND DRAINAGE PIPE EB 1576 TO WATER QUALITY SWALE	1	01-24-19	01-24-19	161
EBRW.302.1000035	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1577 TO WATER QUALITY SWALE	1	01-25-19	01-25-19	161
EBRW.302.1000040	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1580 TO WATER QUALITY SWALE	1	01-28-19	01-28-19	161
EBRW.302.1000045	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1584 TO WATER QUALITY SWALE	1	01-29-19	01-29-19	161
EBRW.302.1000050	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1586 TO WATER QUALITY SWALE	1	01-30-19	01-30-19	161
303 EARTHWORK		245	10-25-18	04-30-19	158
EBRW.303.1000000	INSTALL SILT FENCE AND EROSION CONTROL FROM EB 1030+57.06 TO SOUTH MILITARY H	10	10-25-18	11-08-18	39
EBRW.303.1000005	CUT / BORROW TO FILL FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	50	01-02-19	03-25-19	39
EBRW.303.1000010	ROUGH GRADE SLOPES FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	15	03-26-19	04-17-19	119
EBRW.303.1000015	ROUGH GRADE MEDIAN FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	15	04-03-19	04-24-19	119
EBRW.303.1000020	ROUGH GRADE MAINLINE FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	14	04-11-19	04-30-19	158
305 SUGRADE AND SHOULDERS		168	04-18-19	06-17-19	158
EBRW.305.1000010	FINE GRADE SLOPES FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	30	04-18-19	06-05-19	124
EBRW.305.1000015	FINE GRADE MEDIAN FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	30	04-25-19	06-13-19	119
EBRW.305.1000020	FINE GRADE MAINLINE FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	28	05-01-19	06-17-19	158
309 AGGREGATE BASE COURSE		26	05-13-19	06-25-19	104
EBRW.309.1000020	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM EB 1489+33.00 TO SOUTH MILI'	26	05-13-19	06-25-19	104
315 ASPHALT CONCRETE PAVEMENT		26	05-22-19	07-03-19	104
EBRW.315.1000020	PLACE ASPHALT PAVING FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	26	05-22-19	07-03-19	104
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		3	07-05-19	07-10-19	193
EBRW.505.1000010	INSTALL GUARDRAIL FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	3	07-05-19	07-10-19	193
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		6	12-14-18	12-21-18	222
EBRW.508.1000000	DEMO PAVING EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	6	12-14-18	12-21-18	222
519 SOUND BARRIER WALLS		30	12-17-18	02-04-19	361
EBRW.519.1000000	INSTALL SOUND BARRIER WALL 2 FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	30	12-17-18	02-04-19	361
602 TOPSOIL		120	12-14-18	06-28-19	140
EBRW.602.1000000	STRIP TOPSOIL FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	10	12-14-18	12-31-18	39
EBRW.602.1000010	SPREAD TOPSOIL FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	10	06-14-19	06-28-19	140
603 SEEDING		3	07-01-19	07-05-19	150
EBRW.603.1000000	PERMENANT SEED FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	3	07-01-19	07-05-19	150
704 PAVEMENT MARKINGS AND MARKERS		4	10-22-19	10-25-19	140
EBRW.704.1000000	APPLY PAVEMENT MARKINGS EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	4	10-22-19	10-25-19	140
800 INTELLIGENT TRANSPORTATION SYSTEMS		125	11-26-18	06-19-19	0
EBRW.800.1000000	RUN DISTRIBUTION AND FIBER FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	125	11-26-18	06-19-19	0
PHASE 2		53	05-26-20	07-13-20	259
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		12	06-24-20	07-13-20	129
EBRW.505.2000010	INSTALL GUARDRAIL FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	12	06-24-20	07-13-20	129
515 MILLING PAVEMENT		18	05-26-20	06-23-20	75
EBRW.515.2000000	MILL AND OVERLAY FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	18	05-26-20	06-23-20	75



Date	Revision	Checked	Approved

SKANSKA

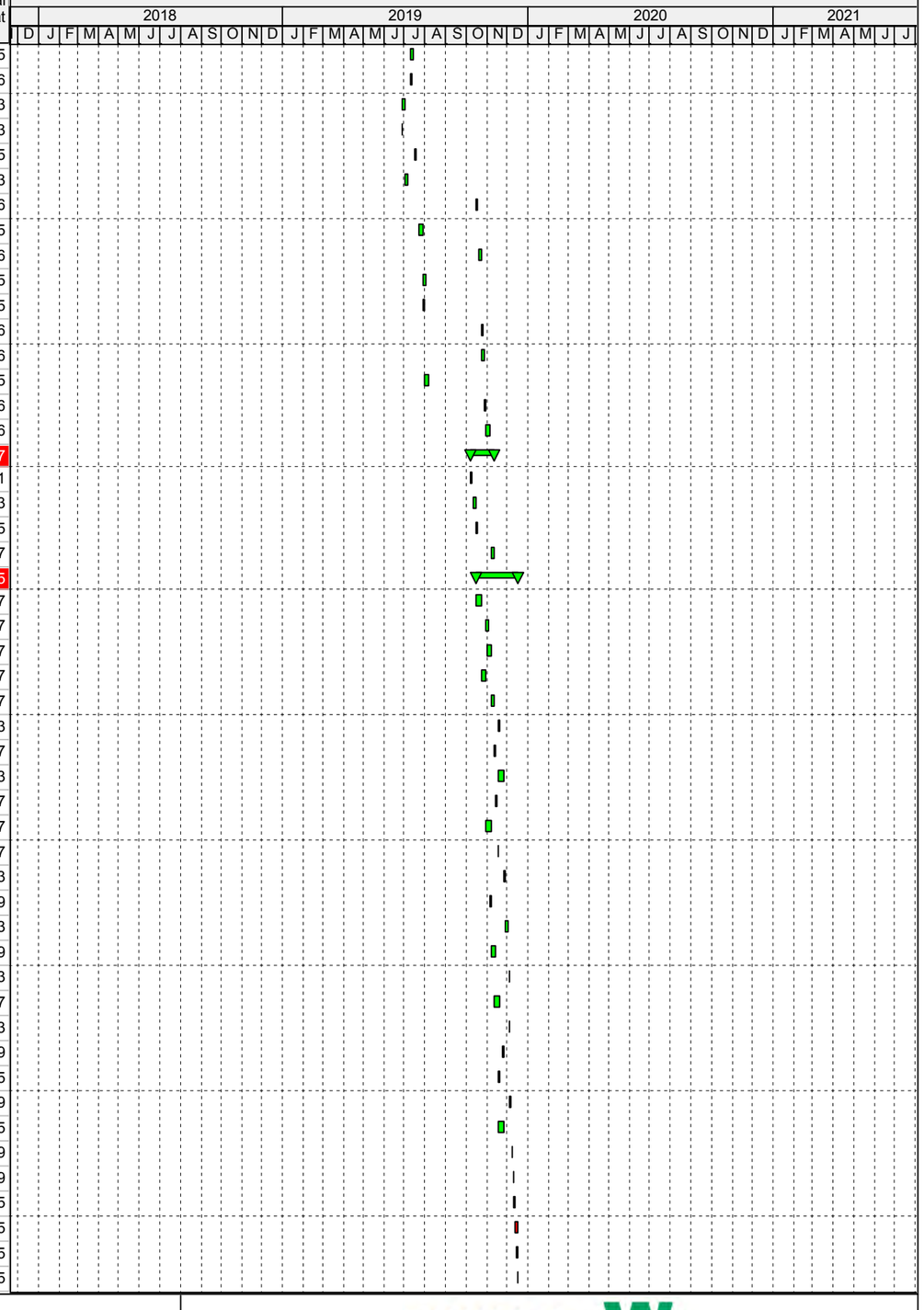
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
800 INTELLIGENT TRANSPORTATION SYSTEMS		11	05-26-20	06-11-20	173
EBRW.800.20000020	GROUND-MOUNTED EQUIPMENT CABINET FROM EB 1489+33.00 TO SOUTH MILITARY HWY	2	05-26-20	05-27-20	173
EBRW.800.20000060	DYNAMIC MESSAGE SIGN FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	9	05-28-20	06-11-20	173
PHASE 3		268	06-12-20	11-30-20	170
315 ASPHALT CONCRETE PAVEMENT		18	10-20-20	11-16-20	31
EBRW.315.3000020	PLACE ASPHALT PAVING FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	18	10-20-20	11-16-20	31
701 TRAFFIC SIGNS		7	11-17-20	11-25-20	105
EBRW.701.3000000	INSTALL TRAFFIC SIGNS FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	7	11-17-20	11-25-20	105
704 PAVEMENT MARKINGS AND MARKERS		8	11-17-20	11-30-20	94
EBRW.704.3000000	APPLY PAVEMENT MARKINGS FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	8	11-17-20	11-30-20	94
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	06-12-20	07-11-20	291
EBRW.800.3000090	ITS BURN IN PERIOD FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	30	06-12-20	07-11-20	291
WESTBOUND MILITARY HWY BRIDGE		271	03-22-19	10-04-19	74
PHASE 1		271	03-22-19	10-04-19	74
DRILLED SHAFTS		52	03-22-19	06-13-19	37
WBMHB.400.1000000	WB MILITARY HWY BRIDGE TEST SHAFT	12	03-22-19	04-10-19	37
WBMHB.400.1000005	WB MILITARY HWY BRIDGE DRILLED SHAFT 2-1	4	04-11-19	04-16-19	37
WBMHB.400.1000010	WB MILITARY HWY BRIDGE DRILLED SHAFT 2-2	4	04-17-19	04-22-19	37
WBMHB.400.1000055	WB MILITARY HWY BRIDGE DRILLED SHAFT 1-1	4	05-17-19	05-23-19	37
WBMHB.400.1000060	WB MILITARY HWY BRIDGE DRILLED SHAFT 1-2	4	05-24-19	05-30-19	37
WBMHB.400.1000105	WB MILITARY HWY BRIDGE DRILLED SHAFT 3-1	4	05-31-19	06-06-19	37
WBMHB.400.1000110	WB MILITARY HWY BRIDGE DRILLED SHAFT 3-2	4	06-07-19	06-13-19	37
TEST PILES		41	03-29-19	05-08-19	98
WBMHB.400.1000155	WB MILITARY HWY BRIDGE TEST PILE - ABUTMENT A	3	03-29-19	04-03-19	56
WBMHB.400.1000395	WB MILITARY HWY BRIDGE TEST PILE - ABUTMENT A - TEST	21	04-04-19	04-24-19	91
WBMHB.400.1000160	WB MILITARY HWY BRIDGE TEST PILE - ABUTMENT B	3	04-15-19	04-17-19	58
WBMHB.400.1000405	WB MILITARY HWY BRIDGE TEST PILE - ABUTMENT B - TEST	21	04-18-19	05-08-19	98
PRODUCTION PILES		16	05-03-19	05-30-19	53
WBMHB.400.1000165	WB MILITARY HWY BRIDGE DRIVE PILES ABUTMENT A	4	05-03-19	05-09-19	53
WBMHB.400.1000200	WB MILITARY HWY BRIDGE DRIVE PILES ABUTMENT B	4	05-24-19	05-30-19	53
SUBSTRUCTURE		119	04-23-19	07-22-19	66
WBMHB.400.1000015	WB MILITARY HWY BRIDGE CIP COLUMN 2-1A	4	04-23-19	04-26-19	92
WBMHB.400.1000020	WB MILITARY HWY BRIDGE CIP COLUMN 2-2A	4	04-24-19	04-29-19	92
WBMHB.400.1000025	WB MILITARY HWY BRIDGE CURE COLUMN 2-1A	3	04-29-19	05-01-19	93
WBMHB.400.1000030	WB MILITARY HWY BRIDGE CURE COLUMN 2-2A	3	04-30-19	05-02-19	92
WBMHB.400.1000035	WB MILITARY HWY BRIDGE CIP CAP 2	5	05-03-19	05-10-19	92
WBMHB.400.1000170	WB MILITARY HWY BRIDGE BUILD CAP ABUTMENT A	3	05-10-19	05-15-19	59
WBMHB.400.1000040	WB MILITARY HWY BRIDGE CURE CAP 2	3	05-13-19	05-16-19	92
WBMHB.400.1000045	WB MILITARY HWY BRIDGE BEAM SEATS 2	2	05-13-19	05-15-19	92
WBMHB.400.1000050	WB MILITARY HWY BRIDGE CURE BEAM SEAT 2	3	05-16-19	05-20-19	92
WBMHB.400.1000175	WB MILITARY HWY BRIDGE BACK WALL ABUTMENT A	3	05-16-19	05-20-19	59
WBMHB.400.1000180	WB MILITARY HWY BRIDGE BEAM SEATS ABUTMENT A	2	05-22-19	05-23-19	59
WBMHB.400.1000185	WB MILITARY HWY BRIDGE WING WALLS ABUTMENT A	3	05-22-19	05-24-19	59
WBMHB.400.1000190	WB MILITARY HWY BRIDGE FILL ABUTMENT A	2	05-28-19	05-29-19	78
WBMHB.400.1000195	WB MILITARY HWY BRIDGE SLOPE PROTECTION ABUTMENT A	4	05-30-19	06-05-19	78
WBMHB.400.1000065	WB MILITARY HWY BRIDGE CIP COLUMN 1-1A	4	05-31-19	06-06-19	63
WBMHB.400.1000070	WB MILITARY HWY BRIDGE CIP COLUMN 1-2A	4	06-03-19	06-07-19	63
WBMHB.400.1000075	WB MILITARY HWY BRIDGE CURE COLUMN 1-1A	3	06-07-19	06-12-19	64
WBMHB.400.1000080	WB MILITARY HWY BRIDGE CURE COLUMN 1-2A	3	06-10-19	06-13-19	63
WBMHB.400.1000085	WB MILITARY HWY BRIDGE CIP CAP 1	5	06-14-19	06-21-19	63
WBMHB.400.1000115	WB MILITARY HWY BRIDGE CIP COLUMN 3-1A	4	06-14-19	06-20-19	65



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBMHB.400.1000120	WB MILITARY HWY BRIDGE CIP COLUMN 3-2A	4	06-17-19	06-21-19	65
WBMHB.400.1000125	WB MILITARY HWY BRIDGE CURE COLUMN 3-1A	3	06-21-19	06-25-19	66
WBMHB.400.1000090	WB MILITARY HWY BRIDGE CURE CAP 1	3	06-24-19	06-26-19	63
WBMHB.400.1000095	WB MILITARY HWY BRIDGE BEAM SEATS 1	2	06-24-19	06-25-19	63
WBMHB.400.1000130	WB MILITARY HWY BRIDGE CURE COLUMN 3-2A	3	06-24-19	06-26-19	65
WBMHB.400.1000100	WB MILITARY HWY BRIDGE CURE BEAM SEAT 1	3	06-26-19	06-28-19	63
WBMHB.400.1000205	WB MILITARY HWY BRIDGE BUILD CAP ABUTMENT B	3	06-26-19	06-28-19	66
WBMHB.400.1000135	WB MILITARY HWY BRIDGE CIP CAP 3	5	06-27-19	07-05-19	65
WBMHB.400.1000210	WB MILITARY HWY BRIDGE BACK WALL ABUTMENT B	3	07-01-19	07-05-19	66
WBMHB.400.1000140	WB MILITARY HWY BRIDGE CURE CAP 3	3	07-08-19	07-11-19	65
WBMHB.400.1000145	WB MILITARY HWY BRIDGE BEAM SEATS 3	2	07-08-19	07-10-19	65
WBMHB.400.1000215	WB MILITARY HWY BRIDGE BEAM SEATS ABUTMENT B	2	07-08-19	07-10-19	66
WBMHB.400.1000220	WB MILITARY HWY BRIDGE WING WALLS ABUTMENT B	3	07-08-19	07-11-19	66
WBMHB.400.1000150	WB MILITARY HWY BRIDGE CURE BEAM SEAT 3	3	07-11-19	07-15-19	65
WBMHB.400.1000225	WB MILITARY HWY BRIDGE FILL ABUTMENT B	2	07-12-19	07-15-19	66
WBMHB.400.1000230	WB MILITARY HWY BRIDGE SLOPE PROTECTION ABUTMENT B	4	07-17-19	07-22-19	66
GIRDERS		24	08-08-19	08-28-19	47
WBMHB.400.1000235	WB MILITARY HWY BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 1	3	08-08-19	08-12-19	41
WBMHB.400.1000275	WB MILITARY HWY BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 2	3	08-14-19	08-16-19	43
WBMHB.400.1000315	WB MILITARY HWY BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 3	3	08-19-19	08-22-19	45
WBMHB.400.1000355	WB MILITARY HWY BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 4	3	08-23-19	08-28-19	47
BRIDGE DECK		38	08-21-19	10-04-19	45
WBMHB.400.1000240	WB MILITARY HWY BRIDGE FORM & SIP SPAN 1	5	08-21-19	08-28-19	37
WBMHB.400.1000245	WB MILITARY HWY BRIDGE FORM OVERHANG SPAN 1	3	08-26-19	08-29-19	57
WBMHB.400.1000250	WB MILITARY HWY BRIDGE REBAR SPAN 1	5	08-28-19	09-05-19	57
WBMHB.400.1000280	WB MILITARY HWY BRIDGE FORM & SIP SPAN 2	5	08-29-19	09-06-19	37
WBMHB.400.1000255	WB MILITARY HWY BRIDGE INSTALL BULKHEAD SPAN 1	2	09-05-19	09-06-19	57
WBMHB.400.1000285	WB MILITARY HWY BRIDGE FORM OVERHANG SPAN 2	3	09-05-19	09-09-19	53
WBMHB.400.1000260	WB MILITARY HWY BRIDGE SETUP BIDWELL SPAN 1	2	09-06-19	09-09-19	57
WBMHB.400.1000290	WB MILITARY HWY BRIDGE REBAR SPAN 2	5	09-06-19	09-13-19	53
WBMHB.400.1000265	WB MILITARY HWY BRIDGE DRY RUN SPAN 1	1	09-09-19	09-09-19	57
WBMHB.400.1000320	WB MILITARY HWY BRIDGE FORM & SIP SPAN 3	5	09-09-19	09-16-19	37
WBMHB.400.1000270	WB MILITARY HWY BRIDGE DECK POUR SPAN 1	1	09-11-19	09-11-19	57
WBMHB.400.1000295	WB MILITARY HWY BRIDGE INSTALL BULKHEAD SPAN 2	2	09-13-19	09-16-19	53
WBMHB.400.1000325	WB MILITARY HWY BRIDGE FORM OVERHANG SPAN 3	3	09-13-19	09-18-19	49
WBMHB.400.1000300	WB MILITARY HWY BRIDGE SETUP BIDWELL SPAN 2	2	09-16-19	09-18-19	53
WBMHB.400.1000330	WB MILITARY HWY BRIDGE REBAR SPAN 3	5	09-16-19	09-23-19	49
WBMHB.400.1000305	WB MILITARY HWY BRIDGE DRY RUN SPAN 2	1	09-18-19	09-18-19	53
WBMHB.400.1000360	WB MILITARY HWY BRIDGE FORM & SIP SPAN 4	5	09-18-19	09-24-19	37
WBMHB.400.1000310	WB MILITARY HWY BRIDGE DECK POUR SPAN 2	1	09-19-19	09-19-19	53
WBMHB.400.1000335	WB MILITARY HWY BRIDGE INSTALL BULKHEAD SPAN 3	2	09-23-19	09-24-19	49
WBMHB.400.1000365	WB MILITARY HWY BRIDGE FORM OVERHANG SPAN 4	3	09-23-19	09-25-19	45
WBMHB.400.1000340	WB MILITARY HWY BRIDGE SETUP BIDWELL SPAN 3	2	09-24-19	09-25-19	49
WBMHB.400.1000370	WB MILITARY HWY BRIDGE REBAR SPAN 4	5	09-24-19	09-30-19	45
WBMHB.400.1000345	WB MILITARY HWY BRIDGE DRY RUN SPAN 3	1	09-25-19	09-25-19	49
WBMHB.400.1000350	WB MILITARY HWY BRIDGE DECK POUR SPAN 3	1	09-26-19	09-26-19	49
WBMHB.400.1000375	WB MILITARY HWY BRIDGE INSTALL BULKHEAD SPAN 4	2	09-30-19	10-02-19	45
WBMHB.400.1000380	WB MILITARY HWY BRIDGE SETUP BIDWELL SPAN 4	2	10-02-19	10-03-19	45
WBMHB.400.1000385	WB MILITARY HWY BRIDGE DRY RUN SPAN 4	1	10-03-19	10-03-19	45
WBMHB.400.1000390	WB MILITARY HWY BRIDGE DECK POUR SPAN 4	1	10-04-19	10-04-19	45



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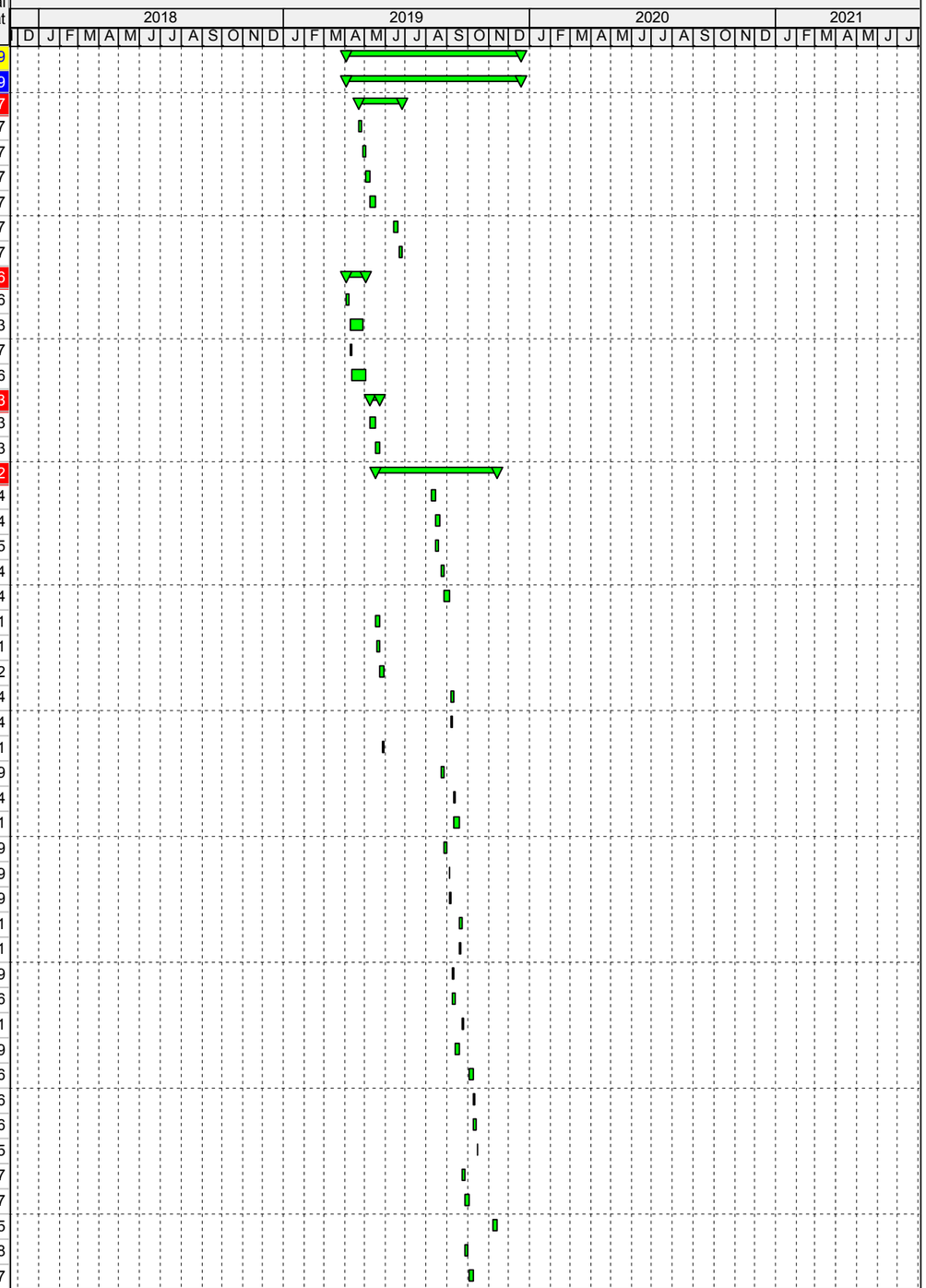
SKANSKA

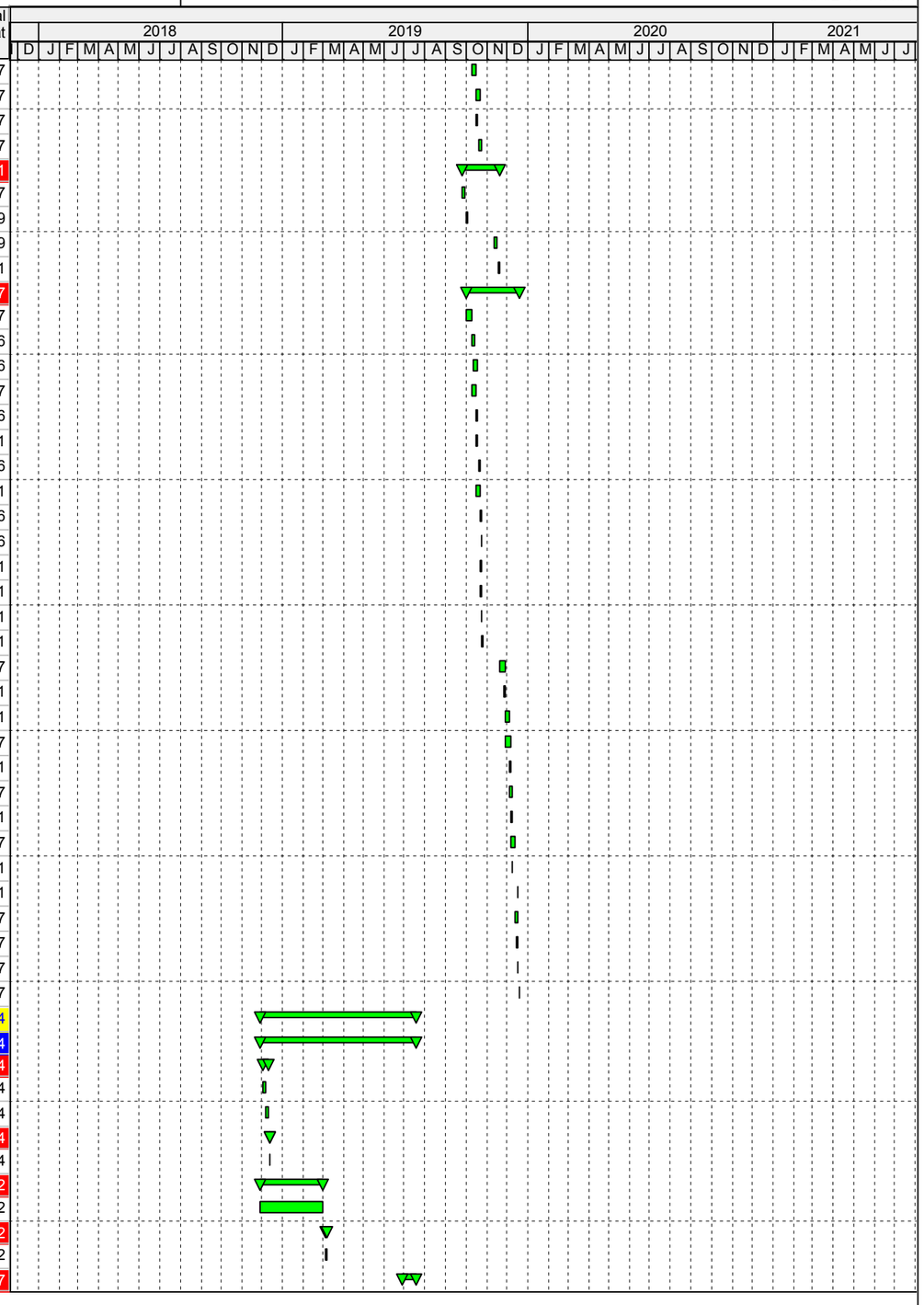
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EASTBOUND MILITARY HWY BRIDGE		260	04-04-19	10-21-19	59
PHASE 1		260	04-04-19	10-21-19	59
DRILLED SHAFTS		40	04-23-19	06-26-19	37
EBMHB.400.1000005	EB MILITARY HWY BRIDGE DRILLED SHAFT 2-1	4	04-23-19	04-26-19	37
EBMHB.400.1000010	EB MILITARY HWY BRIDGE DRILLED SHAFT 2-2	4	04-29-19	05-02-19	37
EBMHB.400.1000055	EB MILITARY HWY BRIDGE DRILLED SHAFT 1-1	4	05-03-19	05-09-19	37
EBMHB.400.1000060	EB MILITARY HWY BRIDGE DRILLED SHAFT 1-2	4	05-10-19	05-16-19	37
EBMHB.400.1000105	EB MILITARY HWY BRIDGE DRILLED SHAFT 3-1	4	06-14-19	06-20-19	37
EBMHB.400.1000110	EB MILITARY HWY BRIDGE DRILLED SHAFT 3-2	4	06-21-19	06-26-19	37
TEST PILES		30	04-04-19	05-03-19	96
EBMHB.400.1000155	EB MILITARY HWY BRIDGE TEST PILE - ABUTMENT A	3	04-04-19	04-08-19	56
EBMHB.400.1000400	EB MILITARY HWY BRIDGE TEST PILE - ABUTMENT A - TEST	21	04-09-19	04-29-19	93
EBMHB.400.1000160	EB MILITARY HWY BRIDGE TEST PILE - ABUTMENT B	3	04-10-19	04-12-19	57
EBMHB.400.1000410	EB MILITARY HWY BRIDGE TEST PILE - ABUTMENT B - TEST	21	04-13-19	05-03-19	96
PRODUCTION PILES		8	05-10-19	05-23-19	53
EBMHB.400.1000165	EB MILITARY HWY BRIDGE DRIVE PILES ABUTMENT A	4	05-10-19	05-16-19	53
EBMHB.400.1000200	EB MILITARY HWY BRIDGE DRIVE PILES ABUTMENT B	4	05-17-19	05-23-19	53
SUBSTRUCTURE		107	05-03-19	07-29-19	72
EBMHB.400.1000015	EB MILITARY HWY BRIDGE CIP COLUMN 2-1A	4	05-03-19	05-09-19	74
EBMHB.400.1000020	EB MILITARY HWY BRIDGE CIP COLUMN 2-2A	4	05-06-19	05-10-19	74
EBMHB.400.1000025	EB MILITARY HWY BRIDGE CURE COLUMN 2-1A	3	05-10-19	05-15-19	75
EBMHB.400.1000030	EB MILITARY HWY BRIDGE CURE COLUMN 2-2A	3	05-13-19	05-16-19	74
EBMHB.400.1000035	EB MILITARY HWY BRIDGE CIP CAP 2	5	05-17-19	05-24-19	74
EBMHB.400.1000065	EB MILITARY HWY BRIDGE CIP COLUMN 1-1A	4	05-17-19	05-23-19	61
EBMHB.400.1000070	EB MILITARY HWY BRIDGE CIP COLUMN 1-2A	4	05-20-19	05-24-19	61
EBMHB.400.1000075	EB MILITARY HWY BRIDGE CURE COLUMN 1-1A	3	05-24-19	05-29-19	62
EBMHB.400.1000040	EB MILITARY HWY BRIDGE CURE CAP 2	3	05-28-19	05-30-19	74
EBMHB.400.1000045	EB MILITARY HWY BRIDGE BEAM SEATS 2	2	05-28-19	05-29-19	74
EBMHB.400.1000080	EB MILITARY HWY BRIDGE CURE COLUMN 1-2A	3	05-28-19	05-30-19	61
EBMHB.400.1000170	EB MILITARY HWY BRIDGE BUILD CAP ABUTMENT A	3	05-28-19	05-30-19	59
EBMHB.400.1000050	EB MILITARY HWY BRIDGE CURE BEAM SEAT 2	3	05-30-19	06-03-19	74
EBMHB.400.1000085	EB MILITARY HWY BRIDGE CIP CAP 1	5	05-31-19	06-07-19	61
EBMHB.400.1000175	EB MILITARY HWY BRIDGE BACK WALL ABUTMENT A	3	05-31-19	06-05-19	59
EBMHB.400.1000180	EB MILITARY HWY BRIDGE BEAM SEATS ABUTMENT A	2	06-06-19	06-07-19	59
EBMHB.400.1000185	EB MILITARY HWY BRIDGE WING WALLS ABUTMENT A	3	06-06-19	06-10-19	59
EBMHB.400.1000090	EB MILITARY HWY BRIDGE CURE CAP 1	3	06-10-19	06-13-19	61
EBMHB.400.1000095	EB MILITARY HWY BRIDGE BEAM SEATS 1	2	06-10-19	06-12-19	61
EBMHB.400.1000190	EB MILITARY HWY BRIDGE FILL ABUTMENT A	2	06-12-19	06-13-19	59
EBMHB.400.1000205	EB MILITARY HWY BRIDGE BUILD CAP ABUTMENT B	3	06-12-19	06-14-19	66
EBMHB.400.1000100	EB MILITARY HWY BRIDGE CURE BEAM SEAT 1	3	06-13-19	06-17-19	61
EBMHB.400.1000195	EB MILITARY HWY BRIDGE SLOPE PROTECTION ABUTMENT A	4	06-14-19	06-20-19	59
EBMHB.400.1000210	EB MILITARY HWY BRIDGE BACK WALL ABUTMENT B	3	06-17-19	06-20-19	66
EBMHB.400.1000215	EB MILITARY HWY BRIDGE BEAM SEATS ABUTMENT B	2	06-21-19	06-24-19	66
EBMHB.400.1000220	EB MILITARY HWY BRIDGE WING WALLS ABUTMENT B	3	06-21-19	06-25-19	66
EBMHB.400.1000225	EB MILITARY HWY BRIDGE FILL ABUTMENT B	2	06-26-19	06-27-19	85
EBMHB.400.1000115	EB MILITARY HWY BRIDGE CIP COLUMN 3-1A	4	06-27-19	07-03-19	67
EBMHB.400.1000120	EB MILITARY HWY BRIDGE CIP COLUMN 3-2A	4	06-28-19	07-05-19	67
EBMHB.400.1000230	EB MILITARY HWY BRIDGE SLOPE PROTECTION ABUTMENT B	4	06-28-19	07-05-19	85
EBMHB.400.1000125	EB MILITARY HWY BRIDGE CURE COLUMN 3-1A	3	07-05-19	07-10-19	68
EBMHB.400.1000130	EB MILITARY HWY BRIDGE CURE COLUMN 3-2A	3	07-08-19	07-11-19	67



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EBMHB.400.1000135	EB MILITARY HWY BRIDGE CIP CAP 3	5	07-12-19	07-19-19	67
EBMHB.400.1000140	EB MILITARY HWY BRIDGE CURE CAP 3	3	07-22-19	07-25-19	67
EBMHB.400.1000145	EB MILITARY HWY BRIDGE BEAM SEATS 3	2	07-22-19	07-24-19	67
EBMHB.400.1000150	EB MILITARY HWY BRIDGE CURE BEAM SEAT 3	3	07-25-19	07-29-19	67
GIRDERS		36	07-30-19	09-09-19	51
EBMHB.400.1000235	EB MILITARY HWY BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 1	3	07-30-19	08-01-19	37
EBMHB.400.1000275	EB MILITARY HWY BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 2	3	08-02-19	08-07-19	39
EBMHB.400.1000315	EB MILITARY HWY BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 3	3	08-29-19	09-04-19	49
EBMHB.400.1000355	EB MILITARY HWY BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 4	3	09-05-19	09-09-19	51
BRIDGE DECK		50	08-02-19	10-21-19	37
EBMHB.400.1000240	EB MILITARY HWY BRIDGE FORM & SIP SPAN 1	5	08-02-19	08-09-19	37
EBMHB.400.1000245	EB MILITARY HWY BRIDGE FORM OVERHANG SPAN 1	3	08-08-19	08-12-19	66
EBMHB.400.1000250	EB MILITARY HWY BRIDGE REBAR SPAN 1	5	08-09-19	08-16-19	66
EBMHB.400.1000280	EB MILITARY HWY BRIDGE FORM & SIP SPAN 2	5	08-12-19	08-19-19	37
EBMHB.400.1000255	EB MILITARY HWY BRIDGE INSTALL BULKHEAD SPAN 1	2	08-16-19	08-19-19	66
EBMHB.400.1000285	EB MILITARY HWY BRIDGE FORM OVERHANG SPAN 2	3	08-16-19	08-21-19	61
EBMHB.400.1000260	EB MILITARY HWY BRIDGE SETUP BIDWELL SPAN 1	2	08-19-19	08-21-19	66
EBMHB.400.1000290	EB MILITARY HWY BRIDGE REBAR SPAN 2	5	08-19-19	08-26-19	61
EBMHB.400.1000265	EB MILITARY HWY BRIDGE DRY RUN SPAN 1	1	08-21-19	08-21-19	66
EBMHB.400.1000270	EB MILITARY HWY BRIDGE DECK POUR SPAN 1	1	08-21-19	08-21-19	66
EBMHB.400.1000295	EB MILITARY HWY BRIDGE INSTALL BULKHEAD SPAN 2	2	08-26-19	08-28-19	61
EBMHB.400.1000300	EB MILITARY HWY BRIDGE SETUP BIDWELL SPAN 2	2	08-28-19	08-29-19	61
EBMHB.400.1000305	EB MILITARY HWY BRIDGE DRY RUN SPAN 2	1	08-29-19	08-29-19	61
EBMHB.400.1000310	EB MILITARY HWY BRIDGE DECK POUR SPAN 2	1	08-30-19	08-30-19	61
EBMHB.400.1000320	EB MILITARY HWY BRIDGE FORM & SIP SPAN 3	5	09-25-19	10-02-19	37
EBMHB.400.1000325	EB MILITARY HWY BRIDGE FORM OVERHANG SPAN 3	3	09-30-19	10-03-19	41
EBMHB.400.1000330	EB MILITARY HWY BRIDGE REBAR SPAN 3	5	10-02-19	10-09-19	41
EBMHB.400.1000360	EB MILITARY HWY BRIDGE FORM & SIP SPAN 4	5	10-03-19	10-10-19	37
EBMHB.400.1000335	EB MILITARY HWY BRIDGE INSTALL BULKHEAD SPAN 3	2	10-09-19	10-10-19	41
EBMHB.400.1000365	EB MILITARY HWY BRIDGE FORM OVERHANG SPAN 4	3	10-09-19	10-11-19	37
EBMHB.400.1000340	EB MILITARY HWY BRIDGE SETUP BIDWELL SPAN 3	2	10-10-19	10-11-19	41
EBMHB.400.1000370	EB MILITARY HWY BRIDGE REBAR SPAN 4	5	10-10-19	10-16-19	37
EBMHB.400.1000345	EB MILITARY HWY BRIDGE DRY RUN SPAN 3	1	10-11-19	10-11-19	41
EBMHB.400.1000350	EB MILITARY HWY BRIDGE DECK POUR SPAN 3	1	10-14-19	10-14-19	41
EBMHB.400.1000375	EB MILITARY HWY BRIDGE INSTALL BULKHEAD SPAN 4	2	10-16-19	10-17-19	37
EBMHB.400.1000380	EB MILITARY HWY BRIDGE SETUP BIDWELL SPAN 4	2	10-17-19	10-18-19	37
EBMHB.400.1000385	EB MILITARY HWY BRIDGE DRY RUN SPAN 4	1	10-18-19	10-18-19	37
EBMHB.400.1000390	EB MILITARY HWY BRIDGE DECK POUR SPAN 4	1	10-21-19	10-21-19	37
WESTBOUND MILITARY HWY ROADWAY WORK		233	11-28-18	07-18-19	64
PHASE 1		233	11-28-18	07-18-19	64
303 EARTHWORK		5	12-03-18	12-10-18	94
WBMWY.303.1000000	CUT / BORROW TO FILL WB MILITARY HWY	2	12-03-18	12-05-18	94
WBMWY.303.1000020	ROUGH GRADE MAINLINE WB MILITARY HWY	3	12-06-18	12-10-18	94
305 SUGRADE AND SHOULDERS		1	12-12-18	12-12-18	94
WBMWY.305.1000020	FINE GRADE MAINLINE WB MILITARY HWY	1	12-12-18	12-12-18	94
309 AGGREGATE BASE COURSE		3	11-28-18	03-01-19	52
WBMWY.309.1000000	PLACE AND FINE GRADE AGGREGATE BASE COURSE WB MILITARY HWY	3	11-28-18	03-01-19	52
315 ASPHALT CONCRETE PAVEMENT		3	03-06-19	03-08-19	52
WBMWY.315.1000000	PLACE ASPHALT PAVING WB MILITARY HWY	3	03-06-19	03-08-19	52
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		12	06-27-19	07-18-19	37



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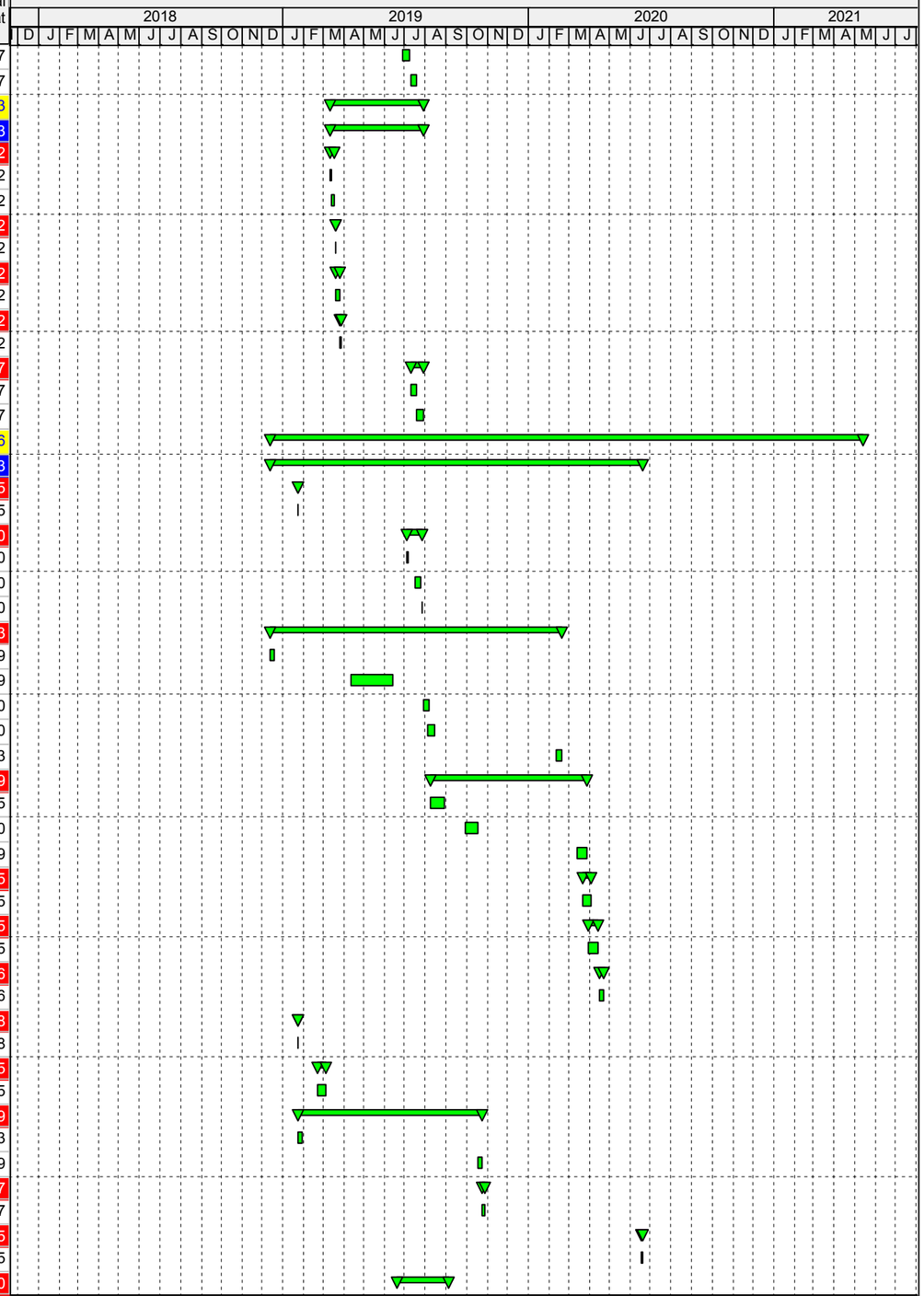
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBMWY.505.1000000	INSTALL BARRIER WALL WB MILITARY HWY	6	06-27-19	07-08-19	37
WBMWY.505.1000010	INSTALL GUARDRAIL WB MILITARY HWY	6	07-10-19	07-18-19	37
EASTBOUND MILITARY HWY ROADWAY WORK		141	03-11-19	07-29-19	63
PHASE 1		141	03-11-19	07-29-19	63
303 EARTHWORK		5	03-11-19	03-18-19	52
EBMWY.303.1000000	CUT / BORROW TO FILL EB MILITARY HWY	2	03-11-19	03-13-19	52
EBMWY.303.1000020	ROUGH GRADE MAINLINE EB MILITARY HWY	3	03-14-19	03-18-19	52
305 SUGRADE AND SHOULDERS		1	03-20-19	03-20-19	52
EBMWY.305.1000020	FINE GRADE MAINLINE EB MILITARY HWY	1	03-20-19	03-20-19	52
309 AGGREGATE BASE COURSE		3	03-21-19	03-25-19	52
EBMWY.309.1000000	PLACE AND FINE GRADE AGGREGATE BASE COURSE EB MILITARY HWY	3	03-21-19	03-25-19	52
315 ASPHALT CONCRETE PAVEMENT		3	03-26-19	03-28-19	52
EBMWY.315.1000000	PLACE ASPHALT PAVING EB MILITARY HWY	3	03-26-19	03-28-19	52
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		12	07-10-19	07-29-19	37
EBMWY.505.1000000	INSTALL BARRIER WALL EB MILITARY HWY	6	07-10-19	07-18-19	37
EBMWY.505.1000010	INSTALL GUARDRAIL EB MILITARY HWY	6	07-19-19	07-29-19	37
I-64 WESTBOUND FROM SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE		883	11-09-18	11-23-20	186
PHASE 1		554	11-09-18	04-21-20	153
301 CLEARING AND GRUBBING		2	01-03-19	01-04-19	365
WBRW.301.1000100	CLEAR AND GRUB FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE FO	2	01-03-19	01-04-19	365
302 DRAINAGE STRUCTURES		13	06-14-19	06-26-19	100
WBRW.302.1000100	EXTEND DRAINAGE PIPE AND INLET WB 1117+50	1	06-14-19	06-14-19	100
WBRW.302.1000105	JACK AND BORE DRAINAGE PIPE WB 1120 TO SWM AREA 1120	5	06-17-19	06-24-19	100
WBRW.302.1000110	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1131 TO WATER QUALITY SWALE	1	06-26-19	06-26-19	100
303 EARTHWORK		259	11-09-18	07-25-19	133
WBRW.303.1000100	INSTALL SILT FENCE AND EROSION CONTROL FROM WB SOUTH MILITARY HWY BRIDGE T	5	11-09-18	11-16-18	99
WBRW.303.1000105	CUT / BORROW TO FILL WB FROM SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDG	40	03-26-19	05-28-19	49
WBRW.303.1000110	ROUGH GRADE SLOPES FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDG	6	06-27-19	07-08-19	100
WBRW.303.1000115	ROUGH GRADE MEDIAN FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDG	6	07-08-19	07-17-19	100
WBRW.303.1000120	ROUGH GRADE MAINLINE FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRI	5	07-18-19	07-25-19	133
305 SUGRADE AND SHOULDERS		140	07-10-19	08-09-19	139
WBRW.305.1000110	FINE GRADE SLOPES FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	12	07-10-19	07-29-19	105
WBRW.305.1000115	FINE GRADE MEDIAN FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	12	07-18-19	08-05-19	100
WBRW.305.1000120	FINE GRADE MAINLINE FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDG	10	07-26-19	08-09-19	139
309 AGGREGATE BASE COURSE		10	08-02-19	08-19-19	85
WBRW.309.1000120	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM WB SOUTH MILITARY HWY BR	10	08-02-19	08-19-19	85
315 ASPHALT CONCRETE PAVEMENT		10	08-12-19	08-28-19	85
WBRW.315.1000120	PLACE ASPHALT PAVING FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRID	10	08-12-19	08-28-19	85
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		6	08-29-19	09-09-19	166
WBRW.505.1000110	INSTALL GUARDRAIL FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	6	08-29-19	09-09-19	166
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		2	01-03-19	01-04-19	248
WBRW.508.1000100	DEMO PAVING FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	2	01-03-19	01-04-19	248
519 SOUND BARRIER WALLS		8	01-07-19	01-18-19	365
WBRW.519.1000100	INSTALL SOUND BARRIER WALL 4-5 FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN I	8	01-07-19	01-18-19	365
602 TOPSOIL		168	01-03-19	08-14-19	119
WBRW.602.1000100	STRIP TOPSOIL FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	5	01-03-19	01-10-19	93
WBRW.602.1000110	SPREAD TOPSOIL FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	5	08-07-19	08-14-19	119
603 SEEDING		2	08-15-19	08-16-19	127
WBRW.603.1000100	PERMENANT SEED FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	2	08-15-19	08-16-19	127
704 PAVEMENT MARKINGS AND MARKERS		2	04-20-20	04-21-20	35
WBRW.704.1000100	APPLY PAVEMENT MARKINGS WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	2	04-20-20	04-21-20	35
800 INTELLIGENT TRANSPORTATION SYSTEMS		44	06-20-19	09-04-19	0



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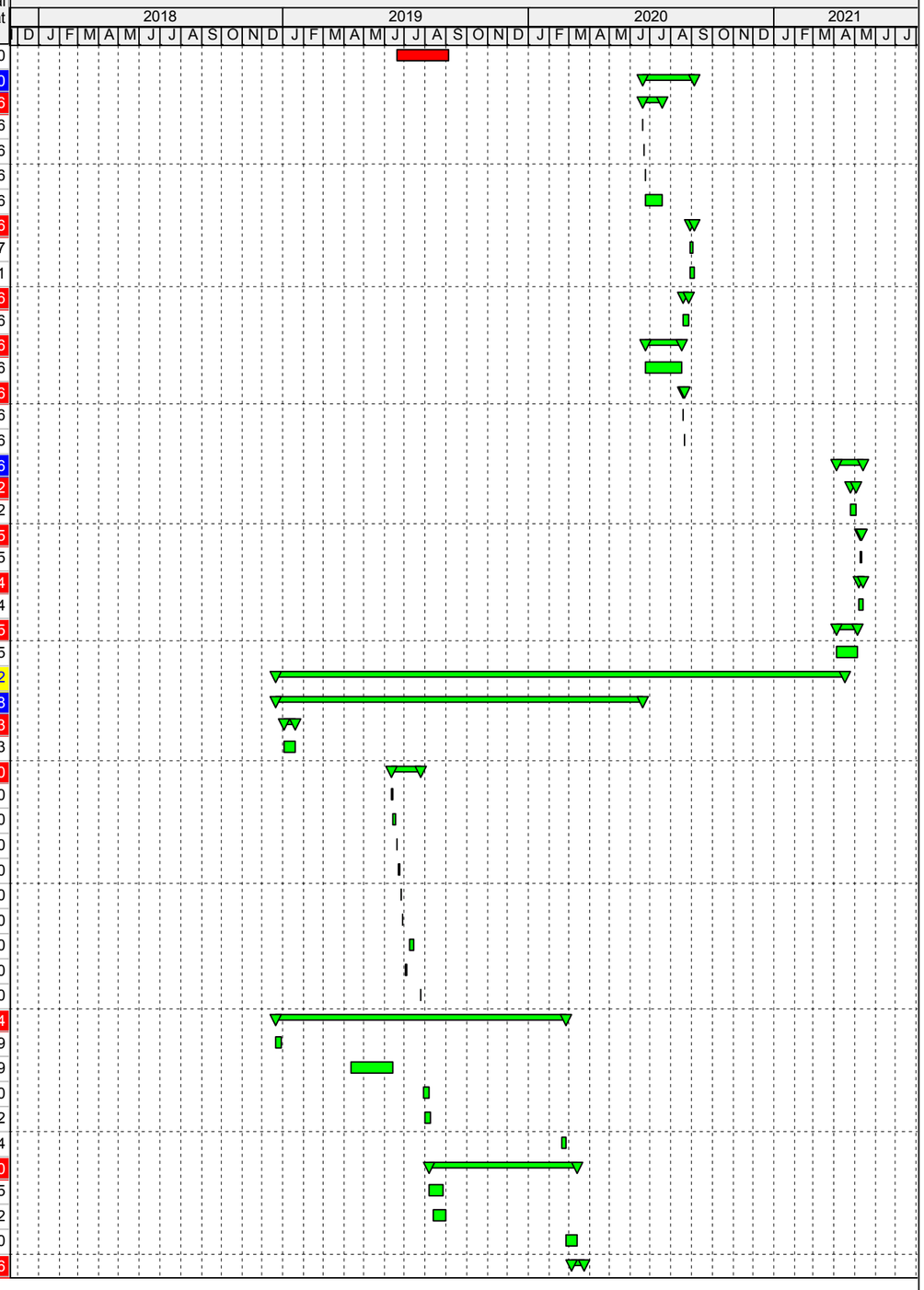
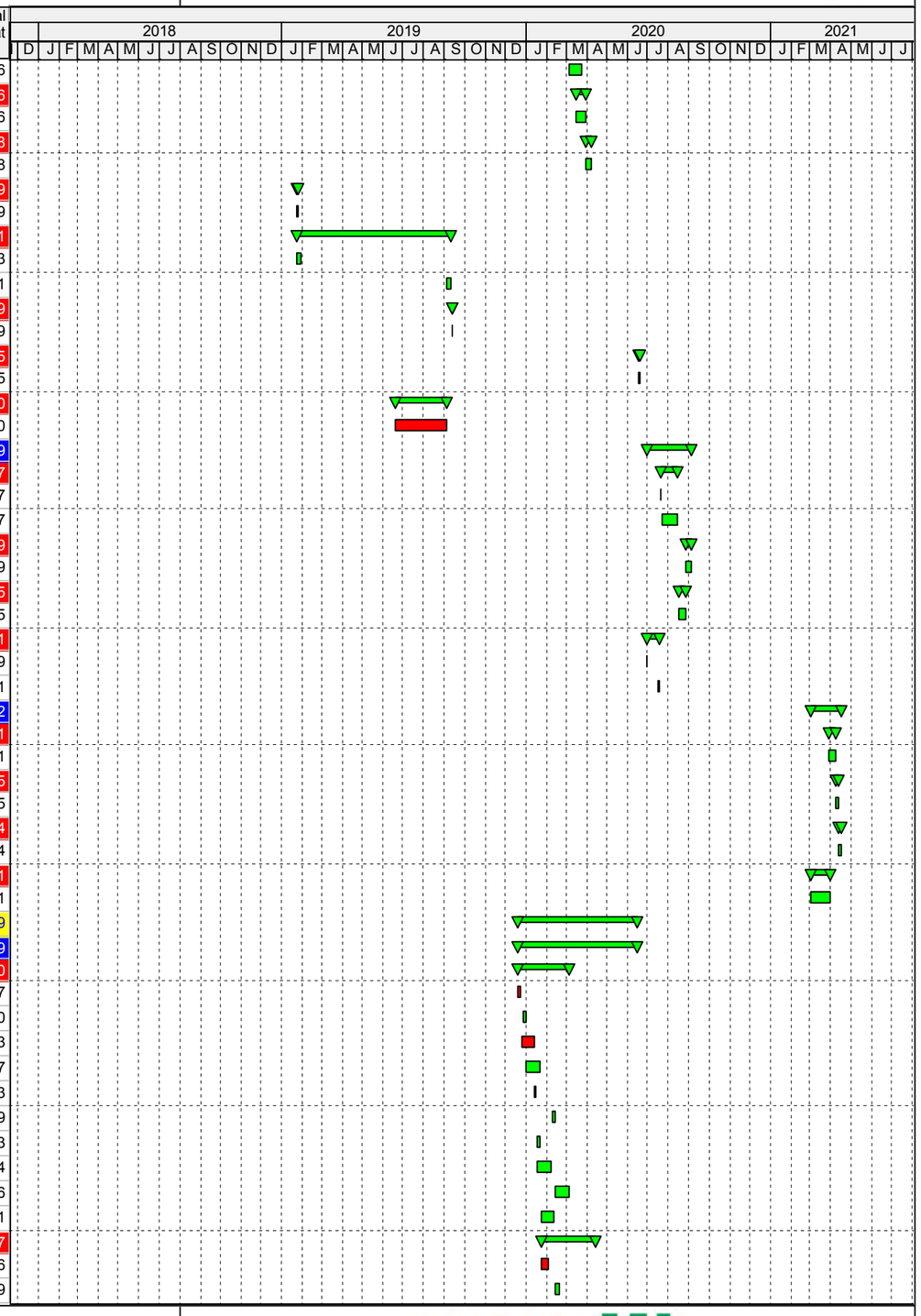
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBRW.800.1000100	RUN DISTRIBUTION AND FIBER FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAI	44	06-20-19	09-04-19	0
PHASE 2		77	04-22-20	07-02-20	300
302 DRAINAGE STRUCTURES		18	04-22-20	05-20-20	86
WBRW.302.2000100	INSTALL DRAINAGE PIPE AND STRUCTURE WB 1113 AT NOISE BARRIER 4-5	1	04-22-20	04-22-20	86
WBRW.302.2000105	INSTALL DRAINAGE PIPE AND STRUCTURE WB 1114+50 AT NOISE BARRIER 4-5	1	04-23-20	04-23-20	86
WBRW.302.2000110	INSTALL DRAINAGE PIPE AND STRUCTURE WB 1118 AT NOISE BARRIER 4-5	1	04-24-20	04-24-20	86
WBRW.302.2000115	INSTALL DRAINAGE PIPE AND STRUCTURES FROM WB1120+50 TO 1131	15	04-27-20	05-20-20	86
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		4	06-29-20	07-02-20	166
WBRW.505.2000110	INSTALL GUARDRAIL FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	3	06-29-20	07-01-20	167
WBRW.505.2000100	INSTALL BARRIER WALLS FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRI	4	06-29-20	07-02-20	151
515 MILLING PAVEMENT		6	06-19-20	06-26-20	86
WBRW.515.2000100	MILL AND OVERLAY FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	6	06-19-20	06-26-20	86
519 SOUND BARRIER WALLS		32	04-27-20	06-18-20	86
WBRW.519.2000100	INSTALL SOUND BARRIER WALL 4-5 FROM WB SOUTH MILITARY HWY BRIDGE TO YADKIN I	32	04-27-20	06-18-20	86
800 INTELLIGENT TRANSPORTATION SYSTEMS		3	06-19-20	06-23-20	186
WBRW.800.2000120	GROUND-MOUNTED EQUIPMENT CABINET FROM WB 1489+33.00 TO SOUTH MILITARY HW'	1	06-19-20	06-19-20	186
WBRW.800.2000160	DYNAMIC MESSAGE SIGN FROM WB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	2	06-22-20	06-23-20	186
PHASE 3		39	10-16-20	11-23-20	186
315 ASPHALT CONCRETE PAVEMENT		6	11-05-20	11-13-20	62
WBRW.315.3000120	PLACE ASPHALT PAVING FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	6	11-05-20	11-13-20	62
701 TRAFFIC SIGNS		2	11-19-20	11-20-20	115
WBRW.701.3000100	INSTALL TRAFFIC SIGNS FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	2	11-19-20	11-20-20	115
704 PAVEMENT MARKINGS AND MARKERS		4	11-18-20	11-23-20	114
WBRW.704.3000100	APPLY PAVEMENT MARKINGS FROM EB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	4	11-18-20	11-23-20	114
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	10-16-20	11-14-20	195
WBRW.800.3000190	ITS BURN IN PERIOD FROM WB 1489+33.00 TO SOUTH MILITARY HWY BRIDGE	30	10-16-20	11-14-20	195
I-64 EASTBOUND FROM SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE		849	11-09-18	12-07-20	172
PHASE 1		547	11-09-18	04-21-20	58
301 CLEARING AND GRUBBING		10	12-17-18	01-02-19	83
EBRW.301.1000100	CLEAR AND GRUB FROM SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	10	12-17-18	01-02-19	83
302 DRAINAGE STRUCTURES		26	05-24-19	06-25-19	100
EBRW.302.1000105	EXCAVATE SWM AREA EB 1600 TO 1603	2	05-24-19	05-28-19	100
EBRW.302.1000110	EXCAVATE SWM AREA EB 1604 TO 1607	2	05-24-19	05-28-19	100
EBRW.302.1000115	INSTALL WATER QUALITY SWALE FROM EB 1600 TO 1590	2	05-29-19	05-30-19	100
EBRW.302.1000120	INSTALL WATER QUALITY SWALE FROM EB 1617 TO 1607	2	05-31-19	06-03-19	100
EBRW.302.1000125	INSTALL SWM AREA INLET STRUCTURE AND OUTFALL EB 1603	2	06-05-19	06-06-19	100
EBRW.302.1000130	INSTALL SWM AREA INLET STRUCTURE AND OUTFALL EB 1604	2	06-07-19	06-10-19	100
EBRW.302.1000140	JACK AND BORE DRAINAGE PIPE EB 1607 TO SWM AREA 1607	5	06-07-19	06-14-19	100
EBRW.302.1000135	EXTEND DRAINAGE PIPE AND OUTFALL EB1603+50	2	06-12-19	06-13-19	100
EBRW.302.1000145	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1617 TO WATER QUALITY SWALE	1	06-25-19	06-25-19	100
303 EARTHWORK		259	11-09-18	07-18-19	134
EBRW.303.1000100	INSTALL SILT FENCE AND EROSION CONTROL EB FROM SOUTH MILITARY HWY BRIDGE TC	5	11-09-18	11-16-18	99
EBRW.303.1000105	CUT / BORROW TO FILL EB FROM SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGI	40	03-26-19	05-28-19	39
EBRW.303.1000110	ROUGH GRADE SLOPES FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDG	6	06-27-19	07-08-19	100
EBRW.303.1000115	ROUGH GRADE MEDIAN FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDG	6	07-03-19	07-12-19	102
EBRW.303.1000120	ROUGH GRADE MAINLINE FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRID	5	07-11-19	07-18-19	134
305 SUGRADE AND SHOULDERS		132	07-10-19	08-02-19	140
EBRW.305.1000110	FINE GRADE SLOPES FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	12	07-10-19	07-29-19	105
EBRW.305.1000115	FINE GRADE MEDIAN FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	12	07-15-19	08-01-19	102
EBRW.305.1000120	FINE GRADE MAINLINE FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	10	07-19-19	08-02-19	140
309 AGGREGATE BASE COURSE		10	07-29-19	08-12-19	86



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EBRW.309.1000120	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM EB SOUTH MILITARY HWY BRI	10	07-29-19	08-12-19	86
315 ASPHALT CONCRETE PAVEMENT		10	08-05-19	08-21-19	86
EBRW.315.1000120	PLACE ASPHALT PAVING FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDG	10	08-05-19	08-21-19	86
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		6	08-22-19	08-30-19	168
EBRW.505.1000110	INSTALL GUARDRAIL FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	6	08-22-19	08-30-19	168
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		3	01-03-19	01-07-19	239
EBRW.508.1000100	DEMO PAVING FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	3	01-03-19	01-07-19	239
602 TOPSOIL		140	01-03-19	08-09-19	121
EBRW.602.1000100	STRIP TOPSOIL FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	5	01-03-19	01-10-19	83
EBRW.602.1000110	SPREAD TOPSOIL FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	5	08-02-19	08-09-19	121
603 SEEDING		2	08-12-19	08-14-19	129
EBRW.603.1000100	PERMENANT SEED FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	2	08-12-19	08-14-19	129
704 PAVEMENT MARKINGS AND MARKERS		2	04-20-20	04-21-20	35
EBRW.704.1000100	APPLY PAVEMENT MARKINGS EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	2	04-20-20	04-21-20	35
800 INTELLIGENT TRANSPORTATION SYSTEMS		44	06-20-19	09-04-19	0
EBRW.800.1000100	RUN DISTRIBUTION AND FIBER FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD	44	06-20-19	09-04-19	0
PHASE 2		67	04-22-20	07-23-20	279
302 DRAINAGE STRUCTURES		16	04-22-20	05-15-20	97
EBRW.302.2000100	INSTALL DRAINAGE PIPE AND STRUCTURE EB 1604	1	04-22-20	04-22-20	97
EBRW.302.2000105	INSTALL DRAINAGE PIPE AND STRUCTURES FROM EB 1607 TO 1618	15	04-23-20	05-15-20	97
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		6	07-15-20	07-23-20	129
EBRW.505.2000110	INSTALL GUARDRAIL FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	6	07-15-20	07-23-20	129
515 MILLING PAVEMENT		6	06-24-20	07-01-20	75
EBRW.515.2000100	MILL AND OVERLAY FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	6	06-24-20	07-01-20	75
800 INTELLIGENT TRANSPORTATION SYSTEMS		11	05-28-20	06-15-20	191
EBRW.800.2000120	GROUND-MOUNTED EQUIPMENT CABINET FROM EB SOUTH MILITARY HWY BRIDGE TO YA	1	05-28-20	05-28-20	199
EBRW.800.2000160	DYNAMIC MESSAGE SIGN FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRID	2	06-12-20	06-15-20	191
PHASE 3		47	10-20-20	12-07-20	172
315 ASPHALT CONCRETE PAVEMENT		6	11-17-20	11-24-20	31
EBRW.315.3000120	PLACE ASPHALT PAVING FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDG	6	11-17-20	11-24-20	31
701 TRAFFIC SIGNS		2	11-30-20	12-02-20	105
EBRW.701.3000100	INSTALL TRAFFIC SIGNS FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDG	2	11-30-20	12-02-20	105
704 PAVEMENT MARKINGS AND MARKERS		4	12-02-20	12-07-20	94
EBRW.704.3000100	APPLY PAVEMENT MARKINGS FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD B	4	12-02-20	12-07-20	94
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	10-20-20	11-18-20	191
EBRW.800.3000190	ITS BURN IN PERIOD FROM EB SOUTH MILITARY HWY BRIDGE TO YADKIN ROAD BRIDGE	30	10-20-20	11-18-20	191
WESTBOUND YADKIN ROAD BRIDGE		179	10-22-19	04-17-20	59
PHASE 1		179	10-22-19	04-17-20	59
TEST PILES		77	10-22-19	12-04-19	130
WBYRB.400.1000000	WB YADKIN RD BRIDGE TEST PILE 1	3	10-22-19	10-24-19	37
WBYRB.400.1000210	WB YADKIN RD BRIDGE TEST PILE - ABUTMENT A	3	10-22-19	10-24-19	50
WBYRB.400.1000450	WB YADKIN RD BRIDGE TEST PILE 1 - TEST	21	10-25-19	11-14-19	63
WBYRB.400.1000460	WB YADKIN RD BRIDGE TEST PILE - ABUTMENT A - TEST	21	10-25-19	11-14-19	87
WBYRB.400.1000070	WB YADKIN RD BRIDGE TEST PILE 2	3	11-04-19	11-07-19	43
WBYRB.400.1000215	WB YADKIN RD BRIDGE TEST PILE - ABUTMENT B	3	11-04-19	11-07-19	59
WBYRB.400.1000140	WB YADKIN RD BRIDGE TEST PILE 3	3	11-08-19	11-13-19	43
WBYRB.400.1000470	WB YADKIN RD BRIDGE TEST PILE 2 - TEST	21	11-08-19	11-28-19	84
WBYRB.400.1000480	WB YADKIN RD BRIDGE TEST PILE - ABUTMENT B - TEST	21	11-08-19	11-28-19	136
WBYRB.400.1000490	WB YADKIN RD BRIDGE TEST PILE 3 - TEST	21	11-14-19	12-04-19	91
PRODUCTION PILES		50	11-27-19	01-24-20	57
WBYRB.400.1000005	WB YADKIN RD BRIDGE DRIVE PILE 1	7	11-27-19	12-06-19	36
WBYRB.400.1000220	WB YADKIN RD BRIDGE DRIVE PILES ABUTMENT A	4	11-27-19	12-02-19	49



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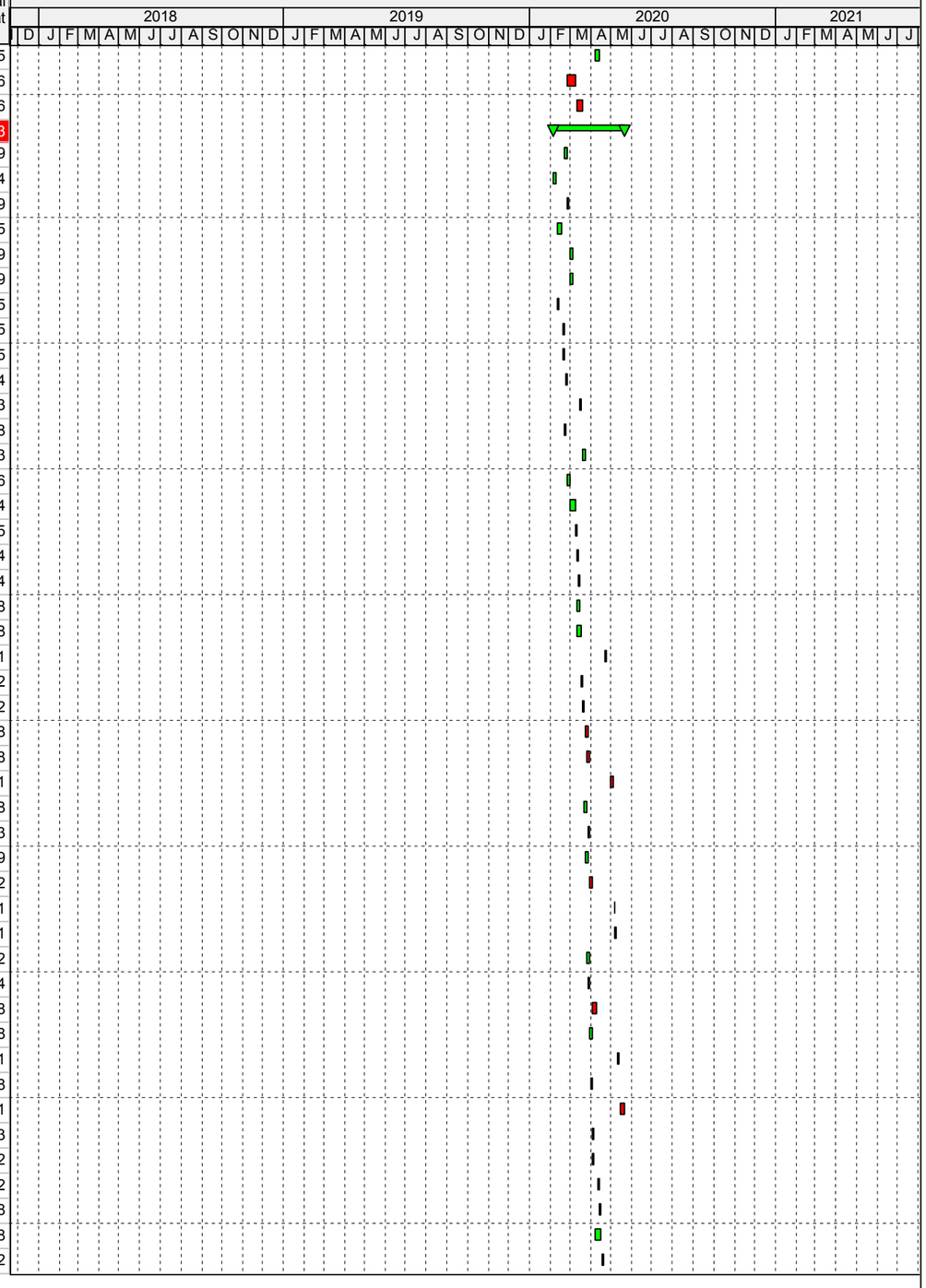
SKANSKA

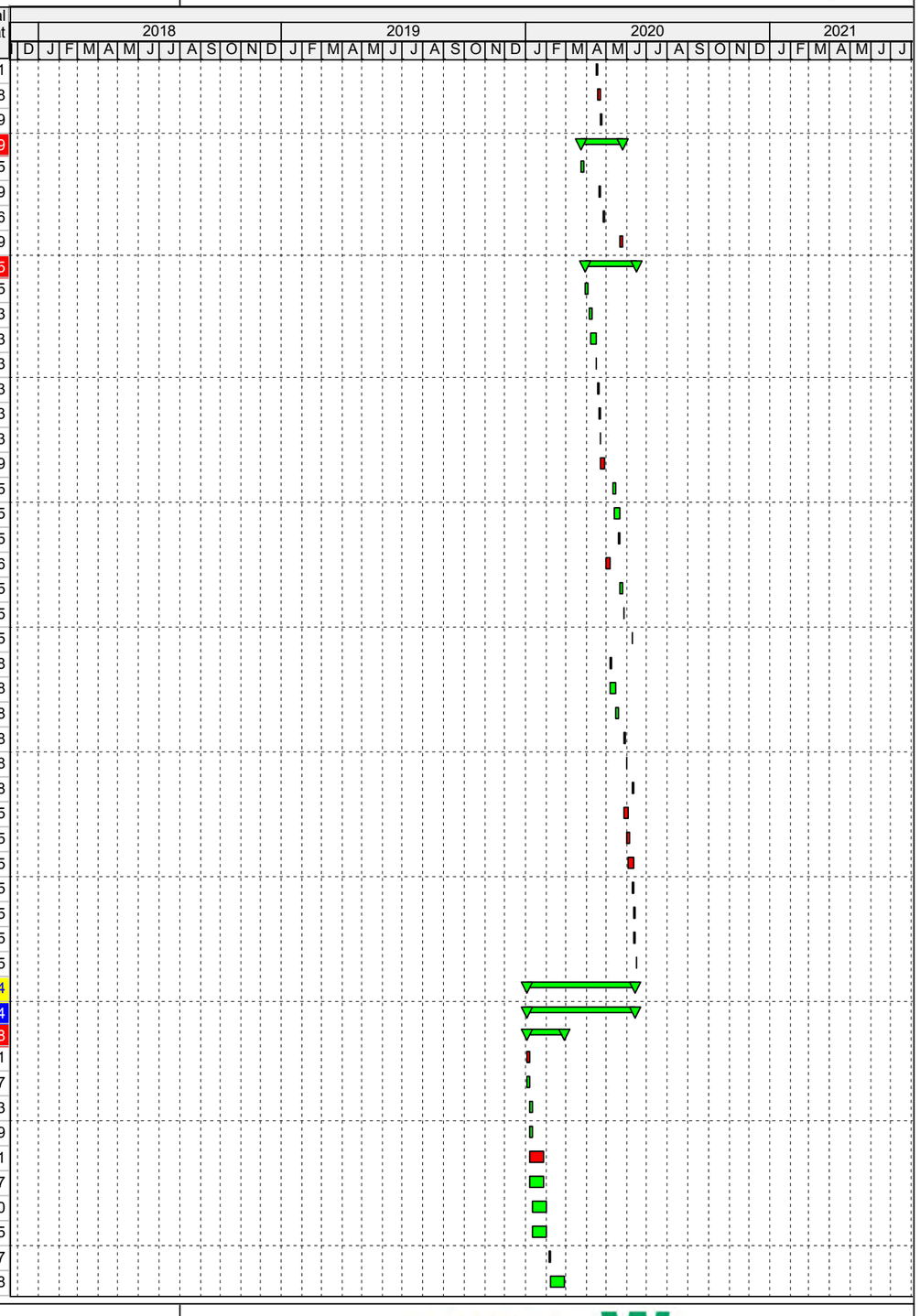
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBYRB.400.1000255	WB YADKIN RD BRIDGE DRIVE PILES ABUTMENT B	4	12-18-19	12-23-19	75
WBYRB.400.1000075	WB YADKIN RD BRIDGE DRIVE PILE 2	7	01-02-20	01-13-20	36
WBYRB.400.1000145	WB YADKIN RD BRIDGE DRIVE PILE 3	7	01-15-20	01-24-20	36
SUBSTRUCTURE		106	12-04-19	02-27-20	83
WBYRB.400.1000225	WB YADKIN RD BRIDGE BUILD CAP ABUTMENT A	3	12-04-19	12-06-19	49
WBYRB.400.1000010	WB YADKIN RD BRIDGE CIP FOOTER 1-1	4	12-09-19	12-13-19	44
WBYRB.400.1000230	WB YADKIN RD BRIDGE BACK WALL ABUTMENT A	3	12-09-19	12-12-19	49
WBYRB.400.1000015	WB YADKIN RD BRIDGE CIP FOOTER 1-2	4	12-11-19	12-16-19	45
WBYRB.400.1000235	WB YADKIN RD BRIDGE BEAM SEATS ABUTMENT A	2	12-13-19	12-16-19	49
WBYRB.400.1000240	WB YADKIN RD BRIDGE WING WALLS ABUTMENT A	3	12-13-19	12-17-19	49
WBYRB.400.1000020	WB YADKIN RD BRIDGE CURE FOOTER 1-1	3	12-14-19	12-16-19	75
WBYRB.400.1000030	WB YADKIN RD BRIDGE CIP COLUMN 1-1A	3	12-16-19	12-18-19	45
WBYRB.400.1000025	WB YADKIN RD BRIDGE CURE FOOTER 1-2	3	12-17-19	12-19-19	75
WBYRB.400.1000035	WB YADKIN RD BRIDGE CIP COLUMN 1-2A	3	12-18-19	12-20-19	44
WBYRB.400.1000245	WB YADKIN RD BRIDGE FILL ABUTMENT A	2	12-18-19	12-19-19	53
WBYRB.400.1000040	WB YADKIN RD BRIDGE CURE COLUMN 1-1A	3	12-19-19	12-21-19	78
WBYRB.400.1000250	WB YADKIN RD BRIDGE SLOPE PROTECTION ABUTMENT A	4	12-20-19	12-27-19	53
WBYRB.400.1000045	WB YADKIN RD BRIDGE CURE COLUMN 1-2A	3	12-21-19	12-23-19	76
WBYRB.400.1000050	WB YADKIN RD BRIDGE CIP CAP 1	5	12-24-19	01-02-20	44
WBYRB.400.1000055	WB YADKIN RD BRIDGE CURE CAP 1	3	01-03-20	01-05-20	75
WBYRB.400.1000060	WB YADKIN RD BRIDGE BEAM SEATS 1	3	01-03-20	01-08-20	44
WBYRB.400.1000065	WB YADKIN RD BRIDGE CURE BEAM SEAT 1	3	01-09-20	01-11-20	74
WBYRB.400.1000080	WB YADKIN RD BRIDGE CIP FOOTER 2-1	4	01-15-20	01-21-20	38
WBYRB.400.1000085	WB YADKIN RD BRIDGE CIP FOOTER 2-2	4	01-16-20	01-22-20	38
WBYRB.400.1000260	WB YADKIN RD BRIDGE BUILD CAP ABUTMENT B	3	01-21-20	01-23-20	61
WBYRB.400.1000090	WB YADKIN RD BRIDGE CURE FOOTER 2-1	3	01-22-20	01-24-20	62
WBYRB.400.1000095	WB YADKIN RD BRIDGE CURE FOOTER 2-2	3	01-23-20	01-25-20	62
WBYRB.400.1000100	WB YADKIN RD BRIDGE CIP COLUMN 2-1A	3	01-23-20	01-27-20	38
WBYRB.400.1000105	WB YADKIN RD BRIDGE CIP COLUMN 2-2A	3	01-24-20	01-28-20	38
WBYRB.400.1000265	WB YADKIN RD BRIDGE BACK WALL ABUTMENT B	3	01-24-20	01-28-20	61
WBYRB.400.1000150	WB YADKIN RD BRIDGE CIP FOOTER 3-1	4	01-27-20	01-30-20	38
WBYRB.400.1000110	WB YADKIN RD BRIDGE CURE COLUMN 2-1A	3	01-28-20	01-30-20	63
WBYRB.400.1000155	WB YADKIN RD BRIDGE CIP FOOTER 3-2	4	01-28-20	01-31-20	39
WBYRB.400.1000115	WB YADKIN RD BRIDGE CURE COLUMN 2-2A	3	01-29-20	01-31-20	62
WBYRB.400.1000270	WB YADKIN RD BRIDGE BEAM SEATS ABUTMENT B	2	01-29-20	01-30-20	61
WBYRB.400.1000275	WB YADKIN RD BRIDGE WING WALLS ABUTMENT B	3	01-29-20	01-31-20	61
WBYRB.400.1000160	WB YADKIN RD BRIDGE CURE FOOTER 3-1	3	01-31-20	02-02-20	62
WBYRB.400.1000165	WB YADKIN RD BRIDGE CURE FOOTER 3-2	3	02-01-20	02-03-20	64
WBYRB.400.1000120	WB YADKIN RD BRIDGE CIP CAP 2	5	02-03-20	02-10-20	38
WBYRB.400.1000170	WB YADKIN RD BRIDGE CIP COLUMN 3-1A	3	02-03-20	02-06-20	38
WBYRB.400.1000280	WB YADKIN RD BRIDGE FILL ABUTMENT B	2	02-03-20	02-05-20	61
WBYRB.400.1000175	WB YADKIN RD BRIDGE CIP COLUMN 3-2A	3	02-05-20	02-07-20	38
WBYRB.400.1000285	WB YADKIN RD BRIDGE SLOPE PROTECTION ABUTMENT B	4	02-06-20	02-12-20	61
WBYRB.400.1000180	WB YADKIN RD BRIDGE CURE COLUMN 3-1A	3	02-07-20	02-09-20	63
WBYRB.400.1000185	WB YADKIN RD BRIDGE CURE COLUMN 3-2A	3	02-08-20	02-10-20	62
WBYRB.400.1000125	WB YADKIN RD BRIDGE CURE CAP 2	3	02-11-20	02-13-20	62
WBYRB.400.1000130	WB YADKIN RD BRIDGE BEAM SEATS 2	3	02-12-20	02-14-20	38
WBYRB.400.1000190	WB YADKIN RD BRIDGE CIP CAP 3	5	02-12-20	02-19-20	38
WBYRB.400.1000135	WB YADKIN RD BRIDGE CURE BEAM SEAT 2	3	02-15-20	02-17-20	62



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBYRB.400.1000195	WB YADKIN RD BRIDGE CURE CAP 3	3	02-20-20	02-22-20	61
WBYRB.400.1000200	WB YADKIN RD BRIDGE BEAM SEATS 3	3	02-20-20	02-24-20	38
WBYRB.400.1000205	WB YADKIN RD BRIDGE CURE BEAM SEAT 3	3	02-25-20	02-27-20	59
GIRDERS		39	01-13-20	03-24-20	39
WBYRB.400.1000290	WB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 1	3	01-13-20	01-16-20	45
WBYRB.400.1000330	WB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 2	3	02-18-20	02-20-20	39
WBYRB.400.1000370	WB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 3	3	02-28-20	03-04-20	36
WBYRB.400.1000410	WB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 4	3	03-20-20	03-24-20	39
BRIDGE DECK		48	01-17-20	04-17-20	35
WBYRB.400.1000295	WB YADKIN RD BRIDGE FORM & SIP SPAN 1	5	01-17-20	01-24-20	45
WBYRB.400.1000300	WB YADKIN RD BRIDGE FORM OVERHANG SPAN 1	3	01-23-20	01-27-20	73
WBYRB.400.1000305	WB YADKIN RD BRIDGE REBAR SPAN 1	5	01-24-20	01-30-20	73
WBYRB.400.1000310	WB YADKIN RD BRIDGE INSTALL BULKHEAD SPAN 1	2	01-30-20	01-31-20	73
WBYRB.400.1000315	WB YADKIN RD BRIDGE SETUP BIDWELL SPAN 1	2	01-31-20	02-03-20	73
WBYRB.400.1000320	WB YADKIN RD BRIDGE DRY RUN SPAN 1	1	02-03-20	02-03-20	73
WBYRB.400.1000325	WB YADKIN RD BRIDGE DECK POUR SPAN 1	1	02-05-20	02-05-20	73
WBYRB.400.1000335	WB YADKIN RD BRIDGE FORM & SIP SPAN 2	5	02-21-20	02-27-20	39
WBYRB.400.1000340	WB YADKIN RD BRIDGE FORM OVERHANG SPAN 2	3	02-26-20	02-28-20	55
WBYRB.400.1000345	WB YADKIN RD BRIDGE REBAR SPAN 2	5	02-27-20	03-05-20	55
WBYRB.400.1000350	WB YADKIN RD BRIDGE INSTALL BULKHEAD SPAN 2	2	03-05-20	03-06-20	55
WBYRB.400.1000375	WB YADKIN RD BRIDGE FORM & SIP SPAN 3	5	03-05-20	03-12-20	36
WBYRB.400.1000355	WB YADKIN RD BRIDGE SETUP BIDWELL SPAN 2	2	03-06-20	03-09-20	55
WBYRB.400.1000360	WB YADKIN RD BRIDGE DRY RUN SPAN 2	1	03-09-20	03-09-20	55
WBYRB.400.1000365	WB YADKIN RD BRIDGE DECK POUR SPAN 2	1	03-11-20	03-11-20	55
WBYRB.400.1000380	WB YADKIN RD BRIDGE FORM OVERHANG SPAN 3	3	03-11-20	03-13-20	48
WBYRB.400.1000385	WB YADKIN RD BRIDGE REBAR SPAN 3	5	03-12-20	03-19-20	48
WBYRB.400.1000390	WB YADKIN RD BRIDGE INSTALL BULKHEAD SPAN 3	2	03-19-20	03-20-20	48
WBYRB.400.1000395	WB YADKIN RD BRIDGE SETUP BIDWELL SPAN 3	2	03-20-20	03-23-20	48
WBYRB.400.1000400	WB YADKIN RD BRIDGE DRY RUN SPAN 3	1	03-23-20	03-23-20	48
WBYRB.400.1000405	WB YADKIN RD BRIDGE DECK POUR SPAN 3	1	03-24-20	03-24-20	48
WBYRB.400.1000415	WB YADKIN RD BRIDGE FORM & SIP SPAN 4	5	03-31-20	04-06-20	35
WBYRB.400.1000420	WB YADKIN RD BRIDGE FORM OVERHANG SPAN 4	3	04-03-20	04-08-20	35
WBYRB.400.1000425	WB YADKIN RD BRIDGE REBAR SPAN 4	5	04-06-20	04-13-20	35
WBYRB.400.1000430	WB YADKIN RD BRIDGE INSTALL BULKHEAD SPAN 4	2	04-13-20	04-15-20	35
WBYRB.400.1000435	WB YADKIN RD BRIDGE SETUP BIDWELL SPAN 4	2	04-15-20	04-16-20	35
WBYRB.400.1000440	WB YADKIN RD BRIDGE DRY RUN SPAN 4	1	04-16-20	04-16-20	35
WBYRB.400.1000445	WB YADKIN RD BRIDGE DECK POUR SPAN 4	1	04-17-20	04-17-20	35
EASTBOUND YADKIN ROAD BRIDGE		163	10-25-19	04-09-20	64
PHASE 1		163	10-25-19	04-09-20	64
TEST PILES		58	10-25-19	12-09-19	108
EBYRB.400.1000000	EB YADKIN RD BRIDGE TEST PILE 1	3	10-25-19	10-29-19	41
EBYRB.400.1000210	EB YADKIN RD BRIDGE TEST PILE - ABUTMENT A	3	10-25-19	10-29-19	57
EBYRB.400.1000070	EB YADKIN RD BRIDGE TEST PILE 2	3	10-30-19	11-01-19	43
EBYRB.400.1000215	EB YADKIN RD BRIDGE TEST PILE - ABUTMENT B	3	10-30-19	11-01-19	59
EBYRB.400.1000450	EB YADKIN RD BRIDGE TEST PILE 1 - TEST	21	10-30-19	11-19-19	71
EBYRB.400.1000460	EB YADKIN RD BRIDGE TEST PILE - ABUTMENT A - TEST	21	10-30-19	11-19-19	97
EBYRB.400.1000470	EB YADKIN RD BRIDGE TEST PILE 2 - TEST	21	11-02-19	11-22-19	80
EBYRB.400.1000480	EB YADKIN RD BRIDGE TEST PILE - ABUTMENT B - TEST	21	11-02-19	11-22-19	125
EBYRB.400.1000140	EB YADKIN RD BRIDGE TEST PILE 3	3	11-14-19	11-18-19	57
EBYRB.400.1000490	EB YADKIN RD BRIDGE TEST PILE 3 - TEST	21	11-19-19	12-09-19	98



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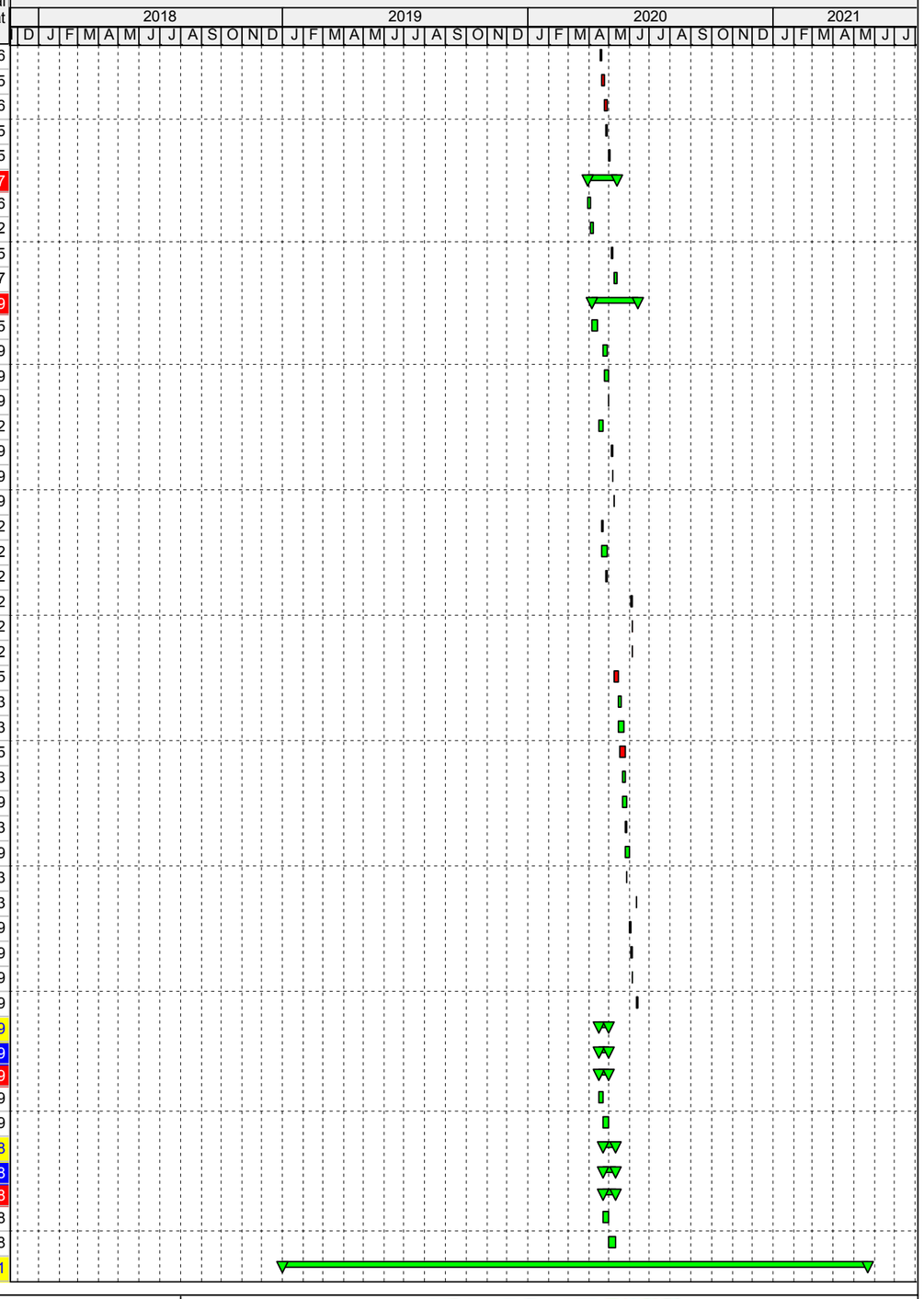
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PRODUCTION PILES		39	12-04-19	02-05-20	41
EBYRB.400.1000220	EB YADKIN RD BRIDGE DRIVE PILES ABUTMENT A	4	12-04-19	12-09-19	54
EBYRB.400.1000005	EB YADKIN RD BRIDGE DRIVE PILE 1	7	12-09-19	12-18-19	36
EBYRB.400.1000255	EB YADKIN RD BRIDGE DRIVE PILES ABUTMENT B	4	12-11-19	12-16-19	71
EBYRB.400.1000075	EB YADKIN RD BRIDGE DRIVE PILE 2	7	12-19-19	12-31-19	36
EBYRB.400.1000145	EB YADKIN RD BRIDGE DRIVE PILE 3	7	01-27-20	02-05-20	36
SUBSTRUCTURE		75	12-18-19	03-09-20	63
EBYRB.400.1000225	EB YADKIN RD BRIDGE BUILD CAP ABUTMENT A	3	12-18-19	12-20-19	49
EBYRB.400.1000010	EB YADKIN RD BRIDGE CIP FOOTER 1-1	4	12-19-19	12-24-19	43
EBYRB.400.1000015	EB YADKIN RD BRIDGE CIP FOOTER 1-2	4	12-20-19	12-27-19	43
EBYRB.400.1000230	EB YADKIN RD BRIDGE BACK WALL ABUTMENT A	3	12-23-19	12-27-19	49
EBYRB.400.1000020	EB YADKIN RD BRIDGE CURE FOOTER 1-1	3	12-25-19	12-27-19	74
EBYRB.400.1000030	EB YADKIN RD BRIDGE CIP COLUMN 1-1A	3	12-27-19	12-31-19	43
EBYRB.400.1000025	EB YADKIN RD BRIDGE CURE FOOTER 1-2	3	12-28-19	12-30-19	73
EBYRB.400.1000035	EB YADKIN RD BRIDGE CIP COLUMN 1-2A	3	12-30-19	01-02-20	43
EBYRB.400.1000235	EB YADKIN RD BRIDGE BEAM SEATS ABUTMENT A	2	12-30-19	12-31-19	49
EBYRB.400.1000240	EB YADKIN RD BRIDGE WING WALLS ABUTMENT A	3	12-30-19	01-02-20	49
EBYRB.400.1000040	EB YADKIN RD BRIDGE CURE COLUMN 1-1A	3	01-01-20	01-03-20	74
EBYRB.400.1000080	EB YADKIN RD BRIDGE CIP FOOTER 2-1	4	01-02-20	01-08-20	39
EBYRB.400.1000045	EB YADKIN RD BRIDGE CURE COLUMN 1-2A	3	01-03-20	01-05-20	72
EBYRB.400.1000085	EB YADKIN RD BRIDGE CIP FOOTER 2-2	4	01-03-20	01-09-20	39
EBYRB.400.1000245	EB YADKIN RD BRIDGE FILL ABUTMENT A	2	01-03-20	01-06-20	49
EBYRB.400.1000260	EB YADKIN RD BRIDGE BUILD CAP ABUTMENT B	3	01-03-20	01-08-20	61
EBYRB.400.1000050	EB YADKIN RD BRIDGE CIP CAP 1	5	01-06-20	01-13-20	43
EBYRB.400.1000250	EB YADKIN RD BRIDGE SLOPE PROTECTION ABUTMENT A	4	01-08-20	01-13-20	49
EBYRB.400.1000090	EB YADKIN RD BRIDGE CURE FOOTER 2-1	3	01-09-20	01-11-20	64
EBYRB.400.1000265	EB YADKIN RD BRIDGE BACK WALL ABUTMENT B	3	01-09-20	01-13-20	61
EBYRB.400.1000095	EB YADKIN RD BRIDGE CURE FOOTER 2-2	3	01-10-20	01-12-20	65
EBYRB.400.1000100	EB YADKIN RD BRIDGE CIP COLUMN 2-1A	3	01-13-20	01-16-20	38
EBYRB.400.1000055	EB YADKIN RD BRIDGE CURE CAP 1	3	01-14-20	01-16-20	71
EBYRB.400.1000060	EB YADKIN RD BRIDGE BEAM SEATS 1	3	01-15-20	01-17-20	43
EBYRB.400.1000105	EB YADKIN RD BRIDGE CIP COLUMN 2-2A	3	01-15-20	01-17-20	38
EBYRB.400.1000270	EB YADKIN RD BRIDGE BEAM SEATS ABUTMENT B	2	01-15-20	01-16-20	61
EBYRB.400.1000275	EB YADKIN RD BRIDGE WING WALLS ABUTMENT B	3	01-15-20	01-17-20	61
EBYRB.400.1000110	EB YADKIN RD BRIDGE CURE COLUMN 2-1A	3	01-17-20	01-19-20	66
EBYRB.400.1000065	EB YADKIN RD BRIDGE CURE BEAM SEAT 1	3	01-18-20	01-20-20	72
EBYRB.400.1000115	EB YADKIN RD BRIDGE CURE COLUMN 2-2A	3	01-18-20	01-20-20	65
EBYRB.400.1000120	EB YADKIN RD BRIDGE CIP CAP 2	5	01-21-20	01-27-20	41
EBYRB.400.1000280	EB YADKIN RD BRIDGE FILL ABUTMENT B	2	01-21-20	01-22-20	65
EBYRB.400.1000285	EB YADKIN RD BRIDGE SLOPE PROTECTION ABUTMENT B	4	01-23-20	01-28-20	65
EBYRB.400.1000125	EB YADKIN RD BRIDGE CURE CAP 2	3	01-28-20	01-30-20	65
EBYRB.400.1000130	EB YADKIN RD BRIDGE BEAM SEATS 2	3	01-28-20	01-30-20	41
EBYRB.400.1000135	EB YADKIN RD BRIDGE CURE BEAM SEAT 2	3	01-31-20	02-02-20	67
EBYRB.400.1000150	EB YADKIN RD BRIDGE CIP FOOTER 3-1	4	02-06-20	02-12-20	36
EBYRB.400.1000155	EB YADKIN RD BRIDGE CIP FOOTER 3-2	4	02-07-20	02-13-20	36
EBYRB.400.1000160	EB YADKIN RD BRIDGE CURE FOOTER 3-1	3	02-13-20	02-15-20	57
EBYRB.400.1000165	EB YADKIN RD BRIDGE CURE FOOTER 3-2	3	02-14-20	02-16-20	58
EBYRB.400.1000170	EB YADKIN RD BRIDGE CIP COLUMN 3-1A	3	02-18-20	02-20-20	35
EBYRB.400.1000175	EB YADKIN RD BRIDGE CIP COLUMN 3-2A	3	02-19-20	02-21-20	35
EBYRB.400.1000180	EB YADKIN RD BRIDGE CURE COLUMN 3-1A	3	02-21-20	02-23-20	57

Date	Revision	Checked	Approved

SKANSKA

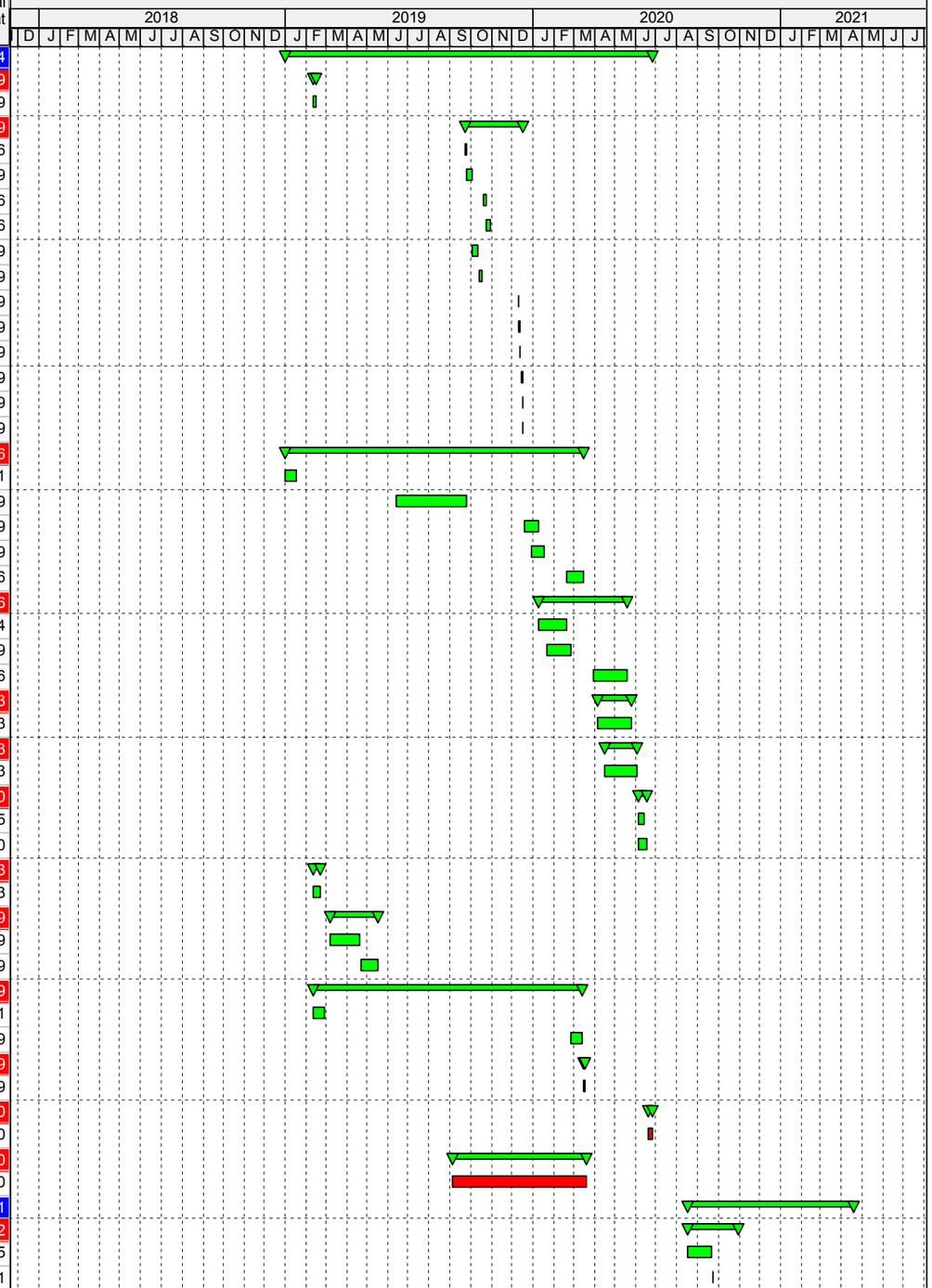
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EBYRB.400.1000185	EB YADKIN RD BRIDGE CURE COLUMN 3-2A	3	02-22-20	02-24-20	56
EBYRB.400.1000190	EB YADKIN RD BRIDGE CIP CAP 3	5	02-25-20	03-02-20	35
EBYRB.400.1000195	EB YADKIN RD BRIDGE CURE CAP 3	3	03-03-20	03-05-20	56
EBYRB.400.1000200	EB YADKIN RD BRIDGE BEAM SEATS 3	3	03-04-20	03-06-20	35
EBYRB.400.1000205	EB YADKIN RD BRIDGE CURE BEAM SEAT 3	3	03-07-20	03-09-20	55
GIRDERS		28	01-21-20	03-19-20	37
EBYRB.400.1000290	EB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 1	3	01-21-20	01-23-20	46
EBYRB.400.1000330	EB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 2	3	02-03-20	02-06-20	42
EBYRB.400.1000370	EB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 3	3	03-11-20	03-13-20	35
EBYRB.400.1000410	EB YADKIN RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 4	3	03-16-20	03-19-20	37
BRIDGE DECK		42	01-27-20	04-09-20	39
EBYRB.400.1000295	EB YADKIN RD BRIDGE FORM & SIP SPAN 1	5	01-27-20	01-31-20	45
EBYRB.400.1000300	EB YADKIN RD BRIDGE FORM OVERHANG SPAN 1	3	01-30-20	02-03-20	69
EBYRB.400.1000305	EB YADKIN RD BRIDGE REBAR SPAN 1	5	01-31-20	02-07-20	69
EBYRB.400.1000310	EB YADKIN RD BRIDGE INSTALL BULKHEAD SPAN 1	2	02-07-20	02-10-20	69
EBYRB.400.1000335	EB YADKIN RD BRIDGE FORM & SIP SPAN 2	5	02-07-20	02-14-20	42
EBYRB.400.1000315	EB YADKIN RD BRIDGE SETUP BIDWELL SPAN 1	2	02-10-20	02-12-20	69
EBYRB.400.1000320	EB YADKIN RD BRIDGE DRY RUN SPAN 1	1	02-12-20	02-12-20	69
EBYRB.400.1000325	EB YADKIN RD BRIDGE DECK POUR SPAN 1	1	02-13-20	02-13-20	69
EBYRB.400.1000340	EB YADKIN RD BRIDGE FORM OVERHANG SPAN 2	3	02-13-20	02-18-20	62
EBYRB.400.1000345	EB YADKIN RD BRIDGE REBAR SPAN 2	5	02-14-20	02-21-20	62
EBYRB.400.1000350	EB YADKIN RD BRIDGE INSTALL BULKHEAD SPAN 2	2	02-21-20	02-24-20	62
EBYRB.400.1000355	EB YADKIN RD BRIDGE SETUP BIDWELL SPAN 2	2	02-24-20	02-25-20	62
EBYRB.400.1000360	EB YADKIN RD BRIDGE DRY RUN SPAN 2	1	02-25-20	02-25-20	62
EBYRB.400.1000365	EB YADKIN RD BRIDGE DECK POUR SPAN 2	1	02-26-20	02-26-20	62
EBYRB.400.1000375	EB YADKIN RD BRIDGE FORM & SIP SPAN 3	5	03-16-20	03-23-20	35
EBYRB.400.1000380	EB YADKIN RD BRIDGE FORM OVERHANG SPAN 3	3	03-20-20	03-24-20	43
EBYRB.400.1000385	EB YADKIN RD BRIDGE REBAR SPAN 3	5	03-23-20	03-27-20	43
EBYRB.400.1000415	EB YADKIN RD BRIDGE FORM & SIP SPAN 4	5	03-24-20	03-30-20	35
EBYRB.400.1000390	EB YADKIN RD BRIDGE INSTALL BULKHEAD SPAN 3	2	03-27-20	03-30-20	43
EBYRB.400.1000420	EB YADKIN RD BRIDGE FORM OVERHANG SPAN 4	3	03-27-20	03-31-20	39
EBYRB.400.1000395	EB YADKIN RD BRIDGE SETUP BIDWELL SPAN 3	2	03-30-20	03-31-20	43
EBYRB.400.1000425	EB YADKIN RD BRIDGE REBAR SPAN 4	5	03-30-20	04-03-20	39
EBYRB.400.1000400	EB YADKIN RD BRIDGE DRY RUN SPAN 3	1	03-31-20	03-31-20	43
EBYRB.400.1000405	EB YADKIN RD BRIDGE DECK POUR SPAN 3	1	04-01-20	04-01-20	43
EBYRB.400.1000430	EB YADKIN RD BRIDGE INSTALL BULKHEAD SPAN 4	2	04-03-20	04-06-20	39
EBYRB.400.1000435	EB YADKIN RD BRIDGE SETUP BIDWELL SPAN 4	2	04-06-20	04-08-20	39
EBYRB.400.1000440	EB YADKIN RD BRIDGE DRY RUN SPAN 4	1	04-08-20	04-08-20	39
EBYRB.400.1000445	EB YADKIN RD BRIDGE DECK POUR SPAN 4	1	04-09-20	04-09-20	39
WESTBOUND YADKIN ROAD ROADWAY WORK		12	01-27-20	02-13-20	69
PHASE 1		12	01-27-20	02-13-20	69
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		12	01-27-20	02-13-20	69
WBYR.505.1000000	INSTALL BARRIER WALL WB MILITARY HWY	6	01-27-20	02-03-20	69
WBYR.505.1000010	INSTALL GUARDRAIL WB MILITARY HWY	6	02-05-20	02-13-20	69
EASTBOUND YADKIN ROAD ROADWAY WORK		12	02-06-20	02-25-20	68
PHASE 1		12	02-06-20	02-25-20	68
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		12	02-06-20	02-25-20	68
EBYR.505.1000000	INSTALL BARRIER WALL WB MILITARY HWY	6	02-06-20	02-14-20	68
EBYR.505.1000010	INSTALL GUARDRAIL WB MILITARY HWY	6	02-18-20	02-25-20	68
I-64 WESTBOUND FROM YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE		873	12-03-18	01-20-21	191



Date	Revision	Checked	Approved

SKANSKA

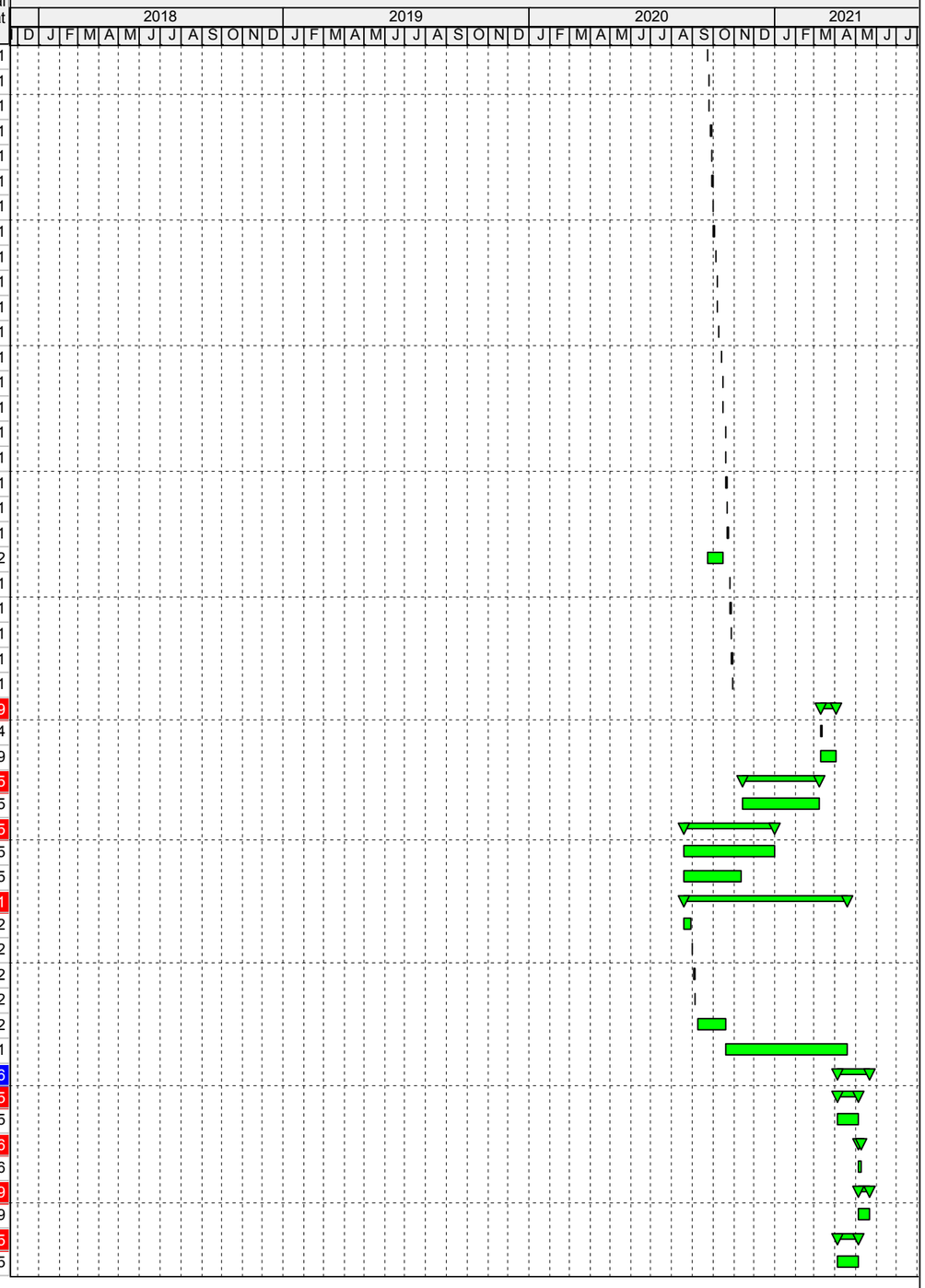
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PHASE 1		543	12-03-18	05-22-20	34
301 CLEARING AND GRUBBING		4	01-16-19	01-22-19	149
WBRW.301.1000200	CLEAR AND GRUB FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE FOR SOUND	4	01-16-19	01-22-19	149
302 DRAINAGE STRUCTURES		55	09-05-19	10-18-19	39
WBRW.302.1000240	EXCAVATE SWM AREA WB 1182 TO 1185	3	09-05-19	09-09-19	56
WBRW.302.1000220	JACK AND BORE DRAINAGE PIPE WB 1148 TO WATER QUALITY SWALE	5	09-11-19	09-18-19	49
WBRW.302.1000250	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURE FROM WB 1182 TO 1181	3	09-11-19	09-13-19	56
WBRW.302.1000255	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM WB 1182 TO 1185	5	09-16-19	09-23-19	56
WBRW.302.1000235	JACK AND BORE DRAINAGE PIPE WB 1161	5	09-19-19	09-25-19	49
WBRW.302.1000245	JACK AND BORE DRAINAGE PIPE FROM WB 1182 TO SWM AREA 1182	5	09-26-19	10-03-19	49
WBRW.302.1000200	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1135 TO WATER QUALITY SWALE	1	10-11-19	10-11-19	39
WBRW.302.1000205	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1138 TO WATER QUALITY SWALE	1	10-14-19	10-14-19	39
WBRW.302.1000210	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1141 TO WATER QUALITY SWALE	1	10-15-19	10-15-19	39
WBRW.302.1000215	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1144 TO WATER QUALITY SWALE	1	10-16-19	10-16-19	39
WBRW.302.1000225	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1150 TO WATER QUALITY SWALE	1	10-17-19	10-17-19	39
WBRW.302.1000230	INSTALL DRAINAGE STRUCTRE AND INLET TO SWM AREA WB 1153+50	1	10-18-19	10-18-19	39
303 EARTHWORK		265	12-03-18	11-25-19	76
WBRW.303.1000200	INSTALL SILT FENCE AND EROSION CONTROL WB FROM YADKIN ROAD BRIDGE TO SHELL	10	12-03-18	12-18-18	111
WBRW.303.1000205	CUT / BORROW TO FILL WB FROM YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	60	05-29-19	09-09-19	49
WBRW.303.1000210	ROUGH GRADE SLOPES FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	12	10-21-19	11-06-19	39
WBRW.303.1000215	ROUGH GRADE MEDIAN FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	12	10-28-19	11-14-19	39
WBRW.303.1000220	ROUGH GRADE MAINLINE FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	16	10-29-19	11-25-19	76
305 SUGRADE AND SHOULDERS		80	11-07-19	01-17-20	76
WBRW.305.1000210	FINE GRADE SLOPES FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	24	11-07-19	12-17-19	44
WBRW.305.1000215	FINE GRADE MEDIAN FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	24	11-15-19	12-24-19	39
WBRW.305.1000220	FINE GRADE MAINLINE FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	32	11-26-19	01-17-20	76
309 AGGREGATE BASE COURSE		31	03-02-20	04-20-20	23
WBRW.309.1000220	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM WB YADKIN ROAD BRIDGE TO	31	03-02-20	04-20-20	23
315 ASPHALT CONCRETE PAVEMENT		31	03-11-20	04-27-20	23
WBRW.315.1000220	PLACE ASPHALT PAVING FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	31	03-11-20	04-27-20	23
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		8	04-28-20	05-14-20	20
WBRW.505.1000210	INSTALL GUARDRAIL WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	6	04-28-20	05-06-20	25
WBRW.505.1000200	INSTALL BARRIER WALLS WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	8	05-01-20	05-14-20	20
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		6	01-16-19	01-24-19	243
WBRW.508.1000200	DEMO PAVING FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	6	01-16-19	01-24-19	243
519 SOUND BARRIER WALLS		46	01-23-19	04-05-19	149
WBRW.519.1000200	INSTALL SOUND BARRIER WALL 4-5 FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRI	28	01-23-19	03-07-19	149
WBRW.519.1000210	INSTALL SOUND BARRIER WALL 7 FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRID(	18	03-08-19	04-05-19	149
602 TOPSOIL		239	01-16-19	01-13-20	39
WBRW.602.1000200	STRIP TOPSOIL FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	10	01-16-19	01-30-19	121
WBRW.602.1000210	SPREAD TOPSOIL FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	10	12-27-19	01-13-20	39
603 SEEDING		2	01-15-20	01-16-20	39
WBRW.603.1000200	PERMENANT SEED FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	2	01-15-20	01-16-20	39
704 PAVEMENT MARKINGS AND MARKERS		5	05-15-20	05-22-20	20
WBRW.704.1000200	APPLY PAVEMENT MARKINGS FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	5	05-15-20	05-22-20	20
800 INTELLIGENT TRANSPORTATION SYSTEMS		120	09-05-19	03-20-20	0
WBRW.800.1000200	RUN DISTRIBUTION AND FIBER WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	120	09-05-19	03-20-20	0
PHASE 2		245	05-26-20	01-20-21	191
302 DRAINAGE STRUCTURES		46	05-26-20	07-22-20	72
WBRW.302.2000200	INSTALL DRAINAGE PIPE AND STRUCTURES FROM WB 1149 TO 1135+50	20	05-26-20	06-25-20	55
WBRW.302.2000205	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1152	1	05-26-20	05-26-20	81



Date	Revision	Checked	Approved

SKANSKA

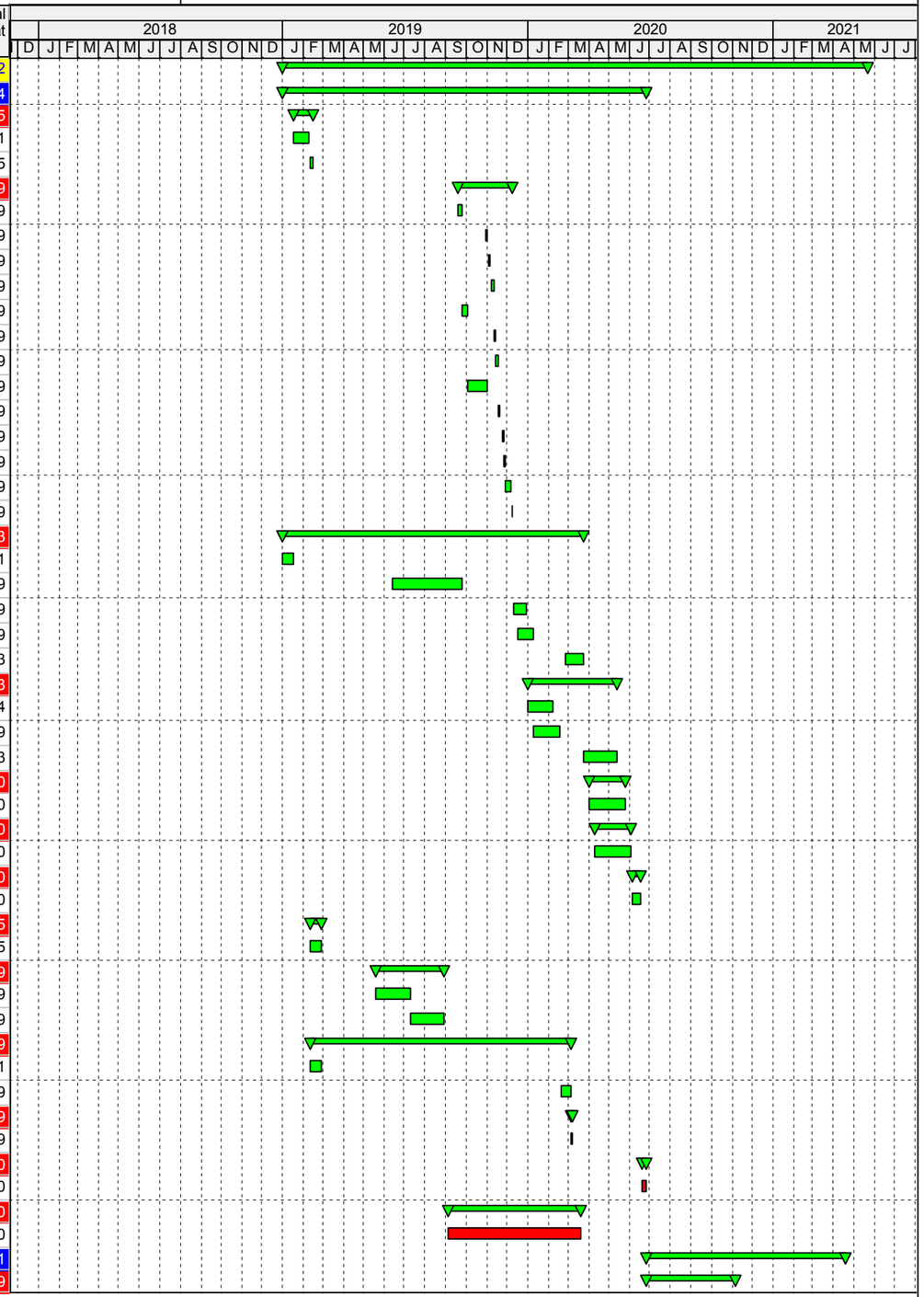
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBRW.302.2000210	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1153+50	1	05-27-20	05-27-20	81
WBRW.302.2000215	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1155	1	05-28-20	05-28-20	81
WBRW.302.2000220	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1156+50	1	05-29-20	05-29-20	81
WBRW.302.2000225	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1158	1	06-01-20	06-01-20	81
WBRW.302.2000230	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1160	1	06-03-20	06-03-20	81
WBRW.302.2000235	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1161	1	06-04-20	06-04-20	81
WBRW.302.2000240	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1162+50	1	06-05-20	06-05-20	81
WBRW.302.2000245	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1164	1	06-08-20	06-08-20	81
WBRW.302.2000250	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1165+50	1	06-10-20	06-10-20	81
WBRW.302.2000255	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1167	1	06-11-20	06-11-20	81
WBRW.302.2000260	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1168+50	1	06-12-20	06-12-20	81
WBRW.302.2000265	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1170	1	06-15-20	06-15-20	81
WBRW.302.2000270	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1171+50	1	06-17-20	06-17-20	81
WBRW.302.2000275	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1173	1	06-18-20	06-18-20	81
WBRW.302.2000280	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1174+50	1	06-19-20	06-19-20	81
WBRW.302.2000285	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1176 / RAMP TO 17 SOUTH	1	06-22-20	06-22-20	81
WBRW.302.2000290	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1176+50 / RAMP TO 17 SOUTH	1	06-23-20	06-23-20	81
WBRW.302.2000295	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1177 / RAMP TO 17 SOUTH	1	06-24-20	06-24-20	81
WBRW.302.2000300	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1179 / RAMP TO 17 SOUTH	1	06-25-20	06-25-20	81
WBRW.302.2000305	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1181 / RAMP TO 17 SOUTH	1	06-26-20	06-26-20	81
WBRW.302.2000335	INSTALL DRAINAGE PIPE AND STRUCTURES FROM WB 1207 TO 1219	15	06-26-20	07-22-20	72
WBRW.302.2000310	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1199	1	06-29-20	06-29-20	81
WBRW.302.2000315	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1200	1	06-30-20	06-30-20	81
WBRW.302.2000320	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1202	1	07-01-20	07-01-20	81
WBRW.302.2000325	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1203	1	07-02-20	07-02-20	81
WBRW.302.2000330	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1205	1	07-06-20	07-06-20	81
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		17	09-18-20	10-15-20	109
WBRW.505.2000210	INSTALL GUARDRAIL WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	2	09-18-20	09-21-20	124
WBRW.505.2000200	INSTALL BARRIER WALLS WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	17	09-18-20	10-15-20	109
515 MILLING PAVEMENT		15	08-21-20	09-17-20	55
WBRW.515.2000200	MILL AND OVERLAY FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	15	08-21-20	09-17-20	55
519 SOUND BARRIER WALLS		82	05-26-20	10-09-20	55
WBRW.519.2000200	INSTALL SOUND BARRIER WALL 4-5 FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRI	82	05-26-20	10-09-20	55
WBRW.519.2000210	INSTALL SOUND BARRIER WALL 7 FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRID(	52	05-26-20	08-20-20	55
800 INTELLIGENT TRANSPORTATION SYSTEMS		243	05-26-20	01-20-21	191
WBRW.800.2000220	GROUND-MOUNTED EQUIPMENT CABINET FROM WB YADKIN ROAD BRIDGE TO SHELL RO	7	05-26-20	06-04-20	112
WBRW.800.2000230	DEVICE POLE & FOUNDATION FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	1	06-05-20	06-05-20	112
WBRW.800.2000260	DYNAMIC MESSAGE SIGN FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	2	06-08-20	06-10-20	112
WBRW.800.2000270	MICROWAVE DETECTOR FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	1	06-11-20	06-11-20	112
WBRW.800.2000580	TOLL POINT	26	06-12-20	07-24-20	112
WBRW.800.2000590	TOLL TESTING PERIOD	180	07-25-20	01-20-21	191
PHASE 3		47	10-16-20	12-03-20	176
315 ASPHALT CONCRETE PAVEMENT		20	10-16-20	11-16-20	55
WBRW.315.3000220	PLACE ASPHALT PAVING FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	20	10-16-20	11-16-20	55
701 TRAFFIC SIGNS		3	11-17-20	11-19-20	116
WBRW.701.3000200	INSTALL TRAFFIC SIGNS FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	3	11-17-20	11-19-20	116
704 PAVEMENT MARKINGS AND MARKERS		10	11-17-20	12-03-20	109
WBRW.704.3000200	APPLY PAVEMENT MARKINGS FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	10	11-17-20	12-03-20	109
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	10-16-20	11-14-20	195
WBRW.800.3000290	ITS BURN IN PERIOD FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	30	10-16-20	11-14-20	195



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
I-64 EASTBOUND FROM YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE		873	12-03-18	04-09-21	112
PHASE 1		543	12-03-18	05-22-20	34
301 CLEARING AND GRUBBING		19	12-19-18	01-22-19	195
EBRW.301.1000200	CLEAR AND GRUB FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	15	12-19-18	01-14-19	111
EBRW.301.1000210	CLEAR AND GRUB FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE FOR SOUND \	4	01-16-19	01-22-19	195
302 DRAINAGE STRUCTURES		51	08-30-19	10-18-19	39
EBRW.302.1000250	EXCAVATE SWM AREA EB 1672 TO 1676	5	08-30-19	09-09-19	39
EBRW.302.1000200	EXCAVATE SWM AREA EB1635 TO 1637	2	09-06-19	09-09-19	39
EBRW.302.1000205	EXCAVATE SWM AREA EB 1638 TO 1640	2	09-06-19	09-09-19	39
EBRW.302.1000210	INSTALL WATER QUALITY SWALE FROM EB 1635 TO 1621	3	09-11-19	09-13-19	39
EBRW.302.1000255	JACK AND BORE DRAINAGE PIPE FROM EB 1672 TO SWM AREA EB 1672	5	09-11-19	09-18-19	39
EBRW.302.1000215	INSTALL WATER QUALITY SWALE FROM EB 1640 TO 1645	1	09-16-19	09-16-19	39
EBRW.302.1000220	INSTALL WATER QUALITY SWALE FROM EB 1647 TO 1658	3	09-18-19	09-20-19	39
EBRW.302.1000260	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES EB 1672 TO EB 1703	20	09-19-19	10-18-19	39
EBRW.302.1000225	INSTALL SWM AREA INLET STRUCTURE AND OUTFALL EB 1637	2	09-23-19	09-24-19	39
EBRW.302.1000230	INSTALL SWM AREA INLET STRUCTURE AND OUTFALL EB 1638	2	09-25-19	09-26-19	39
EBRW.302.1000235	EXTEND DRAINAGE PIPE AND OUTFALL EB1637+50	2	09-27-19	09-30-19	39
EBRW.302.1000240	JACK AND BORE DRAINAGE PIPE EB 1634	5	10-02-19	10-09-19	39
EBRW.302.1000245	EXTEND DRAINAGE PIPE EB 1646	1	10-10-19	10-10-19	39
303 EARTHWORK		270	12-03-18	11-25-19	73
EBRW.303.1000200	INSTALL SILT FENCE AND EROSION CONTROL EB FROM YADKIN ROAD BRIDGE TO SHELL F	10	12-03-18	12-18-18	111
EBRW.303.1000205	CUT / BORROW TO FILL EB FROM YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	60	05-29-19	09-09-19	39
EBRW.303.1000210	ROUGH GRADE SLOPES FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	12	10-21-19	11-06-19	39
EBRW.303.1000215	ROUGH GRADE MEDIAN FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	12	10-28-19	11-14-19	39
EBRW.303.1000220	ROUGH GRADE MAINLINE FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	16	10-29-19	11-25-19	73
305 SUGRADE AND SHOULDERS		83	11-07-19	01-17-20	73
EBRW.305.1000210	FINE GRADE SLOPES FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	24	11-07-19	12-17-19	44
EBRW.305.1000215	FINE GRADE MEDIAN FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	24	11-15-19	12-24-19	39
EBRW.305.1000220	FINE GRADE MAINLINE FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	32	11-26-19	01-17-20	73
309 AGGREGATE BASE COURSE		34	03-02-20	04-23-20	20
EBRW.309.1000220	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM EB YADKIN ROAD BRIDGE TO S	34	03-02-20	04-23-20	20
315 ASPHALT CONCRETE PAVEMENT		34	03-11-20	04-30-20	20
EBRW.315.1000220	PLACE ASPHALT PAVING FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	34	03-11-20	04-30-20	20
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		8	05-01-20	05-14-20	20
EBRW.505.1000210	INSTALL GUARDRAIL FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	8	05-01-20	05-14-20	20
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		11	01-16-19	01-31-19	235
EBRW.508.1000200	DEMO PAVING FROM WB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	11	01-16-19	01-31-19	235
519 SOUND BARRIER WALLS		60	04-08-19	07-15-19	149
EBRW.519.1000200	INSTALL SOUND BARRIER WALL 6 FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDG	30	04-08-19	05-23-19	149
EBRW.519.1000210	INSTALL SOUND BARRIER WALL 8 FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDG	30	05-24-19	07-15-19	149
602 TOPSOIL		233	01-16-19	01-13-20	39
EBRW.602.1000200	STRIP TOPSOIL FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	10	01-16-19	01-30-19	111
EBRW.602.1000210	SPREAD TOPSOIL FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	10	12-27-19	01-13-20	39
603 SEEDING		2	01-15-20	01-16-20	39
EBRW.603.1000200	PERMENANT SEED FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	2	01-15-20	01-16-20	39
704 PAVEMENT MARKINGS AND MARKERS		5	05-15-20	05-22-20	20
EBRW.704.1000200	APPLY PAVEMENT MARKINGS FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	5	05-15-20	05-22-20	20
800 INTELLIGENT TRANSPORTATION SYSTEMS		120	09-05-19	03-20-20	0
EBRW.800.1000200	RUN DISTRIBUTION AND FIBER FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	120	09-05-19	03-20-20	0
PHASE 2		297	05-26-20	01-20-21	191
302 DRAINAGE STRUCTURES		79	05-26-20	06-25-20	79



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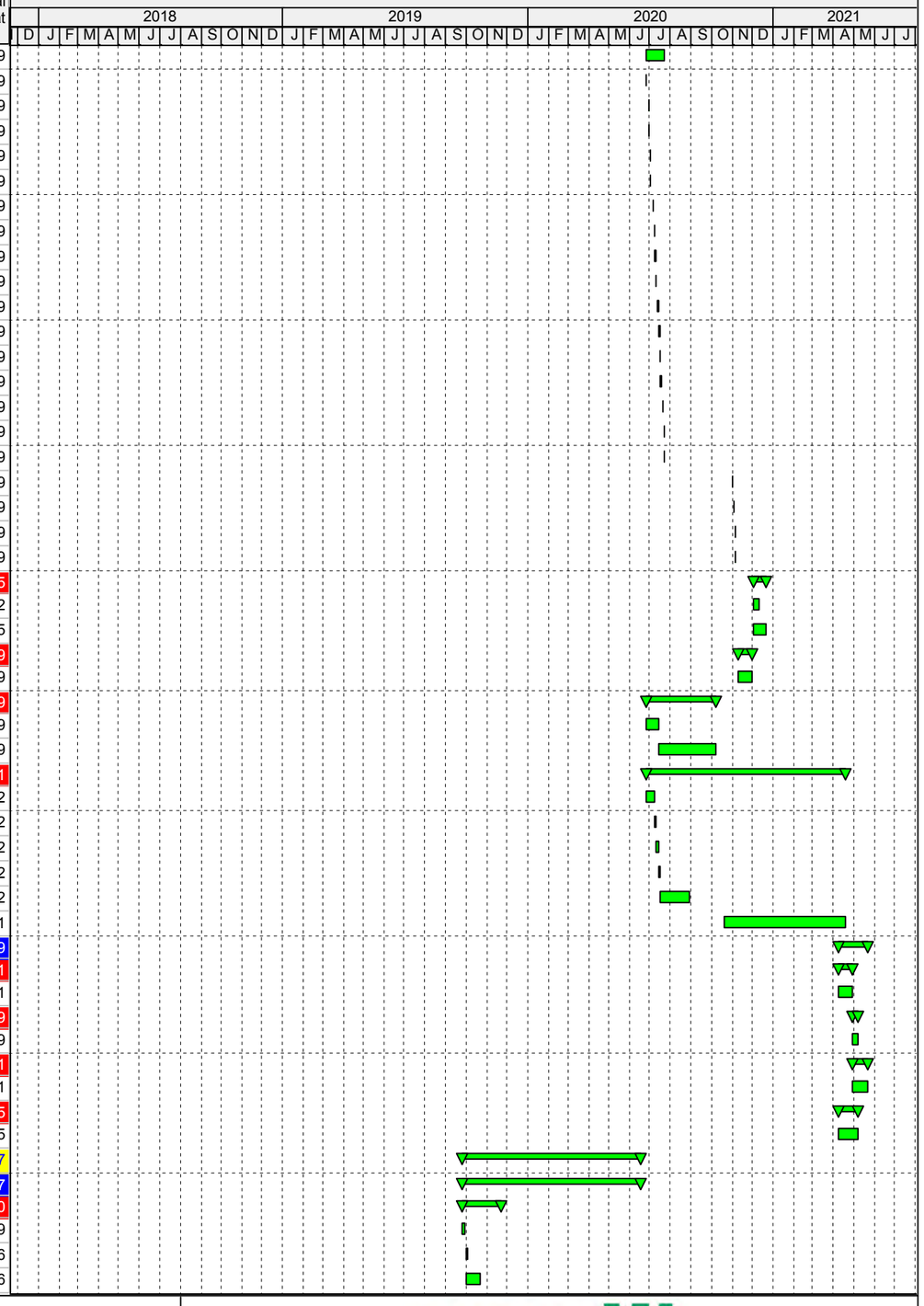
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EBRW.302.2000200	INSTALL DRAINAGE PIPE AND STRUCTURES FROM EB 1633+50 TO 1622	15	05-26-20	06-18-20	39
EBRW.302.2000205	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1635+50	1	05-26-20	05-26-20	39
EBRW.302.2000210	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1647+50	1	05-27-20	05-27-20	79
EBRW.302.2000215	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1649	1	05-28-20	05-28-20	79
EBRW.302.2000220	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1650+50	1	05-29-20	05-29-20	79
EBRW.302.2000225	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1652	1	06-01-20	06-01-20	79
EBRW.302.2000230	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1653+50	1	06-03-20	06-03-20	79
EBRW.302.2000235	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1655	1	06-04-20	06-04-20	79
EBRW.302.2000240	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1656+50	1	06-05-20	06-05-20	79
EBRW.302.2000245	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1658	1	06-08-20	06-08-20	79
EBRW.302.2000250	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1659+50	1	06-10-20	06-10-20	79
EBRW.302.2000255	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1683	1	06-11-20	06-11-20	79
EBRW.302.2000260	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1684+50	1	06-12-20	06-12-20	79
EBRW.302.2000265	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1686	1	06-15-20	06-15-20	79
EBRW.302.2000270	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1687+50	1	06-17-20	06-17-20	79
EBRW.302.2000275	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1689	1	06-18-20	06-18-20	79
EBRW.302.2000280	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1691	1	06-19-20	06-19-20	79
EBRW.302.2000285	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1694	1	06-22-20	06-22-20	79
EBRW.302.2000290	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1697	1	06-23-20	06-23-20	79
EBRW.302.2000295	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1700	1	06-24-20	06-24-20	79
EBRW.302.2000300	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1703	1	06-25-20	06-25-20	79
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		13	09-28-20	10-19-20	85
EBRW.505.2000210	INSTALL GUARDRAIL FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	6	09-28-20	10-05-20	92
EBRW.505.2000200	INSTALL BARRIER WALLS FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	13	09-28-20	10-19-20	85
515 MILLING PAVEMENT		13	09-04-20	09-25-20	39
EBRW.515.2000200	MILL AND OVERLAY FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	13	09-04-20	09-25-20	39
519 SOUND BARRIER WALLS		60	05-26-20	09-03-20	39
EBRW.519.2000200	INSTALL SOUND BARRIER WALL 6 FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDG	10	05-26-20	06-10-20	39
EBRW.519.2000210	INSTALL SOUND BARRIER WALL 8 FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDG	50	06-11-20	09-03-20	39
800 INTELLIGENT TRANSPORTATION SYSTEMS		297	05-26-20	01-20-21	191
EBRW.800.2000220	GROUND-MOUNTED EQUIPMENT CABINET FROM EB YADKIN ROAD BRIDGE TO SHELL ROA	7	05-26-20	06-04-20	112
EBRW.800.2000230	DEVICE POLE & FOUNDATION FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	1	06-05-20	06-05-20	112
EBRW.800.2000260	DYNAMIC MESSAGE SIGN FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	2	06-08-20	06-10-20	112
EBRW.800.2000270	MICROWAVE DETECTOR FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	1	06-11-20	06-11-20	112
EBRW.800.2000580	TOLL POINT	26	06-12-20	07-24-20	112
EBRW.800.2000590	TOLL TESTING PERIOD	180	07-25-20	01-20-21	191
PHASE 3		44	11-25-20	04-09-21	49
315 ASPHALT CONCRETE PAVEMENT		15	11-25-20	03-22-21	31
EBRW.315.3000220	PLACE ASPHALT PAVING FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	15	11-25-20	03-22-21	31
701 TRAFFIC SIGNS		5	03-23-21	03-29-21	39
EBRW.701.3000200	INSTALL TRAFFIC SIGNS FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	5	03-23-21	03-29-21	39
704 PAVEMENT MARKINGS AND MARKERS		13	03-23-21	04-09-21	31
EBRW.704.3000200	APPLY PAVEMENT MARKINGS FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	13	03-23-21	04-09-21	31
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	11-25-20	12-24-20	155
EBRW.800.3000290	ITS BURN IN PERIOD FROM EB YADKIN ROAD BRIDGE TO SHELL ROAD BRIDGE	30	11-25-20	12-24-20	155
WESTBOUND SHELL ROAD BRIDGE		266	09-11-19	03-02-20	107
PHASE 1		266	09-11-19	03-02-20	107
TEST PILES		57	09-11-19	10-18-19	150
WBSRB.400.1000000	WB SHELL RD BRIDGE TEST PILE 1	3	09-11-19	09-13-19	69
WBSRB.400.1000210	WB SHELL RD BRIDGE TEST PILE - ABUTMENT A	3	09-11-19	09-13-19	66
WBSRB.400.1000415	WB SHELL RD BRIDGE TEST PILE 1 - TEST	21	09-14-19	10-04-19	116



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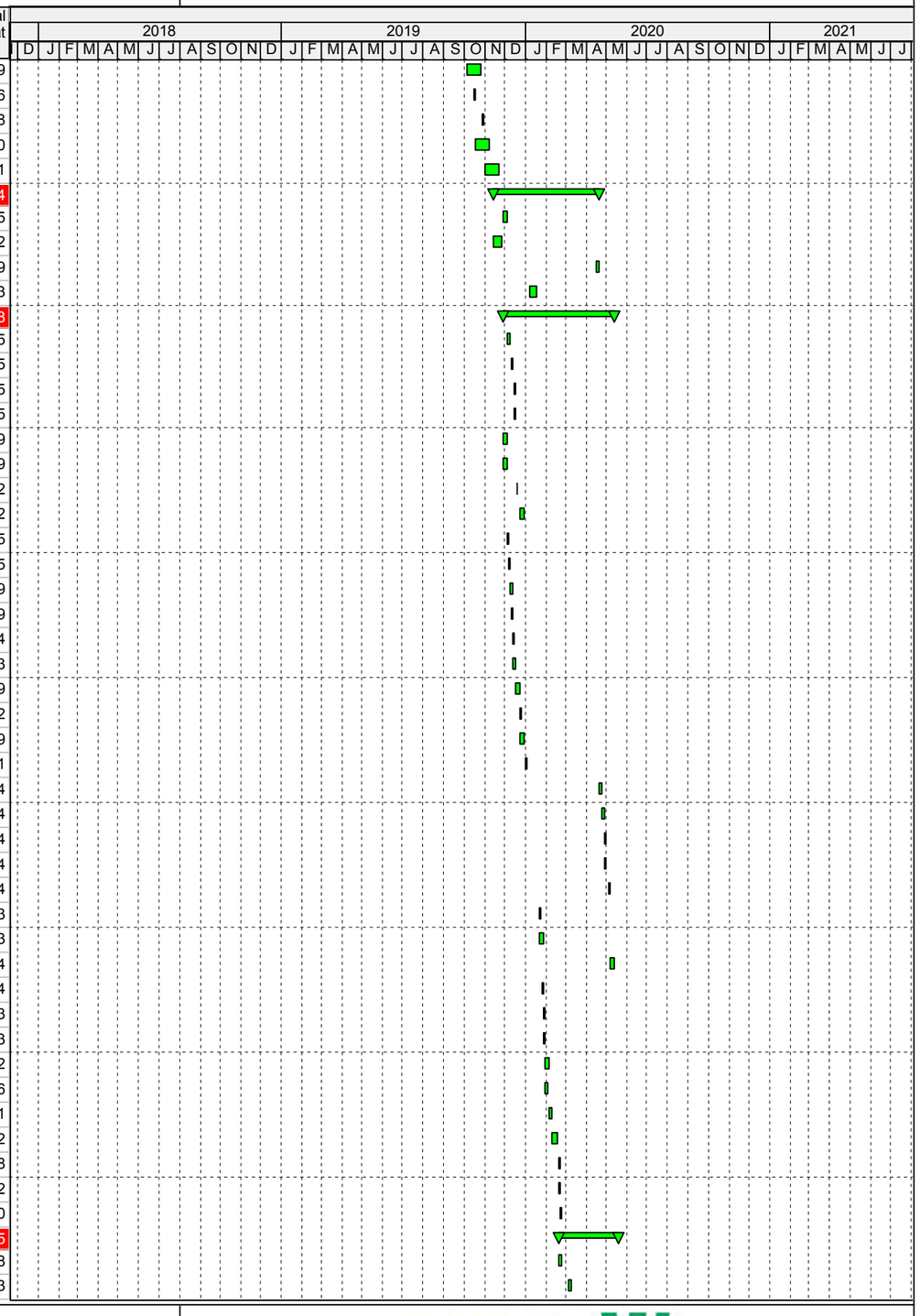
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBSRB.400.1000425	WB SHELL RD BRIDGE TEST PILE - ABUTMENT A - TEST	21	09-14-19	10-04-19	109
WBSRB.400.1000070	WB SHELL RD BRIDGE TEST PILE 2	3	09-25-19	09-27-19	86
WBSRB.400.1000215	WB SHELL RD BRIDGE TEST PILE - ABUTMENT B	3	09-25-19	09-27-19	78
WBSRB.400.1000435	WB SHELL RD BRIDGE TEST PILE 2 - TEST	21	09-28-19	10-18-19	150
WBSRB.400.1000445	WB SHELL RD BRIDGE TEST PILE - ABUTMENT B - TEST	21	09-28-19	10-18-19	131
PRODUCTION PILES		94	10-15-19	12-19-19	74
WBSRB.400.1000220	WB SHELL RD BRIDGE DRIVE PILES ABUTMENT A	4	10-15-19	10-18-19	85
WBSRB.400.1000005	WB SHELL RD BRIDGE DRIVE PILE 1	7	10-22-19	10-30-19	72
WBSRB.400.1000255	WB SHELL RD BRIDGE DRIVE PILES ABUTMENT B	4	11-19-19	11-26-19	89
WBSRB.400.1000075	WB SHELL RD BRIDGE DRIVE PILE 2	7	12-11-19	12-19-19	63
SUBSTRUCTURE		168	10-21-19	01-27-20	108
WBSRB.400.1000225	WB SHELL RD BRIDGE BUILD CAP ABUTMENT A	3	10-21-19	10-23-19	85
WBSRB.400.1000230	WB SHELL RD BRIDGE BACK WALL ABUTMENT A	3	10-24-19	10-28-19	85
WBSRB.400.1000235	WB SHELL RD BRIDGE BEAM SEATS ABUTMENT A	2	10-29-19	10-30-19	85
WBSRB.400.1000240	WB SHELL RD BRIDGE WING WALLS ABUTMENT A	3	10-29-19	10-31-19	85
WBSRB.400.1000010	WB SHELL RD BRIDGE CIP FOOTER 1-1	4	10-31-19	11-06-19	79
WBSRB.400.1000015	WB SHELL RD BRIDGE CIP FOOTER 1-2	4	11-01-19	11-07-19	79
WBSRB.400.1000245	WB SHELL RD BRIDGE FILL ABUTMENT A	2	11-01-19	11-04-19	92
WBSRB.400.1000250	WB SHELL RD BRIDGE SLOPE PROTECTION ABUTMENT A	4	11-06-19	11-11-19	92
WBSRB.400.1000020	WB SHELL RD BRIDGE CURE FOOTER 1-1	3	11-07-19	11-09-19	135
WBSRB.400.1000025	WB SHELL RD BRIDGE CURE FOOTER 1-2	3	11-08-19	11-10-19	135
WBSRB.400.1000030	WB SHELL RD BRIDGE CIP COLUMN 1-1A	3	11-11-19	11-14-19	79
WBSRB.400.1000035	WB SHELL RD BRIDGE CIP COLUMN 1-2A	3	11-13-19	11-15-19	79
WBSRB.400.1000040	WB SHELL RD BRIDGE CURE COLUMN 1-1A	3	11-15-19	11-17-19	134
WBSRB.400.1000045	WB SHELL RD BRIDGE CURE COLUMN 1-2A	3	11-16-19	11-18-19	133
WBSRB.400.1000050	WB SHELL RD BRIDGE CIP CAP 1	5	11-19-19	11-27-19	79
WBSRB.400.1000055	WB SHELL RD BRIDGE CURE CAP 1	3	11-28-19	11-30-19	132
WBSRB.400.1000060	WB SHELL RD BRIDGE BEAM SEATS 1	3	11-28-19	12-02-19	79
WBSRB.400.1000065	WB SHELL RD BRIDGE CURE BEAM SEAT 1	3	12-03-19	12-05-19	131
WBSRB.400.1000260	WB SHELL RD BRIDGE BUILD CAP ABUTMENT B	3	12-05-19	12-09-19	84
WBSRB.400.1000265	WB SHELL RD BRIDGE BACK WALL ABUTMENT B	3	12-11-19	12-13-19	84
WBSRB.400.1000270	WB SHELL RD BRIDGE BEAM SEATS ABUTMENT B	2	12-16-19	12-17-19	84
WBSRB.400.1000275	WB SHELL RD BRIDGE WING WALLS ABUTMENT B	3	12-16-19	12-18-19	84
WBSRB.400.1000280	WB SHELL RD BRIDGE FILL ABUTMENT B	2	12-19-19	12-20-19	84
WBSRB.400.1000080	WB SHELL RD BRIDGE CIP FOOTER 2-1	4	12-20-19	12-27-19	63
WBSRB.400.1000085	WB SHELL RD BRIDGE CIP FOOTER 2-2	4	12-23-19	12-30-19	63
WBSRB.400.1000285	WB SHELL RD BRIDGE SLOPE PROTECTION ABUTMENT B	4	12-23-19	12-30-19	84
WBSRB.400.1000090	WB SHELL RD BRIDGE CURE FOOTER 2-1	3	12-28-19	12-30-19	104
WBSRB.400.1000095	WB SHELL RD BRIDGE CURE FOOTER 2-2	3	12-31-19	01-02-20	103
WBSRB.400.1000100	WB SHELL RD BRIDGE CIP COLUMN 2-1A	3	12-31-19	01-03-20	63
WBSRB.400.1000105	WB SHELL RD BRIDGE CIP COLUMN 2-2A	3	01-03-20	01-08-20	62
WBSRB.400.1000110	WB SHELL RD BRIDGE CURE COLUMN 2-1A	3	01-04-20	01-06-20	106
WBSRB.400.1000115	WB SHELL RD BRIDGE CURE COLUMN 2-2A	3	01-09-20	01-11-20	101
WBSRB.400.1000120	WB SHELL RD BRIDGE CIP CAP 2	5	01-13-20	01-21-20	62
WBSRB.400.1000125	WB SHELL RD BRIDGE CURE CAP 2	3	01-22-20	01-24-20	98
WBSRB.400.1000130	WB SHELL RD BRIDGE BEAM SEATS 2	3	01-22-20	01-24-20	62
WBSRB.400.1000135	WB SHELL RD BRIDGE CURE BEAM SEAT 2	3	01-25-20	01-27-20	100
GIRDERS		56	12-06-19	02-05-20	65
WBSRB.400.1000290	WB SHELL RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 1	3	12-06-19	12-11-19	78
WBSRB.400.1000330	WB SHELL RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 2	3	01-28-20	01-30-20	63



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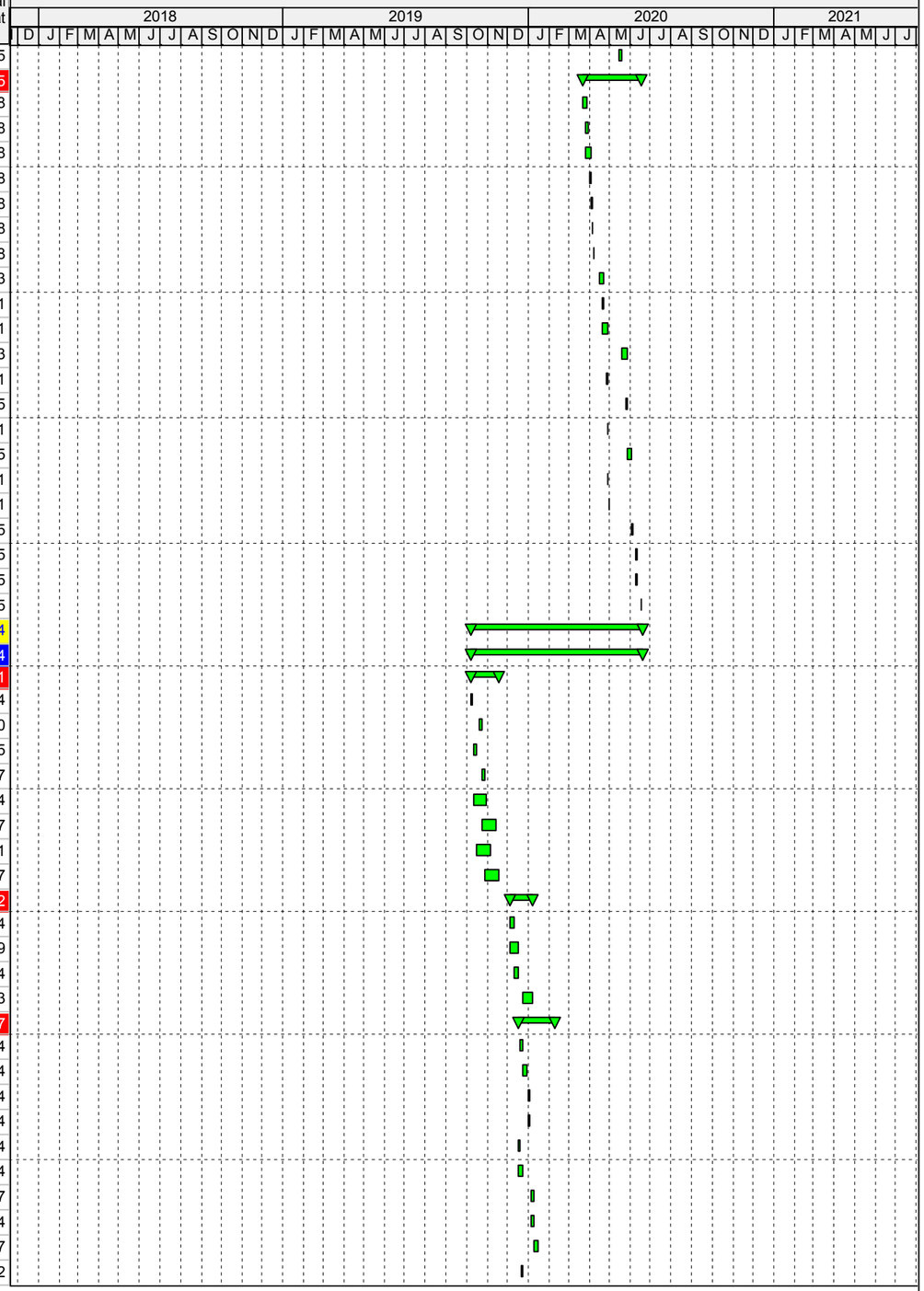
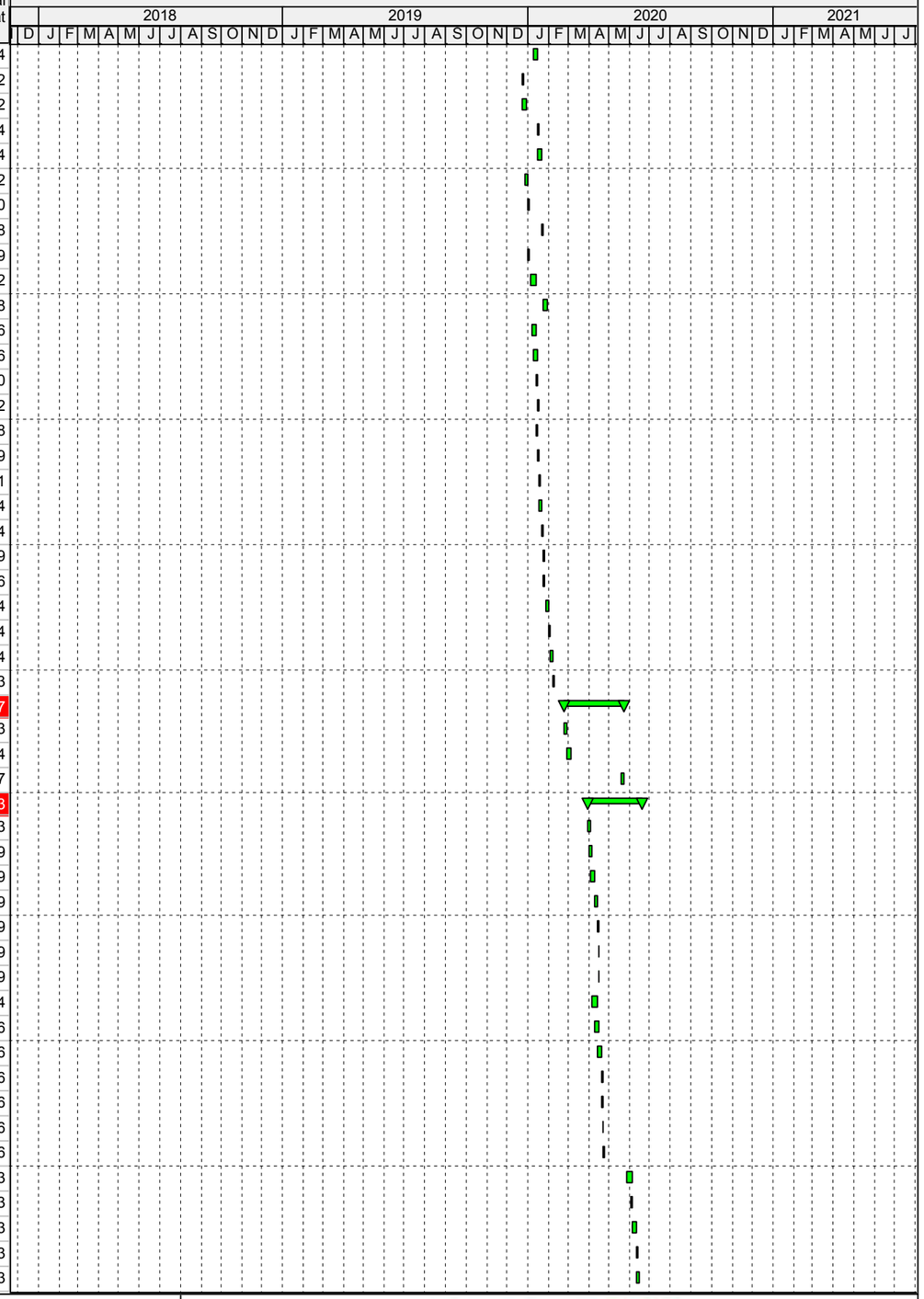
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBSRB.400.1000370	WB SHELL RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 3	3	01-31-20	02-05-20	65
BRIDGE DECK		54	12-12-19	03-02-20	65
WBSRB.400.1000295	WB SHELL RD BRIDGE FORM & SIP SPAN 1	5	12-12-19	12-18-19	78
WBSRB.400.1000300	WB SHELL RD BRIDGE FORM OVERHANG SPAN 1	3	12-17-19	12-19-19	98
WBSRB.400.1000305	WB SHELL RD BRIDGE REBAR SPAN 1	5	12-18-19	12-24-19	98
WBSRB.400.1000310	WB SHELL RD BRIDGE INSTALL BULKHEAD SPAN 1	2	12-24-19	12-27-19	98
WBSRB.400.1000315	WB SHELL RD BRIDGE SETUP BIDWELL SPAN 1	2	12-27-19	12-30-19	98
WBSRB.400.1000320	WB SHELL RD BRIDGE DRY RUN SPAN 1	1	12-30-19	12-30-19	98
WBSRB.400.1000325	WB SHELL RD BRIDGE DECK POUR SPAN 1	1	12-31-19	12-31-19	98
WBSRB.400.1000335	WB SHELL RD BRIDGE FORM & SIP SPAN 2	5	01-31-20	02-07-20	63
WBSRB.400.1000340	WB SHELL RD BRIDGE FORM OVERHANG SPAN 2	3	02-06-20	02-10-20	71
WBSRB.400.1000345	WB SHELL RD BRIDGE REBAR SPAN 2	5	02-07-20	02-14-20	71
WBSRB.400.1000375	WB SHELL RD BRIDGE FORM & SIP SPAN 3	5	02-10-20	02-18-20	63
WBSRB.400.1000350	WB SHELL RD BRIDGE INSTALL BULKHEAD SPAN 2	2	02-14-20	02-18-20	71
WBSRB.400.1000380	WB SHELL RD BRIDGE FORM OVERHANG SPAN 3	3	02-14-20	02-19-20	65
WBSRB.400.1000355	WB SHELL RD BRIDGE SETUP BIDWELL SPAN 2	2	02-18-20	02-19-20	71
WBSRB.400.1000385	WB SHELL RD BRIDGE REBAR SPAN 3	5	02-18-20	02-24-20	65
WBSRB.400.1000360	WB SHELL RD BRIDGE DRY RUN SPAN 2	1	02-19-20	02-19-20	71
WBSRB.400.1000365	WB SHELL RD BRIDGE DECK POUR SPAN 2	1	02-20-20	02-20-20	71
WBSRB.400.1000390	WB SHELL RD BRIDGE INSTALL BULKHEAD SPAN 3	2	02-24-20	02-25-20	65
WBSRB.400.1000395	WB SHELL RD BRIDGE SETUP BIDWELL SPAN 3	2	02-27-20	02-28-20	65
WBSRB.400.1000400	WB SHELL RD BRIDGE DRY RUN SPAN 3	1	02-28-20	02-28-20	65
WBSRB.400.1000405	WB SHELL RD BRIDGE DECK POUR SPAN 3	1	03-02-20	03-02-20	65
EASTBOUND SHELL ROAD BRIDGE		256	09-16-19	03-06-20	104
PHASE 1		256	09-16-19	03-06-20	104
TEST PILES		43	09-16-19	10-15-19	141
EBSRB.400.1000000	EB SHELL RD BRIDGE TEST PILE 1	3	09-16-19	09-19-19	74
EBSRB.400.1000210	EB SHELL RD BRIDGE TEST PILE - ABUTMENT A	3	09-16-19	09-19-19	70
EBSRB.400.1000070	EB SHELL RD BRIDGE TEST PILE 2	3	09-20-19	09-24-19	85
EBSRB.400.1000215	EB SHELL RD BRIDGE TEST PILE - ABUTMENT B	3	09-20-19	09-24-19	77
EBSRB.400.1000415	EB SHELL RD BRIDGE TEST PILE 1 - TEST	21	09-20-19	10-10-19	124
EBSRB.400.1000425	EB SHELL RD BRIDGE TEST PILE - ABUTMENT A - TEST	21	09-20-19	10-10-19	117
EBSRB.400.1000435	EB SHELL RD BRIDGE TEST PILE 2 - TEST	21	09-25-19	10-15-19	141
EBSRB.400.1000445	EB SHELL RD BRIDGE TEST PILE - ABUTMENT B - TEST	21	09-25-19	10-15-19	127
PRODUCTION PILES		19	10-29-19	12-09-19	72
EBSRB.400.1000220	EB SHELL RD BRIDGE DRIVE PILES ABUTMENT A	4	10-29-19	11-01-19	84
EBSRB.400.1000005	EB SHELL RD BRIDGE DRIVE PILE 1	7	11-06-19	11-15-19	69
EBSRB.400.1000255	EB SHELL RD BRIDGE DRIVE PILES ABUTMENT B	4	11-13-19	11-18-19	84
EBSRB.400.1000075	EB SHELL RD BRIDGE DRIVE PILE 2	7	11-28-19	12-09-19	63
SUBSTRUCTURE		55	11-04-19	01-16-20	127
EBSRB.400.1000225	EB SHELL RD BRIDGE BUILD CAP ABUTMENT A	3	11-04-19	11-07-19	84
EBSRB.400.1000230	EB SHELL RD BRIDGE BACK WALL ABUTMENT A	3	11-08-19	11-13-19	84
EBSRB.400.1000235	EB SHELL RD BRIDGE BEAM SEATS ABUTMENT A	2	11-14-19	11-15-19	84
EBSRB.400.1000240	EB SHELL RD BRIDGE WING WALLS ABUTMENT A	3	11-14-19	11-18-19	84
EBSRB.400.1000010	EB SHELL RD BRIDGE CIP FOOTER 1-1	4	11-18-19	11-25-19	74
EBSRB.400.1000015	EB SHELL RD BRIDGE CIP FOOTER 1-2	4	11-19-19	11-26-19	74
EBSRB.400.1000245	EB SHELL RD BRIDGE FILL ABUTMENT A	2	11-19-19	11-20-19	87
EBSRB.400.1000260	EB SHELL RD BRIDGE BUILD CAP ABUTMENT B	3	11-19-19	11-25-19	84
EBSRB.400.1000250	EB SHELL RD BRIDGE SLOPE PROTECTION ABUTMENT A	4	11-25-19	11-28-19	87
EBSRB.400.1000020	EB SHELL RD BRIDGE CURE FOOTER 1-1	3	11-26-19	11-28-19	122



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EBSRB.400.1000265	EB SHELL RD BRIDGE BACK WALL ABUTMENT B	3	11-26-19	11-28-19	84
EBSRB.400.1000025	EB SHELL RD BRIDGE CURE FOOTER 1-2	3	11-27-19	11-29-19	122
EBSRB.400.1000030	EB SHELL RD BRIDGE CIP COLUMN 1-1A	3	11-29-19	12-04-19	72
EBSRB.400.1000270	EB SHELL RD BRIDGE BEAM SEATS ABUTMENT B	2	11-29-19	12-02-19	84
EBSRB.400.1000275	EB SHELL RD BRIDGE WING WALLS ABUTMENT B	3	11-29-19	12-04-19	84
EBSRB.400.1000035	EB SHELL RD BRIDGE CIP COLUMN 1-2A	3	12-02-19	12-05-19	72
EBSRB.400.1000040	EB SHELL RD BRIDGE CURE COLUMN 1-1A	3	12-05-19	12-07-19	120
EBSRB.400.1000280	EB SHELL RD BRIDGE FILL ABUTMENT B	2	12-05-19	12-06-19	98
EBSRB.400.1000045	EB SHELL RD BRIDGE CURE COLUMN 1-2A	3	12-06-19	12-08-19	119
EBSRB.400.1000050	EB SHELL RD BRIDGE CIP CAP 1	5	12-09-19	12-16-19	72
EBSRB.400.1000285	EB SHELL RD BRIDGE SLOPE PROTECTION ABUTMENT B	4	12-09-19	12-13-19	98
EBSRB.400.1000080	EB SHELL RD BRIDGE CIP FOOTER 2-1	4	12-11-19	12-16-19	66
EBSRB.400.1000085	EB SHELL RD BRIDGE CIP FOOTER 2-2	4	12-12-19	12-17-19	66
EBSRB.400.1000055	EB SHELL RD BRIDGE CURE CAP 1	3	12-17-19	12-19-19	120
EBSRB.400.1000060	EB SHELL RD BRIDGE BEAM SEATS 1	3	12-17-19	12-19-19	72
EBSRB.400.1000090	EB SHELL RD BRIDGE CURE FOOTER 2-1	3	12-17-19	12-19-19	108
EBSRB.400.1000095	EB SHELL RD BRIDGE CURE FOOTER 2-2	3	12-18-19	12-20-19	109
EBSRB.400.1000065	EB SHELL RD BRIDGE CURE BEAM SEAT 1	3	12-20-19	12-22-19	121
EBSRB.400.1000100	EB SHELL RD BRIDGE CIP COLUMN 2-1A	3	12-20-19	12-24-19	64
EBSRB.400.1000105	EB SHELL RD BRIDGE CIP COLUMN 2-2A	3	12-23-19	12-27-19	64
EBSRB.400.1000110	EB SHELL RD BRIDGE CURE COLUMN 2-1A	3	12-25-19	12-27-19	109
EBSRB.400.1000115	EB SHELL RD BRIDGE CURE COLUMN 2-2A	3	12-28-19	12-30-19	106
EBSRB.400.1000120	EB SHELL RD BRIDGE CIP CAP 2	5	12-31-19	01-08-20	64
EBSRB.400.1000125	EB SHELL RD BRIDGE CURE CAP 2	3	01-09-20	01-11-20	104
EBSRB.400.1000130	EB SHELL RD BRIDGE BEAM SEATS 2	3	01-09-20	01-13-20	64
EBSRB.400.1000135	EB SHELL RD BRIDGE CURE BEAM SEAT 2	3	01-14-20	01-16-20	103
GIRDERS		56	12-23-19	02-10-20	67
EBSRB.400.1000290	EB SHELL RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 1	3	12-23-19	12-27-19	73
EBSRB.400.1000330	EB SHELL RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 2	3	01-17-20	01-22-20	64
EBSRB.400.1000370	EB SHELL RD BRIDGE STRIP BEAM SEATS & ERECT GIRDER SPAN 3	3	02-06-20	02-10-20	67
BRIDGE DECK		50	12-30-19	03-06-20	63
EBSRB.400.1000295	EB SHELL RD BRIDGE FORM & SIP SPAN 1	5	12-30-19	01-06-20	73
EBSRB.400.1000300	EB SHELL RD BRIDGE FORM OVERHANG SPAN 1	3	01-03-20	01-08-20	89
EBSRB.400.1000305	EB SHELL RD BRIDGE REBAR SPAN 1	5	01-06-20	01-13-20	89
EBSRB.400.1000310	EB SHELL RD BRIDGE INSTALL BULKHEAD SPAN 1	2	01-13-20	01-15-20	89
EBSRB.400.1000315	EB SHELL RD BRIDGE SETUP BIDWELL SPAN 1	2	01-15-20	01-16-20	89
EBSRB.400.1000320	EB SHELL RD BRIDGE DRY RUN SPAN 1	1	01-16-20	01-16-20	89
EBSRB.400.1000325	EB SHELL RD BRIDGE DECK POUR SPAN 1	1	01-17-20	01-17-20	89
EBSRB.400.1000335	EB SHELL RD BRIDGE FORM & SIP SPAN 2	5	01-23-20	01-29-20	64
EBSRB.400.1000340	EB SHELL RD BRIDGE FORM OVERHANG SPAN 2	3	01-28-20	01-30-20	76
EBSRB.400.1000345	EB SHELL RD BRIDGE REBAR SPAN 2	5	01-29-20	02-05-20	76
EBSRB.400.1000350	EB SHELL RD BRIDGE INSTALL BULKHEAD SPAN 2	2	02-05-20	02-06-20	76
EBSRB.400.1000355	EB SHELL RD BRIDGE SETUP BIDWELL SPAN 2	2	02-06-20	02-07-20	76
EBSRB.400.1000360	EB SHELL RD BRIDGE DRY RUN SPAN 2	1	02-07-20	02-07-20	76
EBSRB.400.1000365	EB SHELL RD BRIDGE DECK POUR SPAN 2	1	02-10-20	02-10-20	76
EBSRB.400.1000375	EB SHELL RD BRIDGE FORM & SIP SPAN 3	5	02-19-20	02-25-20	63
EBSRB.400.1000380	EB SHELL RD BRIDGE FORM OVERHANG SPAN 3	3	02-24-20	02-26-20	63
EBSRB.400.1000385	EB SHELL RD BRIDGE REBAR SPAN 3	5	02-25-20	03-02-20	63
EBSRB.400.1000390	EB SHELL RD BRIDGE INSTALL BULKHEAD SPAN 3	2	03-02-20	03-04-20	63
EBSRB.400.1000395	EB SHELL RD BRIDGE SETUP BIDWELL SPAN 3	2	03-04-20	03-05-20	63



Date	Revision	Checked	Approved

SKANSKA

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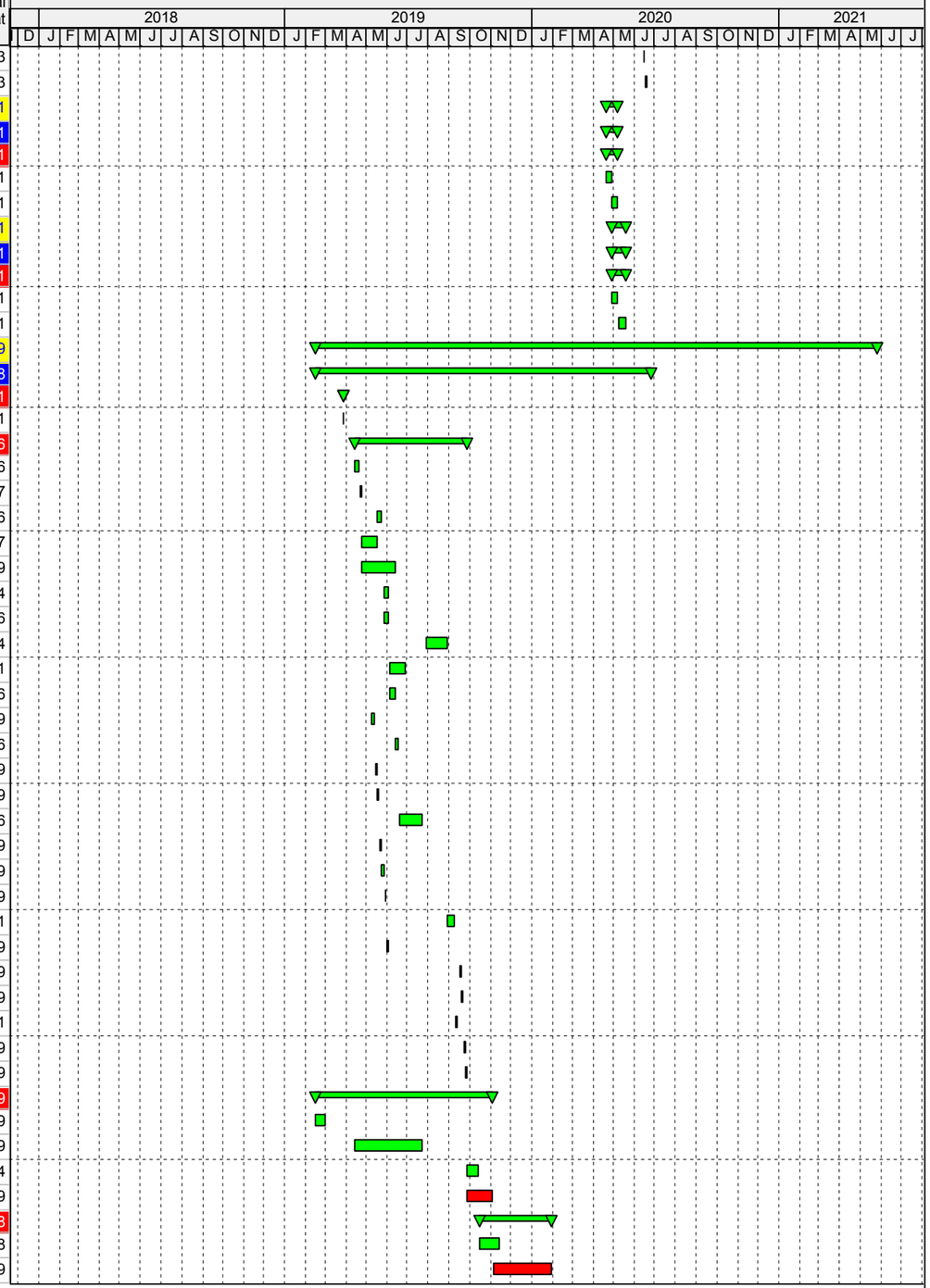
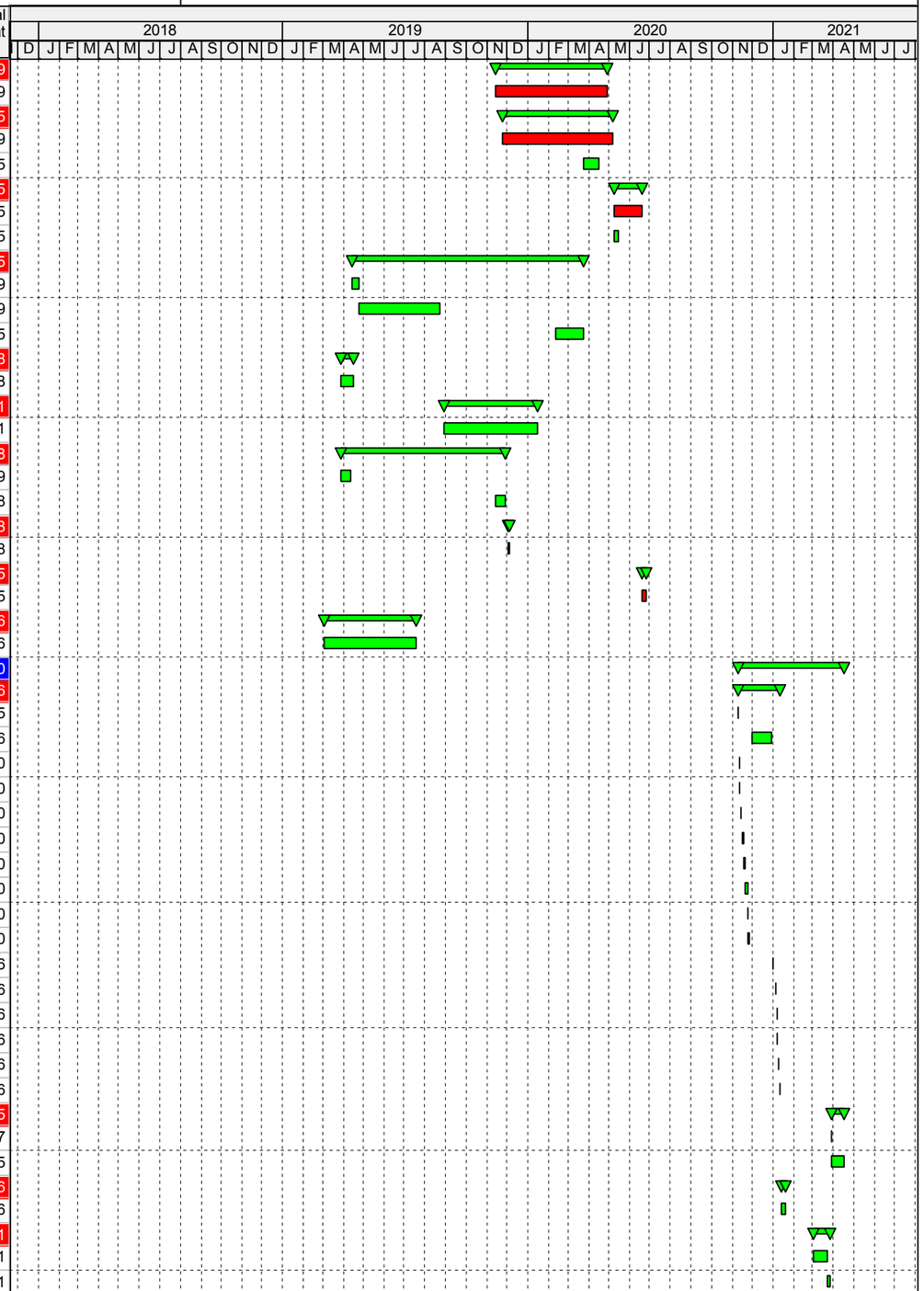
EBSRB.400.1000400	EB SHELL RD BRIDGE DRY RUN SPAN 3	1	03-05-20	03-05-20	63
EBSRB.400.1000405	EB SHELL RD BRIDGE DECK POUR SPAN 3	1	03-06-20	03-06-20	63
NORTHBOUND SHELL ROAD ROADWAY WORK		12	12-20-19	01-10-20	91
PHASE 1		12	12-20-19	01-10-20	91
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		12	12-20-19	01-10-20	91
NBSR.505.1000000	INSTALL BARRIER WALL NB SHELL RD	6	12-20-19	12-31-19	91
NBSR.505.1000010	INSTALL GUARDRAIL NB SHELL RD	6	01-02-20	01-10-20	91
SOUTHBOUND SHELL ROAD ROADWAY WORK		12	01-02-20	01-22-20	91
PHASE 1		12	01-02-20	01-22-20	91
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		12	01-02-20	01-22-20	91
SBSR.505.1000000	INSTALL BARRIER WALL SB SHELL RD	6	01-02-20	01-10-20	91
SBSR.505.1000010	INSTALL GUARDRAIL SB SHELL RD	6	01-13-20	01-22-20	91
I-64 WESTBOUND FROM SHELL ROAD BRIDGE TO NEW HRB		832	02-15-19	10-21-20	219
PHASE 1		497	02-15-19	06-01-20	228
301 CLEARING AND GRUBBING		2	03-28-19	03-29-19	311
WBRW.301.1000310	CLEAR AND GRUB WB FROM SHELL ROAD BRIDGE TO NEW HRB FOR SOUND WALL 7	2	03-28-19	03-29-19	311
302 DRAINAGE STRUCTURES		99	04-15-19	06-21-19	56
WBRW.302.1000300	JACK AND BORE DRAINAGE PIPE WB 1233	5	04-15-19	04-19-19	56
WBRW.302.1000305	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURE WB 1233 TO 1234	2	04-22-19	04-23-19	57
WBRW.302.1000315	JACK AND BORE DRAINAGE PIPE WB 1239	5	04-22-19	04-26-19	56
WBRW.302.1000310	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES WB 1233 TO 1222	15	04-24-19	05-16-19	57
WBRW.302.1000370	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM WB 1272 TO 1293	30	04-25-19	06-13-19	59
WBRW.302.1000320	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES WB 1239 TO 1236	5	04-29-19	05-03-19	64
WBRW.302.1000330	JACK AND BORE DRAINAGE PIPE WB 1260	5	04-29-19	05-03-19	56
WBRW.302.1000325	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES WB 1239 TO 1250	20	05-06-19	06-07-19	64
WBRW.302.1000335	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM WB 1260 TO 1251	15	05-06-19	05-30-19	61
WBRW.302.1000355	JACK AND BORE DRAINAGE PIPE FROM WB 1272 TO SWM AREA 1273	5	05-06-19	05-13-19	56
WBRW.302.1000375	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1275	2	05-10-19	05-13-19	59
WBRW.302.1000360	INSTALL SWM INLET STRUCTURE AND OUTFALL WB 1269	3	05-15-19	05-17-19	56
WBRW.302.1000380	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1276+50	2	05-15-19	05-16-19	59
WBRW.302.1000385	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1278	2	05-17-19	05-20-19	59
WBRW.302.1000365	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM WB 1272 TO 1261	20	05-20-19	06-21-19	56
WBRW.302.1000390	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1280	2	05-22-19	05-23-19	59
WBRW.302.1000395	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1282	2	05-24-19	05-28-19	59
WBRW.302.1000400	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1284	2	05-29-19	05-30-19	59
WBRW.302.1000345	EXCAVATE SWM AREA WB 1269 TO 1273	5	05-31-19	06-07-19	61
WBRW.302.1000405	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1286	2	05-31-19	06-03-19	59
WBRW.302.1000410	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1287	2	06-05-19	06-06-19	59
WBRW.302.1000415	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1288	2	06-07-19	06-10-19	59
WBRW.302.1000350	INSTALL WATER QUALITY SWALE FROM WB 1251 TO 1266	3	06-10-19	06-13-19	61
WBRW.302.1000420	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1290	2	06-12-19	06-13-19	59
WBRW.302.1000425	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1293	2	06-14-19	06-17-19	59
303 EARTHWORK		159	02-15-19	10-07-19	19
WBRW.303.1000300	INSTALL SILT FENCE AND EROSION CONTROL WB FROM SHELL ROAD BRIDGE TO NEW HF	10	02-15-19	03-01-19	19
WBRW.303.1000305	CUT / BORROW TO FILL WB FROM SHELL ROAD BRIDGE TO NEW HRB	60	04-15-19	07-22-19	19
WBRW.303.1000310	ROUGH GRADE SLOPES FROM WB SHELL ROAD BRIDGE TO NEW HRB	10	07-15-19	07-30-19	54
WBRW.303.1000320	ROUGH GRADE MAINLINE FROM WB SHELL ROAD BRIDGE TO NEW HRB	25	08-26-19	10-07-19	19
305 SUGRADE AND SHOULDERS		65	07-31-19	12-27-19	38
WBRW.305.1000310	FINE GRADE SLOPES FROM WB SHELL ROAD BRIDGE TO NEW HRB	20	07-31-19	09-04-19	108
WBRW.305.1000320	FINE GRADE MAINLINE FROM WB SHELL ROAD BRIDGE TO NEW HRB	50	10-09-19	12-27-19	19



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
309 AGGREGATE BASE COURSE		48	10-16-19	03-31-20	19
WBRW.309.1000320	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM WB SHELL ROAD BRIDGE TO N	48	10-16-19	03-31-20	19
315 ASPHALT CONCRETE PAVEMENT		48	10-23-19	04-15-20	15
WBRW.315.1000320	PLACE ASPHALT PAVING FROM WB SHELL ROAD BRIDGE TO NEW HRB	48	10-23-19	04-08-20	19
WBRW.315.1000330	PLACE ASPHALT PAVING WITHIN MSE WALL AT ABUTMENT A	15	03-24-20	04-15-20	15
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		24	04-16-20	05-22-20	15
WBRW.505.1000300	INSTALL BARRIER WALLS WB SHELL ROAD BRIDGE TO NEW HRB	24	04-16-20	05-22-20	15
WBRW.505.1000310	INSTALL GUARDRAIL WB SHELL ROAD BRIDGE TO NEW HRB	4	04-16-20	04-21-20	35
506 RETAINING WALLS		206	04-15-19	03-23-20	15
WBRW.506.1000300	CUT / FILL FOR MSE WALL FROM WB 1780+20 TO WB 1762+98	8	04-15-19	04-24-19	19
WBRW.506.1000310	CONSTRUCT MSE WALL B FROM WB 1780+20 TO WB 1762+98	72	04-25-19	08-23-19	19
WBRW.506.1000320	CONSTRUCT MSE WALL A FROM WB 1780+20 TO WB 1762+98	25	02-12-20	03-23-20	15
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		11	03-28-19	04-15-19	98
WBRW.508.1000300	DEMO PAVING FROM WB SHELL ROAD BRIDGE TO NEW HRB	11	03-28-19	04-15-19	98
519 SOUND BARRIER WALLS		82	04-01-19	08-14-19	311
WBRW.519.1000310	INSTALL SOUND BARRIER WALL 7 WB FROM SHELL ROAD BRIDGE TO NEW HRB	82	04-01-19	08-14-19	311
602 TOPSOIL		149	03-28-19	09-20-19	108
WBRW.602.1000300	STRIP TOPSOIL FROM WB SHELL ROAD BRIDGE TO NEW HRB	10	03-28-19	04-12-19	19
WBRW.602.1000310	SPREAD TOPSOIL FROM WB SHELL ROAD BRIDGE TO NEW HRB	10	09-05-19	09-20-19	108
603 SEEDING		2	09-23-19	09-24-19	108
WBRW.603.1000300	PERMENANT SEED FROM WB SHELL ROAD BRIDGE TO NEW HRB	2	09-23-19	09-24-19	108
704 PAVEMENT MARKINGS AND MARKERS		5	05-26-20	06-01-20	15
WBRW.704.1000300	APPLY PAVEMENT MARKINGS FROM WB SHELL ROAD BRIDGE TO NEW HRB	5	05-26-20	06-01-20	15
800 INTELLIGENT TRANSPORTATION SYSTEMS		84	03-04-19	07-19-19	146
WBRW.800.1000300	RUN DISTRIBUTION AND FIBER WB SHELL ROAD BRIDGE TO NEW HRB	84	03-04-19	07-19-19	146
PHASE 2		159	06-03-20	09-10-20	230
302 DRAINAGE STRUCTURES		38	06-03-20	07-15-20	146
WBRW.302.2000400	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1222	1	06-03-20	06-03-20	135
WBRW.302.2000445	INSTALL DRAINAGE PIPE AND STRUCTURES FROM WB 1239 TO 1250	20	06-03-20	07-02-20	146
WBRW.302.2000405	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1226+50	1	06-04-20	06-04-20	160
WBRW.302.2000410	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1231	1	06-05-20	06-05-20	160
WBRW.302.2000415	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1234+50	1	06-08-20	06-08-20	160
WBRW.302.2000420	INSTALL WATER QUALITY SWALE WB 1222 TO 1233	3	06-10-20	06-12-20	160
WBRW.302.2000425	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1233 AT WATER QUALITY SWALE	1	06-15-20	06-15-20	160
WBRW.302.2000430	INSTALL TIDE GATE WB 1234	2	06-17-20	06-18-20	160
WBRW.302.2000435	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1236	1	06-19-20	06-19-20	160
WBRW.302.2000440	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1238	1	06-22-20	06-22-20	160
WBRW.302.2000450	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1251	1	07-06-20	07-06-20	146
WBRW.302.2000455	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1252+50	1	07-08-20	07-08-20	146
WBRW.302.2000460	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1254	1	07-09-20	07-09-20	146
WBRW.302.2000465	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1255+50	1	07-10-20	07-10-20	146
WBRW.302.2000470	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1257	1	07-13-20	07-13-20	146
WBRW.302.2000475	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB 1258+50	1	07-15-20	07-15-20	146
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		13	08-19-20	09-10-20	135
WBRW.505.2000310	INSTALL GUARDRAIL WB SHELL ROAD BRIDGE TO NEW HRB	1	08-19-20	08-19-20	147
WBRW.505.2000300	INSTALL BARRIER WALLS WB SHELL ROAD BRIDGE TO NEW HRB	13	08-19-20	09-10-20	135
507 FENCES		4	07-16-20	07-22-20	146
WBRW.519.2000300	INSTALL FENCE WB FROM SHELL ROAD BRIDGE TO NEW HRB	4	07-16-20	07-22-20	146
515 MILLING PAVEMENT		17	07-20-20	08-17-20	81
WBRW.515.2000310	REBUILD SHOULDER TO FULL DEPTH FROM SHELL ROAD BRIDGE TO NEW HRB	13	07-20-20	08-10-20	81
WBRW.515.2000300	MILL AND OVERLAY FROM WB FROM SHELL ROAD BRIDGE TO NEW HRB	4	08-12-20	08-17-20	81



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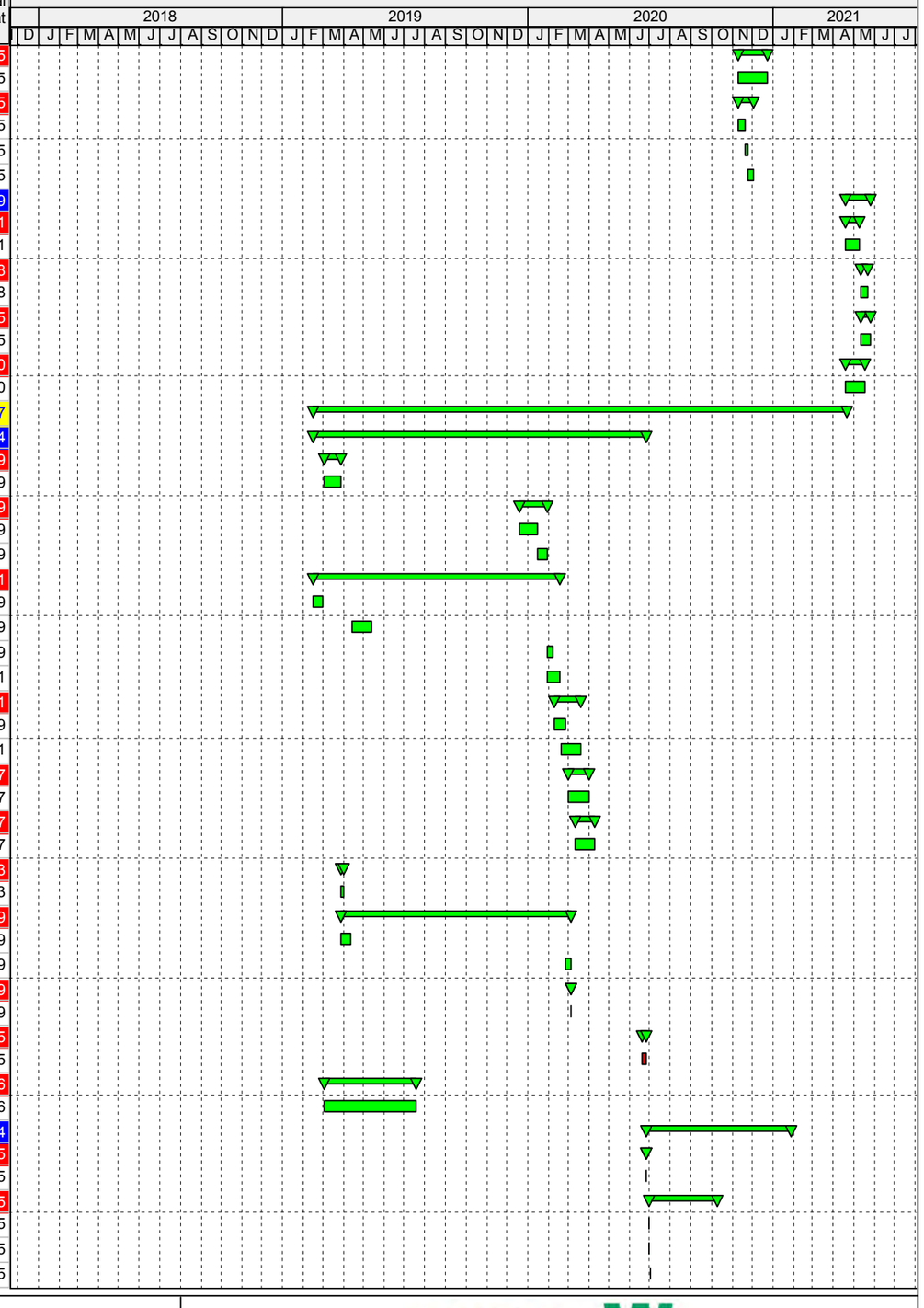
SKANSKA

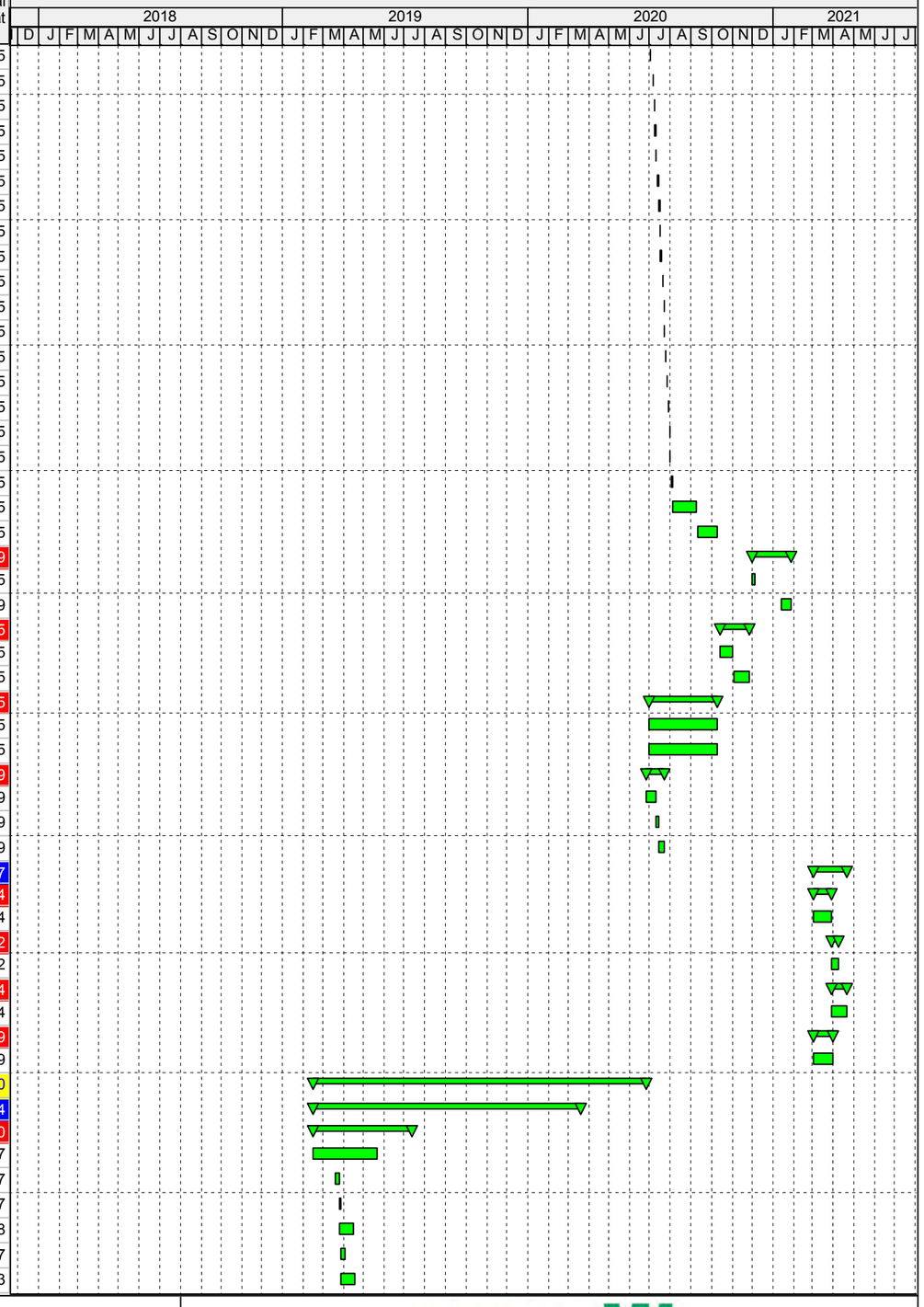
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
519 SOUND BARRIER WALLS		28	06-03-20	07-17-20	135
WBRW.519.2000310	INSTALL SOUND BARRIER WALL 7 WB FROM SHELL ROAD BRIDGE TO NEW HRB (CREW 1)	28	06-03-20	07-17-20	135
800 INTELLIGENT TRANSPORTATION SYSTEMS		14	06-03-20	06-24-20	185
WBRW.800.1000310	LOOP DETECTORS FROM WB SHELL ROAD BRIDGE TO NEW HRB	8	06-03-20	06-15-20	185
WBRW.800.1000320	GROUND-MOUNTED EQUIPMENT CABINET FROM WB SHELL ROAD BRIDGE TO NEW HRB	2	06-17-20	06-18-20	185
WBRW.800.1000360	DYNAMIC MESSAGE SIGN FROM WB SHELL ROAD BRIDGE TO NEW HRB	4	06-19-20	06-24-20	185
PHASE 3		38	09-11-20	10-21-20	219
315 ASPHALT CONCRETE PAVEMENT		15	09-11-20	10-02-20	81
WBRW.315.3000320	PLACE ASPHALT PAVING FROM WB FROM SHELL ROAD BRIDGE TO NEW HRB	15	09-11-20	10-02-20	81
701 TRAFFIC SIGNS		7	10-05-20	10-16-20	138
WBRW.701.3000300	INSTALL TRAFFIC SIGNS FROM WB FROM SHELL ROAD BRIDGE TO NEW HRB	7	10-05-20	10-16-20	138
704 PAVEMENT MARKINGS AND MARKERS		10	10-05-20	10-21-20	135
WBRW.704.3000300	APPLY PAVEMENT MARKINGS FROM WB FROM SHELL ROAD BRIDGE TO NEW HRB	10	10-05-20	10-21-20	135
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	09-11-20	10-10-20	230
WBRW.800.3000390	ITS BURN IN PERIOD FROM WB FROM SHELL ROAD BRIDGE TO NEW HRB	30	09-11-20	10-10-20	230
I-64 EASTBOUND FROM SHELL ROAD BRIDGE TO EXIST HRB		797	02-15-19	04-21-21	37
PHASE 1		497	02-15-19	06-01-20	24
301 CLEARING AND GRUBBING		15	03-04-19	03-27-19	19
EBRW.301.1000300	CLEAR AND GRUB FROM SHELL ROAD TO HRB	15	03-04-19	03-27-19	19
302 DRAINAGE STRUCTURES		25	05-15-19	06-25-19	139
EBRW.302.1000300	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM EB 1771+50 TO 1762+50	15	05-15-19	06-07-19	139
EBRW.302.1000305	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM EB 1777+50 TO 1771+50	10	06-10-19	06-25-19	139
303 EARTHWORK		220	02-15-19	07-12-19	151
EBRW.303.1000300	INSTALL SILT FENCE AND EROSION CONTROL EB FROM SHELL ROAD BRIDGE TO EXISTIN(	10	02-15-19	03-01-19	19
EBRW.303.1000305	CUT / BORROW TO FILL EB FROM SHELL ROAD BRIDGE TO EXISTING HRB	20	04-15-19	05-13-19	139
EBRW.303.1000310	ROUGH GRADE SLOPES FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	5	06-26-19	07-03-19	139
EBRW.303.1000320	ROUGH GRADE MAINLINE FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	10	06-26-19	07-12-19	151
305 SUGRADE AND SHOULDERS		25	07-05-19	08-15-19	151
EBRW.305.1000310	FINE GRADE SLOPES FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	10	07-05-19	07-22-19	139
EBRW.305.1000320	FINE GRADE MAINLINE FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	20	07-15-19	08-15-19	151
309 AGGREGATE BASE COURSE		20	07-24-19	08-23-19	97
EBRW.309.1000320	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM EB SHELL ROAD BRIDGE TO E:	20	07-24-19	08-23-19	97
315 ASPHALT CONCRETE PAVEMENT		20	07-31-19	09-04-19	97
EBRW.315.1000320	PLACE ASPHALT PAVING FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	20	07-31-19	09-04-19	97
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		3	03-28-19	04-01-19	203
EBRW.508.1000300	DEMO PAVING FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	3	03-28-19	04-01-19	203
602 TOPSOIL		205	03-28-19	07-30-19	139
EBRW.602.1000300	STRIP TOPSOIL FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	10	03-28-19	04-12-19	139
EBRW.602.1000310	SPREAD TOPSOIL FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	5	07-24-19	07-30-19	139
603 SEEDING		1	07-31-19	07-31-19	139
EBRW.603.1000300	PERMENANT SEED FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	1	07-31-19	07-31-19	139
704 PAVEMENT MARKINGS AND MARKERS		5	05-26-20	06-01-20	15
EBRW.704.1000300	APPLY PAVEMENT MARKINGS FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	5	05-26-20	06-01-20	15
800 INTELLIGENT TRANSPORTATION SYSTEMS		84	03-04-19	07-19-19	146
EBRW.800.1000300	RUN DISTRIBUTION AND FIBER FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	84	03-04-19	07-19-19	146
PHASE 2		217	06-26-20	12-15-20	134
301 CLEARING AND GRUBBING		1	06-26-20	06-26-20	15
EBRW.301.2000310	CLEAR AND GRUB FROM EB SHELL ROAD BRIDGE TO EXISTING HRB FOR SOUND WALL 8	1	06-26-20	06-26-20	15
302 DRAINAGE STRUCTURES		61	06-29-20	10-09-20	15
EBRW.302.2000400	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1706	1	06-29-20	06-29-20	15
EBRW.302.2000405	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1711	1	06-30-20	06-30-20	15
EBRW.302.2000410	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1715	1	07-01-20	07-01-20	15



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EBRW.302.2000415	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1719	1	07-02-20	07-02-20	15
EBRW.302.2000420	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1720+50	1	07-06-20	07-06-20	15
EBRW.302.2000425	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1722	1	07-08-20	07-08-20	15
EBRW.302.2000430	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1723+50	1	07-09-20	07-09-20	15
EBRW.302.2000435	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1725	1	07-10-20	07-10-20	15
EBRW.302.2000440	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1726+50	1	07-13-20	07-13-20	15
EBRW.302.2000445	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1728	1	07-15-20	07-15-20	15
EBRW.302.2000450	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1729+50	1	07-16-20	07-16-20	15
EBRW.302.2000455	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1731	1	07-17-20	07-17-20	15
EBRW.302.2000460	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1732+50	1	07-20-20	07-20-20	15
EBRW.302.2000465	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1734	1	07-22-20	07-22-20	15
EBRW.302.2000470	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1735+50	1	07-23-20	07-23-20	15
EBRW.302.2000475	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1737	1	07-24-20	07-24-20	15
EBRW.302.2000480	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1738+50	1	07-27-20	07-27-20	15
EBRW.302.2000490	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1740	1	07-29-20	07-29-20	15
EBRW.302.2000495	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1741+50	1	07-30-20	07-30-20	15
EBRW.302.2000500	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1743	1	07-31-20	07-31-20	15
EBRW.302.2000505	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1744+50	1	08-03-20	08-03-20	15
EBRW.302.2000510	INSTALL DRAINAGE PIPE AND STRUCTURES FROM EB 1756+50 TO 1746	20	08-05-20	09-09-20	15
EBRW.302.2000515	INSTALL DRAINAGE PIPE AND STRUCTURES FROM EB 1756+50 TO 1765+50	20	09-10-20	10-09-20	15
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		37	11-30-20	12-15-20	69
EBRW.505.2000310	INSTALL GUARDRAIL EB SHELL ROAD BRIDGE TO EXISTING HRB	4	11-30-20	12-04-20	75
EBRW.505.2000300	INSTALL BARRIER WALLS EB SHELL ROAD BRIDGE TO EXISTING HRB	10	11-30-20	12-15-20	69
515 MILLING PAVEMENT		29	10-14-20	11-25-20	15
EBRW.515.2000310	REBUILD SHOULDER TO FULL DEPTH FROM SHELL ROAD BRIDGE TO EXISTING HRB	14	10-14-20	11-02-20	15
EBRW.515.2000300	MILL AND OVERLAY FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	15	11-04-20	11-25-20	15
519 SOUND BARRIER WALLS		60	06-30-20	10-09-20	15
EBRW.519.2000310	INSTALL SOUND BARRIER WALL 8 FROM EB SHELL ROAD BRIDGE TO EXISTING HRB (CRE\	60	06-30-20	10-09-20	15
EBRW.519.2000320	INSTALL SOUND BARRIER WALL 8 FROM EB SHELL ROAD BRIDGE TO EXISTING HRB (CRE\	60	06-30-20	10-09-20	15
800 INTELLIGENT TRANSPORTATION SYSTEMS		15	06-26-20	07-22-20	169
EBRW.800.2000310	LOOP DETECTORS FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	8	06-26-20	07-09-20	169
EBRW.800.2000320	GROUND-MOUNTED EQUIPMENT CABINET FROM EB SHELL ROAD BRIDGE TO EXISTING HI	2	07-10-20	07-13-20	169
EBRW.800.2000360	DYNAMIC MESSAGE SIGN FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	5	07-15-20	07-22-20	169
PHASE 3		52	03-01-21	04-21-21	37
315 ASPHALT CONCRETE PAVEMENT		18	03-01-21	03-29-21	24
EBRW.315.3000320	PLACE ASPHALT PAVING FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	18	03-01-21	03-29-21	24
701 TRAFFIC SIGNS		7	03-30-21	04-08-21	32
EBRW.701.3000300	INSTALL TRAFFIC SIGNS FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	7	03-30-21	04-08-21	32
704 PAVEMENT MARKINGS AND MARKERS		15	03-30-21	04-21-21	24
EBRW.704.3000300	APPLY PAVEMENT MARKINGS FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	15	03-30-21	04-21-21	24
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	03-01-21	03-30-21	59
EBRW.800.3000390	ITS BURN IN PERIOD FROM EB SHELL ROAD BRIDGE TO EXISTING HRB	30	03-01-21	03-30-21	59
NEW WESTBOUND HRB		497	02-15-19	06-25-20	0
ABUTMENT A THROUGH PIER 9		400	02-15-19	02-05-20	44
TEST PILES		147	02-15-19	05-24-19	230
WBHRB.400.TRES4-9	INSTALL TRESTEL (PIER 4-9)	60	02-15-19	05-22-19	27
WBHRB.400.TP009	HRB TEST PILE PIER 09	3	03-21-19	03-25-19	27
WBHRB.400.TP008	HRB TEST PILE PIER 08	3	03-26-19	03-28-19	27
WBHRB.400.TTP009	HRB TEST PILE PIER 09 - TEST	21	03-26-19	04-15-19	58
WBHRB.400.TP007	HRB TEST PILE PIER 07	3	03-29-19	04-03-19	27
WBHRB.400.TTP008	HRB TEST PILE PIER 08 - TEST	21	03-29-19	04-18-19	73



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SKANSKA

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WBHRB.400.TP006	HRB TEST PILE PIER 06	3	04-04-19	04-08-19	27
WBHRB.400.TTP007	HRB TEST PILE PIER 07 - TEST	21	04-04-19	04-24-19	84
WBHRB.400.TTP006	HRB TEST PILE PIER 06 - TEST	21	04-09-19	04-29-19	94
WBHRB.400.TP005	HRB TEST PILE PIER 05	3	04-10-19	04-12-19	27
WBHRB.400.TTP005	HRB TEST PILE PIER 05 - TEST	21	04-13-19	05-03-19	109
WBHRB.400.TP004	HRB TEST PILE PIER 04	3	04-15-19	04-17-19	27
WBHRB.400.TP003	HRB TEST PILE PIER 03	3	04-18-19	04-22-19	27
WBHRB.400.TTP004	HRB TEST PILE PIER 04 - TEST	21	04-18-19	05-08-19	124
WBHRB.400.TP002	HRB TEST PILE PIER 02	3	04-23-19	04-25-19	27
WBHRB.400.TTP003	HRB TEST PILE PIER 03 - TEST	21	04-23-19	05-13-19	168
WBHRB.400.TP001	HRB TEST PILE PIER 01	3	04-26-19	04-30-19	27
WBHRB.400.TTP002	HRB TEST PILE PIER 02 - TEST	21	04-26-19	05-16-19	172
WBHRB.400.TP00A	HRB TEST PILE ABUTMENT 0A	3	05-01-19	05-03-19	27
WBHRB.400.TTP001	HRB TEST PILE PIER 01 - TEST	21	05-01-19	05-21-19	208
WBHRB.400.TTP00A	HRB TEST PILE ABUTMENT 0A - TEST	21	05-04-19	05-24-19	230
PRODUCTION PILES		130	05-06-19	12-11-19	27
WBHRB.400.PP009	HRB PRODUCTION PILE PIER 09	10	05-06-19	05-22-19	27
WBHRB.400.PP008	HRB PRODUCTION PILE PIER 08	10	05-23-19	06-07-19	27
WBHRB.400.PP007	HRB PRODUCTION PILE PIER 07	10	06-10-19	06-25-19	27
WBHRB.400.PP006	HRB PRODUCTION PILE PIER 06	10	06-26-19	07-12-19	27
WBHRB.400.PP005	HRB PRODUCTION PILE PIER 05	10	07-15-19	07-30-19	27
WBHRB.400.PP004	HRB PRODUCTION PILE PIER 04	10	07-31-19	08-15-19	27
WBHRB.400.PP003	HRB PRODUCTION PILE PIER 03	4	08-16-19	08-22-19	49
WBHRB.400.PP002	HRB PRODUCTION PILE PIER 02	4	08-23-19	08-29-19	49
WBHRB.400.PP001	HRB PRODUCTION PILE PIER 01	14	11-08-19	12-02-19	27
WBHRB.400.PP00A	HRB PRODUCTION PILE ABUTMENT 0A	5	12-04-19	12-11-19	27
SUBSTRUCTURE		226	05-23-19	01-06-20	45
WBHRB.400.FT09-1	CIP FOOTER 09-1	5	05-23-19	05-30-19	61
WBHRB.400.FT09-2	CIP FOOTER 09-2	5	05-24-19	05-31-19	61
WBHRB.400.CFT09-1	CURE FOOTER 09-1	3	05-31-19	06-02-19	107
WBHRB.400.CFT09-2	CURE FOOTER 09-2	3	06-01-19	06-03-19	108
WBHRB.400.COL09-1A	CIP COLUMN 09-1A	4	06-03-19	06-07-19	60
WBHRB.400.COL09-2A	CIP COLUMN 09-2A	4	06-05-19	06-10-19	60
WBHRB.400.CCOL09-1A	CURE COLUMN 09-1A	3	06-08-19	06-10-19	108
WBHRB.400.FT08-1	CIP FOOTER 08-1	5	06-10-19	06-17-19	57
WBHRB.400.CCOL09-2A	CURE COLUMN 09-2A	3	06-11-19	06-13-19	105
WBHRB.400.FT08-2	CIP FOOTER 08-2	5	06-12-19	06-19-19	57
WBHRB.400.ST09-1	CIP STRUT 09-1	8	06-14-19	06-26-19	61
WBHRB.400.CFT08-1	CURE FOOTER 08-1	3	06-18-19	06-20-19	99
WBHRB.400.COL08-1A	CIP COLUMN 08-1A	4	06-19-19	06-24-19	58
WBHRB.400.CFT08-2	CURE FOOTER 08-2	3	06-20-19	06-22-19	98
WBHRB.400.COL08-2A	CIP COLUMN 08-2A	4	06-21-19	06-26-19	57
WBHRB.400.CCOL08-1A	CURE COLUMN 08-1A	3	06-25-19	06-27-19	101
WBHRB.400.FT07-1	CIP FOOTER 07-1	5	06-26-19	07-03-19	48
WBHRB.400.CST09-1	CURE STRUT 09-1	3	06-27-19	06-29-19	106
WBHRB.400.CCOL08-2A	CURE COLUMN 08-2A	3	06-27-19	06-29-19	99
WBHRB.400.FT07-2	CIP FOOTER 07-2	5	06-27-19	07-05-19	49
WBHRB.400.COL09-1B	CIP COLUMN 09-1B	4	07-01-19	07-08-19	60
WBHRB.400.ST08-1	CIP STRUT 08-1	8	07-01-19	07-15-19	56
WBHRB.400.COL09-2B	CIP COLUMN 09-2B	4	07-03-19	07-10-19	60

Date	Revision	Checked	Approved

SKANSKA

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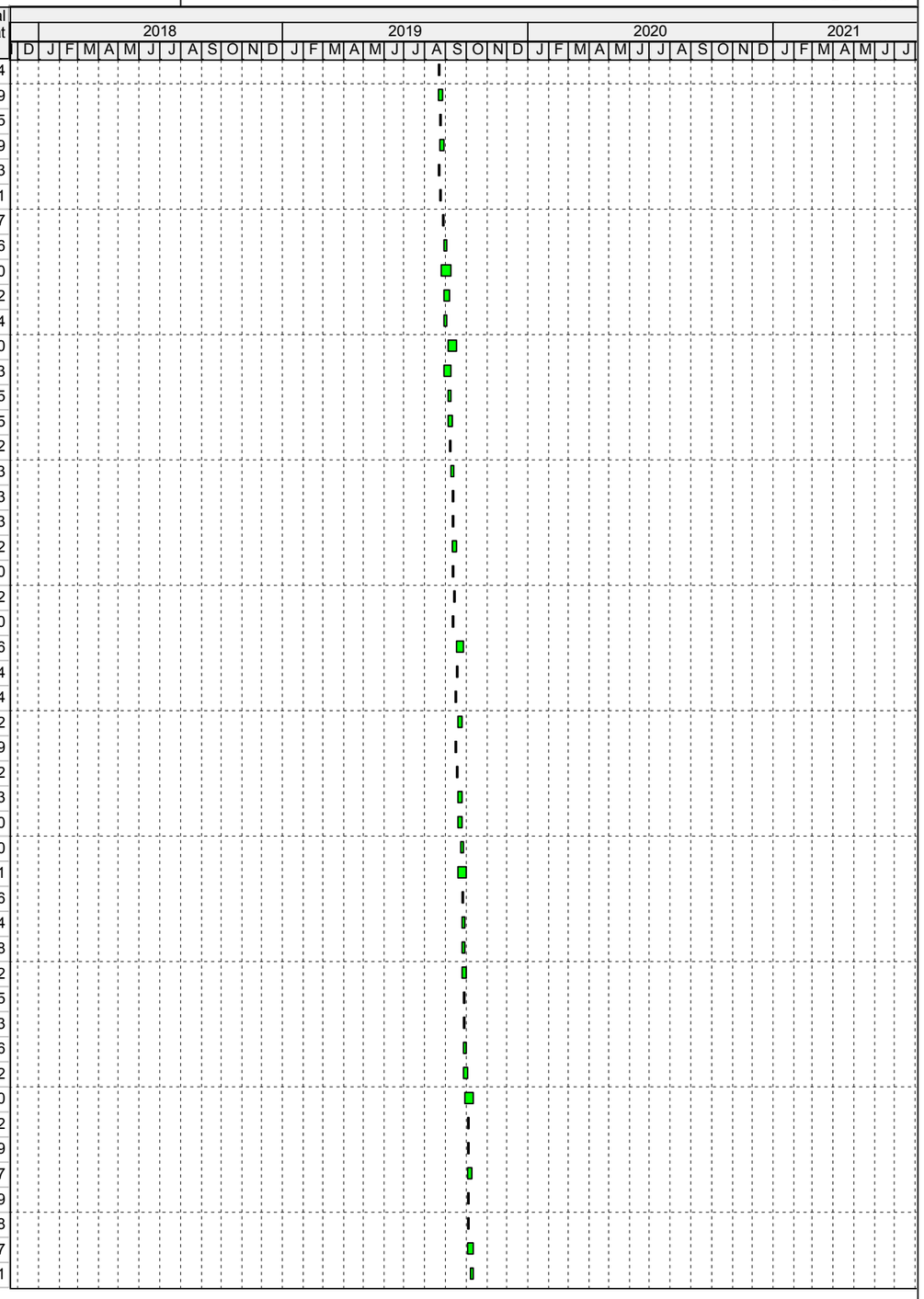
WBHRB.400.CFT07-1	CURE FOOTER 07-1	3	07-04-19	07-06-19	84
WBHRB.400.COL07-1A	CIP COLUMN 07-1A	4	07-05-19	07-11-19	49
WBHRB.400.CFT07-2	CURE FOOTER 07-2	3	07-06-19	07-08-19	85
WBHRB.400.COL07-2A	CIP COLUMN 07-2A	4	07-08-19	07-12-19	49
WBHRB.400.CCOL09-1B	CURE COLUMN 09-1B	3	07-09-19	07-11-19	103
WBHRB.400.CCOL09-2B	CURE COLUMN 09-2B	3	07-11-19	07-13-19	101
WBHRB.400.CCOL07-1A	CURE COLUMN 07-1A	3	07-12-19	07-14-19	87
WBHRB.400.CCOL07-2A	CURE COLUMN 07-2A	3	07-13-19	07-15-19	86
WBHRB.400.CAP009	CIP CAP 09	8	07-15-19	07-26-19	60
WBHRB.400.FT06-1	CIP FOOTER 06-1	5	07-15-19	07-22-19	42
WBHRB.400.CST08-1	CURE STRUT 08-1	3	07-16-19	07-18-19	94
WBHRB.400.ST07-1	CIP STRUT 07-1	8	07-17-19	07-29-19	50
WBHRB.400.FT06-2	CIP FOOTER 06-2	5	07-17-19	07-24-19	43
WBHRB.400.COL08-1B	CIP COLUMN 08-1B	4	07-19-19	07-25-19	55
WBHRB.400.COL08-2B	CIP COLUMN 08-2B	4	07-22-19	07-26-19	55
WBHRB.400.CFT06-1	CURE FOOTER 06-1	3	07-23-19	07-25-19	72
WBHRB.400.COL06-1A	CIP COLUMN 06-1A	4	07-24-19	07-29-19	43
WBHRB.400.CFT06-2	CURE FOOTER 06-2	3	07-25-19	07-27-19	73
WBHRB.400.CCOL08-1B	CURE COLUMN 08-1B	3	07-26-19	07-28-19	93
WBHRB.400.COL06-2A	CIP COLUMN 06-2A	4	07-26-19	07-31-19	42
WBHRB.400.CCAP009	CURE CAP 09	3	07-27-19	07-29-19	100
WBHRB.400.CCOL08-2B	CURE COLUMN 08-2B	3	07-27-19	07-29-19	92
WBHRB.400.BS009	BEAM SEATS 09	3	07-29-19	07-31-19	60
WBHRB.400.CAP008	CIP CAP 08	8	07-30-19	08-09-19	56
WBHRB.400.CST07-1	CURE STRUT 07-1	3	07-30-19	08-01-19	84
WBHRB.400.CCOL06-1A	CURE COLUMN 06-1A	3	07-30-19	08-01-19	74
WBHRB.400.FT05-1	CIP FOOTER 05-1	5	07-31-19	08-07-19	32
WBHRB.400.CBS009	CURE BEAM SEAT 09	3	08-01-19	08-03-19	99
WBHRB.400.CCOL06-2A	CURE COLUMN 06-2A	3	08-01-19	08-03-19	72
WBHRB.400.FT05-2	CIP FOOTER 05-2	5	08-01-19	08-08-19	33
WBHRB.400.COL07-1B	CIP COLUMN 07-1B	4	08-02-19	08-08-19	50
WBHRB.400.COL07-2B	CIP COLUMN 07-2B	4	08-05-19	08-09-19	50
WBHRB.400.ST06-1	CIP STRUT 06-1	8	08-05-19	08-16-19	41
WBHRB.400.CFT05-1	CURE FOOTER 05-1	3	08-08-19	08-10-19	56
WBHRB.400.CCOL07-1B	CURE COLUMN 07-1B	3	08-09-19	08-11-19	84
WBHRB.400.CFT05-2	CURE FOOTER 05-2	3	08-09-19	08-11-19	58
WBHRB.400.COL05-1A	CIP COLUMN 05-1A	4	08-09-19	08-15-19	32
WBHRB.400.CCAP008	CURE CAP 08	3	08-10-19	08-12-19	95
WBHRB.400.CCOL07-2B	CURE COLUMN 07-2B	3	08-10-19	08-12-19	83
WBHRB.400.BS008	BEAM SEATS 08	3	08-12-19	08-15-19	56
WBHRB.400.COL05-2A	CIP COLUMN 05-2A	4	08-12-19	08-16-19	32
WBHRB.400.CAP007	CIP CAP 07	8	08-14-19	08-26-19	50
WBHRB.400.CBS008	CURE BEAM SEAT 08	3	08-16-19	08-18-19	92
WBHRB.400.CCOL05-1A	CURE COLUMN 05-1A	3	08-16-19	08-18-19	59
WBHRB.400.FT04-1	CIP FOOTER 04-1	5	08-16-19	08-23-19	27
WBHRB.400.CST06-1	CURE STRUT 06-1	3	08-17-19	08-19-19	69
WBHRB.400.CCOL05-2A	CURE COLUMN 05-2A	3	08-17-19	08-19-19	58
WBHRB.400.FT04-2	CIP FOOTER 04-2	5	08-19-19	08-26-19	27
WBHRB.400.COL06-1B	CIP COLUMN 06-1B	4	08-21-19	08-26-19	41



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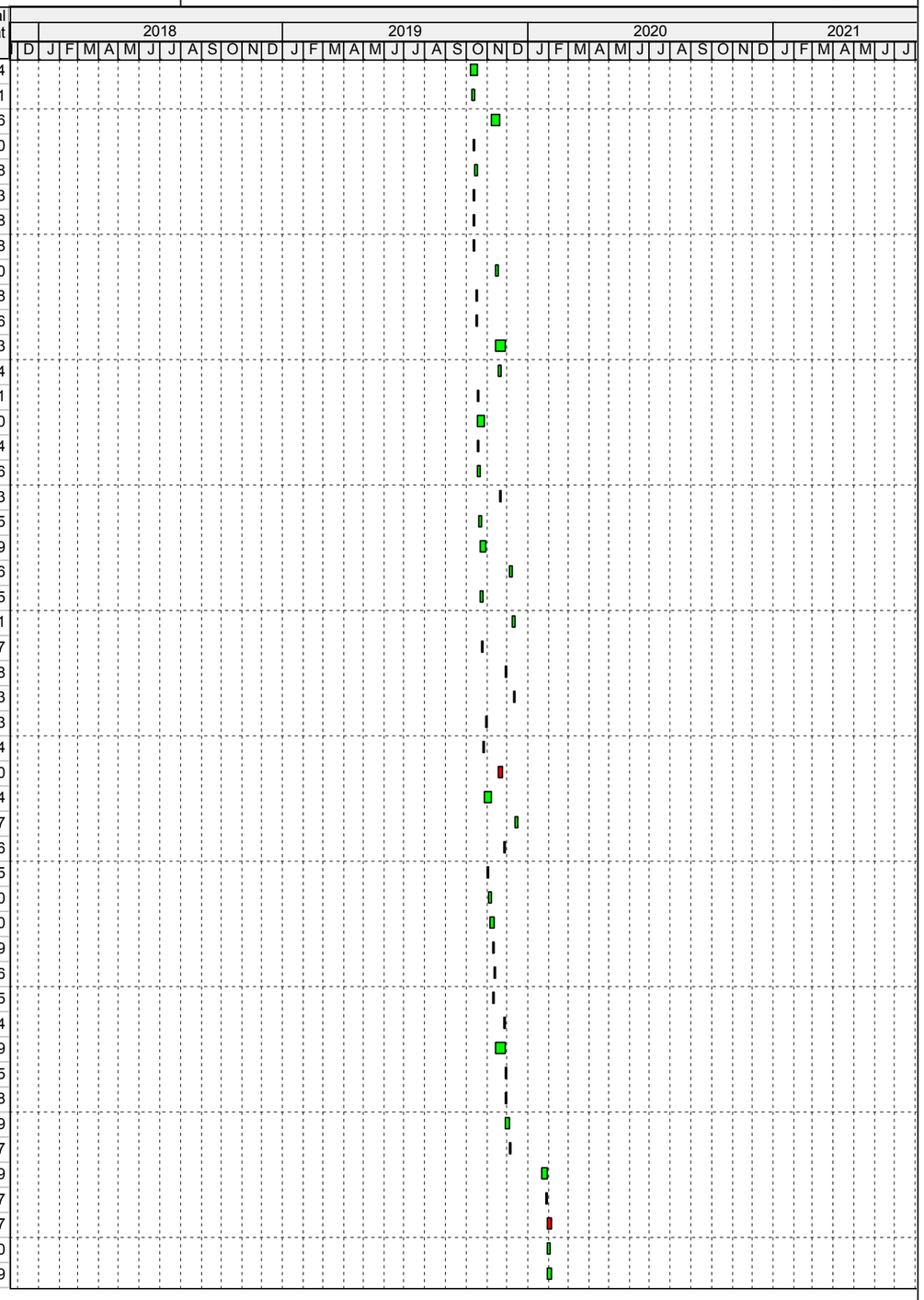
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.ST05-1	CIP STRUT 05-1	8	08-21-19	09-04-19	34
WBHRB.400.COL06-2B	CIP COLUMN 06-2B	4	08-22-19	08-28-19	41
WBHRB.400.CAP003	CIP CAP 03	8	08-23-19	09-06-19	56
WBHRB.400.CFT04-1	CURE FOOTER 04-1	3	08-24-19	08-26-19	50
WBHRB.400.COL04-1A	CIP COLUMN 04-1A	4	08-26-19	08-30-19	28
WBHRB.400.CCAP007	CURE CAP 07	3	08-27-19	08-29-19	83
WBHRB.400.CCOL06-1B	CURE COLUMN 06-1B	3	08-27-19	08-29-19	68
WBHRB.400.CFT04-2	CURE FOOTER 04-2	3	08-27-19	08-29-19	48
WBHRB.400.BS007	BEAM SEATS 07	3	08-28-19	08-30-19	50
WBHRB.400.COL04-2A	CIP COLUMN 04-2A	4	08-28-19	09-04-19	28
WBHRB.400.CCOL06-2B	CURE COLUMN 06-2B	3	08-29-19	08-31-19	66
WBHRB.400.CAP002	CIP CAP 02	8	08-30-19	09-13-19	53
WBHRB.400.CBS007	CURE BEAM SEAT 07	3	08-31-19	09-02-19	84
WBHRB.400.CCOL04-1A	CURE COLUMN 04-1A	3	08-31-19	09-02-19	51
WBHRB.400.CAP006	CIP CAP 06	8	09-04-19	09-16-19	40
WBHRB.400.CST05-1	CURE STRUT 05-1	3	09-05-19	09-07-19	54
WBHRB.400.CCOL04-2A	CURE COLUMN 04-2A	3	09-05-19	09-07-19	46
WBHRB.400.CCAP003	CURE CAP 03	3	09-07-19	09-09-19	93
WBHRB.400.COL05-1B	CIP COLUMN 05-1B	4	09-09-19	09-13-19	35
WBHRB.400.ST04-1	CIP STRUT 04-1	8	09-09-19	09-20-19	29
WBHRB.400.BS003	BEAM SEATS 03	3	09-09-19	09-12-19	56
WBHRB.400.COL05-2B	CIP COLUMN 05-2B	4	09-11-19	09-16-19	35
WBHRB.400.CBS003	CURE BEAM SEAT 03	3	09-13-19	09-15-19	91
WBHRB.400.CCOL05-1B	CURE COLUMN 05-1B	3	09-14-19	09-16-19	57
WBHRB.400.CCAP002	CURE CAP 02	3	09-14-19	09-16-19	88
WBHRB.400.BS002	BEAM SEATS 02	3	09-16-19	09-19-19	53
WBHRB.400.CCAP006	CURE CAP 06	3	09-17-19	09-19-19	63
WBHRB.400.CCOL05-2B	CURE COLUMN 05-2B	3	09-17-19	09-19-19	54
WBHRB.400.BS006	BEAM SEATS 06	3	09-18-19	09-20-19	40
WBHRB.400.CAP005	CIP CAP 05	8	09-20-19	10-02-19	34
WBHRB.400.CBS002	CURE BEAM SEAT 02	3	09-20-19	09-22-19	87
WBHRB.400.CBS006	CURE BEAM SEAT 06	3	09-21-19	09-23-19	66
WBHRB.400.CST04-1	CURE STRUT 04-1	3	09-21-19	09-23-19	45
WBHRB.400.COL04-1B	CIP COLUMN 04-1B	4	09-24-19	09-27-19	30
WBHRB.400.COL04-2B	CIP COLUMN 04-2B	4	09-25-19	09-30-19	30
WBHRB.400.CCOL04-1B	CURE COLUMN 04-1B	3	09-28-19	09-30-19	49
WBHRB.400.CCOL04-2B	CURE COLUMN 04-2B	3	10-01-19	10-03-19	46
WBHRB.400.CCAP005	CURE CAP 05	3	10-03-19	10-05-19	55
WBHRB.400.BS005	BEAM SEATS 05	3	10-03-19	10-07-19	34
WBHRB.400.CAP004	CIP CAP 04	8	10-04-19	10-16-19	29
WBHRB.400.CBS005	CURE BEAM SEAT 05	3	10-08-19	10-10-19	55
WBHRB.400.CCAP004	CURE CAP 04	3	10-17-19	10-19-19	48
WBHRB.400.BS004	BEAM SEATS 04	3	10-17-19	10-21-19	29
WBHRB.400.CBS004	CURE BEAM SEAT 04	3	10-22-19	10-24-19	47
WBHRB.400.CAP001	CIP CAP 01	8	12-04-19	12-16-19	29
WBHRB.400.CAP00A	BUILD CAP ABUTMENT 0A	3	12-12-19	12-16-19	27
WBHRB.400.BW00A	BACK WALL ABUTMENT 0A	3	12-17-19	12-19-19	27
WBHRB.400.CCAP001	CURE CAP 01	3	12-17-19	12-19-19	50
WBHRB.400.BS001	BEAM SEATS 01	3	12-17-19	12-19-19	29



Date	Revision	Checked	Approved

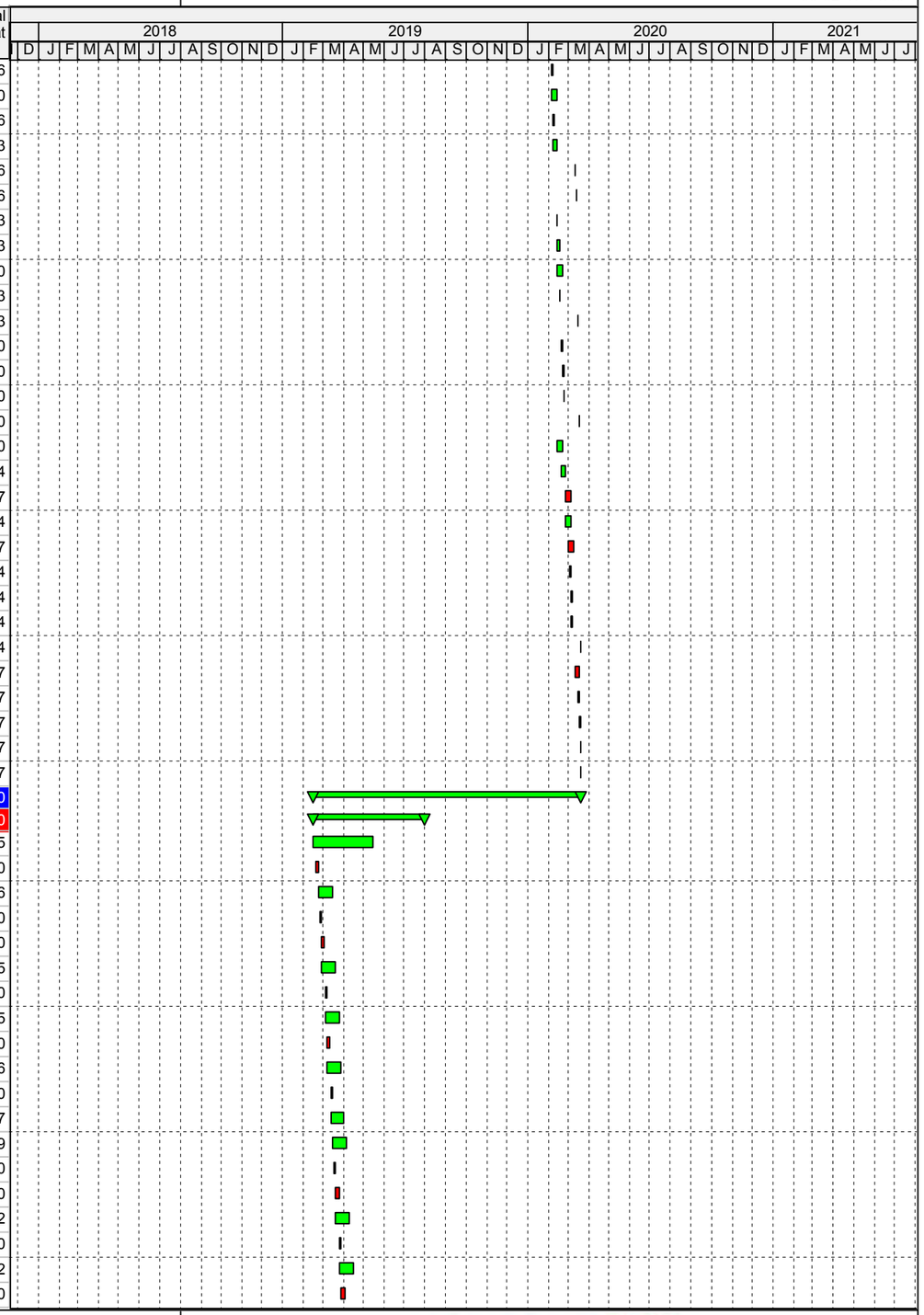
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.BS00A	BEAM SEATS ABUTMENT 0A	2	12-20-19	12-23-19	27
WBHRB.400.CBS001	CURE BEAM SEAT 01	3	12-20-19	12-22-19	52
WBHRB.400.WW00A	WING WALLS ABUTMENT 0A	3	12-24-19	12-30-19	27
WBHRB.400.FA00A	FILL ABUTMENT 0A	2	12-31-19	01-02-20	27
WBHRB.400.SP00A	SLOPE PROTECTION ABUTMENT 0A	2	01-03-20	01-06-20	27
GIRDERS		60	08-30-19	01-10-20	27
WBHRB.400.G09.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 09	3	08-30-19	09-05-19	49
WBHRB.400.G08.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 08	3	09-06-19	09-11-19	49
WBHRB.400.G07.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 07	3	09-24-19	09-26-19	42
WBHRB.400.G06.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 06	3	10-11-19	10-15-19	34
WBHRB.400.G05.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 05	3	10-25-19	10-29-19	27
WBHRB.400.G04.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 04	3	10-30-19	11-01-19	27
WBHRB.400.G03.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 03	3	11-04-19	11-07-19	27
WBHRB.400.G02.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 02	3	12-23-19	12-27-19	30
WBHRB.400.G01.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 01	3	01-08-20	01-10-20	27
BRIDGE DECK		54	09-06-19	02-05-20	27
WBHRB.400.S09.1000	SIP SPAN 09	5	09-06-19	09-13-19	70
WBHRB.400.S09.1005	FORM OVERHANG SPAN 09	5	09-12-19	09-19-19	96
WBHRB.400.S08.1000	SIP SPAN 08	5	09-13-19	09-20-19	70
WBHRB.400.S08.1005	FORM OVERHANG SPAN 08	5	09-19-19	09-25-19	93
WBHRB.400.S09.1010	REBAR SPAN 09	5	09-20-19	09-26-19	96
WBHRB.400.S09.1015	SETUP BIDWELL FOR SPAN 09 POUR	2	09-25-19	09-26-19	96
WBHRB.400.S09.1020	INSTALL BULKHEAD SPAN 09	2	09-26-19	09-27-19	96
WBHRB.400.S08.1010	REBAR SPAN 08	5	09-26-19	10-03-19	93
WBHRB.400.S09.1025	DRY RUN FOR SPAN 09	1	09-27-19	09-27-19	96
WBHRB.400.S07.1000	SIP SPAN 07	5	09-27-19	10-04-19	65
WBHRB.400.S09.1030	DECK POUR SPAN 09	1	09-30-19	09-30-19	96
WBHRB.400.S08.1015	SETUP BIDWELL FOR SPAN 08 POUR	2	10-02-19	10-03-19	93
WBHRB.400.S08.1020	INSTALL BULKHEAD SPAN 08	2	10-03-19	10-04-19	93
WBHRB.400.S07.1005	FORM OVERHANG SPAN 07	5	10-03-19	10-10-19	85
WBHRB.400.S08.1025	DRY RUN FOR SPAN 08	1	10-04-19	10-04-19	93
WBHRB.400.S08.1030	DECK POUR SPAN 08	1	10-07-19	10-07-19	93
WBHRB.400.S07.1010	REBAR SPAN 07	5	10-11-19	10-17-19	85
WBHRB.400.S07.1015	SETUP BIDWELL FOR SPAN 07 POUR	2	10-16-19	10-17-19	85
WBHRB.400.S06.1000	SIP SPAN 06	5	10-16-19	10-22-19	58
WBHRB.400.S07.1020	INSTALL BULKHEAD SPAN 07	2	10-17-19	10-18-19	85
WBHRB.400.S07.1025	DRY RUN FOR SPAN 07	1	10-18-19	10-18-19	85
WBHRB.400.S07.1030	DECK POUR SPAN 07	1	10-21-19	10-21-19	85
WBHRB.400.S06.1005	FORM OVERHANG SPAN 06	5	10-21-19	10-25-19	75
WBHRB.400.S06.1010	REBAR SPAN 06	5	10-28-19	11-01-19	75
WBHRB.400.S05.1000	SIP SPAN 05	5	10-30-19	11-06-19	52
WBHRB.400.S06.1015	SETUP BIDWELL FOR SPAN 06 POUR	2	10-31-19	11-01-19	75
WBHRB.400.S06.1020	INSTALL BULKHEAD SPAN 06	2	11-01-19	11-04-19	75
WBHRB.400.S06.1025	DRY RUN FOR SPAN 06	1	11-04-19	11-04-19	75
WBHRB.400.S05.1005	FORM OVERHANG SPAN 05	5	11-04-19	11-11-19	66
WBHRB.400.S06.1030	DECK POUR SPAN 06	1	11-06-19	11-06-19	75
WBHRB.400.S04.1000	SIP SPAN 04	5	11-06-19	11-13-19	52
WBHRB.400.S04.1005	FORM OVERHANG SPAN 04	5	11-11-19	11-18-19	63
WBHRB.400.S05.1010	REBAR SPAN 05	5	11-13-19	11-19-19	66
WBHRB.400.S03.1000	SIP SPAN 03	5	11-13-19	11-19-19	52

Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.S05.1015	SETUP BIDWELL FOR SPAN 05 POUR	2	11-18-19	11-19-19	66
WBHRB.400.S03.1005	FORM OVERHANG SPAN 03	5	11-18-19	11-26-19	60
WBHRB.400.S05.1020	INSTALL BULKHEAD SPAN 05	2	11-19-19	11-20-19	66
WBHRB.400.S04.1010	REBAR SPAN 04	5	11-19-19	11-27-19	63
WBHRB.400.S05.1025	DRY RUN FOR SPAN 05	1	11-20-19	11-20-19	66
WBHRB.400.S05.1030	DECK POUR SPAN 05	1	11-25-19	11-25-19	66
WBHRB.400.S04.1015	SETUP BIDWELL FOR SPAN 04 POUR	2	11-26-19	11-27-19	63
WBHRB.400.S04.1020	INSTALL BULKHEAD SPAN 04	2	11-27-19	11-28-19	63
WBHRB.400.S03.1010	REBAR SPAN 03	5	11-27-19	12-04-19	60
WBHRB.400.S04.1025	DRY RUN FOR SPAN 04	1	11-28-19	11-28-19	63
WBHRB.400.S04.1030	DECK POUR SPAN 04	1	11-29-19	11-29-19	63
WBHRB.400.S03.1015	SETUP BIDWELL FOR SPAN 03 POUR	2	12-02-19	12-04-19	60
WBHRB.400.S03.1020	INSTALL BULKHEAD SPAN 03	2	12-04-19	12-05-19	60
WBHRB.400.S03.1025	DRY RUN FOR SPAN 03	1	12-05-19	12-05-19	60
WBHRB.400.S03.1030	DECK POUR SPAN 03	1	12-06-19	12-06-19	60
WBHRB.400.S02.1000	SIP SPAN 02	5	12-30-19	01-06-20	30
WBHRB.400.S02.1005	FORM OVERHANG SPAN 02	5	01-03-20	01-10-20	34
WBHRB.400.S01.1000	SIP SPAN 01	5	01-13-20	01-21-20	27
WBHRB.400.S02.1010	REBAR SPAN 02	5	01-13-20	01-21-20	34
WBHRB.400.S01.1005	FORM OVERHANG SPAN 01	5	01-17-20	01-24-20	27
WBHRB.400.S02.1015	SETUP BIDWELL FOR SPAN 02 POUR	2	01-17-20	01-21-20	34
WBHRB.400.S02.1020	INSTALL BULKHEAD SPAN 02	2	01-21-20	01-22-20	34
WBHRB.400.S02.1025	DRY RUN FOR SPAN 02	1	01-22-20	01-22-20	34
WBHRB.400.S02.1030	DECK POUR SPAN 02	1	01-23-20	01-23-20	34
WBHRB.400.S01.1010	REBAR SPAN 01	5	01-27-20	01-31-20	27
WBHRB.400.S01.1015	SETUP BIDWELL FOR SPAN 01 POUR	2	01-30-20	01-31-20	27
WBHRB.400.S01.1020	INSTALL BULKHEAD SPAN 01	2	01-31-20	02-03-20	27
WBHRB.400.S01.1025	DRY RUN FOR SPAN 01	1	02-03-20	02-03-20	27
WBHRB.400.S01.1030	DECK POUR SPAN 01	1	02-05-20	02-05-20	27
PIER 10 THROUGH 22		400	02-15-19	03-20-20	0
TEST PILES		167	02-15-19	07-31-19	90
WBHRB.400.TRES10-18	INSTALL TRESTEL (PIER 10-18)	60	02-15-19	05-14-19	5
WBHRB.400.TP010	HRB TEST PILE PIER 10	3	02-20-19	02-22-19	0
WBHRB.400.TTP010	HRB TEST PILE PIER 10 - TEST	21	02-23-19	03-15-19	16
WBHRB.400.TP011	HRB TEST PILE PIER 11	3	02-25-19	02-27-19	0
WBHRB.400.TP012	HRB TEST PILE PIER 12	3	02-28-19	03-04-19	0
WBHRB.400.TTP011	HRB TEST PILE PIER 11 - TEST	21	02-28-19	03-20-19	25
WBHRB.400.TP013	HRB TEST PILE PIER 13	3	03-05-19	03-07-19	0
WBHRB.400.TTP012	HRB TEST PILE PIER 12 - TEST	21	03-05-19	03-25-19	35
WBHRB.400.TP014	HRB TEST PILE PIER 14	3	03-08-19	03-12-19	0
WBHRB.400.TTP013	HRB TEST PILE PIER 13 - TEST	21	03-08-19	03-28-19	46
WBHRB.400.TP015	HRB TEST PILE PIER 15	3	03-13-19	03-15-19	0
WBHRB.400.TTP014	HRB TEST PILE PIER 14 - TEST	21	03-13-19	04-02-19	57
WBHRB.400.TTP015	HRB TEST PILE PIER 15 - TEST	21	03-16-19	04-05-19	69
WBHRB.400.TP016	HRB TEST PILE PIER 16	3	03-18-19	03-20-19	0
WBHRB.400.TP017	HRB TEST PILE PIER 17	3	03-21-19	03-25-19	0
WBHRB.400.TTP016	HRB TEST PILE PIER 16 - TEST	21	03-21-19	04-10-19	82
WBHRB.400.TP018	HRB TEST PILE PIER 18	3	03-26-19	03-28-19	0
WBHRB.400.TTP017	HRB TEST PILE PIER 17 - TEST	21	03-26-19	04-15-19	92
WBHRB.400.TP019	HRB TEST PILE PIER 19	3	03-29-19	04-03-19	0



Date	Revision	Checked	Approved

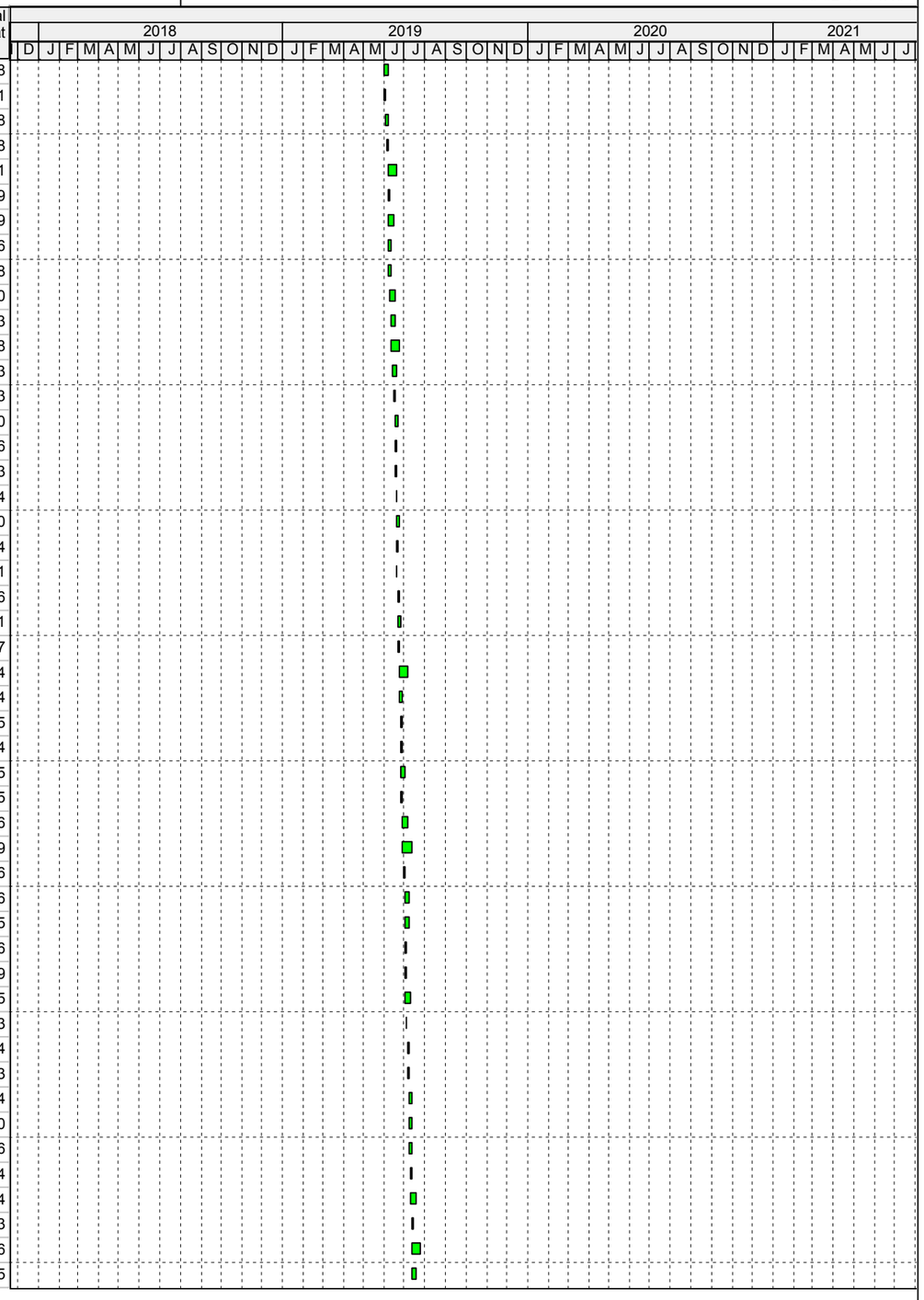
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.TTP018	HRB TEST PILE PIER 18 - TEST	21	03-29-19	04-18-19	104
WBHRB.400.TP020	HRB TEST PILE PIER 20	3	04-04-19	04-08-19	0
WBHRB.400.TP022	HRB TEST PILE PIER 22	3	04-04-19	04-08-19	88
WBHRB.400.TTP019	HRB TEST PILE PIER 19 - TEST	21	04-04-19	04-24-19	132
WBHRB.400.TP021	HRB TEST PILE PIER 21	3	04-09-19	04-11-19	94
WBHRB.400.TTP020	HRB TEST PILE PIER 20 - TEST	21	04-09-19	04-29-19	156
WBHRB.400.TTP022	HRB TEST PILE PIER 22 - TEST	21	04-09-19	04-29-19	135
WBHRB.400.TTP021	HRB TEST PILE PIER 21 - TEST	21	04-12-19	05-02-19	147
WBHRB.400.FP019	INSTALL FENDER SYSTEM PIER 19	25	05-15-19	06-21-19	58
WBHRB.400.FP020	INSTALL FENDER SYSTEM PIER 20	25	06-24-19	07-31-19	58
PRODUCTION PILES		140	04-09-19	11-08-19	0
WBHRB.400.PP010	HRB PRODUCTION PILE PIER 10	10	04-09-19	04-22-19	0
WBHRB.400.PP011	HRB PRODUCTION PILE PIER 11	10	04-23-19	05-06-19	0
WBHRB.400.PP012	HRB PRODUCTION PILE PIER 12	10	05-08-19	05-21-19	0
WBHRB.400.PP013	HRB PRODUCTION PILE PIER 13	10	05-22-19	06-06-19	0
WBHRB.400.PP014	HRB PRODUCTION PILE PIER 14	10	06-07-19	06-21-19	0
WBHRB.400.PP015	HRB PRODUCTION PILE PIER 15	10	06-24-19	07-10-19	0
WBHRB.400.PP022	HRB PRODUCTION PILE PIER 22	10	07-01-19	07-17-19	51
WBHRB.400.PP016	HRB PRODUCTION PILE PIER 16	10	07-11-19	07-24-19	0
WBHRB.400.PP021	HRB PRODUCTION PILE PIER 21	20	07-18-19	08-16-19	51
WBHRB.400.PP017	HRB PRODUCTION PILE PIER 17	10	07-25-19	08-08-19	0
WBHRB.400.PP018	HRB PRODUCTION PILE PIER 18	20	08-09-19	09-11-19	0
WBHRB.400.PP019	HRB PRODUCTION PILE PIER 19	20	09-12-19	10-10-19	0
WBHRB.400.PP020	HRB PRODUCTION PILE PIER 20	20	10-11-19	11-08-19	0
SUBSTRUCTURE		279	04-23-19	01-26-20	1
WBHRB.400.FT10-1	CIP FOOTER 10-1	5	04-23-19	04-29-19	80
WBHRB.400.FT10-2	CIP FOOTER 10-2	5	04-24-19	04-30-19	80
WBHRB.400.CFT10-1	CURE FOOTER 10-1	3	04-30-19	05-02-19	138
WBHRB.400.CFT10-2	CURE FOOTER 10-2	3	05-01-19	05-03-19	139
WBHRB.400.COL10-1A	CIP COLUMN 10-1A	4	05-01-19	05-06-19	79
WBHRB.400.COL10-2A	CIP COLUMN 10-2A	4	05-02-19	05-08-19	79
WBHRB.400.CCOL10-1A	CURE COLUMN 10-1A	3	05-07-19	05-09-19	140
WBHRB.400.FT11-1	CIP FOOTER 11-1	5	05-08-19	05-15-19	72
WBHRB.400.CCOL10-2A	CURE COLUMN 10-2A	3	05-09-19	05-11-19	138
WBHRB.400.FT11-2	CIP FOOTER 11-2	5	05-09-19	05-16-19	73
WBHRB.400.ST10-1	CIP STRUT 10-1	8	05-13-19	05-24-19	80
WBHRB.400.CFT11-1	CURE FOOTER 11-1	3	05-16-19	05-18-19	126
WBHRB.400.CFT11-2	CURE FOOTER 11-2	3	05-17-19	05-19-19	128
WBHRB.400.COL11-1A	CIP COLUMN 11-1A	4	05-17-19	05-23-19	72
WBHRB.400.COL11-2A	CIP COLUMN 11-2A	4	05-20-19	05-24-19	72
WBHRB.400.FT12-1	CIP FOOTER 12-1	5	05-22-19	05-29-19	68
WBHRB.400.FT12-2	CIP FOOTER 12-2	5	05-23-19	05-30-19	68
WBHRB.400.CCOL11-1A	CURE COLUMN 11-1A	3	05-24-19	05-26-19	126
WBHRB.400.CST10-1	CURE STRUT 10-1	3	05-25-19	05-27-19	139
WBHRB.400.CCOL11-2A	CURE COLUMN 11-2A	3	05-25-19	05-27-19	125
WBHRB.400.COL10-1B	CIP COLUMN 10-1B	4	05-28-19	05-31-19	81
WBHRB.400.ST11-1	CIP STRUT 11-1	8	05-28-19	06-07-19	73
WBHRB.400.COL10-2B	CIP COLUMN 10-2B	4	05-29-19	06-03-19	81
WBHRB.400.CFT12-1	CURE FOOTER 12-1	3	05-30-19	06-01-19	118
WBHRB.400.CFT12-2	CURE FOOTER 12-2	3	05-31-19	06-02-19	118

Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.COL12-1A	CIP COLUMN 12-1A	4	05-31-19	06-06-19	68
WBHRB.400.CCOL10-1B	CURE COLUMN 10-1B	3	06-01-19	06-03-19	141
WBHRB.400.COL12-2A	CIP COLUMN 12-2A	4	06-03-19	06-07-19	68
WBHRB.400.CCOL10-2B	CURE COLUMN 10-2B	3	06-04-19	06-06-19	138
WBHRB.400.CAP010	CIP CAP 10	8	06-07-19	06-20-19	81
WBHRB.400.CCOL12-1A	CURE COLUMN 12-1A	3	06-07-19	06-09-19	119
WBHRB.400.FT13-1	CIP FOOTER 13-1	5	06-07-19	06-14-19	59
WBHRB.400.CST11-1	CURE STRUT 11-1	3	06-08-19	06-10-19	126
WBHRB.400.CCOL12-2A	CURE COLUMN 12-2A	3	06-08-19	06-10-19	118
WBHRB.400.FT13-2	CIP FOOTER 13-2	5	06-10-19	06-17-19	60
WBHRB.400.COL11-1B	CIP COLUMN 11-1B	4	06-12-19	06-17-19	73
WBHRB.400.ST12-1	CIP STRUT 12-1	8	06-12-19	06-24-19	68
WBHRB.400.COL11-2B	CIP COLUMN 11-2B	4	06-13-19	06-19-19	73
WBHRB.400.CFT13-1	CURE FOOTER 13-1	3	06-15-19	06-17-19	103
WBHRB.400.COL13-1A	CIP COLUMN 13-1A	4	06-17-19	06-21-19	60
WBHRB.400.CCOL11-1B	CURE COLUMN 11-1B	3	06-18-19	06-20-19	126
WBHRB.400.CFT13-2	CURE FOOTER 13-2	3	06-18-19	06-20-19	103
WBHRB.400.PST13-1	PRECAST STRUT 13-1	1	06-19-19	06-19-19	64
WBHRB.400.COL13-2A	CIP COLUMN 13-2A	4	06-19-19	06-24-19	60
WBHRB.400.CCOL11-2B	CURE COLUMN 11-2B	3	06-20-19	06-22-19	124
WBHRB.400.CST13-1	CURE STRUT 13-1	1	06-20-19	06-20-19	111
WBHRB.400.CCAP010	CURE CAP 10	3	06-21-19	06-23-19	136
WBHRB.400.BS010	BEAM SEATS 10	3	06-21-19	06-25-19	81
WBHRB.400.CCOL13-1A	CURE COLUMN 13-1A	3	06-22-19	06-24-19	107
WBHRB.400.CAP011	CIP CAP 11	8	06-24-19	07-05-19	74
WBHRB.400.FT14-1	CIP FOOTER 14-1	5	06-24-19	06-28-19	54
WBHRB.400.CST12-1	CURE STRUT 12-1	3	06-25-19	06-27-19	115
WBHRB.400.CCOL13-2A	CURE COLUMN 13-2A	3	06-25-19	06-27-19	104
WBHRB.400.FT14-2	CIP FOOTER 14-2	5	06-25-19	07-01-19	55
WBHRB.400.CBS010	CURE BEAM SEAT 10	3	06-26-19	06-28-19	135
WBHRB.400.COL12-1B	CIP COLUMN 12-1B	4	06-28-19	07-05-19	66
WBHRB.400.ST13-2	CIP STRUT 13-2	8	06-28-19	07-12-19	59
WBHRB.400.CFT14-1	CURE FOOTER 14-1	3	06-29-19	07-01-19	96
WBHRB.400.COL12-2B	CIP COLUMN 12-2B	4	07-01-19	07-08-19	66
WBHRB.400.COL14-1A	CIP COLUMN 14-1A	4	07-01-19	07-08-19	55
WBHRB.400.CFT14-2	CURE FOOTER 14-2	3	07-02-19	07-04-19	96
WBHRB.400.PST14-1	PRECAST STRUT 14-1	1	07-03-19	07-03-19	59
WBHRB.400.COL14-2A	CIP COLUMN 14-2A	4	07-03-19	07-10-19	55
WBHRB.400.CST14-1	CURE STRUT 14-1	1	07-04-19	07-04-19	103
WBHRB.400.CCAP011	CURE CAP 11	3	07-06-19	07-08-19	124
WBHRB.400.CCOL12-1B	CURE COLUMN 12-1B	3	07-06-19	07-08-19	113
WBHRB.400.BS011	BEAM SEATS 11	3	07-08-19	07-11-19	74
WBHRB.400.CCOL12-2B	CURE COLUMN 12-2B	3	07-09-19	07-11-19	110
WBHRB.400.CCOL14-1A	CURE COLUMN 14-1A	3	07-09-19	07-11-19	96
WBHRB.400.CCOL14-2A	CURE COLUMN 14-2A	3	07-11-19	07-13-19	94
WBHRB.400.FT15-1	CIP FOOTER 15-1	5	07-11-19	07-18-19	44
WBHRB.400.CBS011	CURE BEAM SEAT 11	3	07-12-19	07-14-19	123
WBHRB.400.CAP012	CIP CAP 12	8	07-12-19	07-25-19	66
WBHRB.400.FT15-2	CIP FOOTER 15-2	5	07-12-19	07-19-19	45



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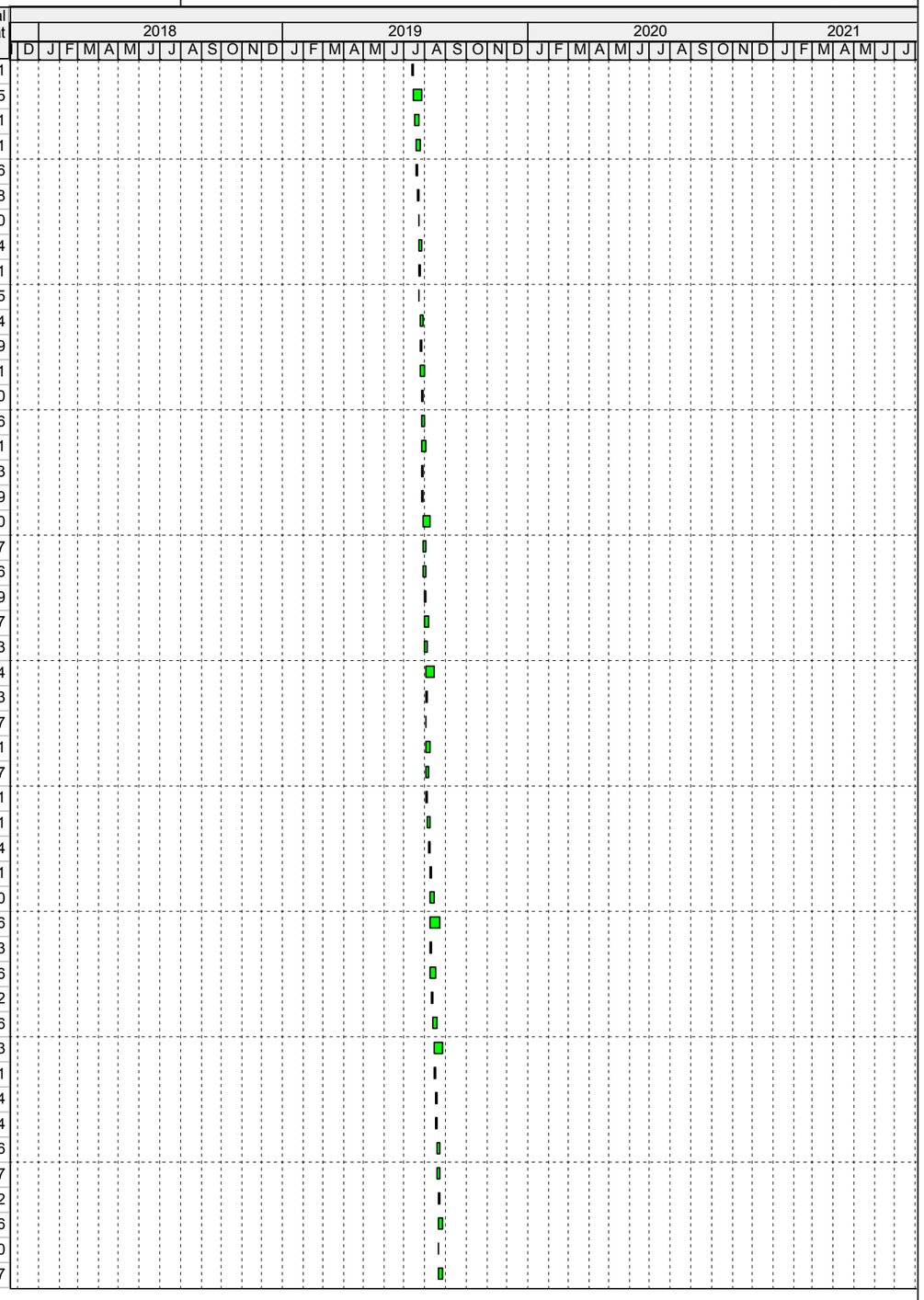
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.CST13-2	CURE STRUT 13-2	3	07-13-19	07-15-19	101
WBHRB.400.ST14-2	CIP STRUT 14-2	8	07-15-19	07-26-19	55
WBHRB.400.COL13-1B	CIP COLUMN 13-1B	4	07-17-19	07-22-19	61
WBHRB.400.COL13-2B	CIP COLUMN 13-2B	4	07-18-19	07-24-19	61
WBHRB.400.CFT15-1	CURE FOOTER 15-1	3	07-19-19	07-21-19	76
WBHRB.400.CFT15-2	CURE FOOTER 15-2	3	07-20-19	07-22-19	78
WBHRB.400.PST15-1	PRECAST STRUT 15-1	1	07-22-19	07-22-19	50
WBHRB.400.COL15-1A	CIP COLUMN 15-1A	4	07-22-19	07-26-19	44
WBHRB.400.CCOL13-1B	CURE COLUMN 13-1B	3	07-23-19	07-25-19	101
WBHRB.400.CST15-1	CURE STRUT 15-1	1	07-23-19	07-23-19	85
WBHRB.400.COL15-2A	CIP COLUMN 15-2A	4	07-24-19	07-29-19	44
WBHRB.400.CCOL13-2B	CURE COLUMN 13-2B	3	07-25-19	07-27-19	99
WBHRB.400.FT16-1	CIP FOOTER 16-1	5	07-25-19	07-31-19	41
WBHRB.400.CCAP012	CURE CAP 12	3	07-26-19	07-28-19	110
WBHRB.400.BS012	BEAM SEATS 12	3	07-26-19	07-30-19	66
WBHRB.400.FT16-2	CIP FOOTER 16-2	5	07-26-19	08-01-19	41
WBHRB.400.CST14-2	CURE STRUT 14-2	3	07-27-19	07-29-19	93
WBHRB.400.CCOL15-1A	CURE COLUMN 15-1A	3	07-27-19	07-29-19	79
WBHRB.400.CAP013	CIP CAP 13	8	07-29-19	08-08-19	60
WBHRB.400.COL14-1B	CIP COLUMN 14-1B	4	07-30-19	08-02-19	57
WBHRB.400.CCOL15-2A	CURE COLUMN 15-2A	3	07-30-19	08-01-19	76
WBHRB.400.CBS012	CURE BEAM SEAT 12	3	07-31-19	08-02-19	109
WBHRB.400.COL14-2B	CIP COLUMN 14-2B	4	07-31-19	08-05-19	57
WBHRB.400.CFT16-1	CURE FOOTER 16-1	3	08-01-19	08-03-19	73
WBHRB.400.ST15-2	CIP STRUT 15-2	8	08-02-19	08-15-19	44
WBHRB.400.CFT16-2	CURE FOOTER 16-2	3	08-02-19	08-04-19	73
WBHRB.400.PST16-1	PRECAST STRUT 16-1	1	08-02-19	08-02-19	47
WBHRB.400.COL16-1A	CIP COLUMN 16-1A	4	08-02-19	08-08-19	41
WBHRB.400.CCOL14-1B	CURE COLUMN 14-1B	3	08-03-19	08-05-19	97
WBHRB.400.CST16-1	CURE STRUT 16-1	1	08-03-19	08-03-19	81
WBHRB.400.COL16-2A	CIP COLUMN 16-2A	4	08-05-19	08-09-19	41
WBHRB.400.CCOL14-2B	CURE COLUMN 14-2B	3	08-06-19	08-08-19	94
WBHRB.400.CCAP013	CURE CAP 13	3	08-09-19	08-11-19	101
WBHRB.400.BS013	BEAM SEATS 13	3	08-09-19	08-14-19	60
WBHRB.400.CAP014	CIP CAP 14	8	08-09-19	08-22-19	56
WBHRB.400.CCOL16-1A	CURE COLUMN 16-1A	3	08-09-19	08-11-19	73
WBHRB.400.FT17-1	CIP FOOTER 17-1	5	08-09-19	08-16-19	36
WBHRB.400.CCOL16-2A	CURE COLUMN 16-2A	3	08-10-19	08-12-19	72
WBHRB.400.FT17-2	CIP FOOTER 17-2	5	08-12-19	08-19-19	36
WBHRB.400.ST16-2	CIP STRUT 16-2	8	08-14-19	08-26-19	43
WBHRB.400.CBS013	CURE BEAM SEAT 13	3	08-15-19	08-17-19	101
WBHRB.400.CST15-2	CURE STRUT 15-2	3	08-16-19	08-18-19	74
WBHRB.400.CFT17-1	CURE FOOTER 17-1	3	08-17-19	08-19-19	64
WBHRB.400.COL15-1B	CIP COLUMN 15-1B	4	08-19-19	08-23-19	46
WBHRB.400.COL17-1A	CIP COLUMN 17-1A	4	08-19-19	08-23-19	37
WBHRB.400.CFT17-2	CURE FOOTER 17-2	3	08-20-19	08-22-19	62
WBHRB.400.COL15-2B	CIP COLUMN 15-2B	4	08-21-19	08-26-19	46
WBHRB.400.PST17-1	PRECAST STRUT 17-1	1	08-21-19	08-21-19	40
WBHRB.400.COL17-2A	CIP COLUMN 17-2A	4	08-21-19	08-26-19	37



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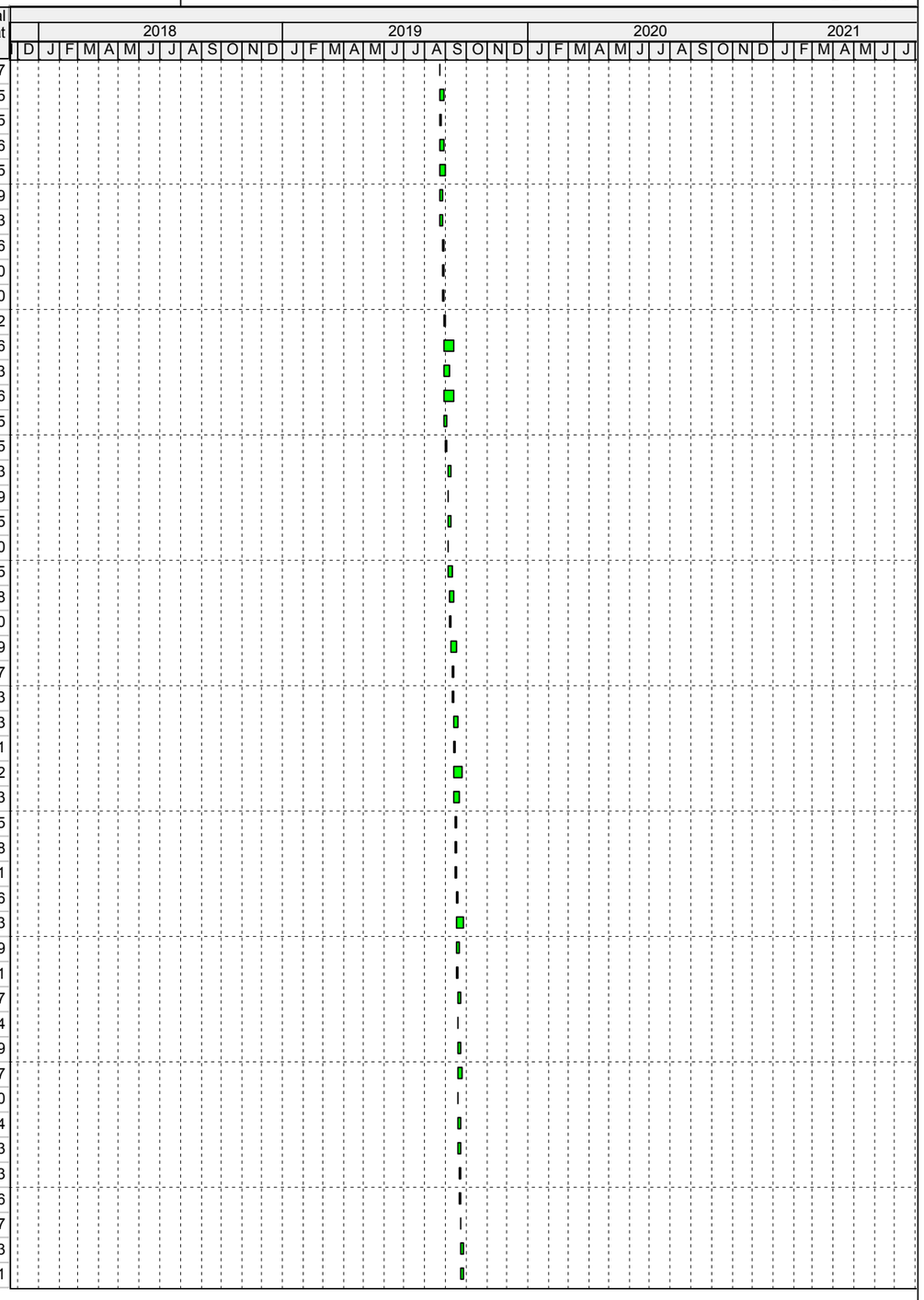
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.CST17-1	CURE STRUT 17-1	1	08-22-19	08-22-19	67
WBHRB.400.FT21-1	CIP FOOTER 21-1	5	08-22-19	08-29-19	45
WBHRB.400.CCAP014	CURE CAP 14	3	08-23-19	08-25-19	95
WBHRB.400.BS014	BEAM SEATS 14	3	08-23-19	08-28-19	56
WBHRB.400.FT21-2	CIP FOOTER 21-2	5	08-23-19	08-30-19	45
WBHRB.400.CCOL15-1B	CURE COLUMN 15-1B	3	08-24-19	08-26-19	79
WBHRB.400.CCOL17-1A	CURE COLUMN 17-1A	3	08-24-19	08-26-19	63
WBHRB.400.CCOL15-2B	CURE COLUMN 15-2B	3	08-27-19	08-29-19	76
WBHRB.400.CST16-2	CURE STRUT 16-2	3	08-27-19	08-29-19	70
WBHRB.400.CCOL17-2A	CURE COLUMN 17-2A	3	08-27-19	08-29-19	60
WBHRB.400.CBS014	CURE BEAM SEAT 14	3	08-29-19	08-31-19	92
WBHRB.400.CAP015	CIP CAP 15	8	08-30-19	09-13-19	46
WBHRB.400.COL16-1B	CIP COLUMN 16-1B	4	08-30-19	09-06-19	43
WBHRB.400.ST17-2	CIP STRUT 17-2	8	08-30-19	09-13-19	36
WBHRB.400.CFT21-1	CURE FOOTER 21-1	3	08-30-19	09-01-19	75
WBHRB.400.CFT21-2	CURE FOOTER 21-2	3	08-31-19	09-02-19	75
WBHRB.400.COL16-2B	CIP COLUMN 16-2B	4	09-04-19	09-09-19	43
WBHRB.400.PST21-1	PRECAST STRUT 21-1	1	09-04-19	09-04-19	49
WBHRB.400.COL21-1A	CIP COLUMN 21-1A	4	09-04-19	09-09-19	45
WBHRB.400.CST21-1	CURE STRUT 21-1	1	09-05-19	09-05-19	80
WBHRB.400.COL21-2A	CIP COLUMN 21-2A	4	09-05-19	09-11-19	45
WBHRB.400.FT22-1	CIP FOOTER 22-1	5	09-06-19	09-13-19	38
WBHRB.400.CCOL16-1B	CURE COLUMN 16-1B	3	09-07-19	09-09-19	70
WBHRB.400.FT22-2	CIP FOOTER 22-2	5	09-09-19	09-16-19	39
WBHRB.400.CCOL16-2B	CURE COLUMN 16-2B	3	09-10-19	09-12-19	67
WBHRB.400.CCOL21-1A	CURE COLUMN 21-1A	3	09-10-19	09-12-19	73
WBHRB.400.FT18-1	CIP FOOTER 18-1	5	09-12-19	09-19-19	13
WBHRB.400.CCOL21-2A	CURE COLUMN 21-2A	3	09-12-19	09-14-19	71
WBHRB.400.CAP016	CIP CAP 16	8	09-13-19	09-25-19	42
WBHRB.400.FT18-2	CIP FOOTER 18-2	5	09-13-19	09-20-19	13
WBHRB.400.CCAP015	CURE CAP 15	3	09-14-19	09-16-19	75
WBHRB.400.CST17-2	CURE STRUT 17-2	3	09-14-19	09-16-19	58
WBHRB.400.CFT22-1	CURE FOOTER 22-1	3	09-14-19	09-16-19	61
WBHRB.400.BS015	BEAM SEATS 15	3	09-16-19	09-19-19	46
WBHRB.400.ST21-2	CIP STRUT 21-2	8	09-16-19	09-26-19	43
WBHRB.400.COL22-1A	CIP COLUMN 22-1A	4	09-16-19	09-20-19	39
WBHRB.400.CFT22-2	CURE FOOTER 22-2	3	09-17-19	09-19-19	61
WBHRB.400.COL17-1B	CIP COLUMN 17-1B	4	09-18-19	09-23-19	37
WBHRB.400.PST22-1	PRECAST STRUT 22-1	1	09-18-19	09-18-19	44
WBHRB.400.COL22-2A	CIP COLUMN 22-2A	4	09-18-19	09-23-19	39
WBHRB.400.COL17-2B	CIP COLUMN 17-2B	4	09-19-19	09-24-19	37
WBHRB.400.CST22-1	CURE STRUT 22-1	1	09-19-19	09-19-19	70
WBHRB.400.CBS015	CURE BEAM SEAT 15	3	09-20-19	09-22-19	74
WBHRB.400.CFT18-1	CURE FOOTER 18-1	3	09-20-19	09-22-19	23
WBHRB.400.CFT18-2	CURE FOOTER 18-2	3	09-21-19	09-23-19	23
WBHRB.400.CCOL22-1A	CURE COLUMN 22-1A	3	09-21-19	09-23-19	66
WBHRB.400.PST18-1	PRECAST STRUT 18-1	1	09-23-19	09-23-19	17
WBHRB.400.COL18-1A	CIP COLUMN 18-1A	4	09-23-19	09-26-19	13
WBHRB.400.CCOL17-1B	CURE COLUMN 17-1B	3	09-24-19	09-26-19	61



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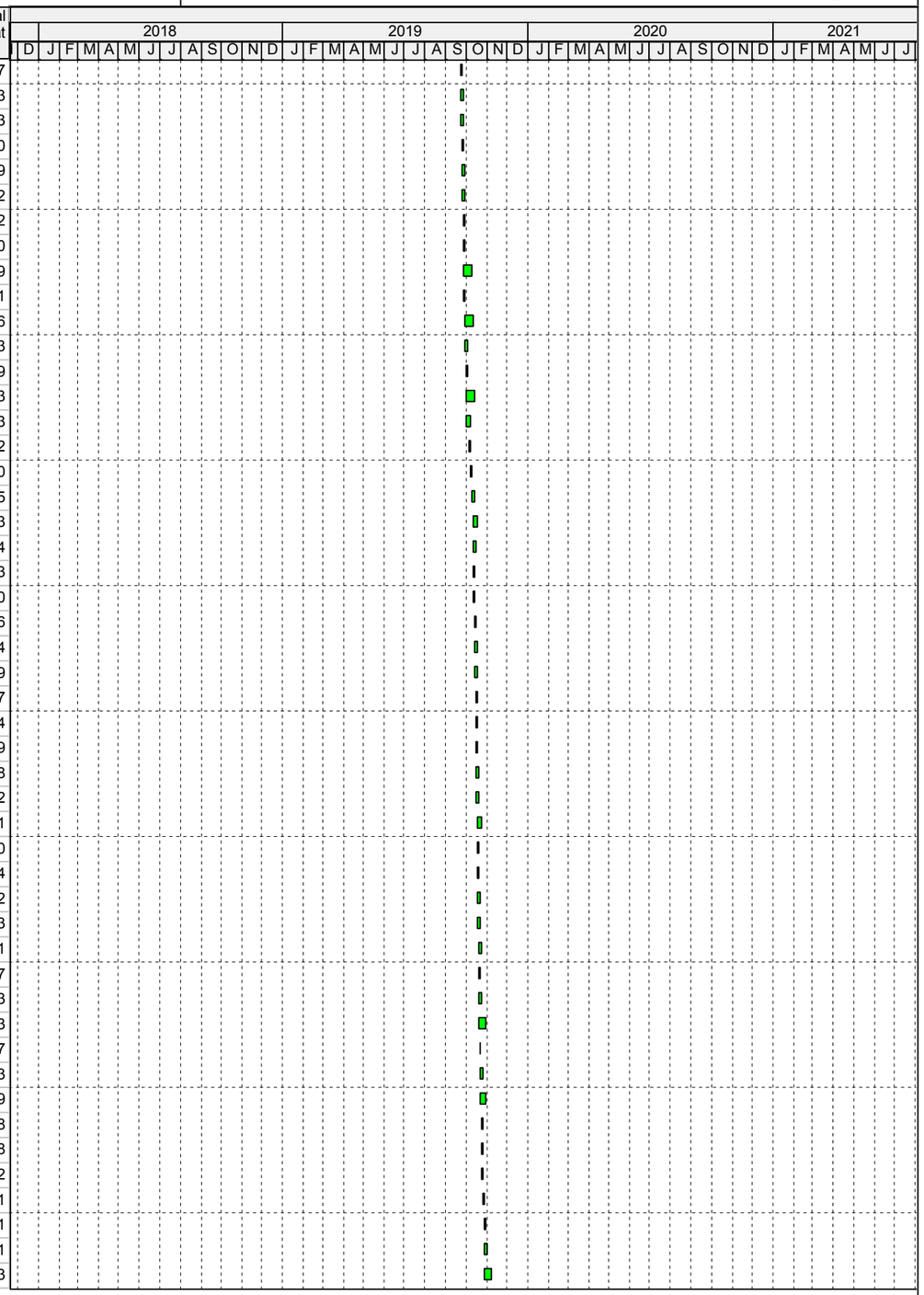
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.CST18-1	CURE STRUT 18-1	1	09-24-19	09-24-19	27
WBHRB.400.COL18-2A	CIP COLUMN 18-2A	4	09-24-19	09-27-19	13
WBHRB.400.CCOL22-2A	CURE COLUMN 22-2A	3	09-24-19	09-26-19	63
WBHRB.400.CCOL17-2B	CURE COLUMN 17-2B	3	09-25-19	09-27-19	60
WBHRB.400.CCAP016	CURE CAP 16	3	09-26-19	09-28-19	69
WBHRB.400.BS016	BEAM SEATS 16	3	09-26-19	09-30-19	42
WBHRB.400.CCOL18-1A	CURE COLUMN 18-1A	3	09-27-19	09-29-19	22
WBHRB.400.CST21-2	CURE STRUT 21-2	3	09-27-19	09-29-19	70
WBHRB.400.ST22-2	CIP STRUT 22-2	8	09-27-19	10-10-19	39
WBHRB.400.CCOL18-2A	CURE COLUMN 18-2A	3	09-28-19	09-30-19	21
WBHRB.400.CAP017	CIP CAP 17	8	09-30-19	10-11-19	36
WBHRB.400.COL21-1B	CIP COLUMN 21-1B	4	09-30-19	10-04-19	43
WBHRB.400.CBS016	CURE BEAM SEAT 16	3	10-01-19	10-03-19	69
WBHRB.400.ST18-2	CIP STRUT 18-2	8	10-02-19	10-14-19	13
WBHRB.400.COL21-2B	CIP COLUMN 21-2B	4	10-02-19	10-07-19	43
WBHRB.400.CCOL21-1B	CURE COLUMN 21-1B	3	10-05-19	10-07-19	72
WBHRB.400.CCOL21-2B	CURE COLUMN 21-2B	3	10-08-19	10-10-19	70
WBHRB.400.COL21-1C	CIP COLUMN 21-1C	4	10-09-19	10-14-19	45
WBHRB.400.FT19-1	CIP FOOTER 19-1	5	10-11-19	10-17-19	13
WBHRB.400.COL21-2C	CIP COLUMN 21-2C	4	10-11-19	10-16-19	44
WBHRB.400.CST22-2	CURE STRUT 22-2	3	10-11-19	10-13-19	63
WBHRB.400.CCAP017	CURE CAP 17	3	10-12-19	10-14-19	60
WBHRB.400.BS017	BEAM SEATS 17	3	10-14-19	10-16-19	36
WBHRB.400.FT19-2	CIP FOOTER 19-2	5	10-14-19	10-18-19	14
WBHRB.400.COL22-1B	CIP COLUMN 22-1B	4	10-14-19	10-17-19	39
WBHRB.400.CST18-2	CURE STRUT 18-2	3	10-15-19	10-17-19	17
WBHRB.400.CCOL21-1C	CURE COLUMN 21-1C	3	10-15-19	10-17-19	74
WBHRB.400.COL22-2B	CIP COLUMN 22-2B	4	10-15-19	10-18-19	39
WBHRB.400.CBS017	CURE BEAM SEAT 17	3	10-17-19	10-19-19	58
WBHRB.400.CCOL21-2C	CURE COLUMN 21-2C	3	10-17-19	10-19-19	72
WBHRB.400.COL18-1B	CIP COLUMN 18-1B	4	10-18-19	10-23-19	11
WBHRB.400.CFT19-1	CURE FOOTER 19-1	3	10-18-19	10-20-19	20
WBHRB.400.CCOL22-1B	CURE COLUMN 22-1B	3	10-18-19	10-20-19	64
WBHRB.400.CFT19-2	CURE FOOTER 19-2	3	10-19-19	10-21-19	22
WBHRB.400.CCOL22-2B	CURE COLUMN 22-2B	3	10-19-19	10-21-19	63
WBHRB.400.COL18-2B	CIP COLUMN 18-2B	4	10-21-19	10-24-19	11
WBHRB.400.PST19-1	PRECAST STRUT 19-1	1	10-21-19	10-21-19	17
WBHRB.400.COL19-1A	CIP COLUMN 19-1A	4	10-21-19	10-24-19	13
WBHRB.400.CAP021	CIP CAP 21	8	10-21-19	10-30-19	43
WBHRB.400.CST19-1	CURE STRUT 19-1	1	10-22-19	10-22-19	27
WBHRB.400.COL19-2A	CIP COLUMN 19-2A	4	10-22-19	10-25-19	13
WBHRB.400.CAP022	CIP CAP 22	8	10-22-19	10-31-19	39
WBHRB.400.CCOL18-1B	CURE COLUMN 18-1B	3	10-24-19	10-26-19	18
WBHRB.400.CCOL18-2B	CURE COLUMN 18-2B	3	10-25-19	10-27-19	18
WBHRB.400.CCOL19-1A	CURE COLUMN 19-1A	3	10-25-19	10-27-19	22
WBHRB.400.CCOL19-2A	CURE COLUMN 19-2A	3	10-26-19	10-28-19	21
WBHRB.400.COL18-1C	CIP COLUMN 18-1C	4	10-28-19	10-31-19	11
WBHRB.400.COL18-2C	CIP COLUMN 18-2C	4	10-29-19	11-01-19	11
WBHRB.400.ST19-2	CIP STRUT 19-2	8	10-29-19	11-08-19	13



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SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.CCAP021	CURE CAP 21	3	10-31-19	11-02-19	76
WBHRB.400.BS021	BEAM SEATS 21	3	10-31-19	11-04-19	43
WBHRB.400.CCOL18-1C	CURE COLUMN 18-1C	3	11-01-19	11-03-19	24
WBHRB.400.CCAP022	CURE CAP 22	3	11-01-19	11-03-19	69
WBHRB.400.BS022	BEAM SEATS 22	3	11-01-19	11-06-19	39
WBHRB.400.CCOL18-2C	CURE COLUMN 18-2C	3	11-02-19	11-04-19	23
WBHRB.400.CBS021	CURE BEAM SEAT 21	3	11-05-19	11-07-19	76
WBHRB.400.CAP018	CIP CAP 18	8	11-06-19	11-18-19	13
WBHRB.400.CBS022	CURE BEAM SEAT 22	3	11-07-19	11-09-19	68
WBHRB.400.CST19-2	CURE STRUT 19-2	3	11-09-19	11-11-19	24
WBHRB.400.FT20-1	CIP FOOTER 20-1	5	11-11-19	11-18-19	0
WBHRB.400.COL19-1B	CIP COLUMN 19-1B	4	11-13-19	11-18-19	14
WBHRB.400.FT20-2	CIP FOOTER 20-2	5	11-13-19	11-19-19	1
WBHRB.400.COL19-2B	CIP COLUMN 19-2B	4	11-14-19	11-19-19	14
WBHRB.400.CCAP018	CURE CAP 18	3	11-19-19	11-21-19	23
WBHRB.400.BS018	BEAM SEATS 18	3	11-19-19	11-25-19	13
WBHRB.400.CCOL19-1B	CURE COLUMN 19-1B	3	11-19-19	11-21-19	24
WBHRB.400.CFT20-1	CURE FOOTER 20-1	3	11-19-19	11-21-19	0
WBHRB.400.CCOL19-2B	CURE COLUMN 19-2B	3	11-20-19	11-22-19	24
WBHRB.400.CFT20-2	CURE FOOTER 20-2	3	11-20-19	11-22-19	4
WBHRB.400.PST20-1	PRECAST STRUT 20-1	1	11-20-19	11-20-19	5
WBHRB.400.COL20-1A	CIP COLUMN 20-1A	4	11-20-19	11-27-19	0
WBHRB.400.CST20-1	CURE STRUT 20-1	1	11-21-19	11-21-19	10
WBHRB.400.COL19-1C	CIP COLUMN 19-1C	4	11-25-19	11-28-19	13
WBHRB.400.COL20-2A	CIP COLUMN 20-2A	4	11-25-19	11-28-19	0
WBHRB.400.CBS018	CURE BEAM SEAT 18	3	11-26-19	11-28-19	21
WBHRB.400.COL19-2C	CIP COLUMN 19-2C	4	11-26-19	11-29-19	13
WBHRB.400.CCOL20-1A	CURE COLUMN 20-1A	3	11-28-19	11-30-19	1
WBHRB.400.CCOL19-1C	CURE COLUMN 19-1C	3	11-29-19	12-01-19	22
WBHRB.400.CCOL20-2A	CURE COLUMN 20-2A	3	11-29-19	12-01-19	0
WBHRB.400.CCOL19-2C	CURE COLUMN 19-2C	3	11-30-19	12-02-19	21
WBHRB.400.ST20-2	CIP STRUT 20-2	8	12-02-19	12-13-19	0
WBHRB.400.CAP019	CIP CAP 19	8	12-04-19	12-16-19	13
WBHRB.400.CST20-2	CURE STRUT 20-2	3	12-14-19	12-16-19	1
WBHRB.400.CCAP019	CURE CAP 19	3	12-17-19	12-19-19	23
WBHRB.400.BS019	BEAM SEATS 19	3	12-17-19	12-19-19	13
WBHRB.400.COL20-1B	CIP COLUMN 20-1B	4	12-17-19	12-20-19	1
WBHRB.400.COL20-2B	CIP COLUMN 20-2B	4	12-18-19	12-23-19	1
WBHRB.400.CBS019	CURE BEAM SEAT 19	3	12-20-19	12-22-19	25
WBHRB.400.CCOL20-1B	CURE COLUMN 20-1B	3	12-21-19	12-23-19	3
WBHRB.400.CCOL20-2B	CURE COLUMN 20-2B	3	12-24-19	12-26-19	3
WBHRB.400.COL20-1C	CIP COLUMN 20-1C	4	12-24-19	12-31-19	1
WBHRB.400.COL20-2C	CIP COLUMN 20-2C	4	12-27-19	01-02-20	1
WBHRB.400.CCOL20-1C	CURE COLUMN 20-1C	3	01-01-20	01-03-20	4
WBHRB.400.CCOL20-2C	CURE COLUMN 20-2C	3	01-03-20	01-05-20	2
WBHRB.400.CAP020	CIP CAP 20	8	01-06-20	01-17-20	1
WBHRB.400.CCAP020	CURE CAP 20	3	01-18-20	01-20-20	4
WBHRB.400.BS020	BEAM SEATS 20	3	01-21-20	01-23-20	1
WBHRB.400.CBS020	CURE BEAM SEAT 20	3	01-24-20	01-26-20	1

Date	Revision	Checked	Approved

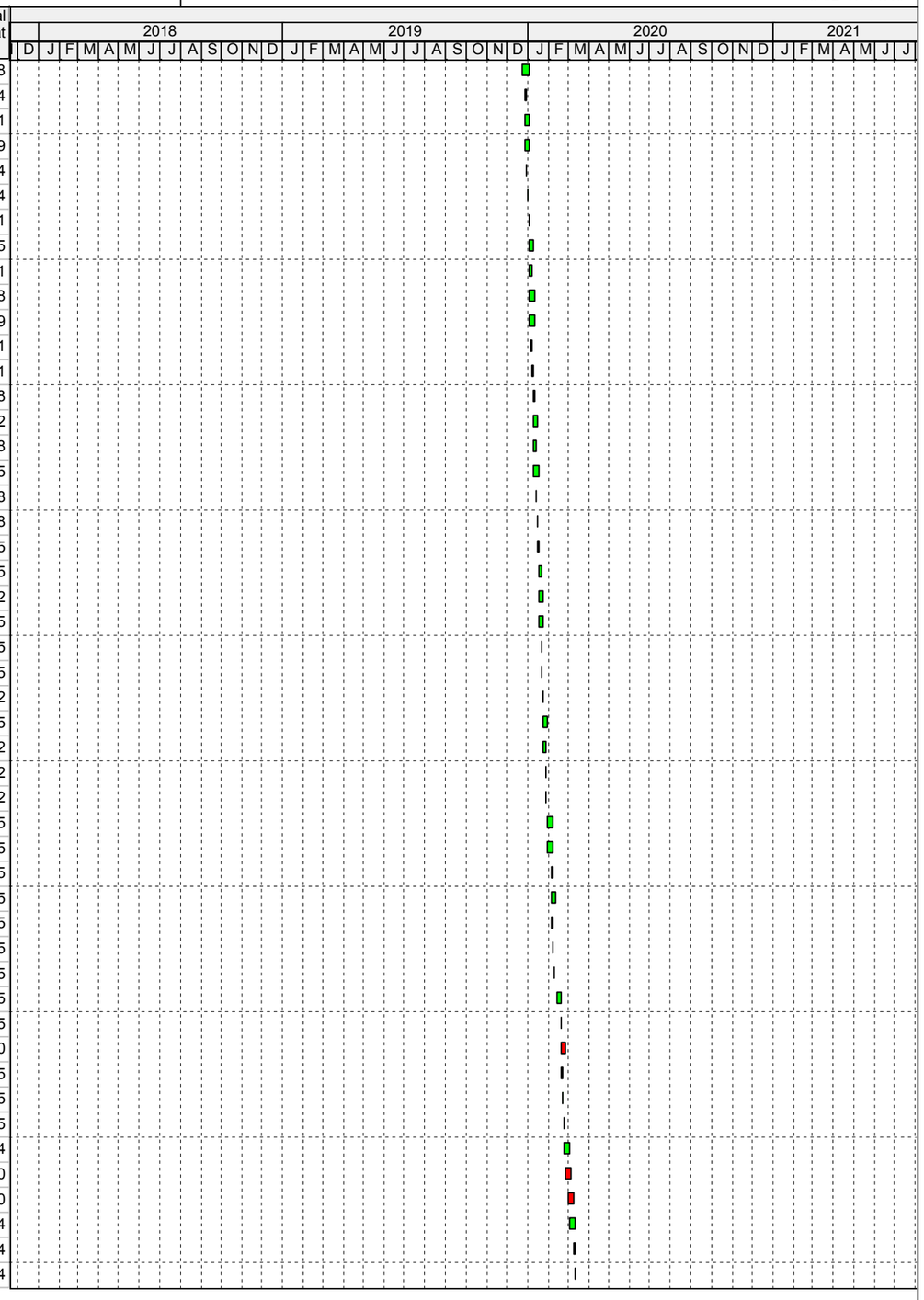
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
GIRDERS		62	11-11-19	02-24-20	1
WBHRB.400.G10.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 10	3	11-11-19	11-14-19	0
WBHRB.400.G11.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 11	3	11-15-19	11-19-19	0
WBHRB.400.G22.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 22	3	11-15-19	11-19-19	39
WBHRB.400.G12.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 12	3	11-20-19	11-26-19	0
WBHRB.400.G13.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 13	3	11-27-19	11-29-19	0
WBHRB.400.G14.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 14	3	12-02-19	12-05-19	0
WBHRB.400.G15.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 15	3	12-06-19	12-11-19	0
WBHRB.400.G16.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 16	3	12-12-19	12-16-19	0
WBHRB.400.G17.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 17	3	12-17-19	12-19-19	0
WBHRB.400.G18.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 18	15	12-20-19	01-16-20	0
WBHRB.400.G19.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 19	20	01-17-20	02-19-20	0
WBHRB.400.G21.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 21	3	01-27-20	01-29-20	1
WBHRB.400.G20.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 20	15	01-30-20	02-24-20	1
BRIDGE DECK		75	11-15-19	03-20-20	0
WBHRB.400.S10.1000	SIP SPAN 10	5	11-15-19	11-25-19	19
WBHRB.400.S10.1005	FORM OVERHANG SPAN 10	5	11-20-19	11-28-19	43
WBHRB.400.S11.1000	SIP SPAN 11	5	11-25-19	11-29-19	19
WBHRB.400.S22.1000	SIP SPAN 22	5	11-26-19	12-02-19	49
WBHRB.400.S11.1005	FORM OVERHANG SPAN 11	5	11-28-19	12-05-19	40
WBHRB.400.S10.1010	REBAR SPAN 10	5	11-29-19	12-06-19	43
WBHRB.400.S12.1000	SIP SPAN 12	5	11-29-19	12-06-19	19
WBHRB.400.S22.1005	FORM OVERHANG SPAN 22	5	11-29-19	12-06-19	53
WBHRB.400.S10.1015	SETUP BIDWELL FOR SPAN 10 POUR	2	12-05-19	12-06-19	43
WBHRB.400.S12.1005	FORM OVERHANG SPAN 12	5	12-05-19	12-12-19	37
WBHRB.400.S10.1020	INSTALL BULKHEAD SPAN 10	2	12-06-19	12-09-19	43
WBHRB.400.S11.1010	REBAR SPAN 11	5	12-06-19	12-13-19	40
WBHRB.400.S13.1000	SIP SPAN 13	5	12-06-19	12-13-19	19
WBHRB.400.S10.1025	DRY RUN FOR SPAN 10	1	12-09-19	12-09-19	43
WBHRB.400.S22.1010	REBAR SPAN 22	5	12-09-19	12-16-19	53
WBHRB.400.S10.1030	DECK POUR SPAN 10	1	12-11-19	12-11-19	43
WBHRB.400.S11.1015	SETUP BIDWELL FOR SPAN 11 POUR	2	12-12-19	12-13-19	40
WBHRB.400.S13.1005	FORM OVERHANG SPAN 13	5	12-12-19	12-18-19	34
WBHRB.400.S11.1020	INSTALL BULKHEAD SPAN 11	2	12-13-19	12-16-19	40
WBHRB.400.S12.1010	REBAR SPAN 12	5	12-13-19	12-19-19	37
WBHRB.400.S14.1000	SIP SPAN 14	5	12-13-19	12-19-19	19
WBHRB.400.S22.1015	SETUP BIDWELL FOR SPAN 22 POUR	2	12-13-19	12-16-19	53
WBHRB.400.S11.1025	DRY RUN FOR SPAN 11	1	12-16-19	12-16-19	40
WBHRB.400.S22.1020	INSTALL BULKHEAD SPAN 22	2	12-16-19	12-17-19	53
WBHRB.400.S11.1030	DECK POUR SPAN 11	1	12-17-19	12-17-19	40
WBHRB.400.S22.1025	DRY RUN FOR SPAN 22	1	12-17-19	12-17-19	53
WBHRB.400.S12.1015	SETUP BIDWELL FOR SPAN 12 POUR	2	12-18-19	12-19-19	37
WBHRB.400.S14.1005	FORM OVERHANG SPAN 14	5	12-18-19	12-24-19	31
WBHRB.400.S22.1030	DECK POUR SPAN 22	1	12-18-19	12-18-19	53
WBHRB.400.S12.1020	INSTALL BULKHEAD SPAN 12	2	12-19-19	12-20-19	37
WBHRB.400.S13.1010	REBAR SPAN 13	5	12-19-19	12-27-19	34
WBHRB.400.S15.1000	SIP SPAN 15	5	12-19-19	12-27-19	19
WBHRB.400.S12.1025	DRY RUN FOR SPAN 12	1	12-20-19	12-20-19	37
WBHRB.400.S12.1030	DECK POUR SPAN 12	1	12-23-19	12-23-19	37
WBHRB.400.S13.1015	SETUP BIDWELL FOR SPAN 13 POUR	2	12-24-19	12-27-19	34

Date	Revision	Checked	Approved

SKANSKA

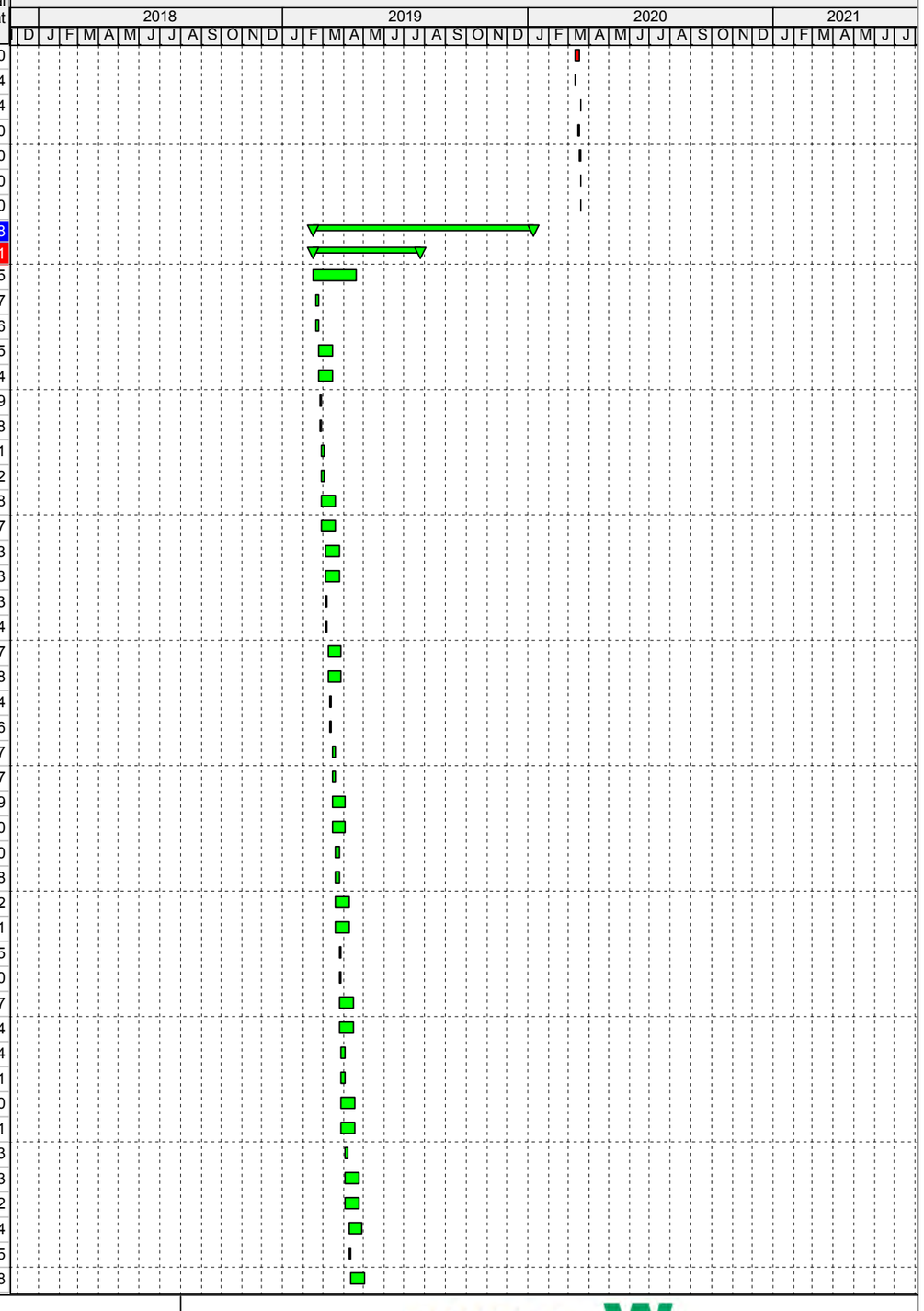
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.S15.1005	FORM OVERHANG SPAN 15	5	12-24-19	01-02-20	28
WBHRB.400.S13.1020	INSTALL BULKHEAD SPAN 13	2	12-27-19	12-30-19	34
WBHRB.400.S14.1010	REBAR SPAN 14	5	12-27-19	01-03-20	31
WBHRB.400.S16.1000	SIP SPAN 16	5	12-27-19	01-03-20	19
WBHRB.400.S13.1025	DRY RUN FOR SPAN 13	1	12-30-19	12-30-19	34
WBHRB.400.S13.1030	DECK POUR SPAN 13	1	12-31-19	12-31-19	34
WBHRB.400.S14.1015	SETUP BIDWELL FOR SPAN 14 POUR	2	01-02-20	01-03-20	31
WBHRB.400.S16.1005	FORM OVERHANG SPAN 16	5	01-02-20	01-09-20	25
WBHRB.400.S14.1020	INSTALL BULKHEAD SPAN 14	2	01-03-20	01-06-20	31
WBHRB.400.S15.1010	REBAR SPAN 15	5	01-03-20	01-10-20	28
WBHRB.400.S17.1000	SIP SPAN 17	5	01-03-20	01-10-20	19
WBHRB.400.S14.1025	DRY RUN FOR SPAN 14	1	01-06-20	01-06-20	31
WBHRB.400.S14.1030	DECK POUR SPAN 14	1	01-08-20	01-08-20	31
WBHRB.400.S15.1015	SETUP BIDWELL FOR SPAN 15 POUR	2	01-09-20	01-10-20	28
WBHRB.400.S17.1005	FORM OVERHANG SPAN 17	5	01-09-20	01-16-20	22
WBHRB.400.S15.1020	INSTALL BULKHEAD SPAN 15	2	01-10-20	01-13-20	28
WBHRB.400.S16.1010	REBAR SPAN 16	5	01-10-20	01-17-20	25
WBHRB.400.S15.1025	DRY RUN FOR SPAN 15	1	01-13-20	01-13-20	28
WBHRB.400.S15.1030	DECK POUR SPAN 15	1	01-15-20	01-15-20	28
WBHRB.400.S16.1015	SETUP BIDWELL FOR SPAN 16 POUR	2	01-16-20	01-17-20	25
WBHRB.400.S16.1020	INSTALL BULKHEAD SPAN 16	2	01-17-20	01-21-20	25
WBHRB.400.S17.1010	REBAR SPAN 17	5	01-17-20	01-24-20	22
WBHRB.400.S18.1000	SIP SPAN 18	5	01-17-20	01-24-20	15
WBHRB.400.S16.1025	DRY RUN FOR SPAN 16	1	01-21-20	01-21-20	25
WBHRB.400.S16.1030	DECK POUR SPAN 16	1	01-22-20	01-22-20	25
WBHRB.400.S17.1015	SETUP BIDWELL FOR SPAN 17 POUR	2	01-23-20	01-24-20	22
WBHRB.400.S18.1005	FORM OVERHANG SPAN 18	5	01-23-20	01-29-20	15
WBHRB.400.S17.1020	INSTALL BULKHEAD SPAN 17	2	01-24-20	01-27-20	22
WBHRB.400.S17.1025	DRY RUN FOR SPAN 17	1	01-27-20	01-27-20	22
WBHRB.400.S17.1030	DECK POUR SPAN 17	1	01-28-20	01-28-20	22
WBHRB.400.S18.1010	REBAR SPAN 18	5	01-30-20	02-06-20	15
WBHRB.400.S21.1000	SIP SPAN 21	5	01-30-20	02-06-20	15
WBHRB.400.S18.1015	SETUP BIDWELL FOR SPAN 18 POUR	2	02-05-20	02-06-20	15
WBHRB.400.S21.1005	FORM OVERHANG SPAN 21	5	02-05-20	02-12-20	15
WBHRB.400.S18.1020	INSTALL BULKHEAD SPAN 18	2	02-06-20	02-07-20	15
WBHRB.400.S18.1025	DRY RUN FOR SPAN 18	1	02-07-20	02-07-20	15
WBHRB.400.S18.1030	DECK POUR SPAN 18	1	02-10-20	02-10-20	15
WBHRB.400.S21.1010	REBAR SPAN 21	5	02-13-20	02-20-20	15
WBHRB.400.S21.1015	SETUP BIDWELL FOR SPAN 21 POUR	2	02-19-20	02-20-20	15
WBHRB.400.S19.1000	SIP SPAN 19	5	02-20-20	02-26-20	0
WBHRB.400.S21.1020	INSTALL BULKHEAD SPAN 21	2	02-20-20	02-21-20	15
WBHRB.400.S21.1025	DRY RUN FOR SPAN 21	1	02-21-20	02-21-20	15
WBHRB.400.S21.1030	DECK POUR SPAN 21	1	02-24-20	02-24-20	15
WBHRB.400.S19.1005	FORM OVERHANG SPAN 19	5	02-25-20	03-02-20	4
WBHRB.400.S20.1000	SIP SPAN 20	5	02-26-20	03-04-20	0
WBHRB.400.S20.1005	FORM OVERHANG SPAN 20	5	03-02-20	03-09-20	0
WBHRB.400.S19.1010	REBAR SPAN 19	5	03-04-20	03-11-20	4
WBHRB.400.S19.1015	SETUP BIDWELL FOR SPAN 19 POUR	2	03-09-20	03-11-20	4
WBHRB.400.S19.1020	INSTALL BULKHEAD SPAN 19	2	03-11-20	03-12-20	4



Date	Revision	Checked	Approved

SKANSKA

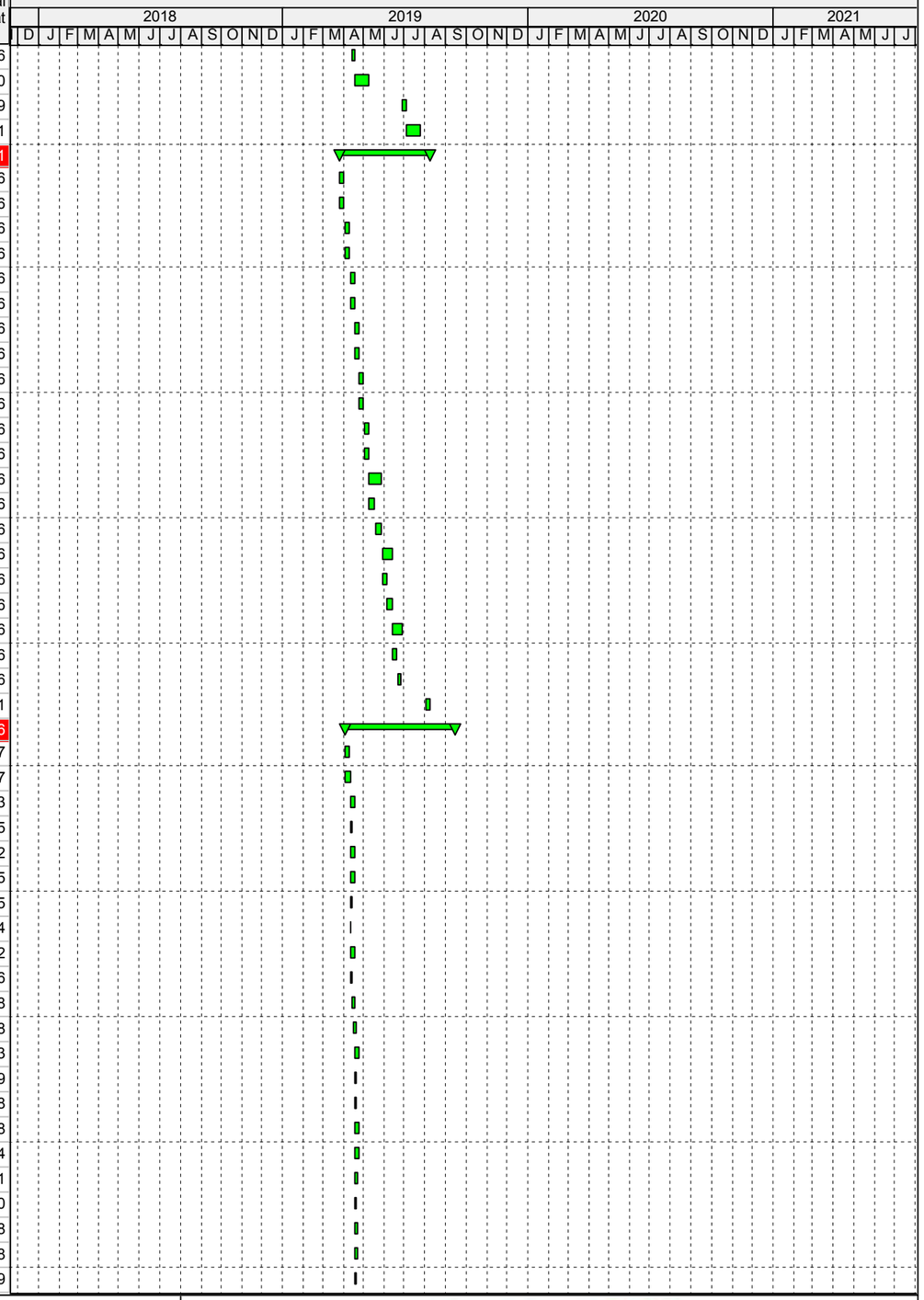
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.S20.1010	REBAR SPAN 20	5	03-11-20	03-18-20	0
WBHRB.400.S19.1025	DRY RUN FOR SPAN 19	1	03-12-20	03-12-20	4
WBHRB.400.S19.1030	DECK POUR SPAN 19	1	03-13-20	03-13-20	4
WBHRB.400.S20.1015	SETUP BIDWELL FOR SPAN 20 POUR	2	03-16-20	03-18-20	0
WBHRB.400.S20.1020	INSTALL BULKHEAD SPAN 20	2	03-18-20	03-19-20	0
WBHRB.400.S20.1025	DRY RUN FOR SPAN 20	1	03-19-20	03-19-20	0
WBHRB.400.S20.1030	DECK POUR SPAN 20	1	03-20-20	03-20-20	0
PIER 23 THROUGH ABUTMENT B		328	02-15-19	12-13-19	98
TEST PILES		160	02-15-19	07-24-19	151
WBHRB.400.TRES23-27	INSTALL TRESTEL (PIER 23-27)	40	02-15-19	04-19-19	85
WBHRB.400.TP031	HRB TEST PILE PIER 31	3	02-20-19	02-22-19	47
WBHRB.400.TP032	HRB TEST PILE PIER 32	3	02-20-19	02-22-19	86
WBHRB.400.TTP031	HRB TEST PILE PIER 31 - TEST	21	02-23-19	03-15-19	75
WBHRB.400.TTP032	HRB TEST PILE PIER 32 - TEST	21	02-23-19	03-15-19	144
WBHRB.400.TP030	HRB TEST PILE PIER 30	3	02-25-19	02-27-19	49
WBHRB.400.TP033	HRB TEST PILE PIER 33	3	02-25-19	02-27-19	88
WBHRB.400.TP029	HRB TEST PILE PIER 29	3	02-28-19	03-04-19	51
WBHRB.400.TP034	HRB TEST PILE PIER 34	3	02-28-19	03-04-19	92
WBHRB.400.TTP030	HRB TEST PILE PIER 30 - TEST	21	02-28-19	03-20-19	78
WBHRB.400.TTP033	HRB TEST PILE PIER 33 - TEST	21	02-28-19	03-20-19	147
WBHRB.400.TTP029	HRB TEST PILE PIER 29 - TEST	21	03-05-19	03-25-19	83
WBHRB.400.TTP034	HRB TEST PILE PIER 34 - TEST	21	03-05-19	03-25-19	153
WBHRB.400.TP028	HRB TEST PILE PIER 28	3	03-06-19	03-08-19	53
WBHRB.400.TP035	HRB TEST PILE PIER 35	3	03-06-19	03-08-19	94
WBHRB.400.TTP028	HRB TEST PILE PIER 28 - TEST	21	03-09-19	03-29-19	87
WBHRB.400.TTP035	HRB TEST PILE PIER 35 - TEST	21	03-09-19	03-29-19	158
WBHRB.400.TP027	HRB TEST PILE PIER 27	3	03-11-19	03-14-19	54
WBHRB.400.TP036	HRB TEST PILE PIER 36	3	03-11-19	03-14-19	96
WBHRB.400.TP026	HRB TEST PILE PIER 26	3	03-15-19	03-20-19	57
WBHRB.400.TP037	HRB TEST PILE PIER 37	3	03-15-19	03-20-19	97
WBHRB.400.TTP027	HRB TEST PILE PIER 27 - TEST	21	03-15-19	04-04-19	89
WBHRB.400.TTP036	HRB TEST PILE PIER 36 - TEST	21	03-15-19	04-04-19	160
WBHRB.400.TP025	HRB TEST PILE PIER 25	3	03-21-19	03-25-19	60
WBHRB.400.TP038	HRB TEST PILE PIER 38	3	03-21-19	03-25-19	98
WBHRB.400.TTP026	HRB TEST PILE PIER 26 - TEST	21	03-21-19	04-10-19	92
WBHRB.400.TTP037	HRB TEST PILE PIER 37 - TEST	21	03-21-19	04-10-19	161
WBHRB.400.TP024	HRB TEST PILE PIER 24	3	03-26-19	03-28-19	65
WBHRB.400.TP039	HRB TEST PILE PIER 39	3	03-26-19	03-28-19	100
WBHRB.400.TTP025	HRB TEST PILE PIER 25 - TEST	21	03-26-19	04-15-19	97
WBHRB.400.TTP038	HRB TEST PILE PIER 38 - TEST	21	03-26-19	04-15-19	164
WBHRB.400.TP023	HRB TEST PILE PIER 23	3	03-29-19	04-03-19	74
WBHRB.400.TP040	HRB TEST PILE PIER 40	3	03-29-19	04-03-19	101
WBHRB.400.TTP024	HRB TEST PILE PIER 24 - TEST	21	03-29-19	04-18-19	110
WBHRB.400.TTP039	HRB TEST PILE PIER 39 - TEST	21	03-29-19	04-18-19	171
WBHRB.400.TP041	HRB TEST PILE PIER 41	3	04-04-19	04-08-19	103
WBHRB.400.TTP023	HRB TEST PILE PIER 23 - TEST	21	04-04-19	04-24-19	123
WBHRB.400.TTP040	HRB TEST PILE PIER 40 - TEST	21	04-04-19	04-24-19	172
WBHRB.400.TTP041	HRB TEST PILE PIER 41 - TEST	21	04-09-19	04-29-19	174
WBHRB.400.TP042	HRB TEST PILE PIER 42	3	04-10-19	04-12-19	105
WBHRB.400.TTP042	HRB TEST PILE PIER 42 - TEST	21	04-13-19	05-03-19	178



Date	Revision	Checked	Approved

SKANSKA

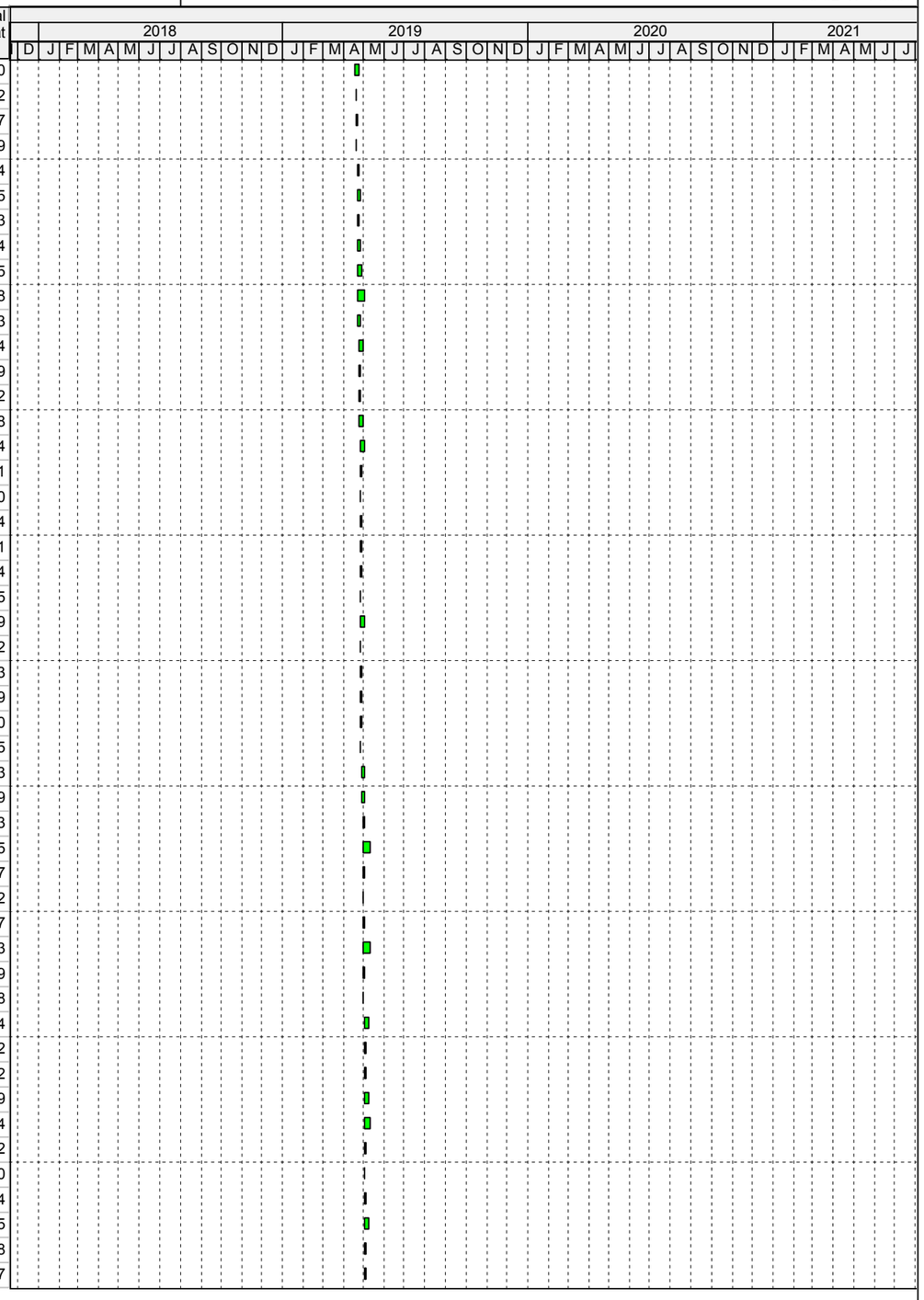
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.TP043	HRB TEST PILE PIER 43	3	04-15-19	04-17-19	106
WBHRB.400.TTP043	HRB TEST PILE PIER 43 - TEST	21	04-18-19	05-08-19	180
WBHRB.400.TP00B	HRB TEST PILE ABUTMENT 0B	3	06-28-19	07-03-19	89
WBHRB.400.TTP00B	HRB TEST PILE ABUTMENT 0B - TEST	21	07-04-19	07-24-19	151
PRODUCTION PILES		84	03-26-19	08-09-19	91
WBHRB.400.PP031	HRB PRODUCTION PILE PIER 31	5	03-26-19	04-01-19	46
WBHRB.400.PP032	HRB PRODUCTION PILE PIER 32	5	03-26-19	04-01-19	86
WBHRB.400.PP030	HRB PRODUCTION PILE PIER 30	5	04-03-19	04-10-19	46
WBHRB.400.PP033	HRB PRODUCTION PILE PIER 33	5	04-03-19	04-10-19	86
WBHRB.400.PP029	HRB PRODUCTION PILE PIER 29	5	04-11-19	04-17-19	46
WBHRB.400.PP034	HRB PRODUCTION PILE PIER 34	5	04-11-19	04-17-19	86
WBHRB.400.PP028	HRB PRODUCTION PILE PIER 28	5	04-18-19	04-24-19	46
WBHRB.400.PP035	HRB PRODUCTION PILE PIER 35	5	04-18-19	04-24-19	86
WBHRB.400.PP027	HRB PRODUCTION PILE PIER 27	5	04-25-19	05-01-19	46
WBHRB.400.PP036	HRB PRODUCTION PILE PIER 36	5	04-25-19	05-01-19	86
WBHRB.400.PP026	HRB PRODUCTION PILE PIER 26	5	05-02-19	05-09-19	46
WBHRB.400.PP037	HRB PRODUCTION PILE PIER 37	5	05-02-19	05-09-19	86
WBHRB.400.PP025	HRB PRODUCTION PILE PIER 25	10	05-10-19	05-28-19	46
WBHRB.400.PP038	HRB PRODUCTION PILE PIER 38	5	05-10-19	05-17-19	86
WBHRB.400.PP039	HRB PRODUCTION PILE PIER 39	5	05-20-19	05-28-19	86
WBHRB.400.PP024	HRB PRODUCTION PILE PIER 24	10	05-29-19	06-13-19	46
WBHRB.400.PP040	HRB PRODUCTION PILE PIER 40	5	05-29-19	06-05-19	86
WBHRB.400.PP041	HRB PRODUCTION PILE PIER 41	5	06-06-19	06-13-19	86
WBHRB.400.PP023	HRB PRODUCTION PILE PIER 23	10	06-14-19	06-28-19	46
WBHRB.400.PP042	HRB PRODUCTION PILE PIER 42	4	06-14-19	06-20-19	86
WBHRB.400.PP043	HRB PRODUCTION PILE PIER 43	4	06-21-19	06-26-19	86
WBHRB.400.PP00B	HRB PRODUCTION PILE ABUTMENT 0B	5	08-02-19	08-09-19	91
SUBSTRUCTURE		166	04-03-19	09-15-19	156
WBHRB.400.FT32-1	CIP FOOTER 32-1	5	04-03-19	04-10-19	97
WBHRB.400.FT32-2	CIP FOOTER 32-2	5	04-04-19	04-11-19	97
WBHRB.400.FT30-1	CIP FOOTER 30-1	5	04-11-19	04-17-19	93
WBHRB.400.CFT32-1	CURE FOOTER 32-1	3	04-11-19	04-13-19	165
WBHRB.400.FT33-1	CIP FOOTER 33-1	5	04-11-19	04-17-19	92
WBHRB.400.FT30-2	CIP FOOTER 30-2	5	04-12-19	04-18-19	95
WBHRB.400.CFT32-2	CURE FOOTER 32-2	3	04-12-19	04-14-19	165
WBHRB.400.PST32-1	PRECAST STRUT 32-1	1	04-12-19	04-12-19	104
WBHRB.400.FT33-2	CIP FOOTER 33-2	5	04-12-19	04-18-19	92
WBHRB.400.CST32-1	CURE STRUT 32-1	1	04-13-19	04-13-19	176
WBHRB.400.COL32-1A	CIP COLUMN 32-1A	4	04-15-19	04-18-19	98
WBHRB.400.COL32-2A	CIP COLUMN 32-2A	4	04-16-19	04-19-19	98
WBHRB.400.FT29-1	CIP FOOTER 29-1	5	04-18-19	04-24-19	93
WBHRB.400.CFT30-1	CURE FOOTER 30-1	3	04-18-19	04-20-19	159
WBHRB.400.CFT33-1	CURE FOOTER 33-1	3	04-18-19	04-20-19	158
WBHRB.400.FT34-1	CIP FOOTER 34-1	5	04-18-19	04-24-19	88
WBHRB.400.FT29-2	CIP FOOTER 29-2	5	04-19-19	04-25-19	94
WBHRB.400.CFT30-2	CURE FOOTER 30-2	3	04-19-19	04-21-19	161
WBHRB.400.PST30-1	PRECAST STRUT 30-1	1	04-19-19	04-19-19	100
WBHRB.400.CCOL32-1A	CURE COLUMN 32-1A	3	04-19-19	04-21-19	168
WBHRB.400.CFT33-2	CURE FOOTER 33-2	3	04-19-19	04-21-19	158
WBHRB.400.PST33-1	PRECAST STRUT 33-1	1	04-19-19	04-19-19	99



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.FT34-2	CIP FOOTER 34-2	5	04-19-19	04-25-19	90
WBHRB.400.CST30-1	CURE STRUT 30-1	1	04-20-19	04-20-19	172
WBHRB.400.CCOL32-2A	CURE COLUMN 32-2A	3	04-20-19	04-22-19	167
WBHRB.400.CST33-1	CURE STRUT 33-1	1	04-20-19	04-20-19	169
WBHRB.400.COL30-1A	CIP COLUMN 30-1A	4	04-22-19	04-25-19	94
WBHRB.400.FT31-1	CIP FOOTER 31-1	5	04-22-19	04-26-19	85
WBHRB.400.COL33-1A	CIP COLUMN 33-1A	4	04-22-19	04-25-19	93
WBHRB.400.COL30-2A	CIP COLUMN 30-2A	4	04-23-19	04-26-19	94
WBHRB.400.FT31-2	CIP FOOTER 31-2	5	04-23-19	04-29-19	85
WBHRB.400.ST32-2	CIP STRUT 32-2	8	04-23-19	05-02-19	98
WBHRB.400.COL33-2A	CIP COLUMN 33-2A	4	04-23-19	04-26-19	93
WBHRB.400.FT28-1	CIP FOOTER 28-1	5	04-25-19	05-01-19	94
WBHRB.400.CFT29-1	CURE FOOTER 29-1	3	04-25-19	04-27-19	159
WBHRB.400.CFT34-1	CURE FOOTER 34-1	3	04-25-19	04-27-19	152
WBHRB.400.FT35-1	CIP FOOTER 35-1	5	04-25-19	05-01-19	88
WBHRB.400.FT28-2	CIP FOOTER 28-2	5	04-26-19	05-02-19	94
WBHRB.400.CFT29-2	CURE FOOTER 29-2	3	04-26-19	04-28-19	161
WBHRB.400.PST29-1	PRECAST STRUT 29-1	1	04-26-19	04-26-19	100
WBHRB.400.CCOL30-1A	CURE COLUMN 30-1A	3	04-26-19	04-28-19	164
WBHRB.400.CCOL33-1A	CURE COLUMN 33-1A	3	04-26-19	04-28-19	161
WBHRB.400.CFT34-2	CURE FOOTER 34-2	3	04-26-19	04-28-19	154
WBHRB.400.PST34-1	PRECAST STRUT 34-1	1	04-26-19	04-26-19	95
WBHRB.400.FT35-2	CIP FOOTER 35-2	5	04-26-19	05-02-19	89
WBHRB.400.CST29-1	CURE STRUT 29-1	1	04-27-19	04-27-19	172
WBHRB.400.CCOL30-2A	CURE COLUMN 30-2A	3	04-27-19	04-29-19	163
WBHRB.400.CFT31-1	CURE FOOTER 31-1	3	04-27-19	04-29-19	149
WBHRB.400.CCOL33-2A	CURE COLUMN 33-2A	3	04-27-19	04-29-19	160
WBHRB.400.CST34-1	CURE STRUT 34-1	1	04-27-19	04-27-19	165
WBHRB.400.COL29-1A	CIP COLUMN 29-1A	4	04-29-19	05-02-19	93
WBHRB.400.COL34-1A	CIP COLUMN 34-1A	4	04-29-19	05-02-19	89
WBHRB.400.COL29-2A	CIP COLUMN 29-2A	4	04-30-19	05-03-19	93
WBHRB.400.ST30-2	CIP STRUT 30-2	8	04-30-19	05-10-19	95
WBHRB.400.CFT31-2	CURE FOOTER 31-2	3	04-30-19	05-02-19	147
WBHRB.400.PST31-1	PRECAST STRUT 31-1	1	04-30-19	04-30-19	92
WBHRB.400.COL31-1A	CIP COLUMN 31-1A	4	04-30-19	05-03-19	87
WBHRB.400.ST33-2	CIP STRUT 33-2	8	04-30-19	05-10-19	93
WBHRB.400.COL34-2A	CIP COLUMN 34-2A	4	04-30-19	05-03-19	89
WBHRB.400.CST31-1	CURE STRUT 31-1	1	05-01-19	05-01-19	158
WBHRB.400.FT27-1	CIP FOOTER 27-1	5	05-02-19	05-09-19	94
WBHRB.400.CFT28-1	CURE FOOTER 28-1	3	05-02-19	05-04-19	162
WBHRB.400.CFT35-1	CURE FOOTER 35-1	3	05-02-19	05-04-19	152
WBHRB.400.FT36-1	CIP FOOTER 36-1	5	05-02-19	05-09-19	89
WBHRB.400.FT27-2	CIP FOOTER 27-2	5	05-03-19	05-10-19	94
WBHRB.400.CFT28-2	CURE FOOTER 28-2	3	05-03-19	05-05-19	162
WBHRB.400.PST28-1	PRECAST STRUT 28-1	1	05-03-19	05-03-19	100
WBHRB.400.CCOL29-1A	CURE COLUMN 29-1A	3	05-03-19	05-05-19	164
WBHRB.400.COL31-2A	CIP COLUMN 31-2A	4	05-03-19	05-09-19	85
WBHRB.400.CST32-2	CURE STRUT 32-2	3	05-03-19	05-05-19	168
WBHRB.400.CCOL34-1A	CURE COLUMN 34-1A	3	05-03-19	05-05-19	157



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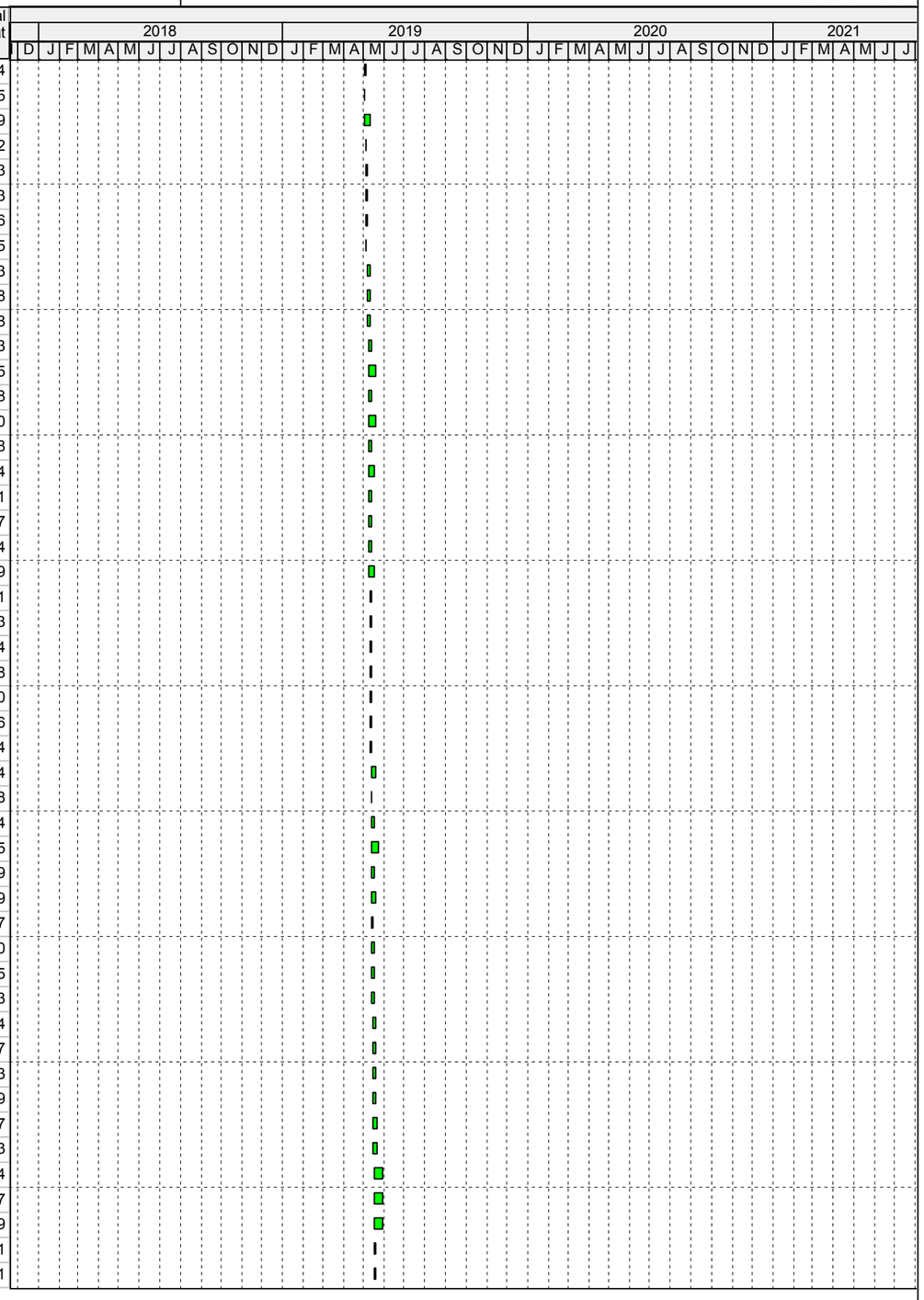
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.CFT35-2	CURE FOOTER 35-2	3	05-03-19	05-05-19	154
WBHRB.400.PST35-1	PRECAST STRUT 35-1	1	05-03-19	05-03-19	95
WBHRB.400.FT36-2	CIP FOOTER 36-2	5	05-03-19	05-10-19	89
WBHRB.400.CST28-1	CURE STRUT 28-1	1	05-04-19	05-04-19	172
WBHRB.400.CCOL29-2A	CURE COLUMN 29-2A	3	05-04-19	05-06-19	163
WBHRB.400.CCOL31-1A	CURE COLUMN 31-1A	3	05-04-19	05-06-19	153
WBHRB.400.CCOL34-2A	CURE COLUMN 34-2A	3	05-04-19	05-06-19	156
WBHRB.400.CST35-1	CURE STRUT 35-1	1	05-04-19	05-04-19	165
WBHRB.400.COL28-1A	CIP COLUMN 28-1A	4	05-06-19	05-10-19	93
WBHRB.400.COL32-1B	CIP COLUMN 32-1B	4	05-06-19	05-10-19	98
WBHRB.400.COL35-1A	CIP COLUMN 35-1A	4	05-06-19	05-10-19	88
WBHRB.400.COL28-2A	CIP COLUMN 28-2A	4	05-08-19	05-13-19	93
WBHRB.400.ST29-2	CIP STRUT 29-2	8	05-08-19	05-20-19	95
WBHRB.400.COL32-2B	CIP COLUMN 32-2B	4	05-08-19	05-13-19	98
WBHRB.400.ST34-2	CIP STRUT 34-2	8	05-08-19	05-20-19	90
WBHRB.400.COL35-2A	CIP COLUMN 35-2A	4	05-08-19	05-13-19	88
WBHRB.400.FT26-1	CIP FOOTER 26-1	5	05-10-19	05-17-19	94
WBHRB.400.CFT27-1	CURE FOOTER 27-1	3	05-10-19	05-12-19	161
WBHRB.400.CCOL31-2A	CURE COLUMN 31-2A	3	05-10-19	05-12-19	147
WBHRB.400.CFT36-1	CURE FOOTER 36-1	3	05-10-19	05-12-19	154
WBHRB.400.FT37-1	CIP FOOTER 37-1	5	05-10-19	05-17-19	89
WBHRB.400.CFT27-2	CURE FOOTER 27-2	3	05-11-19	05-13-19	161
WBHRB.400.CCOL28-1A	CURE COLUMN 28-1A	3	05-11-19	05-13-19	163
WBHRB.400.CST30-2	CURE STRUT 30-2	3	05-11-19	05-13-19	164
WBHRB.400.CCOL32-1B	CURE COLUMN 32-1B	3	05-11-19	05-13-19	168
WBHRB.400.CST33-2	CURE STRUT 33-2	3	05-11-19	05-13-19	160
WBHRB.400.CCOL35-1A	CURE COLUMN 35-1A	3	05-11-19	05-13-19	156
WBHRB.400.CFT36-2	CURE FOOTER 36-2	3	05-11-19	05-13-19	154
WBHRB.400.FT26-2	CIP FOOTER 26-2	5	05-13-19	05-20-19	94
WBHRB.400.PST27-1	PRECAST STRUT 27-1	1	05-13-19	05-13-19	98
WBHRB.400.COL27-1A	CIP COLUMN 27-1A	4	05-13-19	05-17-19	94
WBHRB.400.ST31-2	CIP STRUT 31-2	8	05-13-19	05-24-19	85
WBHRB.400.COL36-1A	CIP COLUMN 36-1A	4	05-13-19	05-17-19	89
WBHRB.400.FT37-2	CIP FOOTER 37-2	5	05-13-19	05-20-19	89
WBHRB.400.CST27-1	CURE STRUT 27-1	1	05-14-19	05-14-19	167
WBHRB.400.CCOL28-2A	CURE COLUMN 28-2A	3	05-14-19	05-16-19	160
WBHRB.400.CCOL32-2B	CURE COLUMN 32-2B	3	05-14-19	05-16-19	165
WBHRB.400.CCOL35-2A	CURE COLUMN 35-2A	3	05-14-19	05-16-19	153
WBHRB.400.COL27-2A	CIP COLUMN 27-2A	4	05-15-19	05-20-19	94
WBHRB.400.COL30-1B	CIP COLUMN 30-1B	4	05-15-19	05-20-19	97
WBHRB.400.COL33-1B	CIP COLUMN 33-1B	4	05-15-19	05-20-19	93
WBHRB.400.COL36-2A	CIP COLUMN 36-2A	4	05-15-19	05-20-19	89
WBHRB.400.COL30-2B	CIP COLUMN 30-2B	4	05-16-19	05-22-19	97
WBHRB.400.COL33-2B	CIP COLUMN 33-2B	4	05-16-19	05-22-19	93
WBHRB.400.ST28-2	CIP STRUT 28-2	8	05-17-19	05-30-19	94
WBHRB.400.CAP032	CIP CAP 32	8	05-17-19	05-30-19	97
WBHRB.400.ST35-2	CIP STRUT 35-2	8	05-17-19	05-30-19	89
WBHRB.400.CFT26-1	CURE FOOTER 26-1	3	05-18-19	05-20-19	161
WBHRB.400.CCOL27-1A	CURE COLUMN 27-1A	3	05-18-19	05-20-19	161



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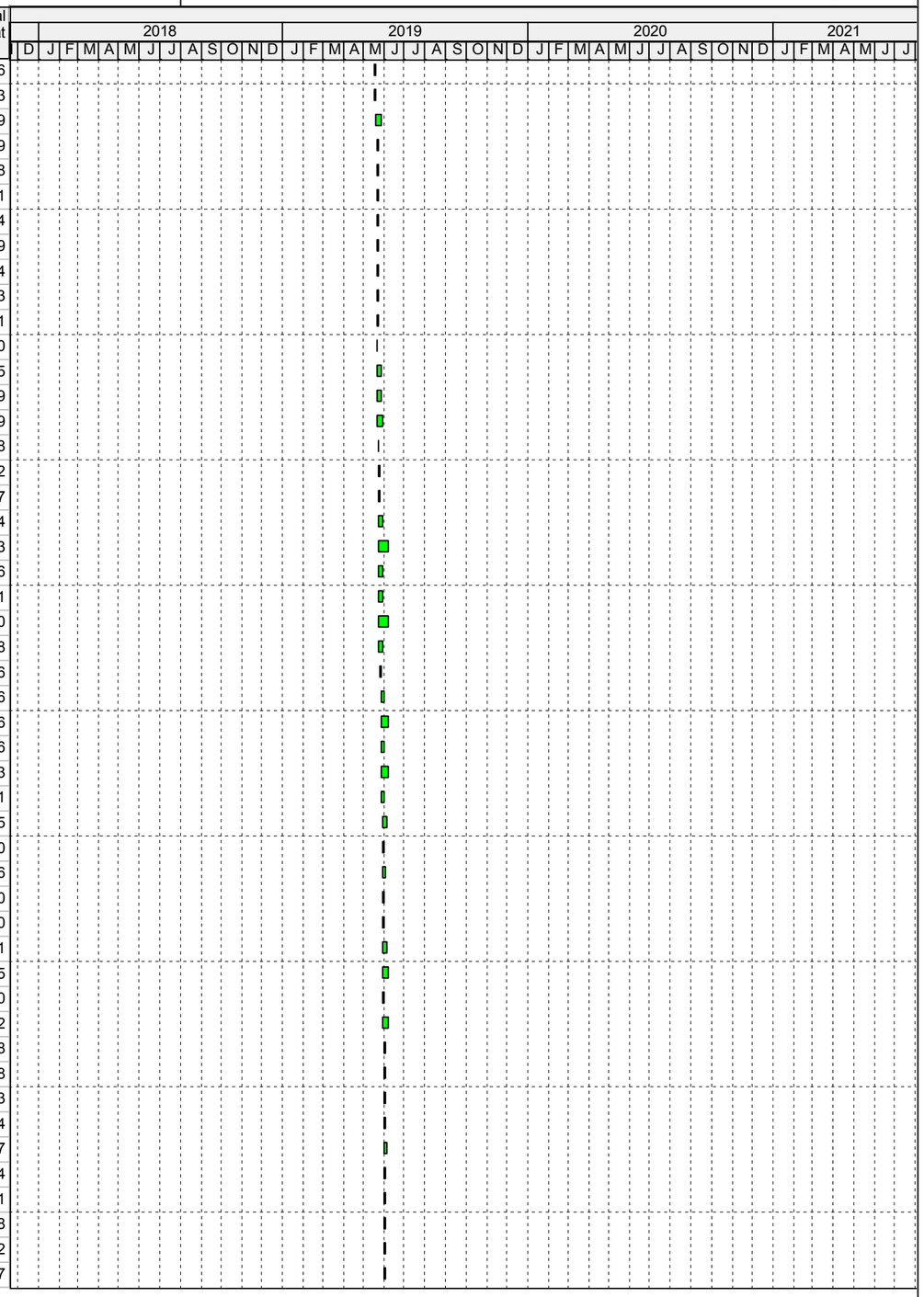
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.CCOL36-1A	CURE COLUMN 36-1A	3	05-18-19	05-20-19	156
WBHRB.400.CFT37-1	CURE FOOTER 37-1	3	05-18-19	05-20-19	153
WBHRB.400.FT38-1	CIP FOOTER 38-1	5	05-20-19	05-28-19	89
WBHRB.400.CFT26-2	CURE FOOTER 26-2	3	05-21-19	05-23-19	159
WBHRB.400.CCOL27-2A	CURE COLUMN 27-2A	3	05-21-19	05-23-19	158
WBHRB.400.CST29-2	CURE STRUT 29-2	3	05-21-19	05-23-19	161
WBHRB.400.CCOL30-1B	CURE COLUMN 30-1B	3	05-21-19	05-23-19	164
WBHRB.400.CCOL33-1B	CURE COLUMN 33-1B	3	05-21-19	05-23-19	159
WBHRB.400.CST34-2	CURE STRUT 34-2	3	05-21-19	05-23-19	154
WBHRB.400.CCOL36-2A	CURE COLUMN 36-2A	3	05-21-19	05-23-19	153
WBHRB.400.CFT37-2	CURE FOOTER 37-2	3	05-21-19	05-23-19	151
WBHRB.400.PST26-1	PRECAST STRUT 26-1	1	05-22-19	05-22-19	100
WBHRB.400.COL26-1A	CIP COLUMN 26-1A	4	05-22-19	05-28-19	95
WBHRB.400.COL37-1A	CIP COLUMN 37-1A	4	05-22-19	05-28-19	89
WBHRB.400.FT38-2	CIP FOOTER 38-2	5	05-22-19	05-29-19	89
WBHRB.400.CST26-1	CURE STRUT 26-1	1	05-23-19	05-23-19	168
WBHRB.400.CCOL30-2B	CURE COLUMN 30-2B	3	05-23-19	05-25-19	162
WBHRB.400.CCOL33-2B	CURE COLUMN 33-2B	3	05-23-19	05-25-19	157
WBHRB.400.COL26-2A	CIP COLUMN 26-2A	4	05-24-19	05-30-19	94
WBHRB.400.ST27-2	CIP STRUT 27-2	8	05-24-19	06-06-19	93
WBHRB.400.COL29-1B	CIP COLUMN 29-1B	4	05-24-19	05-30-19	96
WBHRB.400.COL34-1B	CIP COLUMN 34-1B	4	05-24-19	05-30-19	91
WBHRB.400.ST36-1	CIP STRUT 36-1	8	05-24-19	06-06-19	90
WBHRB.400.COL37-2A	CIP COLUMN 37-2A	4	05-24-19	05-30-19	88
WBHRB.400.CST31-2	CURE STRUT 31-2	3	05-25-19	05-27-19	146
WBHRB.400.COL29-2B	CIP COLUMN 29-2B	4	05-28-19	05-31-19	96
WBHRB.400.CAP030	CIP CAP 30	8	05-28-19	06-07-19	96
WBHRB.400.COL31-1B	CIP COLUMN 31-1B	4	05-28-19	05-31-19	86
WBHRB.400.CAP033	CIP CAP 33	8	05-28-19	06-07-19	93
WBHRB.400.COL34-2B	CIP COLUMN 34-2B	4	05-28-19	05-31-19	91
WBHRB.400.FT25-1	CIP FOOTER 25-1	5	05-29-19	06-05-19	85
WBHRB.400.CCOL26-1A	CURE COLUMN 26-1A	3	05-29-19	05-31-19	160
WBHRB.400.COL31-2B	CIP COLUMN 31-2B	4	05-29-19	06-03-19	86
WBHRB.400.CCOL37-1A	CURE COLUMN 37-1A	3	05-29-19	05-31-19	150
WBHRB.400.CFT38-1	CURE FOOTER 38-1	3	05-29-19	05-31-19	150
WBHRB.400.FT39-1	CIP FOOTER 39-1	5	05-29-19	06-05-19	91
WBHRB.400.FT25-2	CIP FOOTER 25-2	5	05-30-19	06-06-19	85
WBHRB.400.CFT38-2	CURE FOOTER 38-2	3	05-30-19	06-01-19	150
WBHRB.400.FT39-2	CIP FOOTER 39-2	5	05-30-19	06-06-19	92
WBHRB.400.CCOL26-2A	CURE COLUMN 26-2A	3	05-31-19	06-02-19	158
WBHRB.400.CST28-2	CURE STRUT 28-2	3	05-31-19	06-02-19	158
WBHRB.400.CCOL29-1B	CURE COLUMN 29-1B	3	05-31-19	06-02-19	163
WBHRB.400.CCAP032	CURE CAP 32	3	05-31-19	06-02-19	164
WBHRB.400.BS032	BEAM SEATS 32	3	05-31-19	06-05-19	97
WBHRB.400.CCOL34-1B	CURE COLUMN 34-1B	3	05-31-19	06-02-19	154
WBHRB.400.CST35-2	CURE STRUT 35-2	3	05-31-19	06-02-19	151
WBHRB.400.CCOL37-2A	CURE COLUMN 37-2A	3	05-31-19	06-02-19	148
WBHRB.400.CCOL29-2B	CURE COLUMN 29-2B	3	06-01-19	06-03-19	162
WBHRB.400.CCOL31-1B	CURE COLUMN 31-1B	3	06-01-19	06-03-19	147



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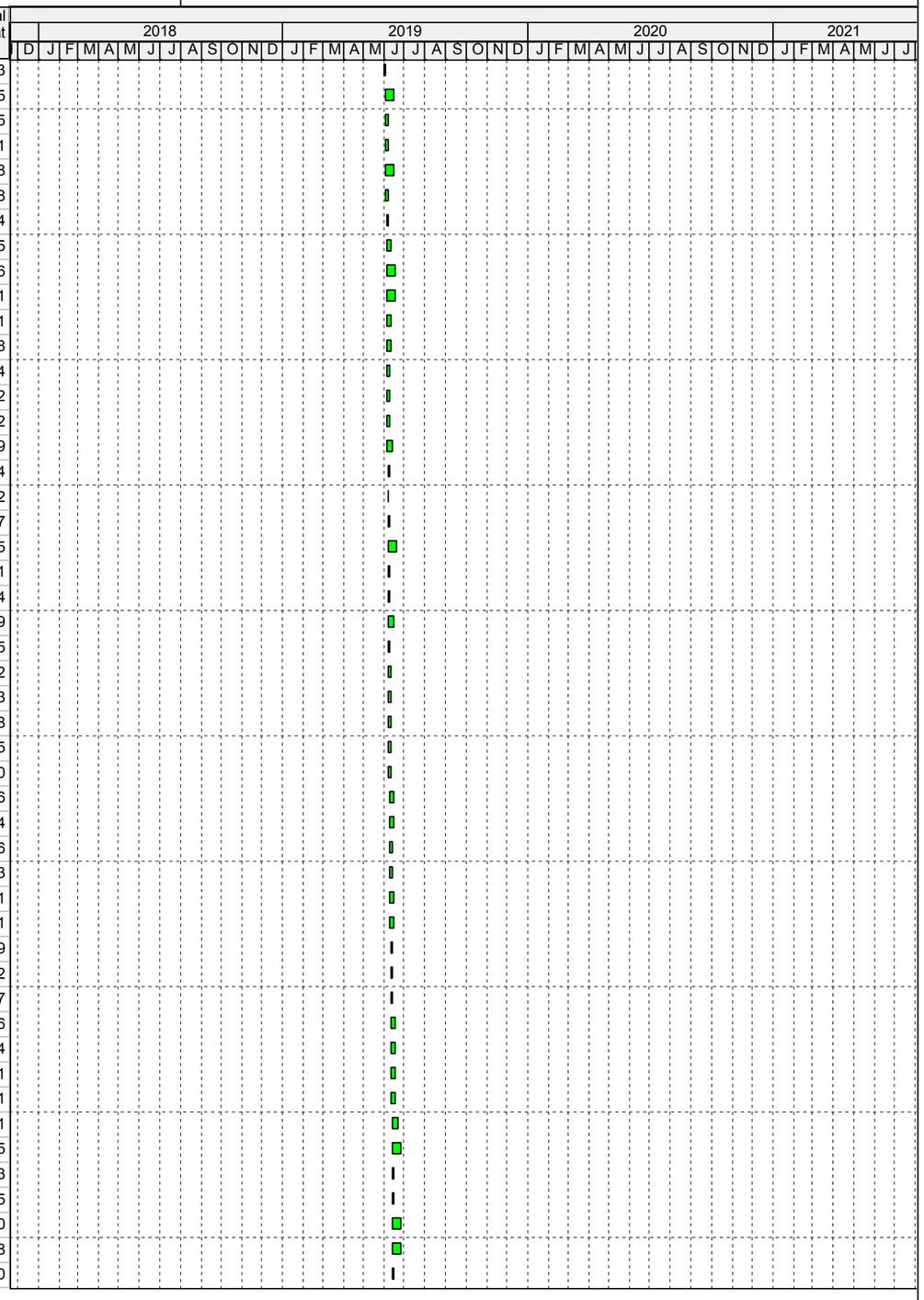
SKANSKA

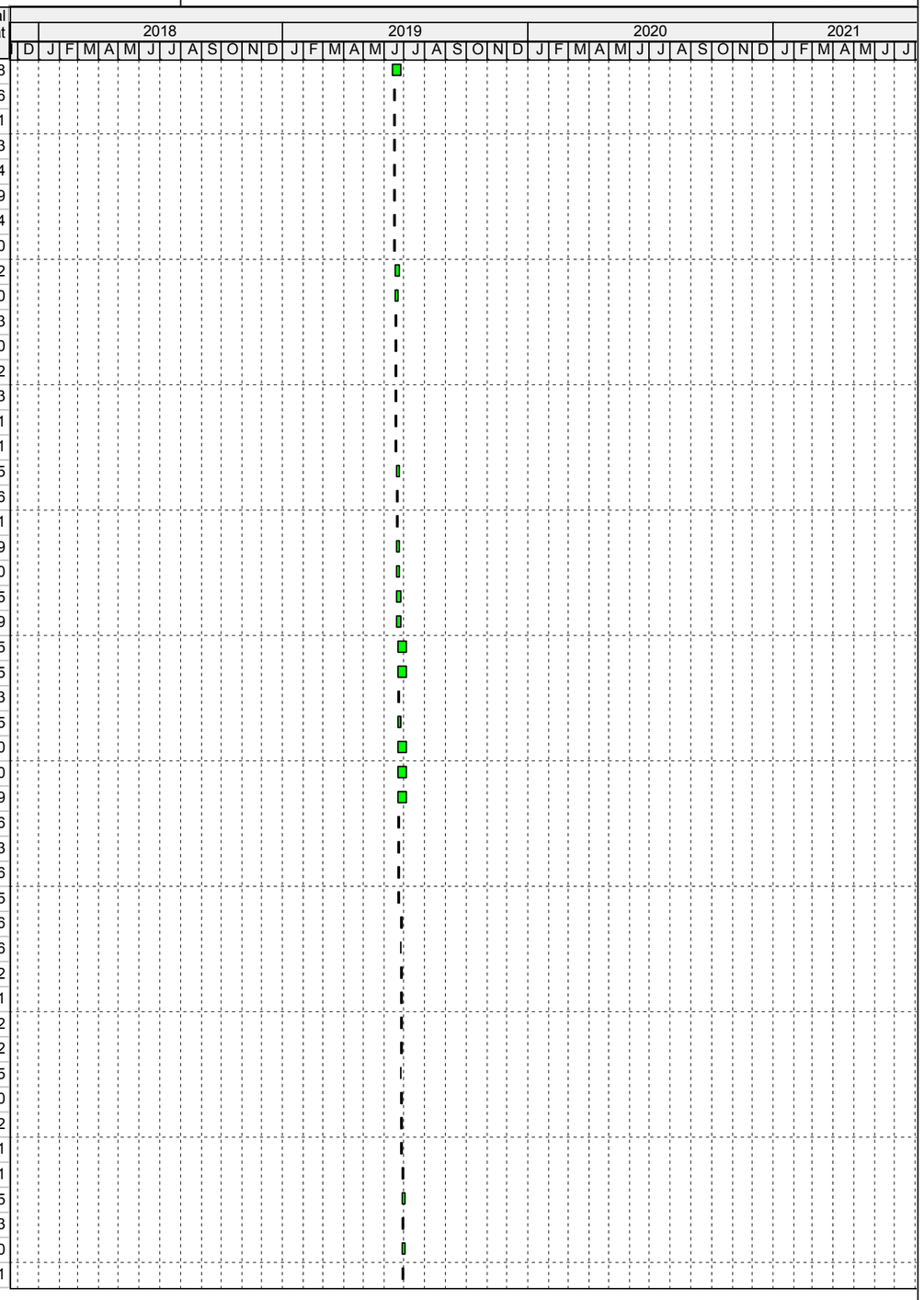
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.CCOL34-2B	CURE COLUMN 34-2B	3	06-01-19	06-03-19	153
WBHRB.400.ST26-2	CIP STRUT 26-2	8	06-03-19	06-14-19	95
WBHRB.400.COL28-1B	CIP COLUMN 28-1B	4	06-03-19	06-07-19	95
WBHRB.400.COL35-1B	CIP COLUMN 35-1B	4	06-03-19	06-07-19	91
WBHRB.400.ST37-1	CIP STRUT 37-1	8	06-03-19	06-14-19	88
WBHRB.400.COL38-1A	CIP COLUMN 38-1A	4	06-03-19	06-07-19	88
WBHRB.400.CCOL31-2B	CURE COLUMN 31-2B	3	06-04-19	06-06-19	144
WBHRB.400.COL28-2B	CIP COLUMN 28-2B	4	06-05-19	06-10-19	95
WBHRB.400.CAP029	CIP CAP 29	8	06-05-19	06-17-19	96
WBHRB.400.CAP034	CIP CAP 34	8	06-05-19	06-17-19	91
WBHRB.400.COL35-2B	CIP COLUMN 35-2B	4	06-05-19	06-10-19	91
WBHRB.400.COL38-2A	CIP COLUMN 38-2A	4	06-05-19	06-10-19	88
WBHRB.400.CFT25-1	CURE FOOTER 25-1	3	06-06-19	06-08-19	144
WBHRB.400.CBS032	CURE BEAM SEAT 32	3	06-06-19	06-08-19	162
WBHRB.400.CFT39-1	CURE FOOTER 39-1	3	06-06-19	06-08-19	152
WBHRB.400.FT40-1	CIP FOOTER 40-1	5	06-06-19	06-13-19	89
WBHRB.400.CFT25-2	CURE FOOTER 25-2	3	06-07-19	06-09-19	144
WBHRB.400.PST25-1	PRECAST STRUT 25-1	1	06-07-19	06-07-19	92
WBHRB.400.CST27-2	CURE STRUT 27-2	3	06-07-19	06-09-19	157
WBHRB.400.CAP031	CIP CAP 31	8	06-07-19	06-20-19	85
WBHRB.400.CST36-1	CURE STRUT 36-1	3	06-07-19	06-09-19	151
WBHRB.400.CFT39-2	CURE FOOTER 39-2	3	06-07-19	06-09-19	154
WBHRB.400.FT40-2	CIP FOOTER 40-2	5	06-07-19	06-14-19	89
WBHRB.400.CST25-1	CURE STRUT 25-1	1	06-08-19	06-08-19	155
WBHRB.400.CCOL28-1B	CURE COLUMN 28-1B	3	06-08-19	06-10-19	162
WBHRB.400.CCAP030	CURE CAP 30	3	06-08-19	06-10-19	163
WBHRB.400.CCAP033	CURE CAP 33	3	06-08-19	06-10-19	158
WBHRB.400.CCOL35-1B	CURE COLUMN 35-1B	3	06-08-19	06-10-19	155
WBHRB.400.CCOL38-1A	CURE COLUMN 38-1A	3	06-08-19	06-10-19	150
WBHRB.400.COL25-1A	CIP COLUMN 25-1A	4	06-10-19	06-14-19	86
WBHRB.400.COL27-1B	CIP COLUMN 27-1B	4	06-10-19	06-14-19	94
WBHRB.400.BS030	BEAM SEATS 30	3	06-10-19	06-13-19	96
WBHRB.400.BS033	BEAM SEATS 33	3	06-10-19	06-13-19	93
WBHRB.400.COL36-1B	CIP COLUMN 36-1B	4	06-10-19	06-14-19	91
WBHRB.400.COL39-1A	CIP COLUMN 39-1A	4	06-10-19	06-14-19	91
WBHRB.400.CCOL28-2B	CURE COLUMN 28-2B	3	06-11-19	06-13-19	159
WBHRB.400.CCOL35-2B	CURE COLUMN 35-2B	3	06-11-19	06-13-19	152
WBHRB.400.CCOL38-2A	CURE COLUMN 38-2A	3	06-11-19	06-13-19	147
WBHRB.400.COL25-2A	CIP COLUMN 25-2A	4	06-12-19	06-17-19	86
WBHRB.400.COL27-2B	CIP COLUMN 27-2B	4	06-12-19	06-17-19	94
WBHRB.400.COL36-2B	CIP COLUMN 36-2B	4	06-12-19	06-17-19	91
WBHRB.400.COL39-2A	CIP COLUMN 39-2A	4	06-12-19	06-17-19	91
WBHRB.400.FT24-1	CIP FOOTER 24-1	5	06-14-19	06-21-19	81
WBHRB.400.CAP028	CIP CAP 28	8	06-14-19	06-26-19	95
WBHRB.400.CBS030	CURE BEAM SEAT 30	3	06-14-19	06-16-19	163
WBHRB.400.CBS033	CURE BEAM SEAT 33	3	06-14-19	06-16-19	155
WBHRB.400.CAP035	CIP CAP 35	8	06-14-19	06-26-19	90
WBHRB.400.ST38-1	CIP STRUT 38-1	8	06-14-19	06-26-19	88
WBHRB.400.CFT40-1	CURE FOOTER 40-1	3	06-14-19	06-16-19	150



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.CAP041	CIP CAP 41	8	06-14-19	06-26-19	118
WBHRB.400.CCOL25-1A	CURE COLUMN 25-1A	3	06-15-19	06-17-19	146
WBHRB.400.CST26-2	CURE STRUT 26-2	3	06-15-19	06-17-19	161
WBHRB.400.CCOL27-1B	CURE COLUMN 27-1B	3	06-15-19	06-17-19	163
WBHRB.400.CCOL36-1B	CURE COLUMN 36-1B	3	06-15-19	06-17-19	154
WBHRB.400.CST37-1	CURE STRUT 37-1	3	06-15-19	06-17-19	149
WBHRB.400.CCOL39-1A	CURE COLUMN 39-1A	3	06-15-19	06-17-19	154
WBHRB.400.CFT40-2	CURE FOOTER 40-2	3	06-15-19	06-17-19	150
WBHRB.400.FT24-2	CIP FOOTER 24-2	5	06-17-19	06-24-19	82
WBHRB.400.COL40-1A	CIP COLUMN 40-1A	4	06-17-19	06-21-19	90
WBHRB.400.CCOL25-2A	CURE COLUMN 25-2A	3	06-18-19	06-20-19	143
WBHRB.400.CCOL27-2B	CURE COLUMN 27-2B	3	06-18-19	06-20-19	160
WBHRB.400.CCAP029	CURE CAP 29	3	06-18-19	06-20-19	162
WBHRB.400.CCAP034	CURE CAP 34	3	06-18-19	06-20-19	153
WBHRB.400.CCOL36-2B	CURE COLUMN 36-2B	3	06-18-19	06-20-19	151
WBHRB.400.CCOL39-2A	CURE COLUMN 39-2A	3	06-18-19	06-20-19	151
WBHRB.400.COL26-1B	CIP COLUMN 26-1B	4	06-19-19	06-24-19	95
WBHRB.400.BS029	BEAM SEATS 29	3	06-19-19	06-21-19	96
WBHRB.400.BS034	BEAM SEATS 34	3	06-19-19	06-21-19	91
WBHRB.400.COL37-1B	CIP COLUMN 37-1B	4	06-19-19	06-24-19	89
WBHRB.400.COL40-2A	CIP COLUMN 40-2A	4	06-19-19	06-24-19	90
WBHRB.400.COL26-2B	CIP COLUMN 26-2B	4	06-20-19	06-25-19	95
WBHRB.400.COL37-2B	CIP COLUMN 37-2B	4	06-20-19	06-25-19	89
WBHRB.400.ST25-2	CIP STRUT 25-2	8	06-21-19	07-03-19	85
WBHRB.400.CAP027	CIP CAP 27	8	06-21-19	07-03-19	95
WBHRB.400.CCAP031	CURE CAP 31	3	06-21-19	06-23-19	143
WBHRB.400.BS031	BEAM SEATS 31	3	06-21-19	06-25-19	85
WBHRB.400.CAP036	CIP CAP 36	8	06-21-19	07-03-19	90
WBHRB.400.ST39-1	CIP STRUT 39-1	8	06-21-19	07-03-19	90
WBHRB.400.CAP042	CIP CAP 42	8	06-21-19	07-03-19	119
WBHRB.400.CFT24-1	CURE FOOTER 24-1	3	06-22-19	06-24-19	136
WBHRB.400.CBS029	CURE BEAM SEAT 29	3	06-22-19	06-24-19	163
WBHRB.400.CBS034	CURE BEAM SEAT 34	3	06-22-19	06-24-19	156
WBHRB.400.CCOL40-1A	CURE COLUMN 40-1A	3	06-22-19	06-24-19	155
WBHRB.400.CFT24-2	CURE FOOTER 24-2	3	06-25-19	06-27-19	136
WBHRB.400.PST24-1	PRECAST STRUT 24-1	1	06-25-19	06-25-19	86
WBHRB.400.COL24-1A	CIP COLUMN 24-1A	4	06-25-19	06-28-19	82
WBHRB.400.CCOL26-1B	CURE COLUMN 26-1B	3	06-25-19	06-27-19	161
WBHRB.400.CCOL37-1B	CURE COLUMN 37-1B	3	06-25-19	06-27-19	152
WBHRB.400.CCOL40-2A	CURE COLUMN 40-2A	3	06-25-19	06-27-19	152
WBHRB.400.CST24-1	CURE STRUT 24-1	1	06-26-19	06-26-19	145
WBHRB.400.CCOL26-2B	CURE COLUMN 26-2B	3	06-26-19	06-28-19	160
WBHRB.400.CBS031	CURE BEAM SEAT 31	3	06-26-19	06-28-19	142
WBHRB.400.CCOL37-2B	CURE COLUMN 37-2B	3	06-26-19	06-28-19	151
WBHRB.400.CCAP028	CURE CAP 28	3	06-27-19	06-29-19	161
WBHRB.400.BS028	BEAM SEATS 28	3	06-27-19	07-01-19	95
WBHRB.400.CCAP035	CURE CAP 35	3	06-27-19	06-29-19	153
WBHRB.400.BS035	BEAM SEATS 35	3	06-27-19	07-01-19	90
WBHRB.400.CST38-1	CURE STRUT 38-1	3	06-27-19	06-29-19	151



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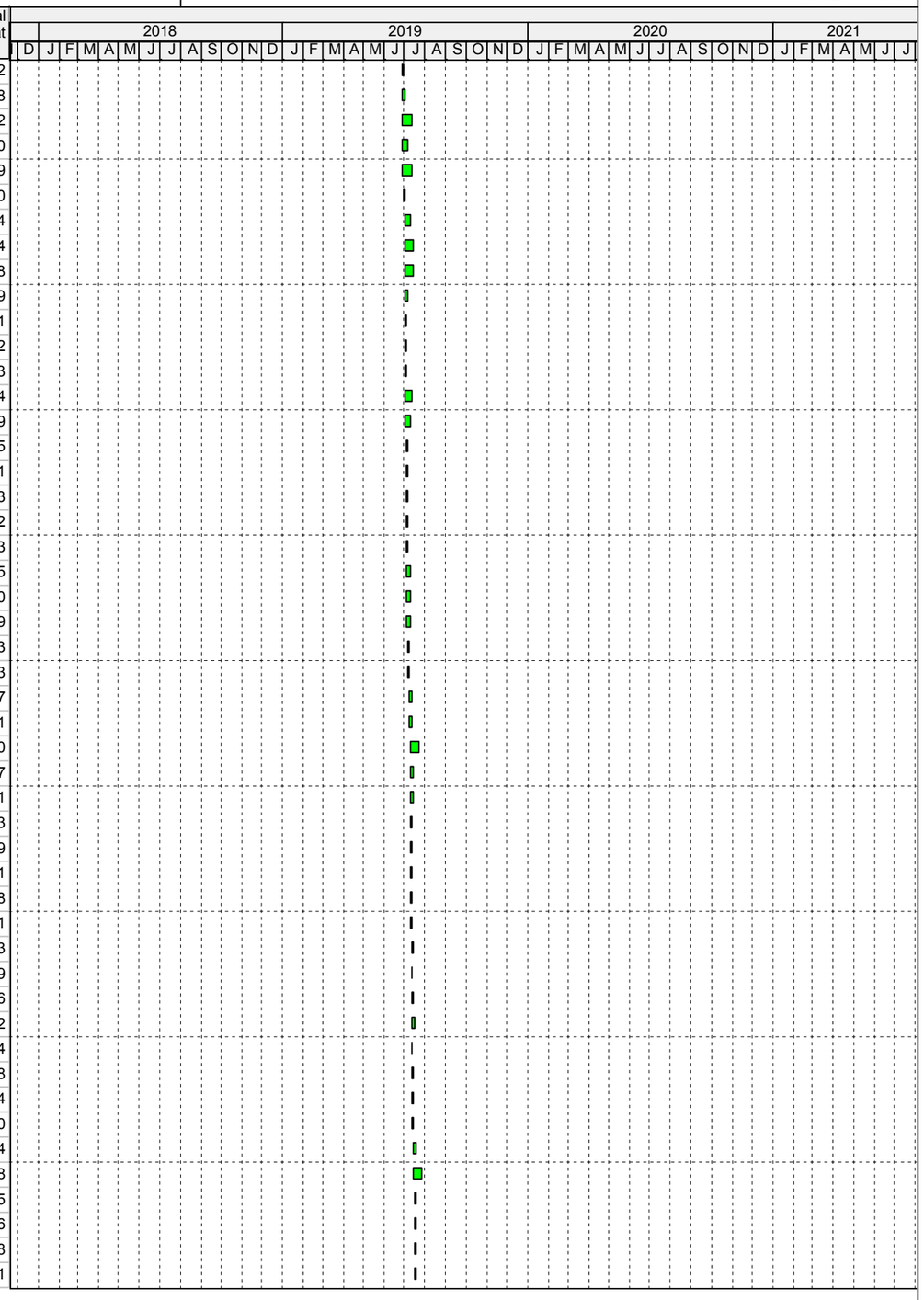
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.CCAP041	CURE CAP 41	3	06-27-19	06-29-19	202
WBHRB.400.BS041	BEAM SEATS 41	3	06-27-19	07-01-19	118
WBHRB.400.CAP043	CIP CAP 43	8	06-27-19	07-11-19	122
WBHRB.400.COL24-2A	CIP COLUMN 24-2A	4	06-28-19	07-05-19	80
WBHRB.400.ST40-1	CIP STRUT 40-1	8	06-28-19	07-12-19	89
WBHRB.400.CCOL24-1A	CURE COLUMN 24-1A	3	06-29-19	07-01-19	140
WBHRB.400.FT23-1	CIP FOOTER 23-1	5	07-01-19	07-10-19	74
WBHRB.400.CAP026	CIP CAP 26	8	07-01-19	07-15-19	94
WBHRB.400.CAP037	CIP CAP 37	8	07-01-19	07-15-19	88
WBHRB.400.COL38-1B	CIP COLUMN 38-1B	3	07-01-19	07-05-19	89
WBHRB.400.CBS028	CURE BEAM SEAT 28	3	07-02-19	07-04-19	161
WBHRB.400.CBS035	CURE BEAM SEAT 35	3	07-02-19	07-04-19	152
WBHRB.400.CBS041	CURE BEAM SEAT 41	3	07-02-19	07-04-19	203
WBHRB.400.FT23-2	CIP FOOTER 23-2	5	07-03-19	07-11-19	74
WBHRB.400.COL38-2B	CIP COLUMN 38-2B	4	07-03-19	07-10-19	89
WBHRB.400.CST25-2	CURE STRUT 25-2	3	07-04-19	07-06-19	145
WBHRB.400.CCAP027	CURE CAP 27	3	07-04-19	07-06-19	161
WBHRB.400.CCAP036	CURE CAP 36	3	07-04-19	07-06-19	153
WBHRB.400.CST39-1	CURE STRUT 39-1	3	07-04-19	07-06-19	152
WBHRB.400.CCAP042	CURE CAP 42	3	07-04-19	07-06-19	203
WBHRB.400.BS027	BEAM SEATS 27	3	07-05-19	07-10-19	95
WBHRB.400.BS036	BEAM SEATS 36	3	07-05-19	07-10-19	90
WBHRB.400.BS042	BEAM SEATS 42	3	07-05-19	07-10-19	119
WBHRB.400.CCOL24-2A	CURE COLUMN 24-2A	3	07-06-19	07-08-19	133
WBHRB.400.CCOL38-1B	CURE COLUMN 38-1B	3	07-06-19	07-08-19	153
WBHRB.400.COL25-1B	CIP COLUMN 25-1B	4	07-08-19	07-12-19	87
WBHRB.400.COL39-1B	CIP COLUMN 39-1B	4	07-08-19	07-12-19	91
WBHRB.400.ST24-2	CIP STRUT 24-2	8	07-10-19	07-22-19	80
WBHRB.400.COL25-2B	CIP COLUMN 25-2B	4	07-10-19	07-15-19	87
WBHRB.400.COL39-2B	CIP COLUMN 39-2B	4	07-10-19	07-15-19	91
WBHRB.400.CFT23-1	CURE FOOTER 23-1	3	07-11-19	07-13-19	123
WBHRB.400.CBS027	CURE BEAM SEAT 27	3	07-11-19	07-13-19	159
WBHRB.400.CBS036	CURE BEAM SEAT 36	3	07-11-19	07-13-19	151
WBHRB.400.CCOL38-2B	CURE COLUMN 38-2B	3	07-11-19	07-13-19	148
WBHRB.400.CBS042	CURE BEAM SEAT 42	3	07-11-19	07-13-19	201
WBHRB.400.CFT23-2	CURE FOOTER 23-2	3	07-12-19	07-14-19	123
WBHRB.400.PST23-1	PRECAST STRUT 23-1	1	07-12-19	07-12-19	79
WBHRB.400.CCAP043	CURE CAP 43	3	07-12-19	07-14-19	206
WBHRB.400.BS043	BEAM SEATS 43	3	07-12-19	07-17-19	122
WBHRB.400.CST23-1	CURE STRUT 23-1	1	07-13-19	07-13-19	134
WBHRB.400.CCOL25-1B	CURE COLUMN 25-1B	3	07-13-19	07-15-19	148
WBHRB.400.CCOL39-1B	CURE COLUMN 39-1B	3	07-13-19	07-15-19	154
WBHRB.400.CST40-1	CURE STRUT 40-1	3	07-13-19	07-15-19	150
WBHRB.400.COL23-1A	CIP COLUMN 23-1A	4	07-15-19	07-19-19	74
WBHRB.400.CAP038	CIP CAP 38	8	07-15-19	07-26-19	88
WBHRB.400.CCOL25-2B	CURE COLUMN 25-2B	3	07-16-19	07-18-19	145
WBHRB.400.CCAP026	CURE CAP 26	3	07-16-19	07-18-19	156
WBHRB.400.CCAP037	CURE CAP 37	3	07-16-19	07-18-19	148
WBHRB.400.CCOL39-2B	CURE COLUMN 39-2B	3	07-16-19	07-18-19	151



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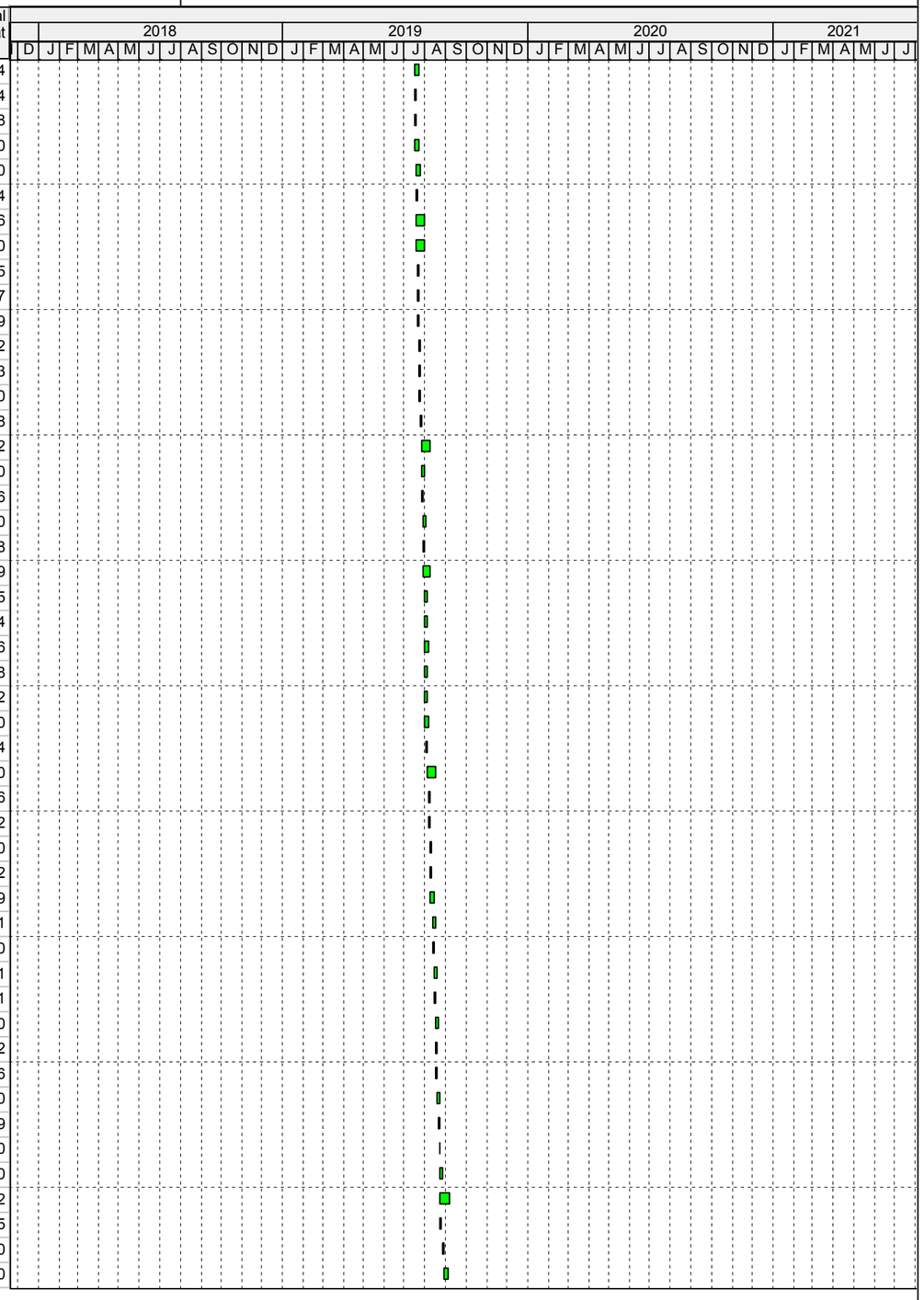
SKANSKA

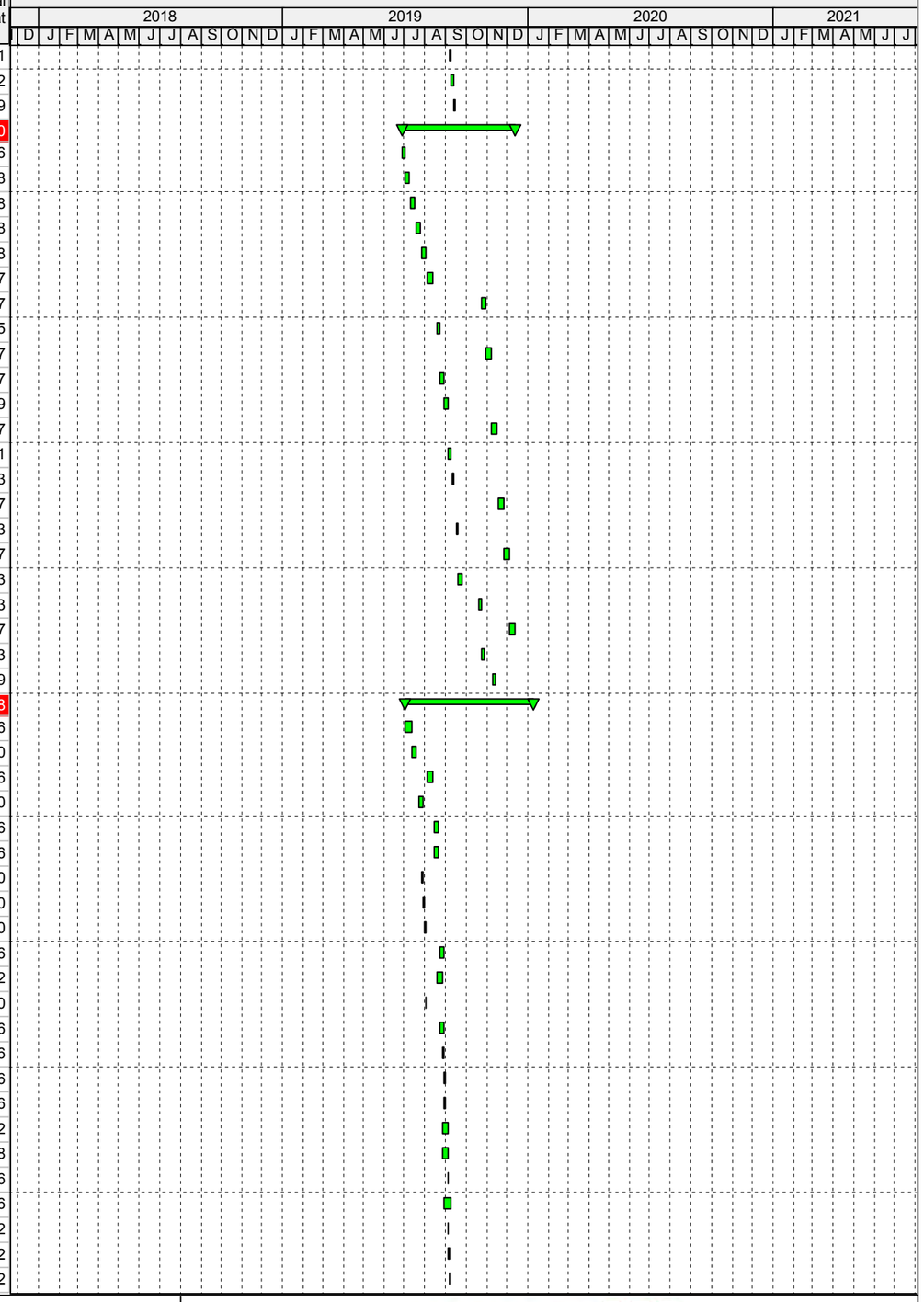
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.COL23-2A	CIP COLUMN 23-2A	4	07-17-19	07-22-19	74
WBHRB.400.BS026	BEAM SEATS 26	3	07-17-19	07-19-19	94
WBHRB.400.BS037	BEAM SEATS 37	3	07-17-19	07-19-19	88
WBHRB.400.COL40-1B	CIP COLUMN 40-1B	4	07-17-19	07-22-19	90
WBHRB.400.COL40-2B	CIP COLUMN 40-2B	4	07-18-19	07-24-19	90
WBHRB.400.CBS043	CURE BEAM SEAT 43	3	07-18-19	07-20-19	204
WBHRB.400.CAP025	CIP CAP 25	8	07-19-19	07-31-19	86
WBHRB.400.CAP039	CIP CAP 39	8	07-19-19	07-31-19	90
WBHRB.400.CCOL23-1A	CURE COLUMN 23-1A	3	07-20-19	07-22-19	125
WBHRB.400.CBS026	CURE BEAM SEAT 26	3	07-20-19	07-22-19	157
WBHRB.400.CBS037	CURE BEAM SEAT 37	3	07-20-19	07-22-19	149
WBHRB.400.CCOL23-2A	CURE COLUMN 23-2A	3	07-23-19	07-25-19	122
WBHRB.400.CST24-2	CURE STRUT 24-2	3	07-23-19	07-25-19	133
WBHRB.400.CCOL40-1B	CURE COLUMN 40-1B	3	07-23-19	07-25-19	150
WBHRB.400.CCOL40-2B	CURE COLUMN 40-2B	3	07-25-19	07-27-19	148
WBHRB.400.ST23-2	CIP STRUT 23-2	8	07-26-19	08-07-19	72
WBHRB.400.COL24-1B	CIP COLUMN 24-1B	4	07-26-19	07-31-19	80
WBHRB.400.CCAP038	CURE CAP 38	3	07-27-19	07-29-19	146
WBHRB.400.COL24-2B	CIP COLUMN 24-2B	4	07-29-19	08-01-19	80
WBHRB.400.BS038	BEAM SEATS 38	3	07-29-19	07-31-19	88
WBHRB.400.CAP040	CIP CAP 40	8	07-29-19	08-08-19	89
WBHRB.400.CCOL24-1B	CURE COLUMN 24-1B	3	08-01-19	08-03-19	135
WBHRB.400.CCAP025	CURE CAP 25	3	08-01-19	08-03-19	144
WBHRB.400.BS025	BEAM SEATS 25	3	08-01-19	08-05-19	86
WBHRB.400.CBS038	CURE BEAM SEAT 38	3	08-01-19	08-03-19	148
WBHRB.400.CCAP039	CURE CAP 39	3	08-01-19	08-03-19	152
WBHRB.400.BS039	BEAM SEATS 39	3	08-01-19	08-05-19	90
WBHRB.400.CCOL24-2B	CURE COLUMN 24-2B	3	08-02-19	08-04-19	134
WBHRB.400.CAP024	CIP CAP 24	8	08-05-19	08-16-19	80
WBHRB.400.CBS025	CURE BEAM SEAT 25	3	08-06-19	08-08-19	146
WBHRB.400.CBS039	CURE BEAM SEAT 39	3	08-06-19	08-08-19	152
WBHRB.400.CST23-2	CURE STRUT 23-2	3	08-08-19	08-10-19	120
WBHRB.400.CCAP040	CURE CAP 40	3	08-09-19	08-11-19	152
WBHRB.400.BS040	BEAM SEATS 40	3	08-09-19	08-14-19	89
WBHRB.400.COL23-1B	CIP COLUMN 23-1B	4	08-12-19	08-16-19	71
WBHRB.400.CAP00B	BUILD CAP ABUTMENT 0B	3	08-12-19	08-15-19	100
WBHRB.400.COL23-2B	CIP COLUMN 23-2B	4	08-14-19	08-19-19	71
WBHRB.400.CBS040	CURE BEAM SEAT 40	3	08-15-19	08-17-19	151
WBHRB.400.BW00B	BACK WALL ABUTMENT 0B	3	08-16-19	08-21-19	100
WBHRB.400.CCOL23-1B	CURE COLUMN 23-1B	3	08-17-19	08-19-19	122
WBHRB.400.CCAP024	CURE CAP 24	3	08-17-19	08-19-19	136
WBHRB.400.BS024	BEAM SEATS 24	3	08-19-19	08-22-19	80
WBHRB.400.CCOL23-2B	CURE COLUMN 23-2B	3	08-20-19	08-22-19	119
WBHRB.400.BS00B	BEAM SEATS ABUTMENT 0B	2	08-22-19	08-23-19	100
WBHRB.400.WW00B	WING WALLS ABUTMENT 0B	3	08-22-19	08-26-19	100
WBHRB.400.CAP023	CIP CAP 23	8	08-23-19	09-06-19	72
WBHRB.400.CBS024	CURE BEAM SEAT 24	3	08-23-19	08-25-19	135
WBHRB.400.FA00B	FILL ABUTMENT 0B	2	08-28-19	08-29-19	100
WBHRB.400.SP00B	SLOPE PROTECTION ABUTMENT 0B	2	08-30-19	09-04-19	100



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.CCAP023	CURE CAP 23	3	09-07-19	09-09-19	121
WBHRB.400.BS023	BEAM SEATS 23	3	09-09-19	09-12-19	72
WBHRB.400.CBS023	CURE BEAM SEAT 23	3	09-13-19	09-15-19	119
GIRDERS		100	06-27-19	11-14-19	60
WBHRB.400.G33.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 33	3	06-27-19	07-01-19	86
WBHRB.400.G34.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 34	3	07-03-19	07-08-19	88
WBHRB.400.G35.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 35	5	07-10-19	07-17-19	88
WBHRB.400.G36.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 36	5	07-18-19	07-25-19	88
WBHRB.400.G37.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 37	5	07-26-19	08-01-19	88
WBHRB.400.G38.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 38	5	08-05-19	08-12-19	87
WBHRB.400.G39.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 39	5	08-14-19	08-21-19	87
WBHRB.400.G32.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 32	3	08-19-19	08-22-19	55
WBHRB.400.G40.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 40	5	08-22-19	08-29-19	87
WBHRB.400.G31.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 31	3	08-23-19	08-28-19	57
WBHRB.400.G30.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 30	3	08-29-19	09-04-19	59
WBHRB.400.G41.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 41	5	08-30-19	09-09-19	87
WBHRB.400.G29.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 29	3	09-05-19	09-09-19	61
WBHRB.400.G28.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 28	3	09-11-19	09-13-19	63
WBHRB.400.G42.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 42	5	09-11-19	09-18-19	87
WBHRB.400.G27.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 27	3	09-16-19	09-19-19	63
WBHRB.400.G43.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 43	5	09-19-19	09-25-19	87
WBHRB.400.G26.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 26	3	09-20-19	09-24-19	63
WBHRB.400.G25.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 25	3	09-25-19	09-27-19	63
WBHRB.400.G44.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 44	5	09-26-19	10-03-19	87
WBHRB.400.G24.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 24	3	09-30-19	10-03-19	63
WBHRB.400.G23.1000	STRIP BEAM SEATS AND ERECT GIRDERS SPAN 23	3	11-11-19	11-14-19	39
BRIDGE DECK		112	07-03-19	12-13-19	58
WBHRB.400.S33.1000	SIP SPAN 33	5	07-03-19	07-11-19	86
WBHRB.400.S33.1005	FORM OVERHANG SPAN 33	5	07-10-19	07-17-19	130
WBHRB.400.S34.1000	SIP SPAN 34	5	07-12-19	07-19-19	86
WBHRB.400.S33.1010	REBAR SPAN 33	5	07-18-19	07-25-19	130
WBHRB.400.S34.1005	FORM OVERHANG SPAN 34	5	07-18-19	07-25-19	126
WBHRB.400.S35.1000	SIP SPAN 35	5	07-22-19	07-29-19	86
WBHRB.400.S33.1015	SETUP BIDWELL FOR SPAN 33 POUR	2	07-24-19	07-25-19	130
WBHRB.400.S33.1020	INSTALL BULKHEAD SPAN 33	2	07-25-19	07-26-19	130
WBHRB.400.S33.1025	DRY RUN FOR SPAN 33	1	07-26-19	07-26-19	130
WBHRB.400.S34.1010	REBAR SPAN 34	5	07-26-19	08-01-19	126
WBHRB.400.S35.1005	FORM OVERHANG SPAN 35	5	07-26-19	08-01-19	122
WBHRB.400.S33.1030	DECK POUR SPAN 33	1	07-29-19	07-29-19	130
WBHRB.400.S36.1000	SIP SPAN 36	5	07-30-19	08-05-19	86
WBHRB.400.S34.1015	SETUP BIDWELL FOR SPAN 34 POUR	2	07-31-19	08-01-19	126
WBHRB.400.S34.1020	INSTALL BULKHEAD SPAN 34	2	08-01-19	08-02-19	126
WBHRB.400.S34.1025	DRY RUN FOR SPAN 34	1	08-02-19	08-02-19	126
WBHRB.400.S35.1010	REBAR SPAN 35	5	08-02-19	08-09-19	122
WBHRB.400.S36.1005	FORM OVERHANG SPAN 36	5	08-02-19	08-09-19	118
WBHRB.400.S34.1030	DECK POUR SPAN 34	1	08-05-19	08-05-19	126
WBHRB.400.S37.1000	SIP SPAN 37	5	08-07-19	08-14-19	86
WBHRB.400.S35.1015	SETUP BIDWELL FOR SPAN 35 POUR	2	08-08-19	08-09-19	122
WBHRB.400.S35.1020	INSTALL BULKHEAD SPAN 35	2	08-09-19	08-12-19	122
WBHRB.400.S35.1025	DRY RUN FOR SPAN 35	1	08-12-19	08-12-19	122



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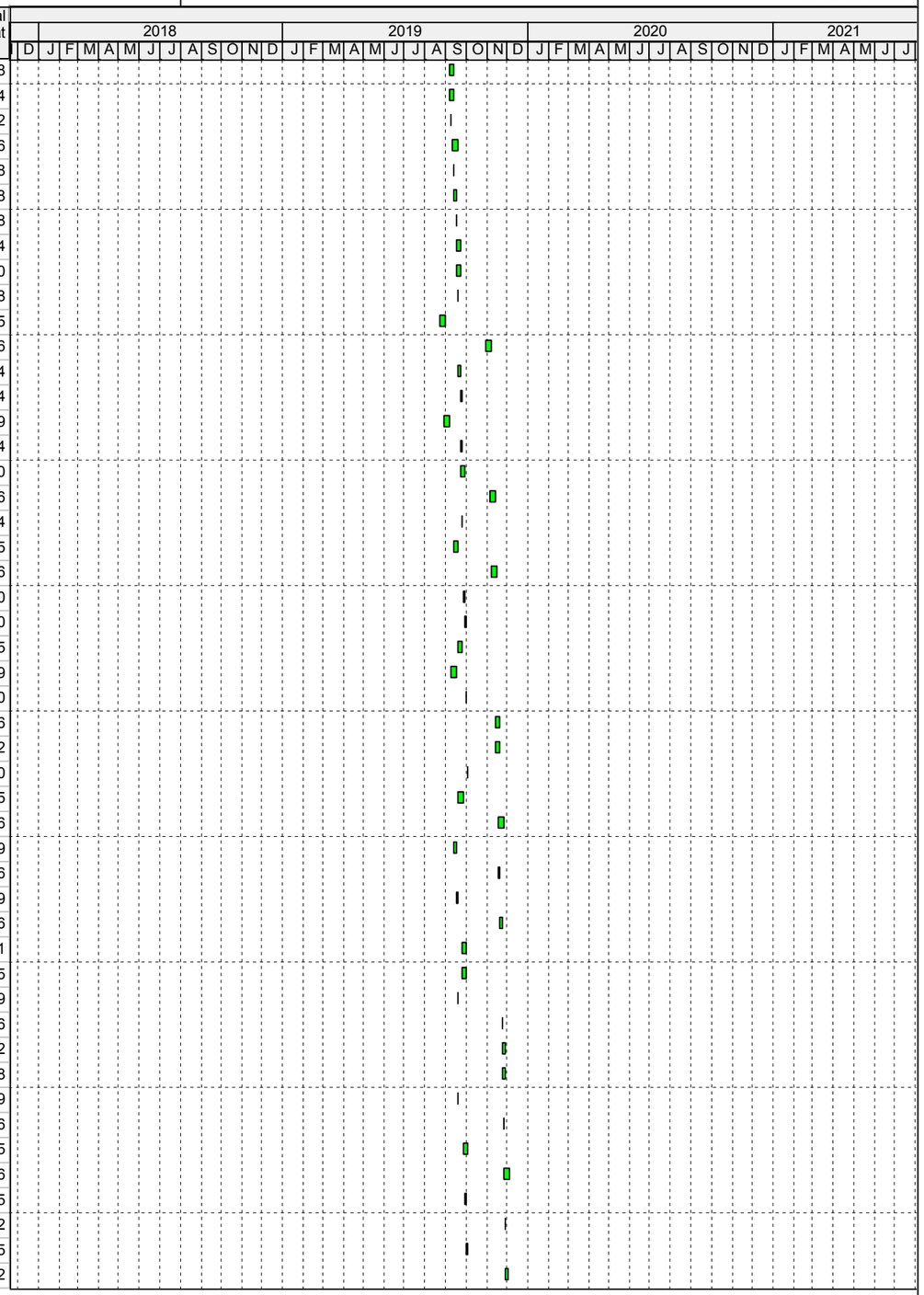
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.S36.1010	REBAR SPAN 36	5	08-12-19	08-19-19	118
WBHRB.400.S37.1005	FORM OVERHANG SPAN 37	5	08-12-19	08-19-19	114
WBHRB.400.S35.1030	DECK POUR SPAN 35	1	08-14-19	08-14-19	122
WBHRB.400.S38.1000	SIP SPAN 38	5	08-15-19	08-22-19	86
WBHRB.400.S36.1015	SETUP BIDWELL FOR SPAN 36 POUR	2	08-16-19	08-19-19	118
WBHRB.400.S36.1020	INSTALL BULKHEAD SPAN 36	2	08-19-19	08-21-19	118
WBHRB.400.S36.1025	DRY RUN FOR SPAN 36	1	08-21-19	08-21-19	118
WBHRB.400.S37.1010	REBAR SPAN 37	5	08-21-19	08-28-19	114
WBHRB.400.S38.1005	FORM OVERHANG SPAN 38	5	08-21-19	08-28-19	110
WBHRB.400.S36.1030	DECK POUR SPAN 36	1	08-22-19	08-22-19	118
WBHRB.400.S32.1000	SIP SPAN 32	5	08-23-19	08-30-19	55
WBHRB.400.S39.1000	SIP SPAN 39	5	08-23-19	08-30-19	86
WBHRB.400.S37.1015	SETUP BIDWELL FOR SPAN 37 POUR	2	08-26-19	08-28-19	114
WBHRB.400.S37.1020	INSTALL BULKHEAD SPAN 37	2	08-28-19	08-29-19	114
WBHRB.400.S32.1005	FORM OVERHANG SPAN 32	5	08-29-19	09-06-19	99
WBHRB.400.S37.1025	DRY RUN FOR SPAN 37	1	08-29-19	08-29-19	114
WBHRB.400.S38.1010	REBAR SPAN 38	5	08-29-19	09-06-19	110
WBHRB.400.S39.1005	FORM OVERHANG SPAN 39	5	08-29-19	09-06-19	106
WBHRB.400.S37.1030	DECK POUR SPAN 37	1	08-30-19	08-30-19	114
WBHRB.400.S31.1000	SIP SPAN 31	5	09-04-19	09-11-19	55
WBHRB.400.S40.1000	SIP SPAN 40	5	09-04-19	09-11-19	86
WBHRB.400.S38.1015	SETUP BIDWELL FOR SPAN 38 POUR	2	09-05-19	09-06-19	110
WBHRB.400.S38.1020	INSTALL BULKHEAD SPAN 38	2	09-06-19	09-09-19	110
WBHRB.400.S31.1005	FORM OVERHANG SPAN 31	5	09-09-19	09-16-19	95
WBHRB.400.S32.1010	REBAR SPAN 32	5	09-09-19	09-16-19	99
WBHRB.400.S38.1025	DRY RUN FOR SPAN 38	1	09-09-19	09-09-19	110
WBHRB.400.S39.1010	REBAR SPAN 39	5	09-09-19	09-16-19	106
WBHRB.400.S40.1005	FORM OVERHANG SPAN 40	5	09-09-19	09-16-19	102
WBHRB.400.S38.1030	DECK POUR SPAN 38	1	09-11-19	09-11-19	110
WBHRB.400.S30.1000	SIP SPAN 30	5	09-12-19	09-19-19	55
WBHRB.400.S41.1000	SIP SPAN 41	5	09-12-19	09-19-19	86
WBHRB.400.S32.1015	SETUP BIDWELL FOR SPAN 32 POUR	2	09-13-19	09-16-19	99
WBHRB.400.S39.1015	SETUP BIDWELL FOR SPAN 39 POUR	2	09-13-19	09-16-19	106
WBHRB.400.S32.1020	INSTALL BULKHEAD SPAN 32	2	09-16-19	09-18-19	99
WBHRB.400.S39.1020	INSTALL BULKHEAD SPAN 39	2	09-16-19	09-18-19	106
WBHRB.400.S30.1005	FORM OVERHANG SPAN 30	5	09-18-19	09-24-19	91
WBHRB.400.S31.1010	REBAR SPAN 31	5	09-18-19	09-24-19	95
WBHRB.400.S32.1025	DRY RUN FOR SPAN 32	1	09-18-19	09-18-19	99
WBHRB.400.S39.1025	DRY RUN FOR SPAN 39	1	09-18-19	09-18-19	106
WBHRB.400.S40.1010	REBAR SPAN 40	5	09-18-19	09-24-19	102
WBHRB.400.S41.1005	FORM OVERHANG SPAN 41	5	09-18-19	09-24-19	98
WBHRB.400.S32.1030	DECK POUR SPAN 32	1	09-19-19	09-19-19	99
WBHRB.400.S39.1030	DECK POUR SPAN 39	1	09-19-19	09-19-19	106
WBHRB.400.S29.1000	SIP SPAN 29	5	09-20-19	09-26-19	55
WBHRB.400.S42.1000	SIP SPAN 42	5	09-20-19	09-26-19	86
WBHRB.400.S31.1015	SETUP BIDWELL FOR SPAN 31 POUR	2	09-23-19	09-24-19	95
WBHRB.400.S40.1015	SETUP BIDWELL FOR SPAN 40 POUR	2	09-23-19	09-24-19	102
WBHRB.400.S31.1020	INSTALL BULKHEAD SPAN 31	2	09-24-19	09-25-19	95
WBHRB.400.S40.1020	INSTALL BULKHEAD SPAN 40	2	09-24-19	09-25-19	102



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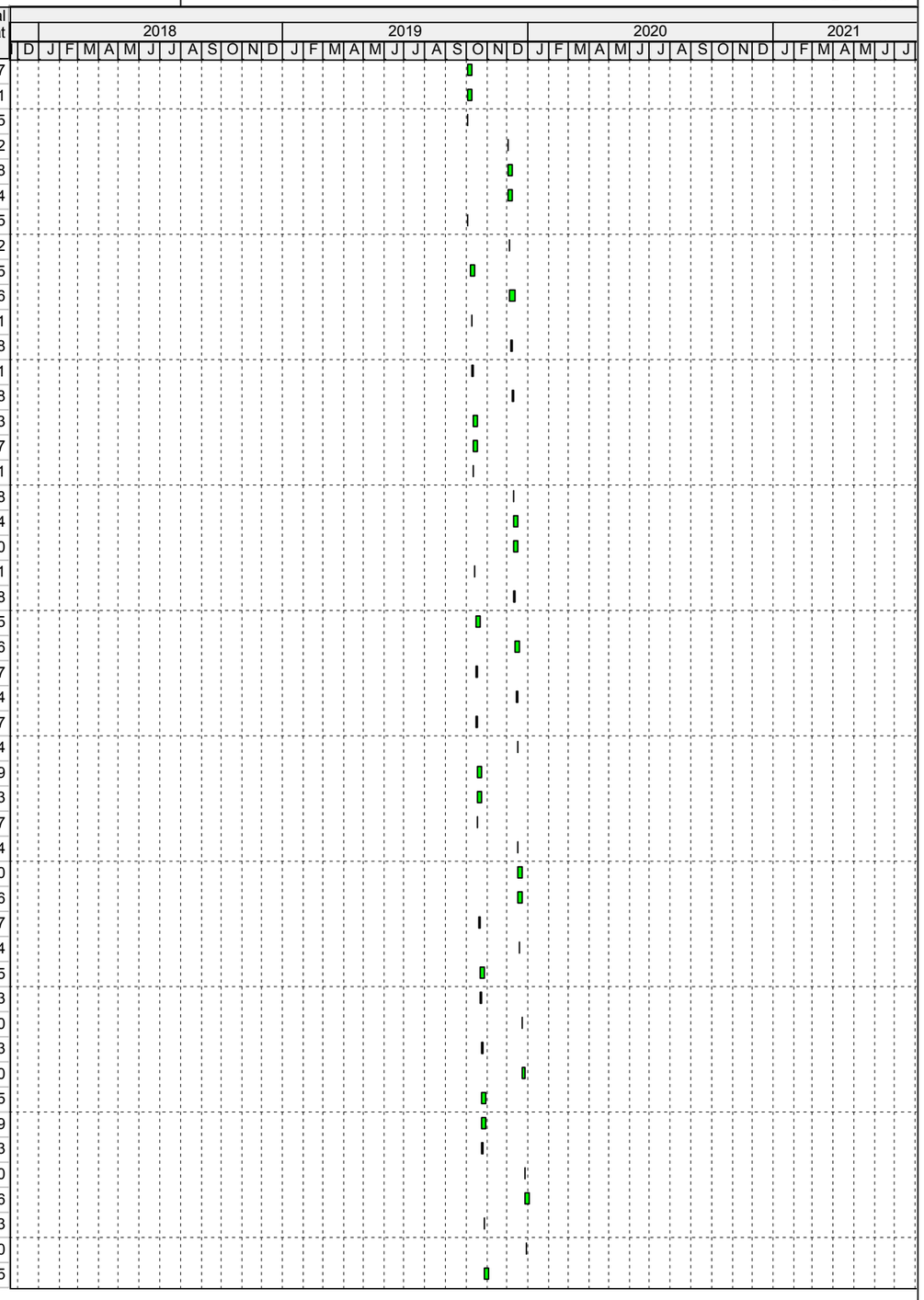
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBHRB.400.S29.1005	FORM OVERHANG SPAN 29	5	09-25-19	10-02-19	87
WBHRB.400.S30.1010	REBAR SPAN 30	5	09-25-19	10-02-19	91
WBHRB.400.S31.1025	DRY RUN FOR SPAN 31	1	09-25-19	09-25-19	95
WBHRB.400.S40.1025	DRY RUN FOR SPAN 40	1	09-25-19	09-25-19	102
WBHRB.400.S41.1010	REBAR SPAN 41	5	09-25-19	10-02-19	98
WBHRB.400.S42.1005	FORM OVERHANG SPAN 42	5	09-25-19	10-02-19	94
WBHRB.400.S31.1030	DECK POUR SPAN 31	1	09-26-19	09-26-19	95
WBHRB.400.S40.1030	DECK POUR SPAN 40	1	09-26-19	09-26-19	102
WBHRB.400.S28.1000	SIP SPAN 28	5	09-27-19	10-04-19	55
WBHRB.400.S43.1000	SIP SPAN 43	5	09-27-19	10-04-19	86
WBHRB.400.S30.1015	SETUP BIDWELL FOR SPAN 30 POUR	2	09-30-19	10-02-19	91
WBHRB.400.S41.1015	SETUP BIDWELL FOR SPAN 41 POUR	2	09-30-19	10-02-19	98
WBHRB.400.S30.1020	INSTALL BULKHEAD SPAN 30	2	10-02-19	10-03-19	91
WBHRB.400.S41.1020	INSTALL BULKHEAD SPAN 41	2	10-02-19	10-03-19	98
WBHRB.400.S28.1005	FORM OVERHANG SPAN 28	5	10-03-19	10-10-19	83
WBHRB.400.S29.1010	REBAR SPAN 29	5	10-03-19	10-10-19	87
WBHRB.400.S30.1025	DRY RUN FOR SPAN 30	1	10-03-19	10-03-19	91
WBHRB.400.S41.1025	DRY RUN FOR SPAN 41	1	10-03-19	10-03-19	98
WBHRB.400.S42.1010	REBAR SPAN 42	5	10-03-19	10-10-19	94
WBHRB.400.S43.1005	FORM OVERHANG SPAN 43	5	10-03-19	10-10-19	90
WBHRB.400.S30.1030	DECK POUR SPAN 30	1	10-04-19	10-04-19	91
WBHRB.400.S41.1030	DECK POUR SPAN 41	1	10-04-19	10-04-19	98
WBHRB.400.S27.1000	SIP SPAN 27	5	10-07-19	10-14-19	55
WBHRB.400.S44.1000	SIP SPAN 44	5	10-07-19	10-14-19	86
WBHRB.400.S29.1015	SETUP BIDWELL FOR SPAN 29 POUR	2	10-09-19	10-10-19	87
WBHRB.400.S42.1015	SETUP BIDWELL FOR SPAN 42 POUR	2	10-09-19	10-10-19	94
WBHRB.400.S29.1020	INSTALL BULKHEAD SPAN 29	2	10-10-19	10-11-19	87
WBHRB.400.S42.1020	INSTALL BULKHEAD SPAN 42	2	10-10-19	10-11-19	94
WBHRB.400.S27.1005	FORM OVERHANG SPAN 27	5	10-11-19	10-17-19	79
WBHRB.400.S28.1010	REBAR SPAN 28	5	10-11-19	10-17-19	83
WBHRB.400.S29.1025	DRY RUN FOR SPAN 29	1	10-11-19	10-11-19	87
WBHRB.400.S42.1025	DRY RUN FOR SPAN 42	1	10-11-19	10-11-19	94
WBHRB.400.S43.1010	REBAR SPAN 43	5	10-11-19	10-17-19	90
WBHRB.400.S44.1005	FORM OVERHANG SPAN 44	5	10-11-19	10-17-19	86
WBHRB.400.S29.1030	DECK POUR SPAN 29	1	10-14-19	10-14-19	87
WBHRB.400.S42.1030	DECK POUR SPAN 42	1	10-14-19	10-14-19	94
WBHRB.400.S26.1000	SIP SPAN 26	5	10-15-19	10-21-19	55
WBHRB.400.S28.1015	SETUP BIDWELL FOR SPAN 28 POUR	2	10-16-19	10-17-19	83
WBHRB.400.S43.1015	SETUP BIDWELL FOR SPAN 43 POUR	2	10-16-19	10-17-19	90
WBHRB.400.S28.1020	INSTALL BULKHEAD SPAN 28	2	10-17-19	10-18-19	83
WBHRB.400.S43.1020	INSTALL BULKHEAD SPAN 43	2	10-17-19	10-18-19	90
WBHRB.400.S26.1005	FORM OVERHANG SPAN 26	5	10-18-19	10-24-19	75
WBHRB.400.S27.1010	REBAR SPAN 27	5	10-18-19	10-24-19	79
WBHRB.400.S28.1025	DRY RUN FOR SPAN 28	1	10-18-19	10-18-19	83
WBHRB.400.S43.1025	DRY RUN FOR SPAN 43	1	10-18-19	10-18-19	90
WBHRB.400.S44.1010	REBAR SPAN 44	5	10-18-19	10-24-19	86
WBHRB.400.S28.1030	DECK POUR SPAN 28	1	10-21-19	10-21-19	83
WBHRB.400.S43.1030	DECK POUR SPAN 43	1	10-21-19	10-21-19	90
WBHRB.400.S25.1000	SIP SPAN 25	5	10-22-19	10-28-19	55



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SKANSKA

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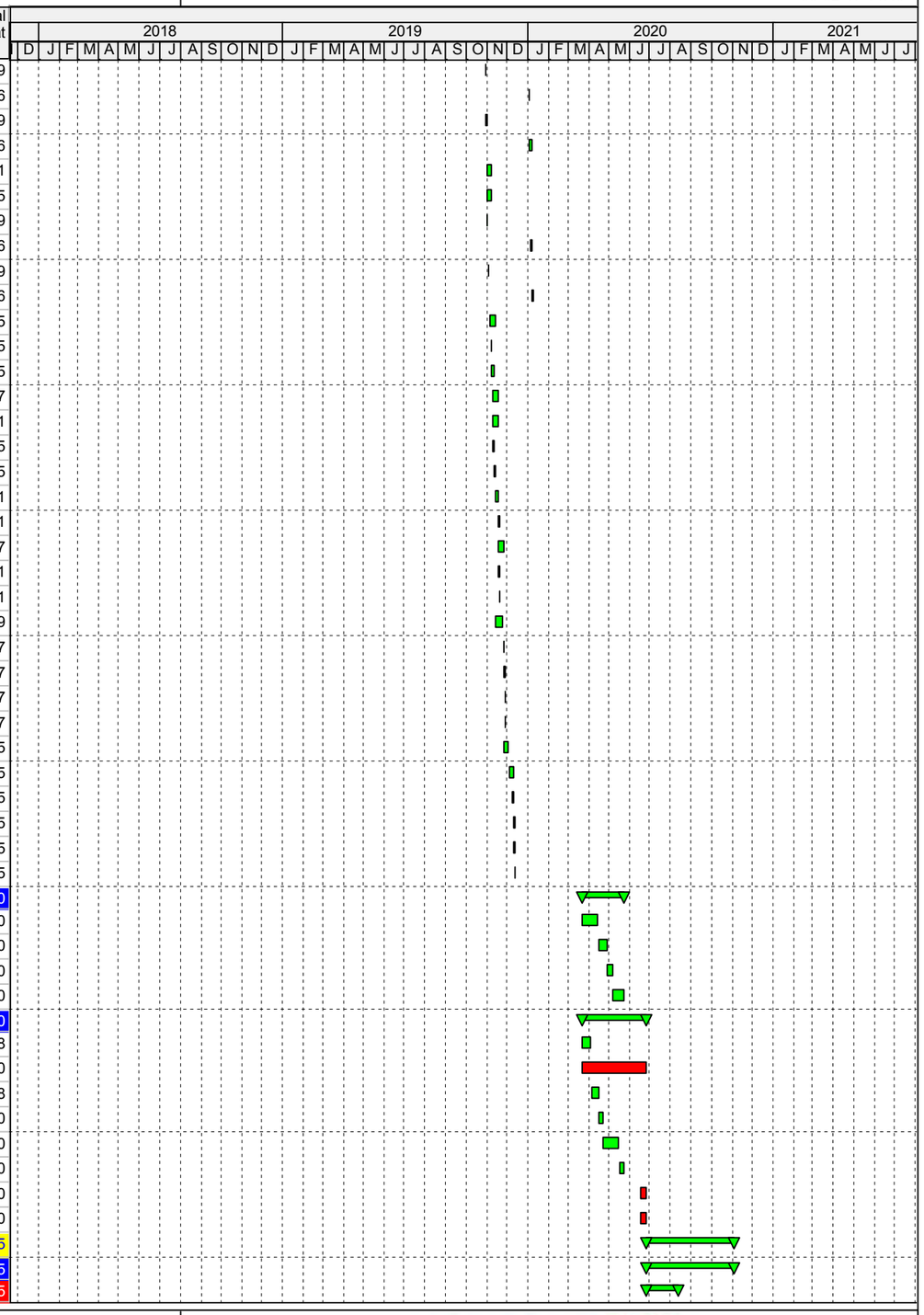
WBHRB.400.S27.1015	SETUP BIDWELL FOR SPAN 27 POUR	2	10-23-19	10-24-19	79
WBHRB.400.S44.1015	SETUP BIDWELL FOR SPAN 44 POUR	2	10-23-19	10-24-19	86
WBHRB.400.S27.1020	INSTALL BULKHEAD SPAN 27	2	10-24-19	10-25-19	79
WBHRB.400.S44.1020	INSTALL BULKHEAD SPAN 44	2	10-24-19	10-25-19	86
WBHRB.400.S25.1005	FORM OVERHANG SPAN 25	5	10-25-19	10-31-19	71
WBHRB.400.S26.1010	REBAR SPAN 26	5	10-25-19	10-31-19	75
WBHRB.400.S27.1025	DRY RUN FOR SPAN 27	1	10-25-19	10-25-19	79
WBHRB.400.S44.1025	DRY RUN FOR SPAN 44	1	10-25-19	10-25-19	86
WBHRB.400.S27.1030	DECK POUR SPAN 27	1	10-28-19	10-28-19	79
WBHRB.400.S44.1030	DECK POUR SPAN 44	1	10-28-19	10-28-19	86
WBHRB.400.S24.1000	SIP SPAN 24	5	10-29-19	11-04-19	55
WBHRB.400.S26.1015	SETUP BIDWELL FOR SPAN 26 POUR	2	10-30-19	10-31-19	75
WBHRB.400.S26.1020	INSTALL BULKHEAD SPAN 26	2	10-31-19	11-01-19	75
WBHRB.400.S24.1005	FORM OVERHANG SPAN 24	5	11-01-19	11-08-19	67
WBHRB.400.S25.1010	REBAR SPAN 25	5	11-01-19	11-08-19	71
WBHRB.400.S26.1025	DRY RUN FOR SPAN 26	1	11-01-19	11-01-19	75
WBHRB.400.S26.1030	DECK POUR SPAN 26	1	11-04-19	11-04-19	75
WBHRB.400.S25.1015	SETUP BIDWELL FOR SPAN 25 POUR	2	11-07-19	11-08-19	71
WBHRB.400.S25.1020	INSTALL BULKHEAD SPAN 25	2	11-08-19	11-11-19	71
WBHRB.400.S24.1010	REBAR SPAN 24	5	11-11-19	11-18-19	67
WBHRB.400.S25.1025	DRY RUN FOR SPAN 25	1	11-11-19	11-11-19	71
WBHRB.400.S25.1030	DECK POUR SPAN 25	1	11-13-19	11-13-19	71
WBHRB.400.S23.1000	SIP SPAN 23	5	11-15-19	11-25-19	49
WBHRB.400.S24.1015	SETUP BIDWELL FOR SPAN 24 POUR	2	11-15-19	11-18-19	67
WBHRB.400.S24.1020	INSTALL BULKHEAD SPAN 24	2	11-18-19	11-19-19	67
WBHRB.400.S24.1025	DRY RUN FOR SPAN 24	1	11-19-19	11-19-19	67
WBHRB.400.S24.1030	DECK POUR SPAN 24	1	11-20-19	11-20-19	67
WBHRB.400.S23.1005	FORM OVERHANG SPAN 23	5	11-26-19	12-02-19	55
WBHRB.400.S23.1010	REBAR SPAN 23	5	12-04-19	12-11-19	55
WBHRB.400.S23.1015	SETUP BIDWELL FOR SPAN 23 POUR	2	12-09-19	12-11-19	55
WBHRB.400.S23.1020	INSTALL BULKHEAD SPAN 23	2	12-11-19	12-12-19	55
WBHRB.400.S23.1025	DRY RUN FOR SPAN 23	1	12-12-19	12-12-19	55
WBHRB.400.S23.1030	DECK POUR SPAN 23	1	12-13-19	12-13-19	55
BRIDGE DECK FINISHES		40	03-23-20	05-22-20	20
WBHRB.505.1000000	INSTALL CONCRETE BARRIER WALL ON HRB	15	03-23-20	04-13-20	20
WBHRB.505.1000010	GRIND AND GROOVE BRIDGE DECK ON HRB	10	04-15-20	04-28-20	20
WBHRB.704.1000000	INSTALL PAVEMENT MARKERS ON HRB	5	04-29-20	05-06-20	20
WBHRB.701.1000010	INSTALL TRAFFIC SIGNAGE ON HRB	10	05-07-20	05-22-20	20
BRIDGE LIGHTING / ITS		60	03-23-20	06-25-20	0
WBHRB.800.1000000	INSTALL CONTROL CABINETS	10	03-23-20	04-03-20	38
WBHRB.800.1000040	RUN ITS FIBER	60	03-23-20	06-25-20	0
WBHRB.800.1000010	SET DEVICE POLE	6	04-06-20	04-15-20	38
WBHRB.705.1000000	RUN MAIN FEEDER	6	04-15-20	04-22-20	20
WBHRB.705.1000010	INSTALL TRAFFIC LIGHTING	15	04-23-20	05-15-20	20
WBHRB.705.1000020	INSTALL NAV LIGHTING	4	05-18-20	05-22-20	20
WBHRB.800.1000020	INSTALL CCTV ASSEMBLY	6	06-18-20	06-25-20	0
WBHRB.800.1000030	INSTALL MVDS	6	06-18-20	06-25-20	0
EXISTING EASTBOUND HRB		132	06-26-20	11-04-20	205
PHASE 2		132	06-26-20	11-04-20	205
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		27	06-26-20	08-12-20	75



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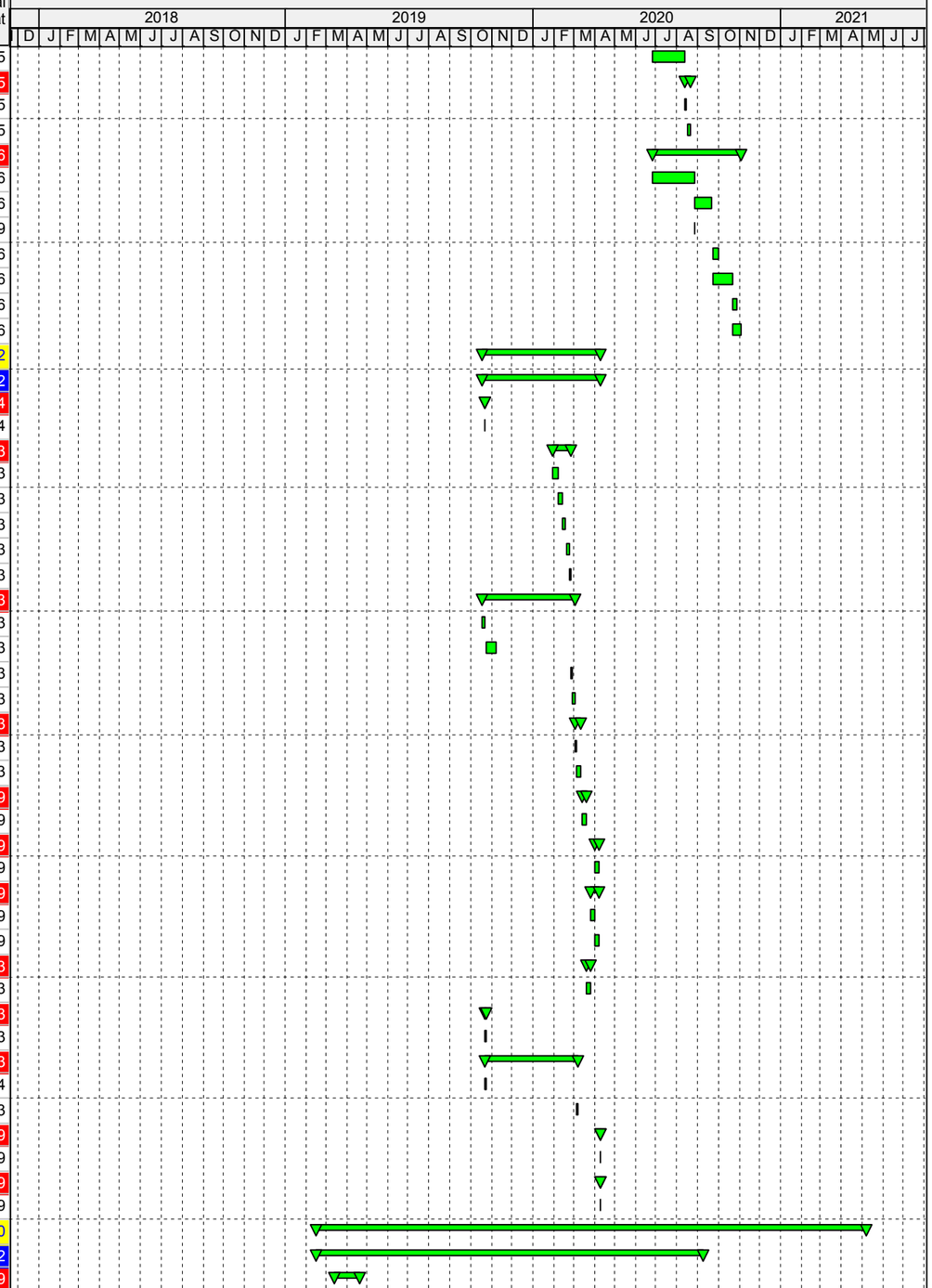
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EBHRB.508.2000100	DEMO AND PATCH BARRIER ON EXISTING EB HRB	27	06-26-20	08-12-20	75
704 PAVEMENT MARKINGS AND MARKERS		5	08-13-20	08-20-20	75
EBHRB.704.2000100	APPLY EPOXY SURFACE TREATMENT ON EXISITNG EB HRB	2	08-13-20	08-14-20	75
EBHRB.704.2000110	APPLY PAVEMENT MARKINGS ON EB HRB	3	08-17-20	08-20-20	75
800 INTELLIGENT TRANSPORTATION SYSTEMS		77	06-26-20	11-04-20	126
EBHRB.800.2000100	RUN CONDUIT AND CABLE ON EXISTING EB HRB	35	06-26-20	08-26-20	126
EBHRB.800.2000110	INSTALL GATES ON EXISTING EB HRB	14	08-27-20	09-21-20	126
EBHRB.800.2000120	INSTALL OH STRUCTURE ON EXISTING EB HRB	1	08-27-20	08-27-20	139
EBHRB.800.2000130	INSTALL CONTROLL CABINETS ON EXISTING EB HRB	8	09-22-20	10-01-20	126
EBHRB.800.2000140	INSTALL DMS ON EXISTING EB HRB	20	09-22-20	10-22-20	126
EBHRB.800.2000150	INSTALL LANE SIGNALS ON EXISTING EB HRB	3	10-23-20	10-27-20	126
EBHRB.800.2000160	INSTALL GONGS ON EXISTING EB HRB	8	10-23-20	11-04-20	126
LIBERTYVILLE ROAD ROADWAY WORK		175	09-04-19	03-05-20	112
PHASE 1		175	09-04-19	03-05-20	112
301 CLEARING AND GRUBBING		1	09-06-19	09-06-19	124
LRD.301.1000100	CLEAR AND GRUB LIBERTYVILLE ROAD	1	09-06-19	09-06-19	124
302 DRAINAGE STRUCTURES		16	09-27-19	10-22-19	123
LRD.302.1000100	INSTALL DRAINAGE PIPE AND STRUCTURES @ LRD 108+00	4	09-27-19	10-03-19	123
LRD.302.1000110	INSTALL DRAINAGE PIPE AND STRUCTURES FROM LRD 108+00 TO 105+50	4	10-04-19	10-10-19	123
LRD.302.1000120	INSTALL DRAINAGE PIPE AND STRUCTURE @ LRD 105+00	2	10-11-19	10-14-19	123
LRD.302.1000130	INSTALL DRAINAGE PIPE AND STRUCTURE FROM LRD 105+00 TO 103+00	4	10-15-19	10-18-19	123
LRD.302.1000140	INSTALL DRAINAGE PIPE AND STRUCTURE @ 103+00	2	10-21-19	10-22-19	123
303 EARTHWORK		82	09-04-19	10-25-19	123
LRD.303.1000100	INSTALL SILT FENCE AND EROSION CONTROL LIBERTYVILLE ROAD	2	09-04-19	09-05-19	123
LRD.303.1000110	CUT / BORROW TO FILL LIBERTYVILLE ROAD	10	09-12-19	09-26-19	123
LRD.303.1000120	ROUGH GRADE SLOPES LIBERTYVILLE ROAD	1	10-23-19	10-23-19	123
LRD.303.1000130	ROUGH GRADE MAINLINE LIBERTYVILLE ROAD	2	10-24-19	10-25-19	123
305 SUGRADE AND SHOULDERS		6	10-28-19	11-04-19	123
LRD.305.1000100	FINE GRADE SLOPES LIBERTYVILLE ROAD	2	10-28-19	10-29-19	123
LRD.305.1000110	FINE GRADE MAINLINE LIBERTYVILLE ROAD	4	10-30-19	11-04-19	123
309 AGGREGATE BASE COURSE		4	11-06-19	11-11-19	69
LRD.309.1000100	PLACE AND FINE GRADE AGGREGATE BASE COURSE LIBERTYVILLE ROAD	4	11-06-19	11-11-19	69
315 ASPHALT CONCRETE PAVEMENT		4	11-28-19	03-04-20	69
LRD.315.1000100	PLACE ASPHALT PAVING LIBERTYVILLE ROAD	4	11-28-19	03-04-20	69
504 SIDEWALKS, STEPS, AND HANDRAILS		8	11-20-19	03-04-20	69
LRD.504.1000100	PLACE CURB & GUTTER LIBERTYVILLE ROAD	4	11-20-19	11-27-19	69
LRD.504.1000110	PLACE SIDEWALK LIBERTYVILLE ROAD	4	11-28-19	03-04-20	69
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		5	11-13-19	11-19-19	123
LRD.505.1000100	INSTALL BARRIER WALL ON LIBERTYVILLE ROAD	5	11-13-19	11-19-19	123
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		3	09-06-19	09-11-19	123
LRD.508.1000100	DEMO PAVING LIBERTYVILLE ROAD	3	09-06-19	09-11-19	123
602 TOPSOIL		82	09-09-19	10-30-19	143
LRD.602.1000120	STRIP TOPSOIL LIBERTYVILLE ROAD	1	09-09-19	09-09-19	124
LRD.602.1000130	SPREAD TOPSOIL LIBERTYVILLE ROAD	1	10-30-19	10-30-19	143
603 SEEDING		1	03-05-20	03-05-20	69
LRD.603.1000110	PERMENANT SEED LIBERTYVILLE ROAD	1	03-05-20	03-05-20	69
704 PAVEMENT MARKINGS AND MARKERS		1	03-05-20	03-05-20	69
LRD.704.1000110	APPLY PAVEMENT MARKINGS LIBERTYVILLE ROAD	1	03-05-20	03-05-20	69
I-64 WESTBOUND FROM NEW HRB TO 1442+08.47		813	02-15-19	11-19-20	190
PHASE 1		573	02-15-19	06-05-20	112
301 CLEARING AND GRUBBING		25	03-13-19	04-19-19	169



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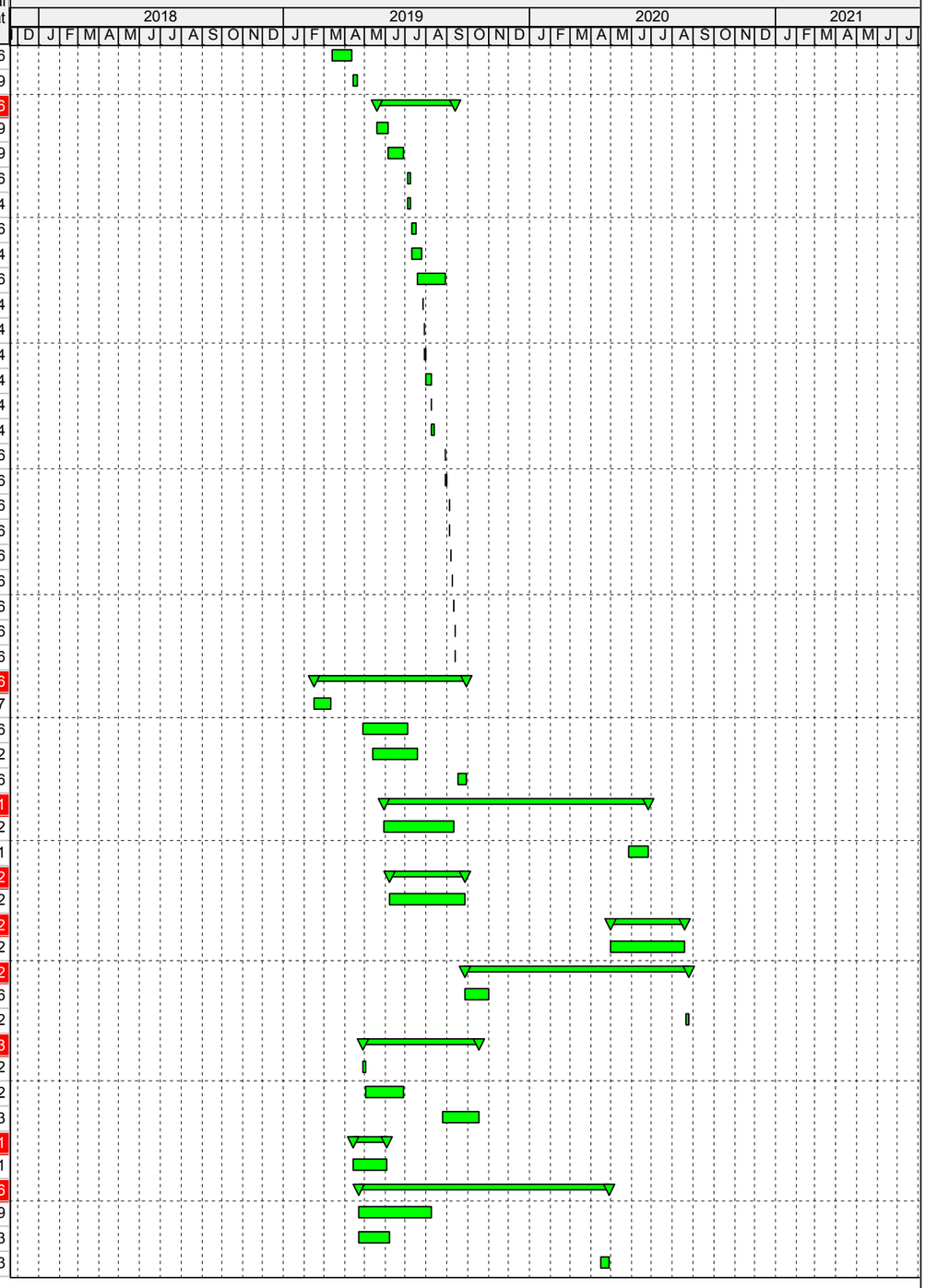
SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBRW.301.1000500	CLEAR AND GRUB WB FROM NEW HRB TO 1442+08.47	20	03-13-19	04-12-19	46
WBRW.301.1000510	CLEAR AND GRUB WB FROM NEW HRB TO 1442+08.47 FOR SOUND WALLS 9, 11, 13B, 15	5	04-15-19	04-19-19	169
302 DRAINAGE STRUCTURES		68	05-20-19	09-13-19	46
WBRW.302.1000640	INSTALL DRAINAGE PIPE AND STRUCTURES WB 1372 TO1365+50	10	05-20-19	06-05-19	89
WBRW.302.1000645	INSTALL DRAINAGE PIPE AND STRUCTURES WB 1372 TO1379	15	06-06-19	06-28-19	89
WBRW.302.1000500	EXTEND DRAINAGE PIPE AND INSTALL STRUCTURES WB 1391	2	07-05-19	07-08-19	46
WBRW.302.1000600	EXTEND DRAINAGE PIPE AND SET STRUCTRE WB 1412+50	2	07-05-19	07-08-19	64
WBRW.302.1000505	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM WB 1391 TO 1388	5	07-10-19	07-17-19	46
WBRW.302.1000605	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM WB 1412+50 TO 1406	10	07-10-19	07-25-19	64
WBRW.302.1000510	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM WB 1391 TO 1404+50	25	07-18-19	08-28-19	46
WBRW.302.1000610	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1409	1	07-26-19	07-26-19	64
WBRW.302.1000615	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1407+50	1	07-29-19	07-29-19	64
WBRW.302.1000620	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1406	1	07-30-19	07-30-19	64
WBRW.302.1000625	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM WB 1412+50 TO 1417	5	07-31-19	08-07-19	64
WBRW.302.1000630	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1415+50	1	08-08-19	08-08-19	64
WBRW.302.1000635	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1416+50	2	08-09-19	08-12-19	64
WBRW.302.1000515	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1393	1	08-29-19	08-29-19	46
WBRW.302.1000520	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1393	1	08-30-19	08-30-19	46
WBRW.302.1000525	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1395	1	09-04-19	09-04-19	46
WBRW.302.1000530	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1397	1	09-05-19	09-05-19	46
WBRW.302.1000535	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1398+50	1	09-06-19	09-06-19	46
WBRW.302.1000540	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1400	1	09-09-19	09-09-19	46
WBRW.302.1000545	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1401+50	1	09-11-19	09-11-19	46
WBRW.302.1000550	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1403	1	09-12-19	09-12-19	46
WBRW.302.1000555	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE WB 1404+50	1	09-13-19	09-13-19	46
303 EARTHWORK		136	02-15-19	09-30-19	46
WBRW.303.1000500	INSTALL SILT FENCE AND EROSION CONTROL WB FROM NEW HRB TO 1442+08.47	15	02-15-19	03-11-19	27
WBRW.303.1000505	CUT / BORROW TO FILL WB FROM NEW HRB TO 1442+08.47	40	04-29-19	07-03-19	46
WBRW.303.1000520	ROUGH GRADE MAINLINE FROM WB NEW HRB TO 1442+08.47	40	05-13-19	07-19-19	62
WBRW.303.1000510	ROUGH GRADE SLOPES FROM WB NEW HRB TO 1442+08.47	10	09-16-19	09-30-19	46
305 SUGRADE AND SHOULDERS		237	05-30-19	10-30-19	181
WBRW.305.1000520	FINE GRADE MAINLINE FROM WB NEW HRB TO 1442+08.47	60	05-30-19	09-11-19	62
WBRW.305.1000510	FINE GRADE SLOPES FROM WB NEW HRB TO 1442+08.47	20	10-02-19	10-30-19	181
309 AGGREGATE BASE COURSE		65	06-07-19	09-26-19	62
WBRW.309.1000520	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM WB NEW HRB TO 1442+08.47	65	06-07-19	09-26-19	62
315 ASPHALT CONCRETE PAVEMENT		65	11-04-19	05-18-20	62
WBRW.315.1000520	PLACE ASPHALT PAVING FROM WB NEW HRB TO 1442+08.47	65	11-04-19	05-18-20	62
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		200	09-27-19	05-22-20	62
WBRW.505.1000500	INSTALL BARRIER WALL WB NEW HRB TO 1442+08.47	24	09-27-19	11-01-19	116
WBRW.505.1000510	INSTALL GUARDRAIL WB NEW HRB TO 1442+08.47	3	05-20-20	05-22-20	62
506 RETAINING WALLS		102	04-29-19	08-30-19	123
WBRW.506.1000500	CUT / FILL FOR MSE WALL FROM WB 1849+30 TO WB 1850+00	4	04-29-19	05-02-19	62
WBRW.506.1000510	CONSTRUCT MSE WALL FROM WB 1849+30 TO WB 1850+00	33	05-03-19	06-27-19	62
WBRW.506.1000520	CONSTRUCT WALL E ALONG LIBERTYVILLE ROAD	32	07-10-19	08-30-19	123
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		32	04-15-19	06-03-19	81
WBRW.508.1000500	DEMO PAVING FROM WB NEW HRB TO 1442+08.47	32	04-15-19	06-03-19	81
519 SOUND BARRIER WALLS		226	04-22-19	10-02-19	216
WBRW.519.1000530	INSTALL SOUND BARRIER WALL 15 WB FROM NEW HRB TO 1442+08.47	65	04-22-19	08-07-19	169
WBRW.519.1000510	INSTALL SOUND BARRIER WALL 11 WB FROM NEW HRB TO 1442+08.47	30	04-22-19	06-07-19	193
WBRW.519.1000520	INSTALL SOUND BARRIER WALL 13B WB FROM NEW HRB TO 1442+08.47	11	06-10-19	06-26-19	193



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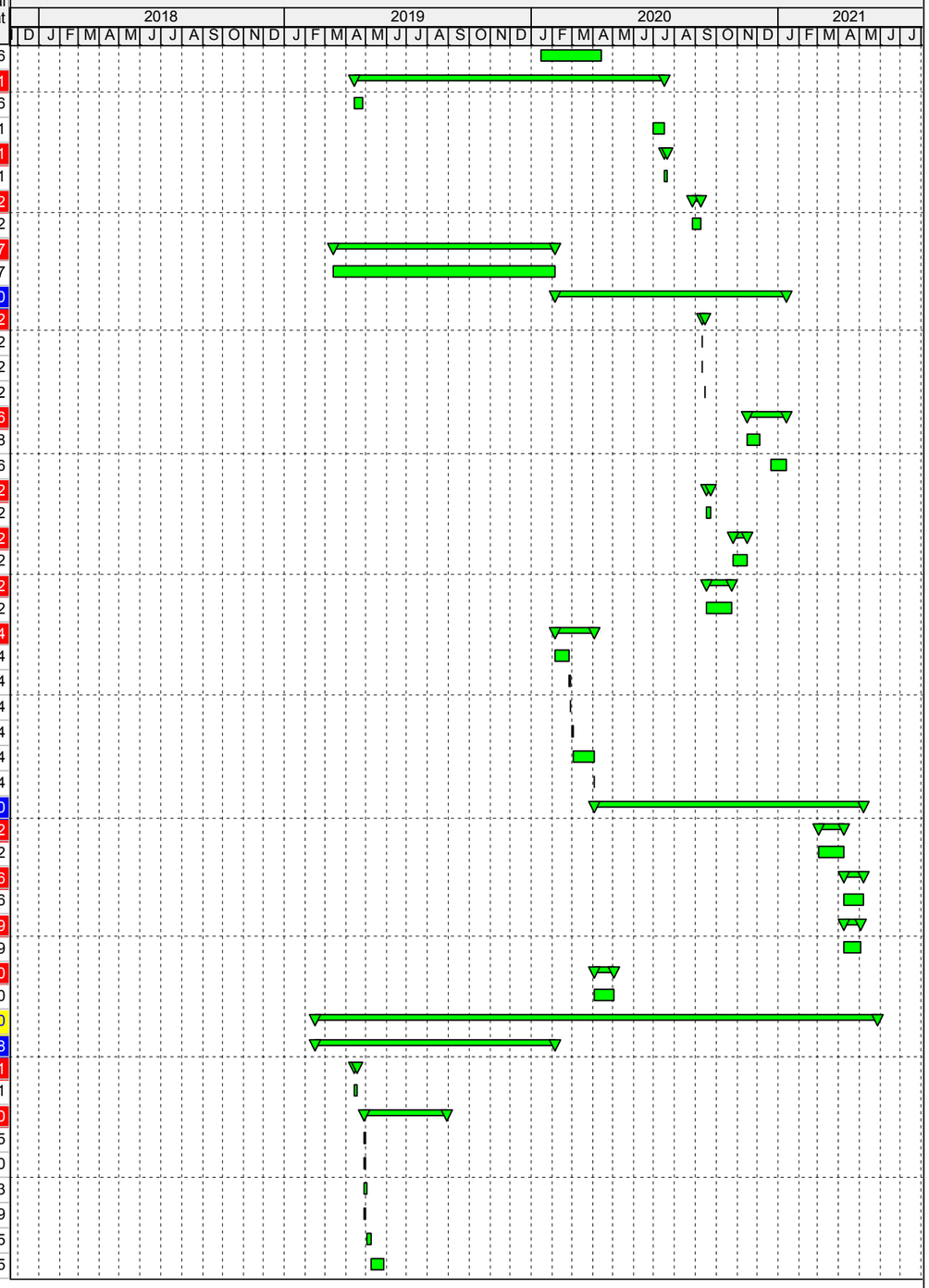
SKANSKA

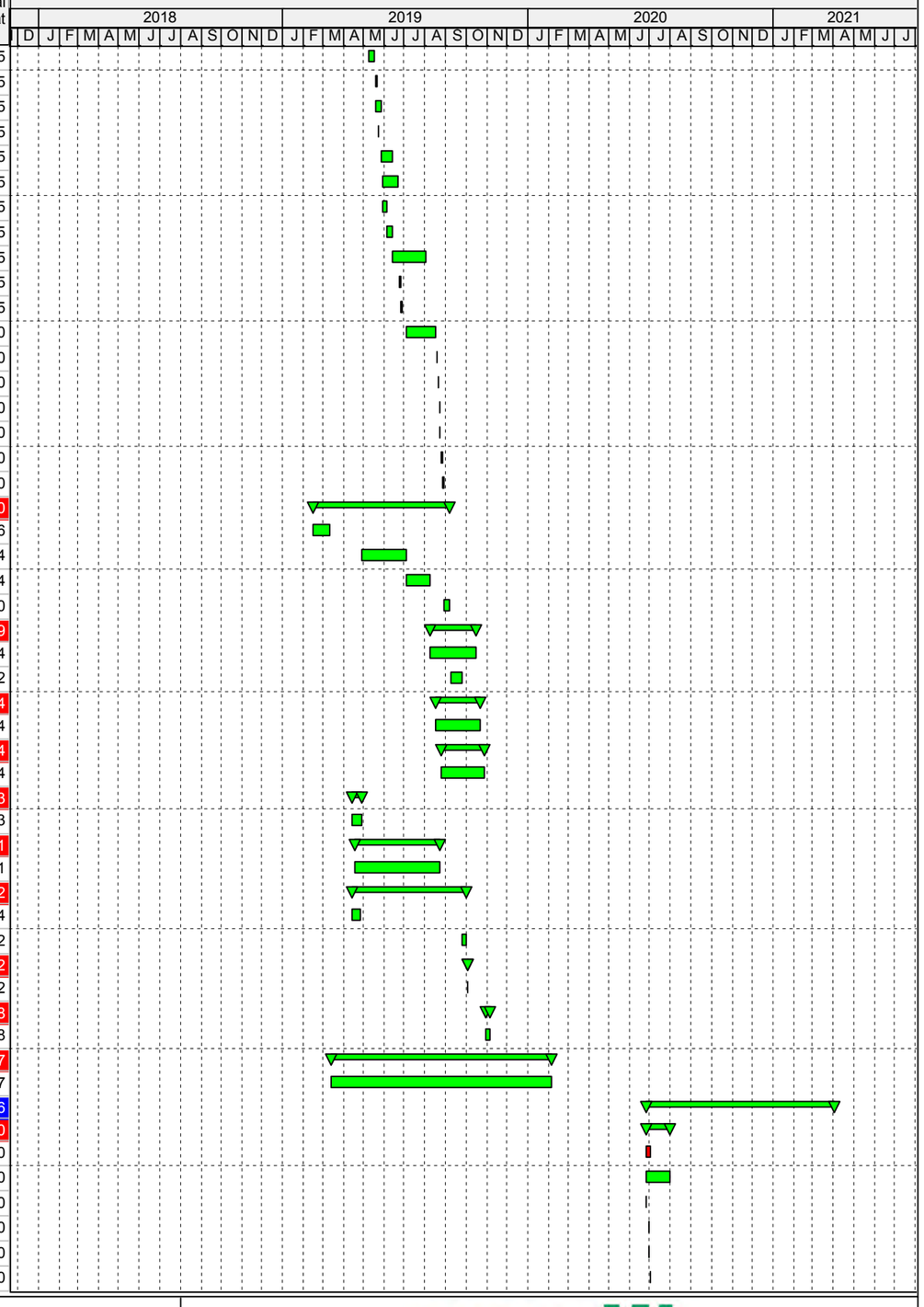
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
WBRW.519.1000500	INSTALL SOUND BARRIER WALL 9 WB FROM NEW HRB TO 1442+08.47 (CREW 1)	55	06-28-19	10-02-19	216
602 TOPSOIL		276	04-15-19	11-15-19	181
WBRW.602.1000500	STRIP TOPSOIL FROM WB NEW HRB TO 1442+08.47	10	04-15-19	04-26-19	46
WBRW.602.1000510	SPREAD TOPSOIL FROM WB NEW HRB TO 1442+08.47	10	10-31-19	11-15-19	181
603 SEEDING		3	11-18-19	11-20-19	181
WBRW.603.1000500	PERMENANT SEED FROM WB NEW HRB TO 1442+08.47	3	11-18-19	11-20-19	181
704 PAVEMENT MARKINGS AND MARKERS		8	05-26-20	06-05-20	62
WBRW.704.1000500	APPLY PAVEMENT MARKINGS FROM WB NEW HRB TO 1442+08.47	8	05-26-20	06-05-20	62
800 INTELLIGENT TRANSPORTATION SYSTEMS		198	03-13-19	02-05-20	27
WBRW.800.1000500	RUN DISTRIBUTION AND FIBER WB NEW HRB TO 1442+08.47	198	03-13-19	02-05-20	27
PHASE 2		343	02-06-20	09-10-20	230
302 DRAINAGE STRUCTURES		3	06-08-20	06-11-20	62
WBRW.302.2000600	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB R68 SOUTH RAMP 621+50	1	06-08-20	06-08-20	62
WBRW.302.2000605	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB R68 SOUTH RAMP 622+50	1	06-10-20	06-10-20	62
WBRW.302.2000610	INSTALL DRAINAGE STRUCTURE AND OUTFALL WB R68 SOUTH RAMP 623	1	06-11-20	06-11-20	62
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		34	08-19-20	09-10-20	116
WBRW.505.2000510	INSTALL GUARDRAIL WB NEW HRB TO 1442+08.47	11	08-19-20	09-04-20	118
WBRW.505.2000500	INSTALL BARRIER WALL WB NEW HRB TO 1442+08.47	13	08-19-20	09-10-20	116
507 FENCES		5	06-12-20	06-19-20	62
WBRW.507.2000500	INSTALL FENCE WB FROM NEW HRB TO 1442+08.47	5	06-12-20	06-19-20	62
515 MILLING PAVEMENT		14	07-24-20	08-17-20	62
WBRW.515.2000500	MILL AND OVERLAY FROM NEW HRB TO 1442+08.47	14	07-24-20	08-17-20	62
519 SOUND BARRIER WALLS		25	06-12-20	07-23-20	62
WBRW.519.2000510	INSTALL SOUND BARRIER WALL 11 WB FROM NEW HRB TO 1442+08.47	25	06-12-20	07-23-20	62
800 INTELLIGENT TRANSPORTATION SYSTEMS		37	02-06-20	04-03-20	234
WBRW.800.2000520	GROUND-MOUNTED EQUIPMENT CABINET FROM NEW HRB TO 1442+08.47	12	02-06-20	02-25-20	234
WBRW.800.2000530	DEVICE POLE & DEVICES FROM NEW HRB TO 1442+08.47	2	02-26-20	02-27-20	234
WBRW.800.2000540	RWIS FROM NEW HRB TO 1442+08.47	1	02-28-20	02-28-20	234
WBRW.800.2000550	CCTV CAMERA FROM NEW HRB TO 1442+08.47	1	03-02-20	03-02-20	234
WBRW.800.2000560	DYNAMIC MESSAGE SIGN FROM NEW HRB TO 1442+08.47	20	03-04-20	04-02-20	234
WBRW.800.2000570	MICROWAVE DETECTOR FROM NEW HRB TO 1442+08.47	1	04-03-20	04-03-20	234
PHASE 3		399	04-04-20	11-19-20	190
315 ASPHALT CONCRETE PAVEMENT		25	09-11-20	10-21-20	62
WBRW.315.3000520	PLACE ASPHALT PAVING FROM NEW HRB TO 1442+08.47	25	09-11-20	10-21-20	62
701 TRAFFIC SIGNS		19	10-22-20	11-19-20	116
WBRW.701.3000500	INSTALL TRAFFIC SIGNS FROM NEW HRB TO 1442+08.47	19	10-22-20	11-19-20	116
704 PAVEMENT MARKINGS AND MARKERS		16	10-22-20	11-16-20	119
WBRW.704.3000500	APPLY PAVEMENT MARKINGS FROM NEW HRB TO 1442+08.47	16	10-22-20	11-16-20	119
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	04-04-20	05-03-20	390
WBRW.800.3000590	ITS BURN IN PERIOD FROM NEW HRB TO 1442+08.47	30	04-04-20	05-03-20	390
I-64 EASTBOUND FROM EXIST HRB TO 1925+58.03		834	02-15-19	05-28-21	0
PHASE 1		356	02-15-19	02-05-20	148
301 CLEARING AND GRUBBING		4	04-15-19	04-18-19	191
EBRW.301.1000500	CLEAR AND GRUB FROM EB EXISTING HRB TO 1925+58.03 FOR SOUND WALLS 10, 12	4	04-15-19	04-18-19	191
302 DRAINAGE STRUCTURES		72	04-29-19	08-28-19	60
EBRW.302.1000500	EXCAVATE SWM AREA EB1843 TO 1846	3	04-29-19	05-01-19	75
EBRW.302.1000530	EXCAVATE SWM AREA EB 1854 TO 1856	3	04-29-19	05-01-19	80
EBRW.302.1000600	EXCAVATE SWM AREA EB 1904 TO 1906	5	04-29-19	05-03-19	113
EBRW.302.1000655	EXCAVATE SWM AREA EB 1919 TO 1922+50	3	04-29-19	05-01-19	129
EBRW.302.1000505	JACK AND BORE DRAINAGE PIPE EB 1846+50 TO MEDIAN	5	05-02-19	05-09-19	75
EBRW.302.1000510	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM EB 1846+50 TO 1840+50	10	05-10-19	05-28-19	95



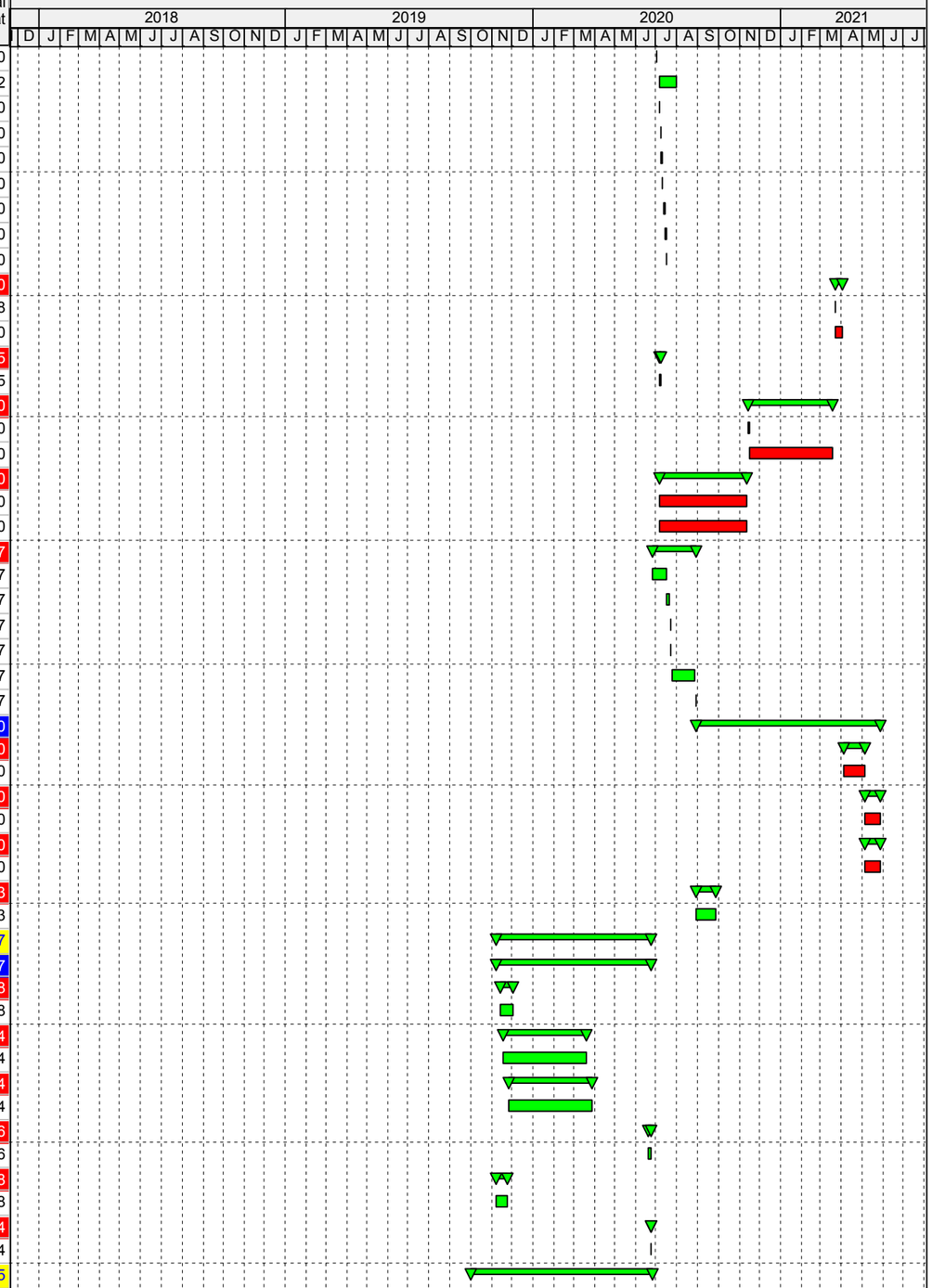
Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EBRW.302.1000535	JACK AND BORE DRAINAGE PIPE EB 1856	5	05-10-19	05-17-19	75
EBRW.302.1000540	INSTALL DRAINAGE PIPE AND STRUCTURE FROM EB 1856 TO SWM AREA 1856	2	05-20-19	05-22-19	75
EBRW.302.1000605	JACK AND BORE DRAINAGE PIPE EB 1905 TO SWM AREA 1905	5	05-20-19	05-28-19	105
EBRW.302.1000545	INSTALL SWM AREA INLET STRUCTURE AND OUTFALL EB 1856	2	05-23-19	05-24-19	75
EBRW.302.1000550	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM EB 1856 TO 1850	10	05-28-19	06-12-19	75
EBRW.302.1000515	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM EB 1846+50 TO 1855+50	15	05-29-19	06-21-19	95
EBRW.302.1000610	INSTALL MEDIAN DRAINAGE PIPE FROM EB 1905 TO 1902	5	05-29-19	06-05-19	105
EBRW.302.1000615	EXTEND EXISTING BOX CULVERTS EB 1903	4	06-06-19	06-12-19	105
EBRW.302.1000555	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM EB 1856 TO 1870+50	30	06-13-19	08-01-19	75
EBRW.302.1000520	INSTALL DRAINAGE PIPE AND STRUCTURE EB 1846+50 TO SWM AREA 1846	2	06-24-19	06-25-19	95
EBRW.302.1000525	INSTALL SWM AREA INLET STRUCTRE AND OUTFALL EB 1843	2	06-26-19	06-27-19	95
EBRW.302.1000620	INSTALL MEDIAN DRAINAGE PIPE AND STRUCTURES FROM EB 1905 TO 1923	26	07-05-19	08-16-19	60
EBRW.302.1000625	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE EB 1920+50	1	08-19-19	08-19-19	60
EBRW.302.1000630	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE EB 1918+50	1	08-21-19	08-21-19	60
EBRW.302.1000635	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE EB 1916+50	1	08-22-19	08-22-19	60
EBRW.302.1000640	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE EB 1914+50	1	08-23-19	08-23-19	60
EBRW.302.1000645	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE EB 1912+50	1	08-26-19	08-26-19	60
EBRW.302.1000650	INSTALL LATERAL DRAINAGE PIPE AND STRUCTURE EB 1910+50	1	08-28-19	08-28-19	60
303 EARTHWORK		122	02-15-19	09-06-19	60
EBRW.303.1000500	INSTALL SILT FENCE AND EROSION CONTROL EB FROM EXISTING HRB TO 1925+58.03	15	02-15-19	03-11-19	46
EBRW.303.1000505	CUT / BORROW TO FILL EB FROM EXISTING HRB TO 1925+58.03	40	04-29-19	07-03-19	54
EBRW.303.1000520	ROUGH GRADE MAINLINE FROM EB EXISTING HRB TO 1925+58.03	20	07-05-19	08-07-19	54
EBRW.303.1000510	ROUGH GRADE SLOPES FROM EB EXISTING HRB TO 1925+58.03	5	08-29-19	09-06-19	60
305 SUGRADE AND SHOULDERS		40	08-08-19	10-15-19	149
EBRW.305.1000520	FINE GRADE MAINLINE FROM EB EXISTING HRB TO 1925+58.03	40	08-08-19	10-15-19	54
EBRW.305.1000510	FINE GRADE SLOPES FROM EB EXISTING HRB TO 1925+58.03	10	09-09-19	09-24-19	162
309 AGGREGATE BASE COURSE		40	08-16-19	10-22-19	54
EBRW.309.1000520	PLACE AND FINE GRADE AGGREGATE BASE COURSE FROM EB EXISTING HRB TO 1925+58.	40	08-16-19	10-22-19	54
315 ASPHALT CONCRETE PAVEMENT		40	08-26-19	10-29-19	54
EBRW.315.1000520	PLACE ASPHALT PAVING FROM EB EXISTING HRB TO 1925+58.03	40	08-26-19	10-29-19	54
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		11	04-15-19	04-29-19	93
EBRW.508.1000500	DEMO PAVING FROM EB EXISTING HRB TO 1925+58.03	11	04-15-19	04-29-19	93
519 SOUND BARRIER WALLS		75	04-19-19	08-22-19	191
EBRW.519.1000510	INSTALL SOUND BARRIER WALL 12 FROM EB EXISTING HRB TO 1925+58.03	75	04-19-19	08-22-19	191
602 TOPSOIL		102	04-15-19	10-02-19	162
EBRW.602.1000500	STRIP TOPSOIL FROM EB EXISTING HRB TO 1925+58.03	10	04-15-19	04-26-19	54
EBRW.602.1000510	SPREAD TOPSOIL FROM EB EXISTING HRB TO 1925+58.03	5	09-25-19	10-02-19	162
603 SEEDING		1	10-03-19	10-03-19	162
EBRW.603.1000500	PERMENANT SEED FROM EB EXISTING HRB TO 1925+58.03	1	10-03-19	10-03-19	162
704 PAVEMENT MARKINGS AND MARKERS		5	10-30-19	11-06-19	108
EBRW.704.1000500	APPLY PAVEMENT MARKINGS FROM EB EXISTING HRB TO 1925+58.03	5	10-30-19	11-06-19	108
800 INTELLIGENT TRANSPORTATION SYSTEMS		198	03-13-19	02-05-20	27
EBRW.800.1000500	RUN DISTRIBUTION AND FIBER FROM EB EXISTING HRB TO 1925+58.03	198	03-13-19	02-05-20	27
PHASE 2		281	06-26-20	04-02-21	26
302 DRAINAGE STRUCTURES		20	06-26-20	07-30-20	70
EBRW.302.2000600	INSTALL DRAINAGE PIPE AND STRUCTURES FROM EB 1846+50 TO 1840+50	5	06-26-20	07-02-20	0
EBRW.302.2000610	INSTALL DRAINAGE PIPE AND STRUCTURES FROM EB 1856 TO 1868	20	06-26-20	07-30-20	70
EBRW.302.2000615	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1869	1	06-26-20	06-26-20	70
EBRW.302.2000620	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1870+50	1	06-29-20	06-29-20	70
EBRW.302.2000625	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1872	1	06-30-20	06-30-20	70
EBRW.302.2000630	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1873+50	1	07-01-20	07-01-20	70



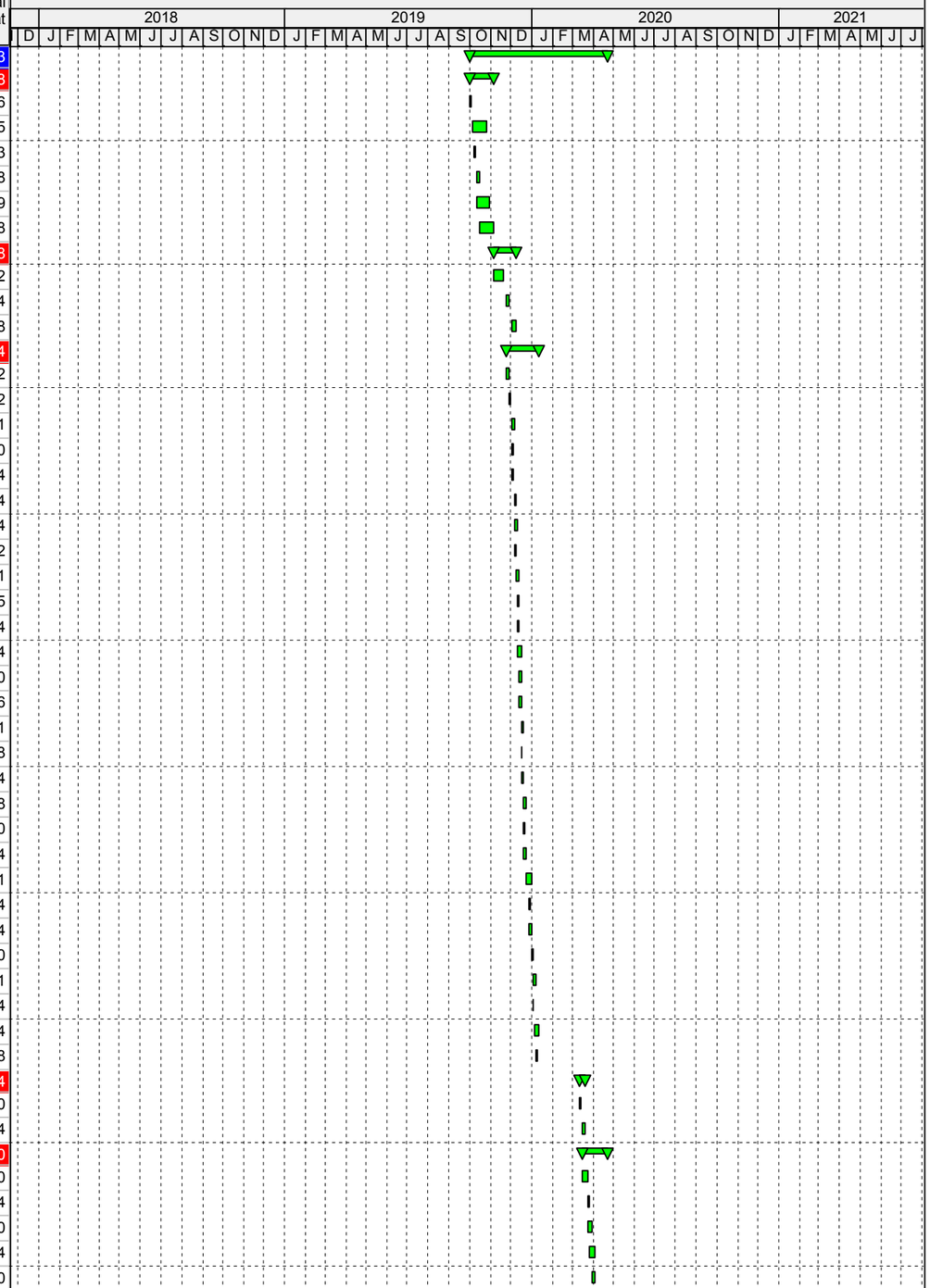
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
EBRW.302.2000635	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1875	1	07-02-20	07-02-20	70
EBRW.302.2000605	INSTALL DRAINAGE PIPE AND STRUCTURES FROM EB 1846+50 TO 1854	15	07-06-20	07-30-20	62
EBRW.302.2000640	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1876+50	1	07-06-20	07-06-20	70
EBRW.302.2000645	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1879	1	07-08-20	07-08-20	70
EBRW.302.2000650	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1880+50	1	07-09-20	07-09-20	70
EBRW.302.2000655	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1882	1	07-10-20	07-10-20	70
EBRW.302.2000660	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1883+50	1	07-13-20	07-13-20	70
EBRW.302.2000665	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1885	1	07-15-20	07-15-20	70
EBRW.302.2000670	INSTALL DRAINAGE STRUCTURE AND OUTFALL EB 1886+50	1	07-16-20	07-16-20	70
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		10	03-22-21	04-02-21	0
EBRW.505.2000510	INSTALL GUARDRAIL EB EXISTING HRB TO 1925+58.03	2	03-22-21	03-23-21	8
EBRW.505.2000500	INSTALL BARRIER WALLS EB EXISTING HRB TO 1925+58.03	10	03-22-21	04-02-21	0
507 FENCES		2	07-06-20	07-08-20	75
EBRW.507.2000500	INSTALL FENCE FROM EB EXISTING HRB TO 1925+58.03	2	07-06-20	07-08-20	75
515 MILLING PAVEMENT		22	11-13-20	03-19-21	0
EBRW.515.2000510	REBUILD SHOULDER TO FULL DEPTH FROM EB EXISTING HRB TO 1925+58.03	2	11-13-20	11-16-20	0
EBRW.515.2000500	MILL AND OVERLAY FROM EB EXISTING HRB TO 1925+58.03	20	11-17-20	03-19-21	0
519 SOUND BARRIER WALLS		77	07-06-20	11-12-20	0
EBRW.519.2000500	INSTALL SOUND BARRIER WALL 10 FROM EB EXISTING HRB TO 1925+58.03	77	07-06-20	11-12-20	0
EBRW.519.2000510	INSTALL SOUND BARRIER WALL 12 FROM EB EXISTING HRB TO 1925+58.03	77	07-06-20	11-12-20	0
800 INTELLIGENT TRANSPORTATION SYSTEMS		37	06-26-20	08-28-20	147
EBRW.800.2000520	GROUND-MOUNTED EQUIPMENT CABINET FROM EB EXISTING HRB TO 1925+58.03	12	06-26-20	07-16-20	147
EBRW.800.2000530	DEVICE POLE & DEVICES FROM EB EXISTING HRB TO 1925+58.03	2	07-17-20	07-20-20	147
EBRW.800.2000540	RWIS FROM EB EXISTING HRB TO 1925+58.03	1	07-22-20	07-22-20	147
EBRW.800.2000550	CCTV CAMERA FROM EB EXISTING HRB TO 1925+58.03	1	07-23-20	07-23-20	147
EBRW.800.2000560	DYNAMIC MESSAGE SIGN FROM EB EXISTING HRB TO 1925+58.03	20	07-24-20	08-27-20	147
EBRW.800.2000570	MICROWAVE DETECTOR FROM EB EXISTING HRB TO 1925+58.03	1	08-28-20	08-28-20	147
PHASE 3		273	08-29-20	05-28-21	0
315 ASPHALT CONCRETE PAVEMENT		20	04-05-21	05-05-21	0
EBRW.315.3000520	PLACE ASPHALT PAVING FROM EB EXISTING HRB TO 1925+58.03	20	04-05-21	05-05-21	0
701 TRAFFIC SIGNS		15	05-06-21	05-28-21	0
EBRW.701.3000500	INSTALL TRAFFIC SIGNS FROM EB EXISTING HRB TO 1925+58.03	15	05-06-21	05-28-21	0
704 PAVEMENT MARKINGS AND MARKERS		15	05-06-21	05-28-21	0
EBRW.704.3000500	APPLY PAVEMENT MARKINGS FROM EB EXISTING HRB TO 1925+58.03	15	05-06-21	05-28-21	0
800 INTELLIGENT TRANSPORTATION SYSTEMS		30	08-29-20	09-27-20	243
EBRW.800.3000500	ITS BURN IN PERIOD FROM EB EXISTING HRB TO 1925+58.03	30	08-29-20	09-27-20	243
I-64 WESTBOUND CD TO BATTLEFIELD BLVD		231	11-07-19	03-30-20	87
PHASE 1		231	11-07-19	03-30-20	87
305 SUGRADE AND SHOULDERS		10	11-15-19	12-02-19	108
CDBBR.305.1000110	FINE GRADE MAINLINE CD TO BATTLEFIELD BLVD	10	11-15-19	12-02-19	108
309 AGGREGATE BASE COURSE		20	11-18-19	03-20-20	54
CDBBR.309.1000100	PLACE AND FINE GRADE AGGREGATE BASE COURSE CD TO BATTLEFIELD BLVD	20	11-18-19	03-20-20	54
315 ASPHALT CONCRETE PAVEMENT		20	11-27-19	03-27-20	54
CDBBR.315.1000100	PLACE ASPHALT PAVING CD TO BATTLEFIELD BLVD	20	11-27-19	03-27-20	54
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		3	03-23-20	03-25-20	56
CDBBR.505.1000100	INSTALL BARRIER WALL ON CD TO BATTLEFIELD BLVD	3	03-23-20	03-25-20	56
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		10	11-07-19	11-25-19	108
CDBBR.508.1000100	DEMO PAVING CD TO BATTLEFIELD BLVD	10	11-07-19	11-25-19	108
704 PAVEMENT MARKINGS AND MARKERS		1	03-30-20	03-30-20	54
CDBBR.704.1000110	APPLY PAVEMENT MARKINGS CD TO BATTLEFIELD BLVD	1	03-30-20	03-30-20	54
GREAT BRIDGE OVERPASS BRIDGE		268	10-02-19	04-21-20	65



Date	Revision	Checked	Approved

SKANSKA

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float
PHASE 1		203	10-02-19	02-24-20	63
TEST PILES		35	10-02-19	11-05-19	98
GBOP.400.1000000	GREAT BRIDGE OVERPASS TEST PILE 1	3	10-02-19	10-04-19	46
GBOP.400.1000255	GREAT BRIDGE OVERPASS TEST PILE 1 - TEST	21	10-05-19	10-25-19	75
GBOP.400.1000090	GREAT BRIDGE OVERPASS TEST PILE - ABUTMENT A	3	10-07-19	10-10-19	53
GBOP.400.1000095	GREAT BRIDGE OVERPASS TEST PILE - ABUTMENT B	3	10-11-19	10-15-19	58
GBOP.400.1000265	GREAT BRIDGE OVERPASS TEST PILE - ABUTMENT A - TEST	21	10-11-19	10-31-19	89
GBOP.400.1000275	GREAT BRIDGE OVERPASS TEST PILE - ABUTMENT B - TEST	21	10-16-19	11-05-19	98
PRODUCTION PILES		20	11-06-19	12-09-19	48
GBOP.400.1000005	GREAT BRIDGE OVERPASS DRIVE PILE 1	10	11-06-19	11-20-19	42
GBOP.400.1000100	GREAT BRIDGE OVERPASS DRIVE PILES ABUTMENT A	5	11-25-19	11-29-19	44
GBOP.400.1000135	GREAT BRIDGE OVERPASS DRIVE PILES ABUTMENT B	5	12-02-19	12-09-19	48
SUBSTRUCTURE		47	11-25-19	01-10-20	74
GBOP.400.1000010	GREAT BRIDGE OVERPASS CIP FOOTER 1-1	4	11-25-19	11-28-19	42
GBOP.400.1000025	GREAT BRIDGE OVERPASS CURE FOOTER 1-1	3	11-29-19	12-01-19	72
GBOP.400.1000015	GREAT BRIDGE OVERPASS CIP FOOTER 1-2	4	12-02-19	12-06-19	41
GBOP.400.1000040	GREAT BRIDGE OVERPASS CIP COLUMN 1-1A	3	12-02-19	12-05-19	50
GBOP.400.1000105	GREAT BRIDGE OVERPASS BUILD CAP ABUTMENT A	3	12-02-19	12-05-19	44
GBOP.400.1000055	GREAT BRIDGE OVERPASS CURE COLUMN 1-1A	3	12-06-19	12-08-19	84
GBOP.400.1000110	GREAT BRIDGE OVERPASS BACK WALL ABUTMENT A	3	12-06-19	12-11-19	44
GBOP.400.1000030	GREAT BRIDGE OVERPASS CURE FOOTER 1-2	3	12-07-19	12-09-19	72
GBOP.400.1000020	GREAT BRIDGE OVERPASS CIP FOOTER 1-3	4	12-09-19	12-13-19	41
GBOP.400.1000045	GREAT BRIDGE OVERPASS CIP COLUMN 1-2A	3	12-11-19	12-13-19	45
GBOP.400.1000115	GREAT BRIDGE OVERPASS BEAM SEATS ABUTMENT A	2	12-12-19	12-13-19	44
GBOP.400.1000120	GREAT BRIDGE OVERPASS WING WALLS ABUTMENT A	3	12-12-19	12-16-19	44
GBOP.400.1000035	GREAT BRIDGE OVERPASS CURE FOOTER 1-3	3	12-14-19	12-16-19	70
GBOP.400.1000060	GREAT BRIDGE OVERPASS CURE COLUMN 1-2A	3	12-14-19	12-16-19	76
GBOP.400.1000050	GREAT BRIDGE OVERPASS CIP COLUMN 1-3A	3	12-17-19	12-19-19	41
GBOP.400.1000125	GREAT BRIDGE OVERPASS FILL ABUTMENT A	2	12-17-19	12-18-19	48
GBOP.400.1000140	GREAT BRIDGE OVERPASS BUILD CAP ABUTMENT B	3	12-17-19	12-19-19	44
GBOP.400.1000130	GREAT BRIDGE OVERPASS SLOPE PROTECTION ABUTMENT A	4	12-19-19	12-24-19	48
GBOP.400.1000065	GREAT BRIDGE OVERPASS CURE COLUMN 1-3A	3	12-20-19	12-22-19	70
GBOP.400.1000145	GREAT BRIDGE OVERPASS BACK WALL ABUTMENT B	3	12-20-19	12-24-19	44
GBOP.400.1000070	GREAT BRIDGE OVERPASS CIP CAP 1	5	12-23-19	12-31-19	41
GBOP.400.1000150	GREAT BRIDGE OVERPASS BEAM SEATS ABUTMENT B	2	12-27-19	12-30-19	44
GBOP.400.1000155	GREAT BRIDGE OVERPASS WING WALLS ABUTMENT B	3	12-27-19	12-31-19	44
GBOP.400.1000075	GREAT BRIDGE OVERPASS CURE CAP 1	3	01-01-20	01-03-20	70
GBOP.400.1000080	GREAT BRIDGE OVERPASS BEAM SEATS 1	3	01-02-20	01-06-20	41
GBOP.400.1000160	GREAT BRIDGE OVERPASS FILL ABUTMENT B	2	01-02-20	01-03-20	44
GBOP.400.1000165	GREAT BRIDGE OVERPASS SLOPE PROTECTION ABUTMENT B	4	01-06-20	01-10-20	44
GBOP.400.1000085	GREAT BRIDGE OVERPASS CURE BEAM SEAT 1	3	01-07-20	01-09-20	68
GIRDERS		6	01-10-20	01-16-20	44
GBOP.400.1000170	GREAT BRIDGE OVERPASS STRIP BEAM SEATS & ERECT GIRDER SPAN 1	3	01-10-20	01-15-20	40
GBOP.400.1000210	GREAT BRIDGE OVERPASS STRIP BEAM SEATS & ERECT GIRDER SPAN 2	3	01-13-20	01-16-20	44
BRIDGE DECK		24	01-16-20	02-24-20	40
GBOP.400.1000175	GREAT BRIDGE OVERPASS FORM & SIP SPAN 1	5	01-16-20	01-23-20	40
GBOP.400.1000180	GREAT BRIDGE OVERPASS FORM OVERHANG SPAN 1	3	01-24-20	01-28-20	44
GBOP.400.1000215	GREAT BRIDGE OVERPASS FORM & SIP SPAN 2	5	01-24-20	01-30-20	40
GBOP.400.1000185	GREAT BRIDGE OVERPASS REBAR SPAN 1	5	01-29-20	02-05-20	44
GBOP.400.1000220	GREAT BRIDGE OVERPASS FORM OVERHANG SPAN 2	3	01-31-20	02-05-20	40



Date	Revision	Checked	Approved

SKANSKA

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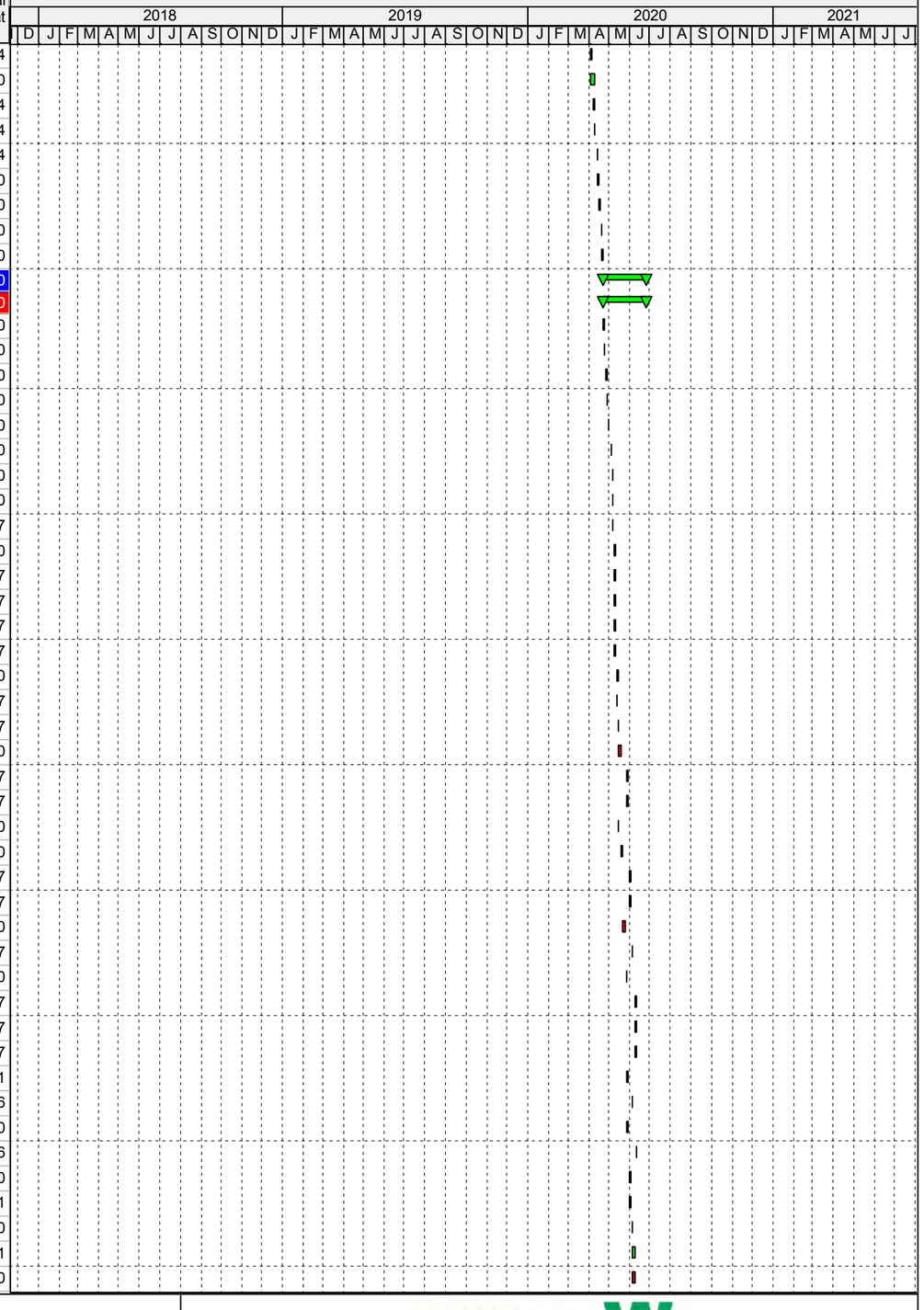
GBOP.400.1000190	GREAT BRIDGE OVERPASS INSTALL BULKHEAD SPAN 1	2	02-06-20	02-07-20	44
GBOP.400.1000225	GREAT BRIDGE OVERPASS REBAR SPAN 2	5	02-06-20	02-13-20	40
GBOP.400.1000195	GREAT BRIDGE OVERPASS SETUP BIDWELL SPAN 1	2	02-10-20	02-12-20	44
GBOP.400.1000200	GREAT BRIDGE OVERPASS DRY RUN SPAN 1	1	02-13-20	02-13-20	44
GBOP.400.1000205	GREAT BRIDGE OVERPASS DECK POUR SPAN 1	1	02-14-20	02-14-20	44
GBOP.400.1000230	GREAT BRIDGE OVERPASS INSTALL BULKHEAD SPAN 2	2	02-14-20	02-18-20	40
GBOP.400.1000235	GREAT BRIDGE OVERPASS SETUP BIDWELL SPAN 2	2	02-19-20	02-20-20	40
GBOP.400.1000240	GREAT BRIDGE OVERPASS DRY RUN SPAN 2	1	02-21-20	02-21-20	40
GBOP.400.1000245	GREAT BRIDGE OVERPASS DECK POUR SPAN 2	1	02-24-20	02-24-20	40
PHASE 2		40	02-25-20	04-21-20	40
413 DISMANTLING AND REMOVING EXISTING STRUCTURES		40	02-25-20	04-21-20	40
GBOP.413.2000000	REMOVE RAILING	2	02-25-20	02-26-20	40
GBOP.413.2000005	INSTALL SPAN 3 TRAFFIC PROTECTION	1	02-27-20	02-27-20	40
GBOP.413.2000010	REMOVE SPAN 3 BARRIER WALLS	1	02-28-20	02-28-20	40
GBOP.413.2000015	REMOVE SPAN 3 DECK	2	02-28-20	03-02-20	40
GBOP.413.2000020	REMOVE SPAN 3 DIAPHRAMS	2	02-28-20	03-02-20	40
GBOP.413.2000025	REMOVE SPAN 3 GIRDERS	1	03-04-20	03-04-20	40
GBOP.413.2000035	INSTALL SPAN 2.2 FALSEWORK	1	03-04-20	03-04-20	40
GBOP.413.2000050	INSTALL SPAN 2.1 FALSEWORK	1	03-05-20	03-05-20	40
GBOP.413.2000075	INSTALL SPAN 1 TRAFFIC PROTECTION	1	03-05-20	03-05-20	47
GBOP.413.2000040	REMOVE SPAN 2.2 DECK & BARRIER	2	03-06-20	03-09-20	40
GBOP.413.2000080	REMOVE SPAN 1 BARRIER WALLS	2	03-06-20	03-09-20	47
GBOP.413.2000085	REMOVE SPAN 1 DECK	2	03-06-20	03-09-20	47
GBOP.413.2000090	REMOVE PIER 1 DIPHRAMS	2	03-06-20	03-09-20	47
GBOP.413.2000095	REMOVE SPAN 1 DIAPHRAMS	2	03-06-20	03-09-20	47
GBOP.413.2000045	REMOVE PIER 2 DIAPHRAM	2	03-11-20	03-12-20	40
GBOP.413.2000110	INSTALL SPAN 4.2 FALSEWORK	1	03-11-20	03-11-20	47
GBOP.413.2000125	INSTALL SPAN 4.1 FALSEWORK	1	03-12-20	03-12-20	47
GBOP.413.2000055	REMOVE SPAN 2.1 DECK & BARRIER	2	03-13-20	03-16-20	40
GBOP.413.2000115	REMOVE SPAN 4.2 DECK & BARRIER	2	03-13-20	03-16-20	47
GBOP.413.2000120	REMOVE PIER 3 DIAPHRAM	2	03-13-20	03-16-20	47
GBOP.413.2000150	INSTALL SPAN 5 TRAFFIC PROTECTION	1	03-13-20	03-13-20	50
GBOP.413.2000060	REMOVE SPAN 2 DIAPHRAM	2	03-18-20	03-19-20	40
GBOP.413.2000130	REMOVE SPAN 4.1 DECK & BARRIER	2	03-18-20	03-19-20	47
GBOP.413.2000135	REMOVE SPAN 4 DIAPHRAM	2	03-18-20	03-19-20	47
GBOP.413.2000065	REMOVE SPAN 2 GIRDERS	2	03-20-20	03-23-20	40
GBOP.413.2000155	REMOVE SPAN 5 BARRIER WALLS	2	03-20-20	03-23-20	47
GBOP.413.2000100	REMOVE SPAN 1 GIRDERS	1	03-24-20	03-24-20	40
GBOP.413.2000160	REMOVE SPAN 5 DECK	2	03-24-20	03-25-20	47
GBOP.413.2000165	REMOVE PIER 4 DIPHRAMS	2	03-24-20	03-25-20	47
GBOP.413.2000170	REMOVE SPAN 5 DIAPHRAMS	2	03-24-20	03-25-20	47
GBOP.413.2000255	REMOVE PIER/CAP 2	3	03-24-20	03-26-20	41
GBOP.413.2000140	REMOVE SPAN 4 GIRDERS	2	03-25-20	03-26-20	46
GBOP.413.2000185	REMOVE ABUUTMENT A SLOPE PROTECTION	2	03-25-20	03-26-20	40
GBOP.413.2000175	REMOVE SPAN 5 GIRDERS	1	03-27-20	03-27-20	46
GBOP.413.2000190	REMOVE APPROACH SLAB	2	03-27-20	03-30-20	40
GBOP.413.2000260	REMOVE PIER 2 IN-FILL WALL	2	03-27-20	03-30-20	41
GBOP.413.2000195	REMOVE ABUTMENT A WING WALLS	1	03-31-20	03-31-20	40
GBOP.413.2000245	REMOVE PIER/CAP 1	3	03-31-20	04-02-20	41
GBOP.413.2000200	REMOVE ABUTMENT A	2	04-01-20	04-02-20	40



Date	Revision	Checked	Approved

SKANSKA

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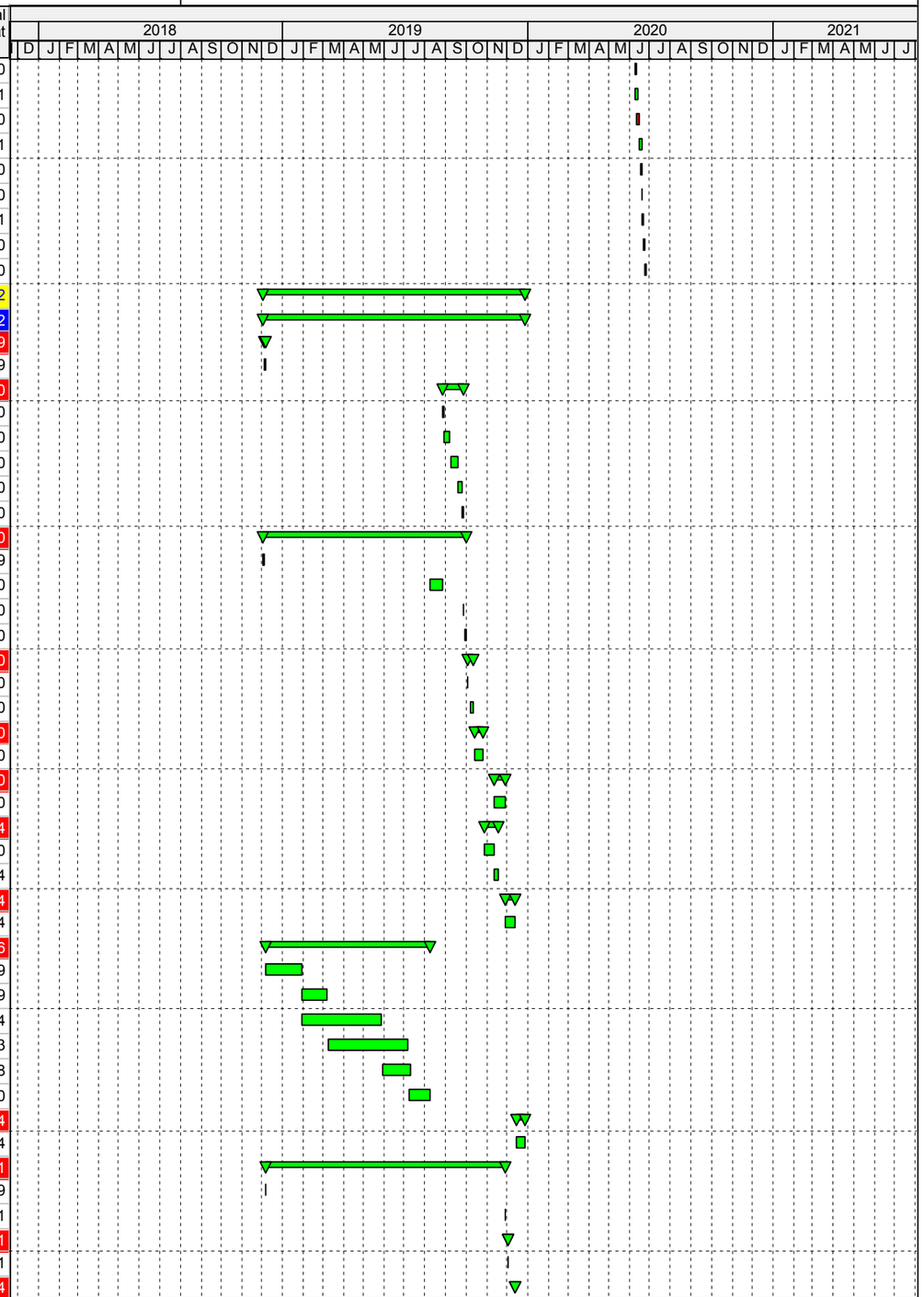
GBOP.413.2000205	REMOVE ABUTMENT A MICROPILES	2	04-03-20	04-06-20	40
GBOP.413.2000270	REMOVE PIER/CAP 3	3	04-03-20	04-08-20	41
GBOP.413.2000215	REMOVE ABUUTMENT B SLOPE PROTECTION	2	04-08-20	04-09-20	40
GBOP.413.2000280	REMOVE PIER/CAP 4	3	04-09-20	04-13-20	41
GBOP.413.2000220	REMOVE APPROACH SLAB	2	04-10-20	04-13-20	40
GBOP.413.2000225	REMOVE ABUTMENT B WING WALLS	1	04-15-20	04-15-20	40
GBOP.413.2000285	REMOVE PIER 4 IN-FILL WALL	2	04-15-20	04-16-20	41
GBOP.413.2000230	REMOVE ABUTMENT B	2	04-16-20	04-17-20	40
GBOP.413.2000235	REMOVE ABUTMENT B MICROPILES	2	04-20-20	04-21-20	40
GREAT BRIDGE BLVD ROADWAY WORK		390	12-03-18	12-27-19	122
PHASE 1		390	12-03-18	12-27-19	122
301 CLEARING AND GRUBBING		1	12-05-18	12-05-18	19
GBBLVD.301.1000100	CLEAR AND GRUB GREAT BRIDGE BLVD	1	12-05-18	12-05-18	19
302 DRAINAGE STRUCTURES		18	08-28-19	09-26-19	20
GBBLVD.302.1000100	INSTALL DRAINAGE PIPE AND STRUCTURES @ GREAT BRIDGE BLVD 144+00	2	08-28-19	08-29-19	20
GBBLVD.302.1000110	INSTALL DRAINAGE PIPE AND STRUCTURES FROM GREAT BRIDGE BLVD 141+00	4	08-30-19	09-06-19	20
GBBLVD.302.1000120	INSTALL DRAINAGE PIPE AND STRUCTURE @ GREAT BRIDGE BLVD FROM 132+00 TO 130+(	6	09-09-19	09-18-19	20
GBBLVD.302.1000130	INSTALL DRAINAGE PIPE AND STRUCTURE @ GREAT BRIDGE BLVD 128+00	4	09-19-19	09-24-19	20
GBBLVD.302.1000140	INSTALL DRAINAGE PIPE AND STRUCTURE @ GREAT BRIDGE BLVD 127+00	2	09-25-19	09-26-19	20
303 EARTHWORK		181	12-03-18	10-02-19	20
GBBLVD.303.1000100	INSTALL SILT FENCE AND EROSION CONTROL GREAT BRIDGE BLVD	1	12-03-18	12-03-18	19
GBBLVD.303.1000110	CUT / BORROW TO FILL GREAT BRIDGE BLVD	10	08-09-19	08-26-19	20
GBBLVD.303.1000120	ROUGH GRADE SLOPES GREAT BRIDGE BLVD	1	09-27-19	09-27-19	20
GBBLVD.303.1000130	ROUGH GRADE MAINLINE GREAT BRIDGE BLVD	2	09-30-19	10-02-19	20
305 SUGRADE AND SHOULDERS		6	10-03-19	10-11-19	20
GBBLVD.305.1000100	FINE GRADE SLOPES GREAT BRIDGE BLVD	2	10-03-19	10-04-19	20
GBBLVD.305.1000110	FINE GRADE MAINLINE GREAT BRIDGE BLVD	4	10-07-19	10-11-19	20
309 AGGREGATE BASE COURSE		10	10-14-19	10-25-19	20
GBBLVD.309.1000100	PLACE AND FINE GRADE AGGREGATE BASE COURSE GREAT BRIDGE BLVD	10	10-14-19	10-25-19	20
315 ASPHALT CONCRETE PAVEMENT		10	11-13-19	11-28-19	20
GBBLVD.315.1000100	PLACE ASPHALT PAVING GREAT BRIDGE BLVD	10	11-13-19	11-28-19	20
504 SIDEWALKS, STEPS, AND HANDRAILS		14	10-28-19	11-18-19	34
GBBLVD.504.1000100	PLACE CURB & GUTTER GREAT BRIDGE BLVD	10	10-28-19	11-11-19	20
GBBLVD.504.1000110	PLACE SIDEWALK GREAT BRIDGE BLVD	4	11-13-19	11-18-19	34
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		8	11-29-19	12-12-19	74
GBBLVD.505.1000100	INSTALL GUARDRAIL ON GREAT BRIDGE BLVD	8	11-29-19	12-12-19	74
506 RETAINING WALLS		245	12-07-18	08-08-19	36
GBBLVD.506.1000100	CONSTRUCT WIRE WALL 1 FOR GREAT BRIDGE BLVD ABUTMENT	30	12-07-18	01-28-19	19
GBBLVD.506.1000105	CONSTRUCT WIRE WALL 2 FOR GREAT BRIDGE BLVD ABUTMENT	25	01-29-19	03-08-19	19
GBBLVD.506.1000110	WALL 1 SETTLEMENT PERIOD FOR GREAT BRIDGE BLVD ABUTMENT	120	01-29-19	05-28-19	64
GBBLVD.506.1000115	WALL 2 SETTLEMENT PERIOD FOR GREAT BRIDGE BLVD ABUTMENT	120	03-09-19	07-06-19	33
GBBLVD.506.1000120	CONSTRUCT MSE WALL 1 FOR GREAT BRIDGE BLVD ABUTMENT	25	05-29-19	07-10-19	38
GBBLVD.506.1000130	CONSTRUCT MSE WALL 2 FOR GREAT BRIDGE BLVD ABUTMENT	20	07-08-19	08-08-19	20
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		8	12-16-19	12-27-19	74
GBBLVD.508.1000100	DEMO PAVING GREAT BRIDGE BLVD	8	12-16-19	12-27-19	74
602 TOPSOIL		216	12-06-18	11-29-19	81
GBBLVD.602.1000120	STRIP TOPSOIL GREAT BRIDGE BLVD	1	12-06-18	12-06-18	19
GBBLVD.602.1000130	SPREAD TOPSOIL GREAT BRIDGE BLVD	1	11-29-19	11-29-19	81
603 SEEDING		1	12-02-19	12-02-19	81
GBBLVD.603.1000110	PERMENANT SEED GREAT BRIDGE BLVD	1	12-02-19	12-02-19	81
704 PAVEMENT MARKINGS AND MARKERS		1	12-13-19	12-13-19	74



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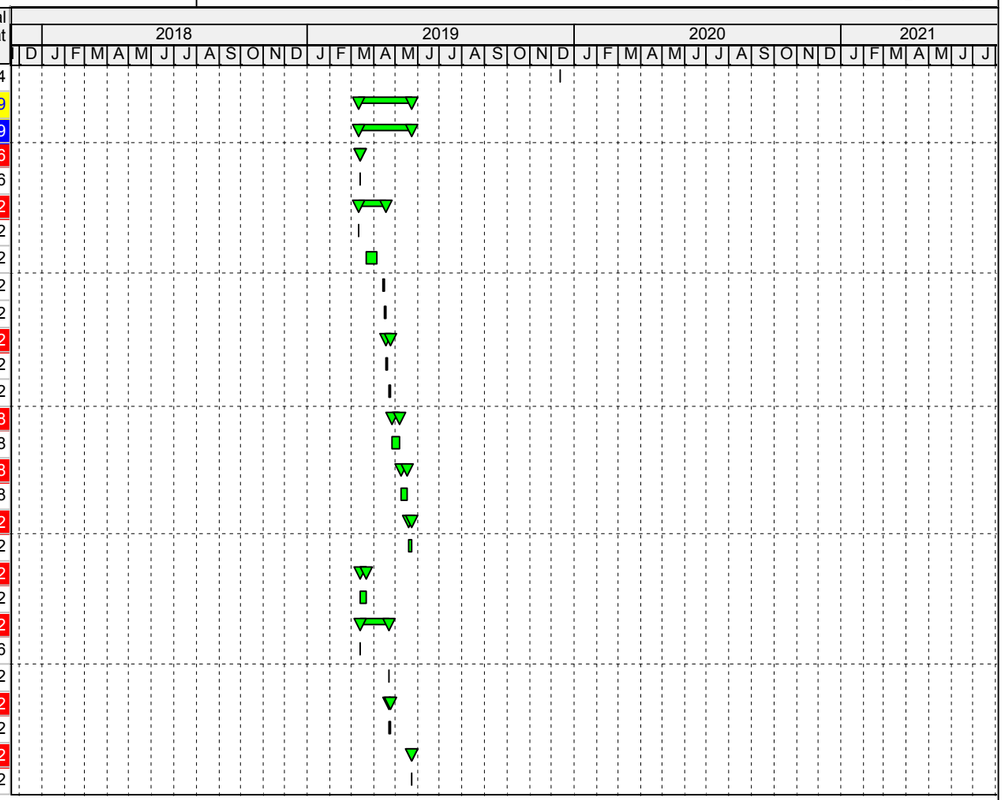
GBBLVD.704.1000110	APPLY PAVEMENT MARKINGS GREAT BRIDGE BLVD	1	12-13-19	12-13-19	74
GREAT BRIDGE BLVD RAMP WORK		75	03-11-19	05-24-19	339
PHASE 1		75	03-11-19	05-24-19	339
301 CLEARING AND GRUBBING		1	03-13-19	03-13-19	206
GBRMP.301.1000100	CLEAR AND GRUB GREAT BRIDGE RAMP	1	03-13-19	03-13-19	206
303 EARTHWORK		24	03-11-19	04-17-19	202
GBRMP.303.1000100	INSTALL SILT FENCE AND EROSION CONTROL GREAT BRIDGE RAMP	1	03-11-19	03-11-19	202
GBRMP.303.1000110	CUT / BORROW TO FILL GREAT BRIDGE RAMP	10	03-22-19	04-05-19	202
GBRMP.303.1000120	ROUGH GRADE SLOPES GREAT BRIDGE RAMP	1	04-15-19	04-15-19	202
GBRMP.303.1000130	ROUGH GRADE MAINLINE GREAT BRIDGE RAMP	2	04-16-19	04-17-19	202
305 SUGRADE AND SHOULDERS		6	04-18-19	04-25-19	202
GBRMP.305.1000100	FINE GRADE SLOPES GREAT BRIDGE RAMP	2	04-18-19	04-19-19	202
GBRMP.305.1000110	FINE GRADE MAINLINE GREAT BRIDGE RAMP	4	04-22-19	04-25-19	202
309 AGGREGATE BASE COURSE		7	04-26-19	05-06-19	148
GBRMP.309.1000100	PLACE AND FINE GRADE AGGREGATE BASE COURSE GREAT BRIDGE RAMP	7	04-26-19	05-06-19	148
315 ASPHALT CONCRETE PAVEMENT		7	05-08-19	05-17-19	148
GBRMP.315.1000100	PLACE ASPHALT PAVING GREAT BRIDGE RAMP	7	05-08-19	05-17-19	148
505 GUARDRAIL AND W-BEAM MEDIAN BARRIERS		3	05-20-19	05-23-19	202
GBRMP.505.1000100	INSTALL GUARDRAIL ON GREAT BRIDGE RAMP	3	05-20-19	05-23-19	202
508 DEMOLITION OF PAVEMENT AND OBSCURING ROADWAY		6	03-13-19	03-21-19	202
GBRMP.508.1000100	DEMO PAVING GREAT BRIDGE RAMP	6	03-13-19	03-21-19	202
602 TOPSOIL		25	03-14-19	04-22-19	222
GBRMP.602.1000120	STRIP TOPSOIL GREAT BRIDGE RAMP	1	03-14-19	03-14-19	206
GBRMP.602.1000130	SPREAD TOPSOIL GREAT BRIDGE RAMP	1	04-22-19	04-22-19	222
603 SEEDING		1	04-23-19	04-23-19	222
GBRMP.603.1000110	PERMENANT SEED GREAT BRIDGE RAMP	1	04-23-19	04-23-19	222
704 PAVEMENT MARKINGS AND MARKERS		1	05-24-19	05-24-19	202
GBRMP.704.1000110	APPLY PAVEMENT MARKINGS GREAT BRIDGE RAMP	1	05-24-19	05-24-19	202



Date	Revision	Checked	Approved

SKANSKA

Skanska-Archer Western 2 Joint Venture
295 Bendix Road
Suite 400
Virginia Beach, VA 23452

SKANSKA in association with WSP

Original

Design-Build Project For

I-64 Southside Widening and High Rise Bridge, Phase 1

City of Chesapeake, Virginia

Contract ID Number: C00106692DB93

Technical Proposal – Volume II

August 2017

Skanska-Archer Western 2 Joint Venture

SKANSKA in association with WSP

4.3.1

Conceptual Roadway Plans

DESIGN EXCEPTIONS			
	Design Speed	Reason for Exception	Approval Date
I-64(GP Lanes)	70mph	Substandard Shoulder Width Lt. of GP Lanes and Rt. of Managed Lanes	12/12/16
I-64 B-664 & B-665	70mph	Substandard Vert. Clearance on I-64 over Rte.13 & 460	10/3/16
I-64 B-666 & B-667	70mph	Substandard Shoulder Width on I-6WB over Yadkin Road	10/3/16
I-64 EB I-64 WB	70mph	Substandard Superelevation rate for GP Lanes	4/20/17

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

FHWA-534 DATA 4II03

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

CITY OF CHESAPEAKE
FROM: 0.573 MILES EAST OF I-264
TO: 0.953 MILES EAST OF I-464

FOR INDEX OF SHEETS SEE SHEET 1B

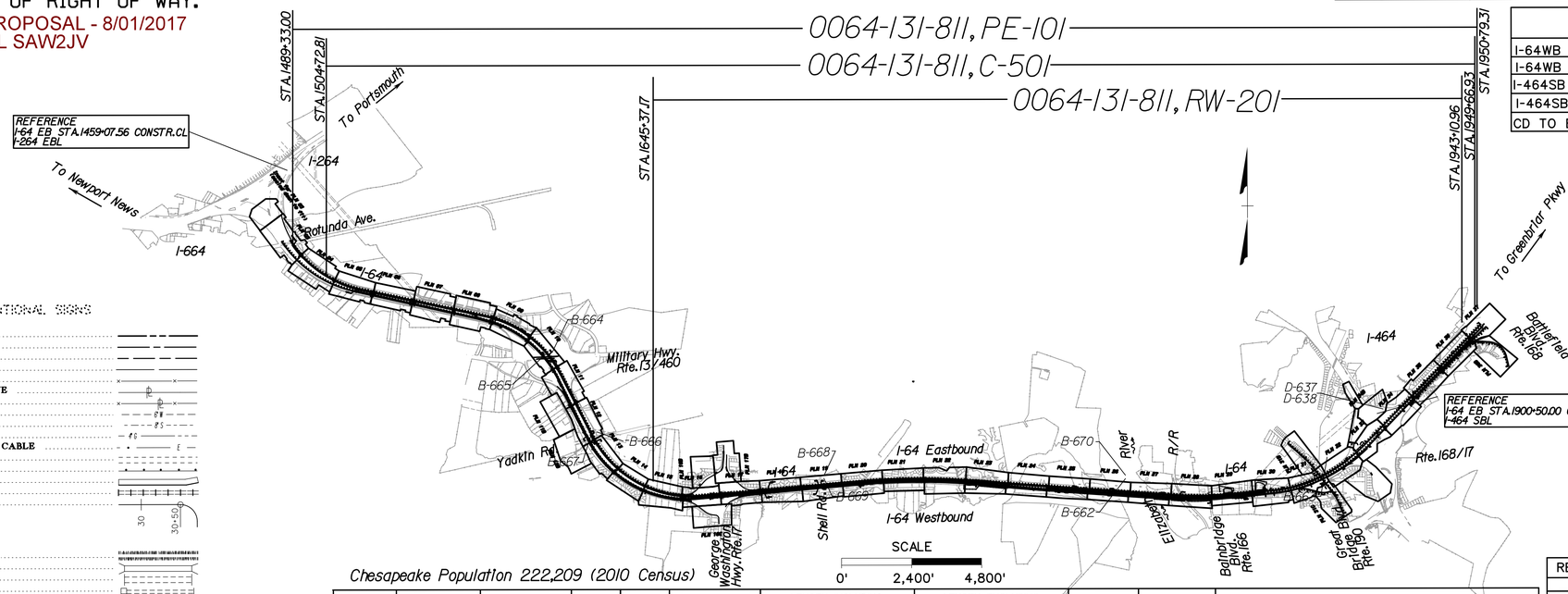
THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (GEOPAK).
GEOPAK Computer Identification No. 106692

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA			
	MAINLINE		
From: To:	0.573Mi. East of I-264 0.953Mi. East of I-464		
FUNCTIONAL CLASSIFICATION	Urban Principal Arterial		
MIN. DESIGN SPEED	70mph		
ADT (Current Year)	(2016) 85,600		
ADT (Design Year)	(2040) 142,000		
DHV	11,295		
D (%) (design hour)	50%		
T (%) (design hour)	7%		
V (MPH)	70mph		
TC STD.	TC-5.11R (Level)		
GEOMETRIC STD.	GS-5		

ROADWAY	VPD	MIN. DESIGN SPEED	CLASSIFICATION	TC STD.
Great Bridge Blvd.	9,500	40mph	Urban Minor Arterial GS-6	TC-5.11U (Level)
Libertyville Rd.	1,300	30mph	Urban Local GS-8	TC-5.11ULS (Level)
Bulldog Dr.	840	25mph	Urban Local GS-8	TC-5.11ULS (Level)

RAMPS	INTERCHANGE RAMPS-GS-R, TC-5.11R(LEVEL)
I-64WB TO GBB RAMP	35mph
I-64WB TO 168SB RAMP	40mph
I-464SB TO I-64EB RAMP	40mph
I-464SB TO WBCD RAMP	30mph
CD TO BATTLEFIELD BLVD. RAMP	45mph



CONVENTIONAL SIGNS

STATE LINE
COUNTY LINE
CITY,TOWN OR VILLAGE
RIGHT OF WAY LINE
FENCE LINE
UNFENCED PROPERTY LINE
FENCED PROPERTY LINE
WATER LINE
SANITARY SEWER LINE
GAS LINE
ELECTRIC UNDERGROUND CABLE
TRAVELED WAY
GUARD RAIL
RETAINING WALL
RAILROADS
BASE OR SURVEY LINE

LEVEE OR EMBANKMENT
BRIDGES
CULVERTS
DROP INLET
POWER POLES
TELEPHONE OR TELEGRAPH POLES
TELEPHONE OR TELEGRAPH LINES
HEDGE
TREES
HEAVY WOODS
GROUND ELEVATION
GRADE ELEVATION

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

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

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

Chesapeake Population 222,209 (2010 Census)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	EQUALITIES	LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		BRIDGE PLAN NO.	TYPE PROJECT	DESCRIPTION
					FEET	FEET	MILES	FEET	MILES			
0064-131-811	PE-101	WHPP-064-3(488)		106692		46,146.31	8.740	38,619.55	7.314		Prel.Engr.	FR:0.573MI.EAST OF I-264 TO:0.953MI.EAST OF I-464
	RW-201			106692		29,773.79	5.639	22,723.92	4.304		Right of Way	FR:3.528MI.EAST OF I-264 TO:0.807MI.EAST OF I-464
	C-501		1000	106692		44,494.12	8.427	36,967.36	7.001		Construction	FR:0.865MI.EAST OF I-264 TO:0.931MI.EAST OF I-464
	B-670		X946	106692		4,846.08	.918				Bridge	EXISTING I-64 OVER ELIZABETH RIVER
	B-662			106692		6,925	1.312				Bridge	I-64 WB OVER ELIZABETH RIVER
	B-663		X281	106692		302.00	.057				Bridge	RTE.190 (GREAT BRIDGE BLVD) OVER I-64
	B-664		X271	106692		212.00	.040			I74-13A	Bridge	I-64 EB OVER RTE.13/460 (MILITARY HWY.)
	B-665		X271	106692		212.00	.040			I74-13A	Bridge	I-64 WB OVER RTE.13/460 (MILITARY HWY.)
	B-666		X581	106692		264.17	.050			I74-12A	Bridge	I-64 EB OVER YADKIN RD.AND NSRR
	B-667		X581	106692		264.17	.050			I74-12A	Bridge	I-64 WB OVER YADKIN RD.AND NSRR
	B-668		X281	106692		121.50	.023			I74-10A	Bridge	I-64 EB OVER SHELL ROAD
	B-669		X281	106692		121.50	.023			I74-10A	Bridge	I-64 WB OVER SHELL ROAD
	D-637			106692							Drainage	I-64 EB OVER NEWTON CREEK
	D-638			106692							Drainage	I-64 WB OVER NEWTON CREEK

Project Lengths are based on I-64 Eastbound Construction Baseline.

TIER 2 PROJECT

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	
DATE	INFRASTRUCTURE INVESTMENT DIRECTOR
DATE	STATE LOCATION AND DESIGN ENGINEER
DATE	CHIEF FINANCIAL OFFICER
DATE	CHIEF ENGINEER

APPROVED FOR RIGHT OF WAY ACQUISITION	
DATE	CHIEF OF POLICY

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
DATE	INFRASTRUCTURE INVESTMENT DIRECTOR
DATE	STATE LOCATION AND DESIGN ENGINEER
DATE	STATE STRUCTURE AND BRIDGE ENGINEER
DATE	CHIEF FINANCIAL OFFICER

APPROVED FOR CONSTRUCTION	
DATE	CHIEF ENGINEER

APPROVED	
DATE	DIVISION ADMINISTRATOR FEDERAL HIGHWAY ADMINISTRATION U.S. DEPARTMENT OF TRANSPORTATION

REVISED

SKANSKA in association with WSP

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PROJECT	SHEET NO.
0064-131-811	1

PROJECT MANAGER_Ricardo_Correa, P.E. (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE_Woolpert LLC, Nov.24, 2015
DESIGN BY_WSP_USA (757)466-1732
SUBSURFACE UTILITY BY, DATE_Johnson, Mirmiran & Thompson, Nov.25, 2015

03-AUG-2017

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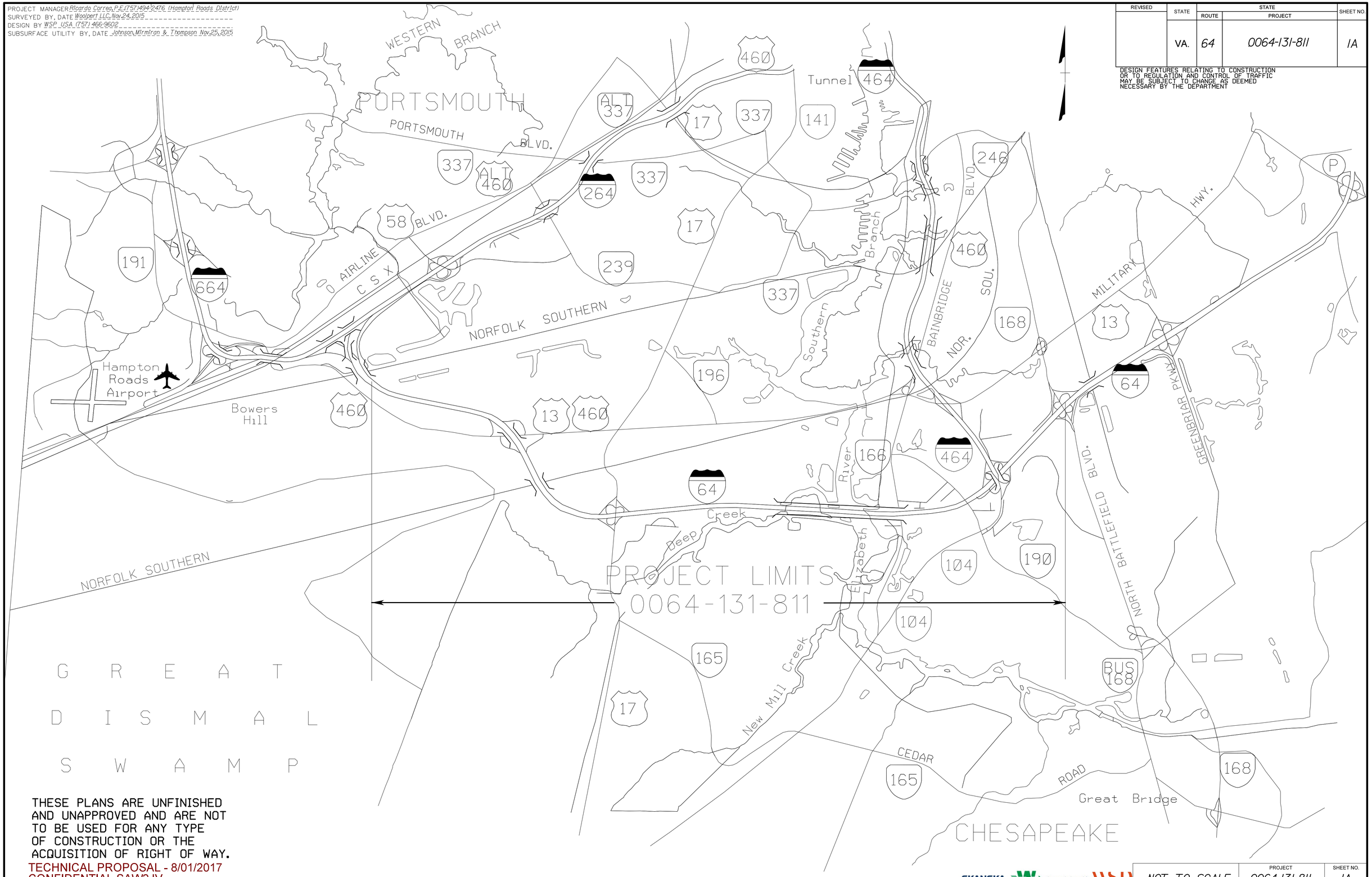
PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	1A

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



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

TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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NOT TO SCALE	PROJECT 0064-131-811	SHEET NO. 1A

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiron & Thompson Nov.25, 2015

SHEET INDEX & LEGEND

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	1B

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

SHEET NO.	DESCRIPTION	STATIONS
1	TITLE SHEET	
1A	PROJECT LOCATION MAP	
1B	INDEX OF SHEETS AND LEGEND	
1C	RIGHT OF WAY DATA SHEET	
1G(1)	CONSTRUCTION ALIGNMENT DATA	
1G(2)	CONSTRUCTION ALIGNMENT DATA	
1G(3)	CONSTRUCTION ALIGNMENT DATA	
1G(4)	CONSTRUCTION ALIGNMENT DATA	
1H(1)	EXISTING UTILITY INFORMATION	
1H(2)	UNDERGROUND UTILITY TEST HOLE INFORMATION	
1H(3)	UTILITY CONFLICT MATRIX	
2A(1)	TYPICAL SECTIONS	
2A(2)	TYPICAL SECTIONS	
2A(3)	TYPICAL SECTIONS	
2A(4)	TYPICAL SECTIONS	
2B(1)	TYPICAL SECTIONS	
2B(2)	TYPICAL SECTIONS	
2B(3)	TYPICAL SECTIONS	
2B(4)	TYPICAL SECTIONS	
2B(5)	TYPICAL SECTIONS	
2B(6)	TYPICAL SECTIONS	
3	ROADWAY PLAN SHEET	I-64 EB 1495+00 to 1496+00
3A	ROADWAY PROFILE SHEET	I-64 EB 1495+00 to 1496+00
4	ROADWAY PLAN SHEET	I-64 EB 1496+00 to 1508+00
4A	ROADWAY PROFILE SHEET	I-64 EB 1496+00 to 1508+00
5	ROADWAY PLAN SHEET	I-64 EB 1508+00 to 1522+00
5A	ROADWAY PROFILE SHEET	I-64 EB 1508+00 to 1522+00
6	ROADWAY PLAN SHEET	I-64 EB 1522+00 to 1536+00
6A	ROADWAY PROFILE SHEET	I-64 EB 1522+00 to 1536+00
7	ROADWAY PLAN SHEET	I-64 EB 1536+00 to 1550+00
7A	ROADWAY PROFILE SHEET	I-64 EB 1536+00 to 1550+00
8	ROADWAY PLAN SHEET	I-64 EB 1550+00 to 1564+00
8A	ROADWAY PROFILE SHEET	I-64 EB 1550+00 to 1564+00
9	ROADWAY PLAN SHEET	I-64 EB 1564+00 to 1578+00
9A	ROADWAY PROFILE SHEET	I-64 EB 1564+00 to 1578+00
10	ROADWAY PLAN SHEET	I-64 EB 1578+00 to 1592+00
10A	ROADWAY PROFILE SHEET	I-64 EB 1578+00 to 1592+00
11	ROADWAY PLAN SHEET	I-64 EB 1592+00 to 1606+00
11A	ROADWAY PROFILE SHEET	I-64 EB 1592+00 to 1606+00
11B	ROADWAY PLAN SHEET	
12	ROADWAY PLAN SHEET	I-64 EB 1606+00 to 1620+00
12A	ROADWAY PROFILE SHEET	I-64 EB 1606+00 to 1620+00
12B	ROADWAY PLAN SHEET	
13	ROADWAY PLAN SHEET	I-64 EB 1620+00 to 1633+00
13A	ROADWAY PROFILE SHEET	I-64 EB 1620+00 to 1633+00
14	ROADWAY PLAN SHEET	I-64 EB 1633+00 to 1644+00
14A	ROADWAY PROFILE SHEET	I-64 EB 1633+00 to 1644+00
15	ROADWAY PLAN SHEET	I-64 EB 1644+00 to 1657+00
15A	ROADWAY PROFILE SHEET	I-64 EB 1644+00 to 1657+00
16	ROADWAY PLAN SHEET	I-64 EB 1657+00 to 1670+00
16A	ROADWAY PROFILE SHEET	I-64 EB 1657+00 to 1670+00
16B	ROADWAY PLAN SHEET	
16C	ROADWAY PLAN SHEET	
17	ROADWAY PLAN SHEET	I-64 EB 1670+00 to 1684+00
17A	ROADWAY PROFILE SHEET	I-64 EB 1670+00 to 1684+00
17B	ROADWAY PLAN SHEET	
18	ROADWAY PLAN SHEET	I-64 EB 1684+00 to 1698+00
18A	ROADWAY PROFILE SHEET	I-64 EB 1684+00 to 1698+00
19	ROADWAY PLAN SHEET	I-64 EB 1698+00 to 1712+00
19A	ROADWAY PROFILE SHEET	I-64 EB 1698+00 to 1712+00
20	ROADWAY PLAN SHEET	I-64 EB 1712+00 to 1726+00
20A	ROADWAY PROFILE SHEET	I-64 EB 1712+00 to 1726+00
21	ROADWAY PLAN SHEET	I-64 EB 1726+00 to 1740+00
21A	ROADWAY PROFILE SHEET	I-64 EB 1726+00 to 1740+00
22	ROADWAY PLAN SHEET	I-64 EB 1740+00 to 1754+50
22A	ROADWAY PROFILE SHEET	I-64 EB 1740+00 to 1754+50
23	ROADWAY PLAN SHEET	I-64 EB 1754+50 to 1769+00
23A	ROADWAY PROFILE SHEET	I-64 EB 1754+50 to 1769+00
24	ROADWAY PLAN SHEET	I-64 EB 1769+00 to 1783+00
24A	ROADWAY PROFILE SHEET	I-64 EB 1769+00 to 1783+00
25	ROADWAY PLAN SHEET	I-64 EB 1783+00 to 1797+00
25A	ROADWAY PROFILE SHEET	I-64 EB 1783+00 to 1797+00
25B	ROADWAY PROFILE SHEET	I-64 WB 1298+00 to 1312+00
26	ROADWAY PLAN SHEET	I-64 EB 1797+00 to 1811+00
26A	ROADWAY PROFILE SHEET	I-64 EB 1797+00 to 1811+00
26B	ROADWAY PROFILE SHEET	I-64 WB 1312+00 to 1326+00
27	ROADWAY PLAN SHEET	I-64 EB 1811+00 to 1825+00
27A	ROADWAY PROFILE SHEET	I-64 EB 1811+00 to 1825+00
27B	ROADWAY PROFILE SHEET	I-64 WB 1326+00 to 1340+00

SHEET NO.	DESCRIPTION	STATIONS
28	ROADWAY PLAN SHEET	I-64 EB 1825+00 to 1839+00
28A	ROADWAY PROFILE SHEET	I-64 EB 1825+00 to 1839+00
28B	ROADWAY PROFILE SHEET	I-64 WB 1340+00 to 1354+50
29	ROADWAY PLAN SHEET	I-64 EB 1839+00 to 1853+00
29A	ROADWAY PROFILE SHEET	I-64 EB 1839+00 to 1853+00
29B	ROADWAY PROFILE SHEET	LIBERTYVILLE ROAD
30	ROADWAY PLAN SHEET	I-64 EB 1853+00 to 1866+00
30A	ROADWAY PROFILE SHEET	I-64 EB 1853+00 to 1866+00
31	ROADWAY PLAN SHEET	I-64 EB 1866+00 to 1879+00
31A	ROADWAY PROFILE SHEET	I-64 EB 1866+00 to 1879+00
31B	ROADWAY PLAN SHEET	GREAT BRIDGE BLVD.120+00 to 133+00
31C	ROADWAY PLAN SHEET	GREAT BRIDGE BLVD.139+00 to 151+00
31D	ROADWAY PROFILE SHEET	I-64 WB TO GBB RAMP
31E	ROADWAY PROFILE SHEET	GREAT BRIDGE BLVD. / GREAT BRIDGE MSE WALLS
32	ROADWAY PLAN SHEET	I-64 EB 1879+00 to 1892+00
32A	ROADWAY PROFILE SHEET	I-64 EB 1879+00 to 1892+00
32B	ROADWAY PLAN SHEET	1-464 SB to I-64 EB 962+00 to 972+50
33	ROADWAY PLAN SHEET	I-64 EB 1892+00 to 1905+00
33A	ROADWAY PROFILE SHEET	I-64 EB 1892+00 to 1905+00
33B	ROADWAY PLAN SHEET	1-464 SB to WB CD Ramp 750+00 to 751+50
34	ROADWAY PLAN SHEET	I-64 EB 1905+00 to 1919+00
34A	ROADWAY PROFILE SHEET	I-64 EB 1905+00 to 1919+00
34B	ROADWAY PLAN SHEET	I-464 NB Ramp 876+00-880+52.66 & I-464 SB 960+00 -962+00
35	ROADWAY PLAN SHEET	I-64 EB 1919+00 to 1933+00
35A	ROADWAY PROFILE SHEET	I-64 EB 1919+00 to 1933+00
35B	ROADWAY PROFILE SHEET	I-64 CD
36	ROADWAY PLAN SHEET	I-64 EB 1933+00 to 1947+00
36A	ROADWAY PROFILE SHEET	I-64 EB 1933+00 to 1947+00
36B	ROADWAY PLAN SHEET	CD 774+00 to 778+00
36C	ROADWAY PROFILE SHEET	BATTLEFIELD BLVD. CD / CD TO BATTLEFIELD BLVD. RAMP
37	ROADWAY PLAN SHEET	I-64 EB 1947+00 to 1954+26.39 EB
37A	ROADWAY PROFILE SHEET	I-64 EB 1947+00 to 1954+26.39 EB
	Structural	
38(1)	GENERAL PLAN AND ELEVATION	MILITARY HIGHWAY, B664 & B665
38(2)	TRANSVERSE SECTION (1of2)	MILITARY HIGHWAY, B664 & B665
38(3)	TRANSVERSE SECTION (2of2)	MILITARY HIGHWAY, B664 & B665
39(1)	GENERAL PLAN AND ELEVATION	OVER YADKIN ROAD, B666 & B667
39(2)	TRANSVERSE SECTION (1of2)	OVER YADKIN ROAD, B666 & B667
39(3)	TRANSVERSE SECTION (2of2)	OVER YADKIN ROAD, B666 & B667
40(1)	GENERAL PLAN AND ELEVATION	OVER SHELL ROAD, B668 & B669
40(2)	TRANSVERSE SECTION (1of2)	OVER SHELL ROAD, B668 & B669
40(3)	TRANSVERSE SECTION (2of2)	OVER SHELL ROAD, B668 & B669
41(1)	GENERAL PLAN AND ELEVATION (1of3)	HIGH RISE BRIDGE, B662
41(2)	GENERAL PLAN AND ELEVATION (2of3)	HIGH RISE BRIDGE, B662
41(3)	GENERAL PLAN AND ELEVATION (3of3)	HIGH RISE BRIDGE, B662
41(4)	TRANSVERSE SECTION-EB BRIDGE MODIFICATIONS	HIGH RISE BRIDGE, B662
41(5)	TRANSVERSE SECTION	HIGH RISE BRIDGE, B662
41(6)	PIER AND ABUTMENT DETAILS	HIGH RISE BRIDGE, B662
41(7)	FENDER LAYOUT	HIGH RISE BRIDGE, B662
42(1)	GENERAL PLAN AND ELEVATION	GREAT BRIDGE BOULEVARD, B663
42(2)	TRANSVERSE SECTION	GREAT BRIDGE BOULEVARD, B663
42(3)	PIER AND ABUTMENT DETAILS	GREAT BRIDGE BOULEVARD, B663
43(1)	TIDE GATE DETAILS	TIDE GATE

Legend - Survey

- Advertising Sign
- BM — Bench Mark
- Bollard Post
- PHOTO CP — Photo Control Point
- Control Station
- Cell Tower
- Drainage Flow Arrow (Storm Drainage)
- Filler Cap (Gas Stations)
- Flow Arrow (Streams & Rivers)
- Flag Pole
- Secondary Control Point
- FP — Filler Pipe (Gas Stations)
- GA — Gas Tank Access Manhole (Gas Stations)
- Gravesite Marker
- Guard Post
- Gas Vent Pipe (Gas Stations)
- Mine Entrance
- Node Point
- Property Line Symbol
- Found Monumentation
- Property Monument
- Metal or Wooden Post
- Right of Way Monument
- Iron Right of Way Pin
- Railroad Mile Marker
- Railroad Right of Way Monument
- Railroad Signal Pole or Gate
- Railroad Telegraph Pole
- Railroad Telephone Pole
- Shrub
- Storm Sewer Manhole
- Tree
- Wetland Flag Automatic
- Wetland Flag Manual
- Elevation Tick Mark
- Connected Plat Symbol
- Brush Line
- Pipe Culverts *
- City Line
- County Line
- Curb Only
- Curb and Gutter
- Fence Line
- Guardrail
- Hedge Row
- Jersey Barrier
- Limited Access
- OBSC — Obscure Areas
- Paved Ditches
- Railroad
- Right of Way
- State Line
- Edges of Water
- Sidewalks
- Utility Easement
- Wetlands
- Woods
- * Designate size of culverts (Variable from 12" to 120")

Legend - Roadway

- Denotes Full Depth Pavement
- Denotes Mill & Overlay
- Denotes Demolition
- Denotes Cultural Resources
- Denotes Reduction to Right of Way Impacts compared to RFP Plans
- Denotes Proposed 5' Sidewalk
- Denotes Proposed Bridge
- Limit of Disturbance
- Proposed Noise Wall
- Proposed Retaining Wall
- Proposed ROW
- Proposed Limited Access
- Proposed Permanent Easement
- Proposed Temporary Construction Easement

Legend - Utilities

	Existing	Proposed
Water	W	
Sewer	SAN	
Gas	G	
Electric Overhead	E	
Electric Underground	E	
CATV	CATV	
Fiber Optic		

Legend - Drainage

- Proposed Stormwater Management (SWM)
- Proposed Drainage
- Waters of the U.S.
- Pipe to be Removed
- Pipe to be Abandoned (Plugged & Filled)
- Structure to be Removed
- Pipe to be Lined (CIPP)
- Underdrain
- EW-12

Legend - Signing, ITS and Lighting

	Existing	Proposed
Underbridge Lighting Fixture		
Conduit		
Conduit (In Jacked pipe)		
Barrier Embedded Conduit		
Existing Conduit to be Abandoned		
Junction Box (Proposed) Unless Otherwise Shown		
Control Center	CC	CC
24IW LED Luminaire Mounted at 35 Feet		
24IW Twin LED Luminaires Mounted at 45 Feet		
207W LED Luminaire Mounted at 30 Feet		
24IW LED Luminaire Mounted at 45 Feet		
DMS		XXXXXXXXXXXXXXX XXXXXXXXXXXXXXX XXXXXXXXXXXXXXX
Lane Control Signal		
TOLL MVDS		T
GP MVDS		V
CCTV		C
Butterfly Structure		
Span Structure		
Cantilever Structure		

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

TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

SKANSKA in association with WSP

	PROJECT	SHEET NO.
	0064-131-811	1B

11:49

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

PRELIMINARY
RIGHT OF WAY DATA SHEET

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	IC

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

City/County: Chesapeake
UPC No.: 106692

PARCEL NO.	LANDOWNER	SHEET NO.	AREA (Areas greater than or equal to 1 acre will be shown in acres to 3 decimal places (x.xxx). Areas less than 1 acre will be shown to square feet (x,xxx).)															PROFFERS
			TOTAL	FEE TAKING		PRESCRIPTIVE R/W		FEE REMAINDER		EASEMENTS PERMANENT		EASEMENTS UTILITY		EASEMENTS TEMPORARY		TEMPORARY(ENTRANCES)		
			ACRES OR SQUARE FEET	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	YES / NO
001	~~MARLON VAN COLLEY~~ (NOT USED)	15	1.163 AC.															
002	~~SHEILA S ELLIOTT~~ (NOT USED)	15	1.704 AC.															
005	~~FRANK L HOLLOWELL~~ (NOT USED)	21	1.288 AC.															
006	~~EDWILYN VIRGINIA HOLLOWELL ET AL~~ (NOT USED)	21	0.618 AC.															
007	~~E C HOLLOWELL JR~~ (NOT USED)	21,22	0.615 AC.															
009	JESUS T IGNACIO & ELEODORA M IGNACIO TRUST	23	15.159 AC.	89,813,291 S.F.				13.457 AC.		2,937.424S.F.								
010	BC OF DEEP CREEK DEVELOPMENT INC	24,25	8.977 AC.	5.156 AC.				3.821 AC.										
011	HAMPTON ROADS INTEGRATED BIOENERGY COMPLEX #1 LLC	27,28	34.516 AC.	2.613 AC.				31.903 AC.						3,065.062 S.F.				
012	HAMPTON ROADS INTEGRATED BIOENERGY COMPLEX #1 LLC	28	9.928 AC.	1.995 AC.				7.933 AC.										
013	NEW RIVER LLC	29	4.691 AC.	1.538 AC.				3.153 AC.										
014	ROBERT ZACCHIA	30	0.492 AC.	1,597.702 S.F.				19,833.818 S.F.										
015	ROBERT ZACCHIA	30	1.496 AC.	1.496 AC.				0.000										
016	ROBERT ZACCHIA	30	1.282 AC.	27,580.321 S.F.				28,263.599 S.F.										
017	MASON DIXON RENTAL LLC	35,36	11.404 AC.					11.404 AC.		1765.111 S.F.								
018	~~RECA FAMILY LIMITED PARTNERSHIP~~ (NOT USED)	36	3.096 AC.					3.096 AC.										
019	JAMES C STEWART & BARBARA S STEWART	20	1.039 AC.							414.159 S.F.								
020	INTERSTATE CONDOS INC	35	2.546 AC.							2,257.820S.F.								
021	LAWSON DEVELOPMENT ASSOC 2009 LP	29	6.943 AC.											4,131.540 S.F.				
022	JOHN WAYNE JOHNSON	12,12B,13	3.948 AC.							28,912.101 S.F.								
023	~~TAX ID 0330000001740~~ (NOT USED)	12B	1.04 AC.															
024	~~DONALD A. BLY II & KRISTYN S. BLY (SWM)~~ (NOT USED)	11B	4.596 AC.															
025	RAILROAD	28								9,212.859 S.F.								
026	~~BISHOP WALTER F. SULLIVAN~~ (NOT USED)	34,35	5.310 AC.															
027	~~GERARD M. MCGUIRE & CATHY L. MCGUIRE~~ (NOT USED)	35	0.708 AC.															
028	~~MID-ATLANTIC LEASING CORPORATION~~ (NOT USED)	3	0.824 AC.															
029	~~GEORGE RASBERRY II ET ALS~~ (NOT USED)	3	0.245 AC.															
030	~~MID-ATLANTIC LEASING CORPORATION~~ (NOT USED)	3	5.632 AC.															

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	IC

03-AUG-2017
\\PWICSIics_workingdir\100581\94021_7\D10436601C.dgn

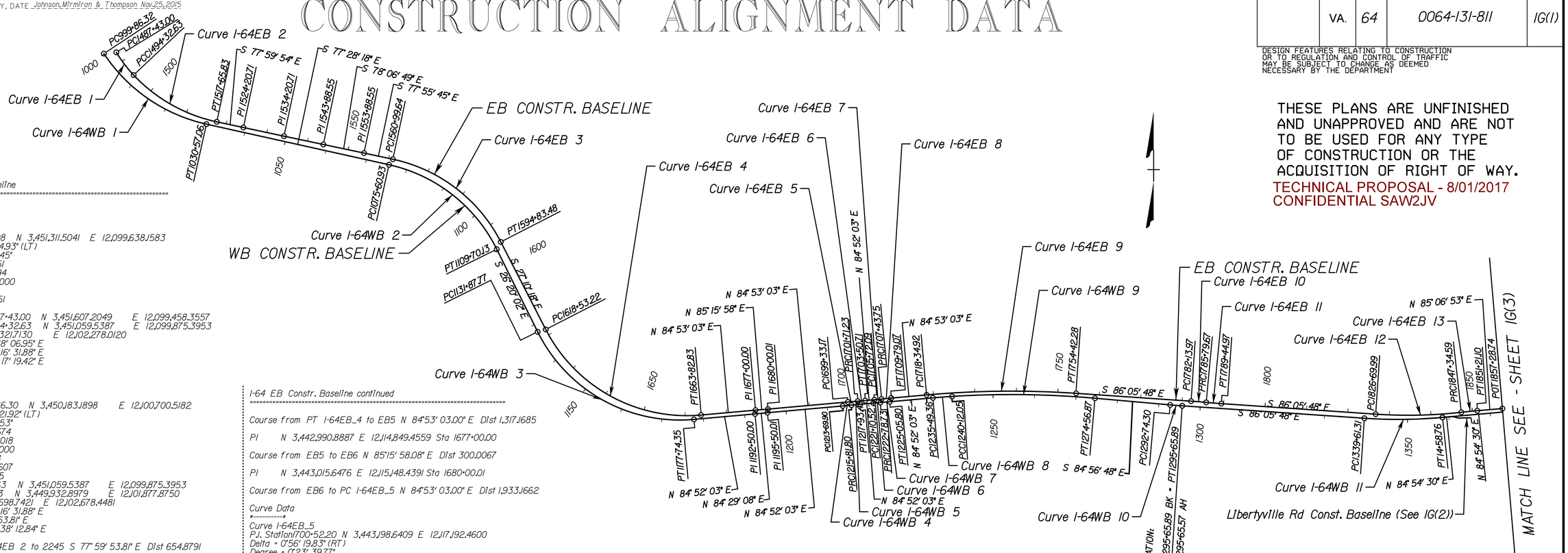
PROJECT MANAGER Ricardo Correa, P.E. (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

CONSTRUCTION ALIGNMENT DATA

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	IG(1)

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

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



EQUATION:
Sta 1295+65.89 BK = PT1295+65.89
Sta 1295+65.57 AH

I-64 EB Constr. Baseline

Curve Data
Curve I-64EB 1
P.I. Station 1490+89.08 N 3,451,311.5041 E 12,099,638.1583
Delta = 11° 58' 24.93" (LT)
Degree = 1° 44' 10.45"
Tangent = 346.0751
Length = 689.6294
Radius = 3,300.0000
External = 18.0970
Long Chord = 688.3751
Mid.Ord. = 17.9983
P.C. Station 1487+43.00 N 3,451,607.2049 E 12,099,458.3557
P.T. Station 1494+32.63 N 3,451,059.5387 E 12,099,875.3953
C.C. N 3,453,321.7130 E 12,102,278.0120
Back = S 31° 18' 06.95" E
Ahead = S 43° 16' 31.88" E
Chord Bear = S 37° 17' 19.42" E

Curve Data
Curve I-64EB 2
P.I. Station 1506+36.30 N 3,450,183.1898 E 12,100,700.5182
Delta = 34° 43' 21.92" (LT)
Degree = 1° 29' 17.53"
Tangent = 1,203.6674
Length = 2,333.2018
Radius = 3,850.0000
External = 183.7718
Long Chord = 2,297.6607
Mid.Ord. = 175.3995
P.C. Station 1494+32.63 N 3,451,059.5387 E 12,099,875.3953
P.T. Station 1517+65.83 N 3,449,932.8979 E 12,101,877.8750
C.C. N 3,453,698.7421 E 12,102,678.4481
Back = S 43° 16' 31.88" E
Ahead = 77° 59' 53.81" E
Chord Bear = S 60° 38' 12.84" E

Course from PT I-64EB 2 to 2245 S 77° 59' 53.81" E Dist 654.8791

PI N 3,449,796.7216 E 12,102,518.4394 Sta 1524+20.71

Course from 2245 to 2246 S 77° 55' 52.61" E Dist 1,000.0000

PI N 3,449,587.6369 E 12,103,496.3369 Sta 1534+20.71

Course from 2246 to 2247 S 78° 03' 55.43" E Dist 967.8436

PI N 3,449,387.4916 E 12,104,443.2599 Sta 1543+88.55

Course from 2247 to 2248 S 78° 06' 49.42" E Dist 1,000.0000

PI N 3,449,181.5218 E 12,105,421.8182 Sta 1553+88.55

Course from 2248 to PC I-64EB 3 S 77° 55' 44.98" E Dist 711.0877

Curve Data
Curve I-64EB_3
P.I. Station 1579+11.64 N 3,448,653.8914 E 12,107,889.1204
Delta = 50° 45' 26.98" (RT)
Degree = 1° 30' 00.00"
Tangent = 1,812.0004
Length = 3,383.8342
Radius = 3,819.7200
External = 407.9988
Long Chord = 3,274.2642
Mid.Ord. = 368.6246
P.C. Station 1560+99.64 N 3,449,032.8185 E 12,106,117.1837
P.T. Station 1594+83.48 N 3,447,041.8592 E 12,108,716.5849
C.C. N 3,445,297.5533 E 12,105,318.4004
Back = S 77° 55' 44.98" E
Ahead = S 27° 10' 18.00" E
Chord Bear = S 52° 33' 01.49" E

Course from PT I-64EB_3 to PC I-64EB_4 S 27° 10' 18.00" E Dist 2,369.7430

Curve Data
Curve I-64EB_4
P.I. Station 1644+26.95 N 3,442,643.9394 E 12,110,974.0602
Delta = 67° 56' 39.00" (LT)
Degree = 1° 30' 00.00"
Tangent = 2,573.7267
Length = 4,529.6127
Radius = 3,819.7200
External = 786.1817
Long Chord = 4,268.8343
Mid.Ord. = 651.9883
P.C. Station 1618+53.22 N 3,444,933.6355 E 12,109,798.7472
P.T. Station 1663+82.83 N 3,442,873.4374 E 12,113,537.5344
C.C. N 3,446,677.9414 E 12,113,196.9317
Back = S 27° 10' 18.00" E
Ahead = N 84° 53' 03.00" E
Chord Bear = S 61° 08' 37.50" E

I-64 EB Constr. Baseline continued

Course from PT I-64EB_4 to EB5 N 84°53' 03.00" E Dist 1,317.1685

PI N 3,442,990.8887 E 12,114,849.4559 Sta 1677+00.00

Course from EB5 to EB6 N 85°15' 58.08" E Dist 300.0067

PI N 3,443,015.6476 E 12,115,148.4391 Sta 1680+00.01

Course from EB6 to PC I-64EB_5 N 84°53' 03.00" E Dist 1,933.1662

Curve Data
Curve I-64EB_5
P.I. Station 1700+52.20 N 3,443,198.6409 E 12,117,192.4600
Delta = 0°56' 19.83" (RT)
Degree = 0°23' 39.77"
Tangent = 119.0296
Length = 238.0539
Radius = 14,528.0000
External = 0.4876
Long Chord = 238.0513
Mid.Ord. = 0.4876
P.C. Station 1699+33.17 N 3,443,188.0271 E 12,117,073.9045
P.T. Station 1701+71.23 N 3,443,207.3108 E 12,117,311.1734
C.C. N 3,428,717.9000 E 12,118,369.3596
Back = N 84°53' 03.00" E
Ahead = N 85°49' 22.83" E
Chord Bear = N 85°21' 12.91" E

Curve Data
Curve I-64EB_6
P.I. Station 1702+60.97 N 3,443,213.8476 E 12,117,400.6807
Delta = 0°57' 20.01" (LT)
Degree = 0°31' 56.60"
Tangent = 89.7444
Length = 179.4846
Radius = 10,762.0000
External = 0.3742
Long Chord = 179.4825
Mid.Ord. = 0.3742
P.C. Station 1701+71.23 N 3,443,207.3109 E 12,117,311.1746
P.T. Station 1703+50.71 N 3,443,221.8762 E 12,117,490.0652
C.C. N 3,453,940.7249 E 12,116,527.2953
Back = N 85°49' 22.83" E
Ahead = N 84°52' 02.82" E
Chord Bear = N 85°20' 42.82" E

Course from PT I-64EB_6 to PC I-64EB_7 N 84°52' 02.82" E Dist 221.3755

Curve Data
Curve I-64EB_7
P.I. Station 1706+57.92 N 3,443,249.3590 E 12,117,796.0403
Delta = 0°54' 50.02" (LT)
Degree = 0°31' 56.60"
Tangent = 85.8314
Length = 171.6591
Radius = 10,762.0000
External = 0.3423
Long Chord = 171.6573
Mid.Ord. = 0.3423
P.C. Station 1705+72.09 N 3,443,241.6805 E 12,117,710.5531
P.T. Station 1707+43.75 N 3,443,258.4000 E 12,117,881.3942
C.C. N 3,453,960.5292 E 12,116,747.7832
Back = N 84°52' 02.82" E
Ahead = N 83°57' 12.80" E
Chord Bear = N 84°24' 37.81" E

I-64 EB Constr. Baseline continued

Curve Data
Curve I-64EB_8
P.I. Station 1708+61.41 N 3,443,270.7936 E 12,117,998.3989
Delta = 0°55' 50.20" (RT)
Degree = 0°23' 43.69"
Tangent = 117.6614
Length = 235.3175
Radius = 14,488.0000
External = 0.4778
Long Chord = 235.3149
Mid.Ord. = 0.4778
P.C. Station 1707+43.75 N 3,443,258.3997 E 12,117,881.3921
P.T. Station 1709+79.07 N 3,443,281.2854 E 12,118,115.5916
C.C. N 3,428,850.9989 E 12,119,407.4799
Back = N 83°57' 12.80" E
Ahead = N 84°53' 03.00" E
Chord Bear = N 84°25' 07.90" E
Course from PT I-64EB_8 to PC I-64EB_9 N 84°53' 03.00" E Dist 855.8569

Curve Data
Curve I-64EB_9
P.I. Station 1736+42.33 N 3,443,518.7676 E 12,120,768.2489
Delta = 90° 09.00" (RT)
Degree = 0°15' 00.08"
Tangent = 1,807.4096
Length = 3,607.3518
Radius = 22,916.3118
External = 71.1647
Long Chord = 3,603.6285
Mid.Ord. = 70.9444
P.C. Station 1718+34.92 N 3,443,357.6017 E 12,118,968.0391
P.T. Station 1754+42.28 N 3,443,395.7312 E 12,122,571.4659
C.C. N 3,420,532.5779 E 12,121,011.4762
Back = N 84°53' 03.00" E
Ahead = S 86°05' 48.00" E
Chord Bear = N 89°23' 37.50" E

I-64 EB Constr. Baseline continued

Course from PT I-64EB_9 to PC I-64EB_10 S 86°05' 48.00" E Dist 2,771.6935

Curve Data
Curve I-64EB_10
P.I. Station 1783+96.83 N 3,443,194.6049 E 12,125,519.1667
Delta = 1°26' 32.15" (RT)
Degree = 0°23' 39.77"
Tangent = 182.8609
Length = 365.7025
Radius = 14,528.0000
External = 1.1508
Long Chord = 365.6928
Mid.Ord. = 1.1507
P.C. Station 1782+13.97 N 3,443,207.0528 E 12,125,336.7300
P.T. Station 1785+79.67 N 3,443,177.5690 E 12,125,701.2324
C.C. N 3,428,712.7531 E 12,124,347.7606
Back = S 86°05' 48.00" E
Ahead = S 84°39' 15.85" E
Chord Bear = S 85°22' 31.93" E

Curve Data
Curve I-64EB_11
P.I. Station 1787+62.33 N 3,443,160.5519 E 12,125,883.0974
Delta = 1°26' 32.15" (LT)
Degree = 0°23' 41.34"
Tangent = 182.6595
Length = 365.2997
Radius = 14,512.0000
External = 1.1495
Long Chord = 365.2901
Mid.Ord. = 1.1494
P.C. Station 1785+79.67 N 3,443,177.5690 E 12,125,701.2324
P.T. Station 1789+44.97 N 3,443,148.1177 E 12,126,065.3332
C.C. N 3,457,626.4545 E 12,127,053.2135
Back = S 84°39' 15.85" E
Ahead = S 86°05' 48.00" E
Chord Bear = S 85°22' 31.93" E

Course from PT I-64EB_11 to PC I-64EB_12 S 86°05' 48.00" E Dist 3,725.0225

I-64 EB Constr. Baseline continued

Curve Data
Curve I-64EB_12
P.I. Station 1837+05.09 N 3,442,824.0806 E 12,130,814.4093
Delta = 10° 18' 46.49" (LT)
Degree = 0°29' 58.24"
Tangent = 1,035.0955
Length = 2,064.5988
Radius = 11,470.3559
External = 46.6093
Long Chord = 2,061.8129
Mid.Ord. = 46.4207
P.C. Station 1826+69.99 N 3,442,894.5430 E 12,129,781.7149
P.T. Station 1847+34.59 N 3,442,939.6336 E 12,131,843.0347
C.C. N 3,454,338.2913 E 12,130,562.5403
Back = S 86°05' 48.00" E
Ahead = N 83°35' 25.51" E
Chord Bear = N 88°44' 48.75" E

Curve Data
Curve I-64EB_13
P.I. Station 1849+27.86 N 3,442,961.2086 E 12,132,035.0904
Delta = 1°31' 27.49" (RT)
Degree = 0°23' 39.77"
Tangent = 193.2637
Length = 386.5045
Radius = 14,528.0000
External = 1.2854
Long Chord = 386.4931
Mid.Ord. = 1.2853
P.C. Station 1847+34.59 N 3,442,939.6336 E 12,131,843.0347
P.T. Station 1851+21.10 N 3,442,977.6671 E 12,132,227.6519
C.C. N 3,428,502.4442 E 12,133,464.8696
Back = N 83°35' 25.51" E
Ahead = N 85°06' 53.00" E
Chord Bear = N 84°21' 09.25" E

Course from PT I-64EB_13 to EB16 N 85°06' 53.00" E Dist 607.6411

PI N 3,443,029.4143 E 12,132,833.0856 Sta 1857+28.74

SKANSKA in association with

SCALE	PROJECT	SHEET NO.
0 1250' 2500'	0064-131-811	IG(1)

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP_USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25,2015

CONSTRUCTION ALIGNMENT DATA

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	IG(2)

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

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

I-64 EB Constr. Baseline continued

(2' Baseline Shift)
PI N 3,443,031.4065 E 12,132,832.9081 Sta 1857+27.13

Course from 34 to PC I64EB_I4 N 85° 06' 53.00" E Dist 214.8125

Curve Data
Curve I64EB_I4
P.I. Station 1868+34.15 N 3,443,128.9689 E 12,133,935.6154
Delta = 21° 33' 51.87" (LT)
Degree = 1° 13' 22.66"
Tangent = 892.2035
Length = 1,763.2931
Radius = 4,685.0000
External = 84.1983
Long Chord = 1,752.9041
Mid.Ord. = 82.7118
P.C. Station 1859+41.94 N 3,443,049.7001 E 12,133,046.9402
P.T. Station 1877+05.24 N 3,443,529.3191 E 12,134,732.9527
C.C. N 3,447,716.1726 E 12,132,630.6962
Back = N 84° 54' 09.98" E
Ahead = N 63° 20' 18.11" E
Chord Bear = N 74° 07' 14.05" E

Curve Data
Curve I64EB_I5
P.I. Station 1887+02.05 N 3,443,976.6116 E 12,135,623.7805
Delta = 19° 28' 14.94" (LT)
Degree = 0° 59' 10.17"
Tangent = 996.8173
Length = 1,917.4414
Radius = 5,810.0000
External = 84.8914
Long Chord = 1,964.9246
Mid.Ord. = 83.6689
P.C. Station 1877+05.24 N 3,443,529.3191 E 12,134,732.9527
P.T. Station 1896+79.65 N 3,444,695.2608 E 12,136,314.5685
C.C. N 3,448,721.5537 E 12,132,125.8854
Back = N 63° 20' 18.11" E
Ahead = N 43° 52' 03.17" E
Chord Bear = N 53° 36' 10.64" E

Course from PT I64EB_I5 to PC I64EB_I6
N 43° 52' 03.17" E Dist 1,683.5594

Curve Data
Curve I64EB_I6
P.I. Station 1917+03.35 N 3,446,154.2368 E 12,137,716.9817
Delta = 0° 40' 48.82" (RT)
Degree = 0° 05' 59.97"
Tangent = 340.1436
Length = 680.2792
Radius = 57,300.0000
External = 1.0096
Long Chord = 680.2752
Mid.Ord. = 1.0096
P.C. Station 1913+63.21 N 3,445,909.0124 E 12,137,481.2644
P.T. Station 1920+43.49 N 3,446,396.6455 E 12,137,955.5938
C.C. N 3,406,200.4787 E 12,178,791.3401
Back = N 43° 52' 03.17" E
Ahead = N 44° 32' 52.00" E
Chord Bear = N 44° 12' 27.59" E

Course from PT I64EB_I6 to 35 N 44° 32' 52.00" E Dist 535.0687

PI N 3,446,777.9706 E 12,138,330.9465 Sta 1925+78.55

Course from 35 to 36 N 43° 51' 39.56" E Dist 2,720.7853

POT N 3,448,739.7195 E 12,140,216.2087 Sta 1952+99.34

I-64 WB Constr. Baseline

Curve Data
Curve I-64WB_I
P.I. Station 1016+01.93 N 3,450,227.5217 E 12,100,051.1613
Delta = 44° 00' 50.31" (LT)
Degree = 1° 26' 00.00"
Tangent = 1,615.6134
Length = 3,070.7424
Radius = 3,997.3800
External = 314.1457
Long Chord = 2,995.7937
Mid.Ord. = 291.2564
P.C. Station 999+86.32 N 3,451,575.4148 E 12,099,160.4363
P.T. Station 1030+57.06 N 3,449,877.0628 E 12,101,628.3059
C.C. N 3,453,779.2627 E 12,102,495.4178
Back = S 33° 27' 28.18" E
Ahead = S 77° 28' 18.49" E
Chord Bear = S 55° 27' 53.34" E

I-64 WB Constr. Baseline continued

Course from PT I-64WB_I to PC I-64WB_2 S 77° 28' 18.49" E Dist 4,503.8686

Curve Data
Curve I-64WB_2
P.I. Station 1093+88.49 N 3,448,503.6491 E 12,107,808.9785
Delta = 51° 08' 16.49" (RT)
Degree = 1° 30' 00.00"
Tangent = 1,827.5592
Length = 3,409.1955
Radius = 3,819.7200
External = 414.6907
Long Chord = 3,297.1599
Mid.Ord. = 374.0786
P.C. Station 1075+60.93 N 3,448,900.0834 E 12,106,024.9346
P.T. Station 1109+70.13 N 3,446,865.7463 E 12,108,619.6862
C.C. N 3,445,171.3133 E 12,105,196.3607
Back = S 77° 28' 18.49" E
Ahead = S 26° 20' 02.00" E
Chord Bear = S 51° 54' 10.25" E

Course from PT I-64WB_2 to PC I-64WB_3 S 26° 20' 02.00" E Dist 2,217.6459

Curve Data
Curve I-64WB_3
P.I. Station 1158+03.12 N 3,442,534.2972 E 12,110,763.6104
Delta = 68° 47' 55.18" (LT)
Degree = 1° 30' 00.00"
Tangent = 2,615.3513
Length = 4,586.5790
Radius = 3,819.7200
External = 809.5697
Long Chord = 4,315.9578
Mid.Ord. = 667.9922
P.C. Station 1131+87.77 N 3,444,878.2383 E 12,109,603.4370
P.T. Station 1177+74.35 N 3,442,768.2669 E 12,113,368.4751
C.C. N 3,446,572.6713 E 12,113,026.7625
Back = S 26° 20' 02.00" E
Ahead = N 84° 52' 02.82" E
Chord Bear = S 60° 43' 59.59" E

Course from PT I-64WB_3 to PC I-64WB_4 N 84° 52' 02.82" E Dist 5,774.9721

PI N 3,442,900.2786 E 12,114,838.2070 Sta 1192+50.00

Course from WB19 to WB20 N 84° 29' 07.74" E Dist 300.0067

PI N 3,442,929.1086 E 12,115,136.8252 Sta 1195+50.01

Course from WB20 to PC I-64WB_4 N 84° 52' 02.82" E Dist 1,819.8908

Curve Data
Curve I-64WB_4
P.I. Station 1214+75.85 N 3,443,101.3949 E 12,117,054.9476
Delta = 0° 50' 08.55" (LT)
Degree = 0° 23' 39.77"
Tangent = 105.9534
Length = 211.9031
Radius = 14,528.0000
External = 0.3864
Long Chord = 211.9012
Mid.Ord. = 0.3863
P.C. Station 1213+69.90 N 3,443,091.9163 E 12,116,949.4190
P.T. Station 1215+81.80 N 3,443,112.4117 E 12,117,160.3267
C.C. N 3,457,561.6649 E 12,115,649.7422
Back = N 84° 52' 02.82" E
Ahead = N 84° 01' 54.28" E
Chord Bear = N 84° 26' 58.55" E

Curve Data
Curve I-64WB_5
P.I. Station 1216+87.64 N 3,443,123.4163 E 12,117,265.5898
Delta = 0° 50' 08.55" (RT)
Degree = 0° 23' 41.34"
Tangent = 105.8367
Length = 211.6697
Radius = 14,512.0000
External = 0.3859
Long Chord = 211.6678
Mid.Ord. = 0.3859
P.C. Station 1215+81.80 N 3,443,112.4117 E 12,117,160.3267
P.T. Station 1217+93.47 N 3,443,132.8845 E 12,117,371.0021
C.C. N 3,428,679.0717 E 12,118,669.2476
Back = N 84° 01' 54.28" E
Ahead = N 84° 52' 02.82" E
Chord Bear = N 84° 26' 58.55" E

Course from PT I-64WB_5 to PC I-64WB_6 N 84° 52' 02.82" E Dist 317.0533

Curve Data
Curve I-64WB_6
P.I. Station 1221+94.63 N 3,443,168.7722 E 12,117,770.5531
Delta = 0° 53' 43.90" (RT)
Degree = 0° 31' 56.60"
Tangent = 84.1062
Length = 168.2089
Radius = 10,762.0000
External = 0.3286
Long Chord = 168.2072
Mid.Ord. = 0.3286
P.C. Station 1221+10.52 N 3,443,161.2481 E 12,117,686.7841
P.T. Station 1222+78.73 N 3,443,174.9862 E 12,117,854.4294
C.C. N 3,432,442.3994 E 12,118,649.5541
Back = N 84° 52' 02.82" E
Ahead = N 85° 45' 46.72" E
Chord Bear = N 85° 18' 54.77" E

I-64 WB Constr. Baseline continued

Curve Data
Curve I-64WB_7
P.I. Station 1223+92.27 N 3,443,183.3747 E 12,117,967.6569
Delta = 0° 53' 43.90" (LT)
Degree = 0° 23' 39.77"
Tangent = 113.5378
Length = 227.0711
Radius = 14,528.0000
External = 0.4436
Long Chord = 227.0688
Mid.Ord. = 0.4436
P.C. Station 1222+78.73 N 3,443,174.9862 E 12,117,854.4294
P.T. Station 1225+05.80 N 3,443,193.5318 E 12,118,080.7395
C.C. N 3,457,663.2804 E 12,116,781.0628
Back = N 85° 45' 46.72" E
Ahead = N 84° 52' 02.82" E
Chord Bear = N 85° 18' 54.77" E

Course from PT I-64WB_7 to PC I-64WB_8 N 84° 52' 02.82" E Dist 1,043.5578

Curve Data
Curve I-64WB_8
P.I. Station 1237+80.72 N 3,443,307.5862 E 12,119,350.5460
Delta = 1° 32' 31.67" (RT)
Degree = 0° 19' 59.86"
Tangent = 231.3606
Length = 462.6933
Radius = 17,190.7300
External = 1.5568
Long Chord = 462.6793
Mid.Ord. = 1.5567
P.C. Station 1235+49.36 N 3,443,286.8886 E 12,119,120.1131
P.T. Station 1240+12.05 N 3,443,322.0748 E 12,119,581.4525
C.C. N 3,426,165.0865 E 12,120,657.9980
Back = N 84° 52' 02.82" E
Ahead = N 86° 24' 34.50" E
Chord Bear = N 85° 38' 18.66" E

Curve Data
Curve I-64WB_9
P.I. Station 1257+37.74 N 3,443,430.1432 E 12,121,303.7477
Delta = 8° 38' 37.40" (RT)
Degree = 0° 15' 03.31"
Tangent = 1,725.6823
Length = 3,444.8162
Radius = 22,834.3100
External = 65.1156
Long Chord = 3,441.5504
Mid.Ord. = 64.9304
P.C. Station 1240+12.05 N 3,443,322.0748 E 12,119,581.4525
P.T. Station 1274+56.87 N 3,443,276.1408 E 12,123,022.7225
C.C. N 3,420,532.5836 E 12,121,011.4194
Back = N 86° 24' 34.50" E
Ahead = S 84° 56' 48.10" E
Chord Bear = S 89° 16' 06.80" E
Course from PT I-64WB_9 to PC I-64WB_10 S 84° 56' 48.10" E Dist 1,817.4308

Curve Data
Curve I-64WB_10
P.I. Station 1294+20.10 N 3,443,105.2146 E 12,124,978.3217
Delta = 1° 08' 59.90" (LT)
Degree = 0° 23' 39.77"
Tangent = 145.7991
Length = 291.5883
Radius = 14,528.0000
External = 0.7316
Long Chord = 291.5834
Mid.Ord. = 0.7315
P.C. Station 1292+74.30 N 3,443,118.0570 E 12,124,833.0893
P.T. Station 1295+65.89 N 3,443,095.2896 E 12,125,123.7825
C.C. N 3,457,589.5893 E 12,126,112.7519
Back = S 84° 56' 48.10" E
Ahead = S 86° 05' 48.00" E
Chord Bear = S 85° 31' 18.05" E

Equation: Sta 1295+65.89 (BK) = Sta 1295+65.57 (AH)
PI N 3,443,095.2896 E 12,125,123.7825 Sta 1295+65.57

Course from WB29 to PC I-64WB_11 S 86° 05' 48.00" E Dist 4,395.7410

Curve Data
Curve I-64WB_11
P.I. Station 1349+05.19 N 3,442,731.8039 E 12,130,451.0166
Delta = 8° 59' 41.51" (LT)
Degre = 0° 28' 38.87"
Tangent = 943.8792
Length = 1,883.8797
Radius = 12,000.0000
External = 37.0639
Long Chord = 1,881.9457
Mid.Ord. = 36.9498
P.C. Station 1339+61.31 N 3,442,796.0569 E 12,129,509.3269
P.T. Station 1358+45.19 N 3,442,815.5703 E 12,131,391.1714
C.C. N 3,454,768.2207 E 12,130,326.2069
Back = S 86° 05' 48.00" E
Ahead = N 84° 54' 30.49" E
Chord Bear = N 89° 24' 21.25" E

Course from PT I-64WB_11 to PC I-64WB_20 N 84° 54' 30.49" E Dist 1,455.2027

PI N 3,442,944.7153 E 12,132,840.6322 Sta 1373+00.33
Course from WB001 to PC I64WB_12
N 84° 54' 30.49" E Dist 295.3041

I-64 WB Constr. Baseline continued

Curve Data
Curve I64WB_12
P.I. Station 1382+45.52 N 3,443,028.5984 E 12,133,782.0958
Delta = 16° 08' 06.02" (LT)
Degree = 1° 14' 58.69"
Tangent = 649.8891
Length = 1,291.1770
Radius = 4,585.0000
External = 45.8294
Long Chord = 1,286.9148
Mid.Ord. = 45.3758
P.C. Station 1375+95.63 N 3,442,970.9227 E 12,133,134.7711
P.T. Station 1388+86.81 N 3,443,263.8948 E 12,134,387.8940
C.C. N 3,447,537.8311 E 12,132,727.8659
Back = N 84° 54' 30.49" E
Ahead = N 68° 46' 24.48" E
Chord Bear = N 76° 50' 27.48" E

Curve Data
Curve I64WB_I3
P.I. Station 1401+19.56 N 3,443,710.2185 E 12,135,537.0063
Delta = 25° 00' 02.51" (LT)
Degree = 1° 01' 49.53"
Tangent = 1,232.7465
Length = 2,426.2498
Radius = 5,560.3997
External = 135.0115
Long Chord = 2,407.0476
Mid.Ord. = 131.8110
P.C. Station 1388+86.81 N 3,443,263.8948 E 12,134,387.8940
P.T. Station 1413+13.06 N 3,444,600.3712 E 12,136,389.8203
C.C. N 3,448,447.0561 E 12,132,374.7162
Back = N 68° 46' 24.48" E
Ahead = N 43° 46' 21.97" E
Chord Bear = N 56° 16' 23.22" E

Course from PT I64WB_I3 to PC I64WB_I4
N 43° 46' 21.97" E Dist 1,679.0534

Curve Data
Curve I64WB_I4
P.I. Station 1432+11.48 N 3,445,971.2023 E 12,137,703.1500
Delta = 1° 44' 00.68" (LT)
Degree = 0° 23' 42.52"
Tangent = 219.3703
Length = 438.7071
Radius = 14,500.0000
External = 1.6593
Long Chord = 438.6904
Mid.Ord. = 1.6591
P.C. Station 1429+92.11 N 3,445,812.7974 E 12,137,551.3896
P.T. Station 1434+30.82 N 3,446,134.1256 E 12,137,850.0490
C.C. N 3,455,843.8982 E 12,127,081.0975
Back = N 43° 46' 21.97" E
Ahead = N 42° 02' 21.29" E
Chord Bear = N 42° 54' 21.63" E

Curve Data
Curve I64WB_I5
P.I. Station 1436+61.36 N 3,446,305.3416 E 12,138,004.4250
Delta = 1° 49' 18.27" (RT)
Degree = 0° 23' 42.52"
Tangent = 230.5361
Length = 461.0333
Radius = 14,500.0000
External = 1.8325
Long Chord = 461.0139
Mid.Ord. = 1.8323
P.C. Station 1434+30.82 N 3,446,134.1256 E 12,137,850.0490
P.T. Station 1438+91.85 N 3,446,471.5634 E 12,138,164.1660
C.C. N 3,436,424.3530 E 12,148,619.0004
Back = N 42° 02' 21.29" E
Ahead = N 43° 51' 39.56" E
Chord Bear = N 42° 57' 00.42" E

Course from PT I64WB_I5 to WB002
N 43° 51' 39.56" E Dist 3,057.3093

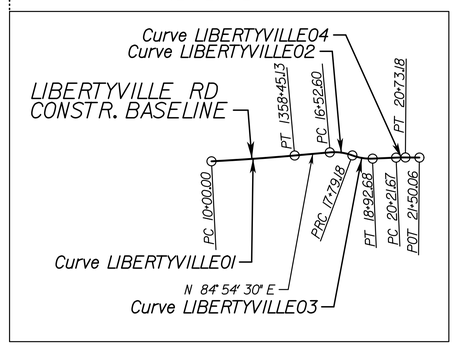
POT N 3,448,675.9539 E 12,140,282.6094 Sta 1469+49.16

Libertyville Rd Constr. Baseline

Curve Data
Curve LIBERTYVILLE01
P.I. Station 12+29.41 N 3,442,797.2033 E 12,131,162.4929
Delta = 21° 26.76" (LT)
Degree = 0° 28' 39.16"
Tangent = 229.4063
Length = 458.7566
Radius = 11,998.0000
External = 2.1930
Long Chord = 458.7287
Mid.Ord. = 2.1926
P.C. Station 10+00.00 N 3,442,785.5939 E 12,130,933.3805
P.T. Station 14+58.76 N 3,442,817.5625 E 12,131,390.9939
C.C. N 3,454,768.2207 E 12,130,326.2069
Back = N 87° 05' 57.25" E
Ahead = N 84° 54' 30.49" E
Chord Bear = N 86° 00' 13.87" E

Course from PT LIBERTYVILLE01 to PC LIBERTYVILLE02
N 84° 54' 30.49" E Dist 193.8395

Curve Data
Curve LIBERTYVILLE02
P.I. Station 17+16.96 N 3,442,840.4770 E 12,131,648.1758
Delta = 25° 32' 16.15" (RT)
Degree = 2° 01' 28.45"
Tangent = 64.3612
Length = 126.5842
Radius = 2,840.0000
External = 1.4015
Long Chord = 125.5390
Mid.Ord. = 1.4035
P.C. Station 16+52.60 N 3,442,834.7651 E 12,131,584.0686
P.T. Station 17+79.18 N 3,442,817.9938 E 12,131,708.4822
C.C. N 3,442,551.8857 E 12,131,609.2728
Back = N 84° 54' 30.49" E
Ahead = S 69° 13' 13.36" E
Chord Bear = S 82° 19' 21.43" E



SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 1250' 2500'	0064-131-811	IG(2)

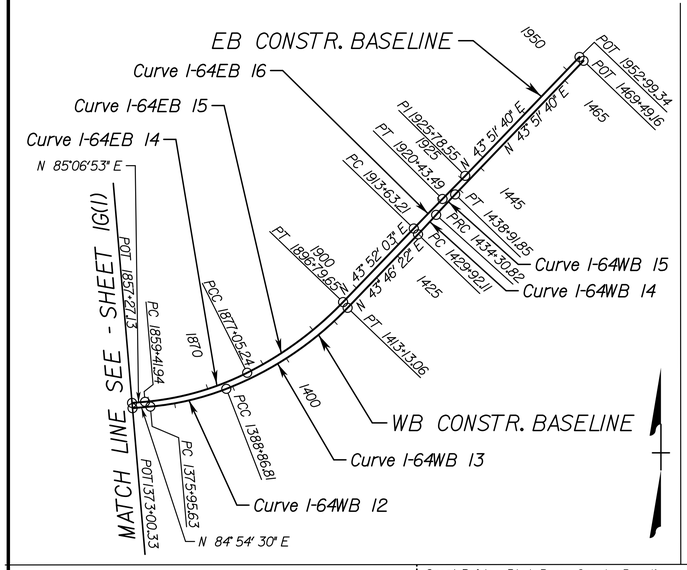
03-AUG-2017
\\PWICSIcs_workingdir\100581194021_26\D10436601G(2).dgn

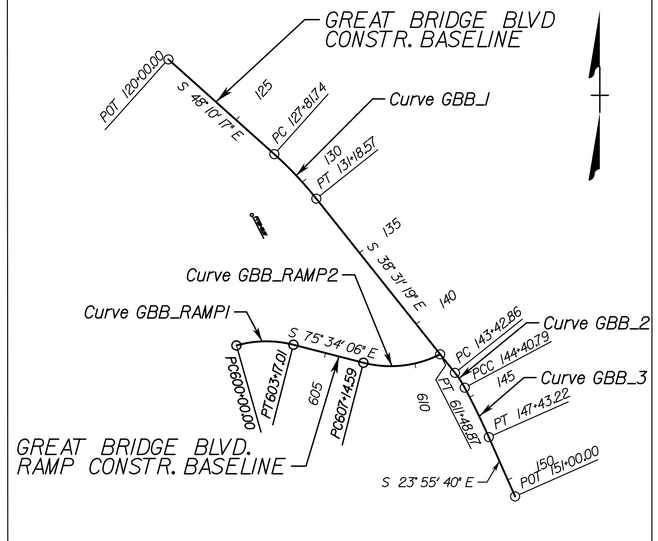
PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP_USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiran & Thompson Nov.25,2015

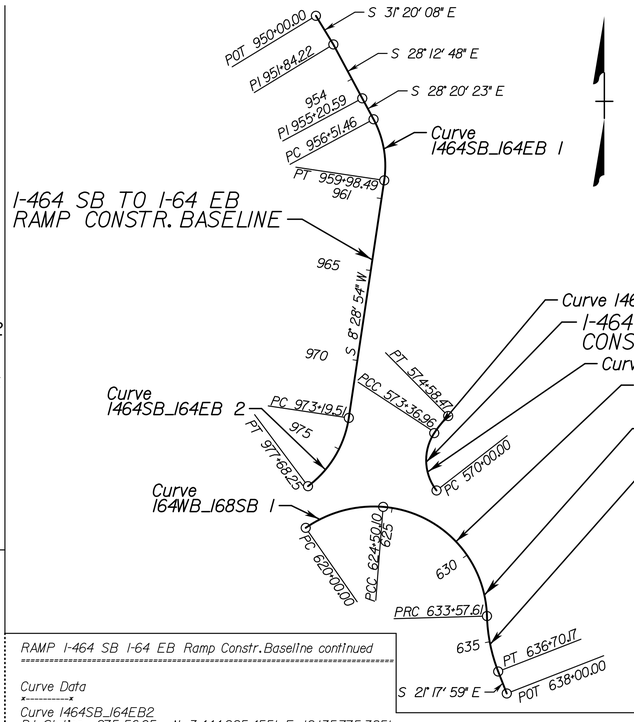
CONSTRUCTION ALIGNMENT DATA

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	IG(3)

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







THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Libertyville Rd.Constr. Baseline continued

Curve Data

Curve LIBERTYVILLE03
P.I. Station 18+36.70 N 3,442,797.9012 E 12,131,762.3762
Delta = 22°53' 53.22" (LT)
Degree = 20°10' 28.45"
Tangent = 57.5175
Length = 113.4999
Radius = 284.0000
External = 5.7659
Long Chord = 112.7461
Mid.Ord. = 5.6512
P.C. Station 17+79.18 N 3,442,817.9938 E 12,131,708.4822
P.T. Station 18+92.68 N 3,442,800.3618 E 12,131,819.8411
C.C. N 3,443,084.1018 E 12,131,807.6917
Back = S 69°33' 13.36" E
Ahead = N 87°32' 53.43" E
Chord Bear = S 81°00' 09.97" E

Course from PT LIBERTYVILLE03 to PC LIBERTYVILLE04
N 87°32' 53.43" E Dist 128.9946

Curve Data

Curve LIBERTYVILLE04
P.I. Station 20+47.43 N 3,442,806.9820 E 12,131,974.4517
Delta = 2°54' 47.21" (RT)
Degree = 5°39' 21.78"
Tangent = 25.7577
Length = 51.5044
Radius = 1,013.0000
External = 0.3274
Long Chord = 51.4988
Mid.Ord. = 0.3273
P.C. Station 20+21.67 N 3,442,805.8801 E 12,131,948.7175
P.T. Station 20+73.18 N 3,442,806.7746 E 12,132,000.2086
C.C. N 3,441,793.8074 E 12,131,992.0531
Back = S 87°32' 53.43" E
Ahead = S 89°32' 19.37" E
Chord Bear = N 89°00' 17.03" E

Course from PT LIBERTYVILLE04 to PC LIBERTYVILLE06
S 89°32' 19.37" E Dist 76.8782

POT N 3,442,806.1557 E 12,132,077.0843 Sta 21+50.06

Grent Bridge Blvd. Ramp Constr. Baseline

Curve Data

Curve GBB_RAMP1
P.I. Station 601+62.30 N 3,443,136.6183 E 12,134,145.3360
Delta = 30°16' 20.20" (RT)
Degree = 9°32' 57.47"
Tangent = 162.2985
Length = 317.0105
Radius = 600.0000
External = 21.5632
Long Chord = 313.3361
Mid.Ord. = 20.8151
P.C. Station 600+00.00 N 3,443,092.3167 E 12,133,989.2310
P.T. Station 603+17.01 N 3,443,096.1696 E 12,134,302.5434
C.C. N 3,442,515.1021 E 12,134,153.0091
Back = N 74°09' 33.49" E
Ahead = S 75° 34' 06.31" E
Chord Bear = N 89°17' 43.59" E

Grent Bridge Blvd. Ramp Constr. Baseline continued

Course from PT GBB_RAMP1 to PC GBB_RAMP2
S 75° 34' 06.31" E Dist 397.5798

Curve Data

Curve GBB_RAMP2
P.I. Station 609+41.74 N 3,442,940.4731 E 12,134,907.5567
Delta = 41° 28' 15.66" (LT)
Degree = 9° 32' 57.47"
Tangent = 227.1461
Length = 434.2835
Radius = 600.0000
External = 41.5570
Long Chord = 424.8654
Mid.Ord. = 38.8651
P.C. Station 607+36.10 N 3,442,997.0833 E 12,134,687.5779
P.T. Station 611+70.38 N 3,443,043.7346 E 12,135,109.8744
C.C. N 3,443,578.1509 E 12,134,837.1122
Back = S 75° 34' 06.31" E
Ahead = N 62° 57' 38.03" E
Chord Bear = N 83° 41' 45.86" E

Great Bridge Blvd.Constr.Baseline

POT N 3,444,665.5401 E 12,133,615.1620 Sta 120+00.00

Course from GBB1 to PC GBB_1 S 48° 10' 16.93" E Dist 781.7419

Curve Data

Curve GBB_1
P.I. Station 129+50.55 N 3,444,031.6117 E 12,134,323.4596
Delta = 9° 38' 57.44" (RT)
Degree = 2° 51' 53.24"
Tangent = 168.8110
Length = 336.8237
Radius = 2,000.0000
External = 7.1116
Long Chord = 336.4258
Mid.Ord. = 7.0864
P.C. Station 127+81.74 N 3,444,144.1926 E 12,134,197.6713
P.T. Station 131+18.57 N 3,443,899.5393 E 12,134,428.5979
C.C. N 3,442,653.9069 E 12,132,863.8615
Back = S 48° 10' 16.93" E
Ahead = S 38° 31' 19.49" E
Chord Bear = S 43° 20' 48.21" E

Course from PT GBB_1 to PC GBB_2
S 38° 31' 19.49" E Dist 1,224.2957

Curve Data

Curve GBB_2
P.I. Station 143+91.96 N 3,442,903.2723 E 12,135,221.6915
Delta = 10° 28' 07.05" (RT)
Degree = 10° 41' 22.24"
Tangent = 49.1035
Length = 97.9336
Radius = 536.0000
External = 2.2445
Long Chord = 97.7975
Mid.Ord. = 2.2352
P.C. Station 143+42.86 N 3,442,941.6893 E 12,135,191.1091
P.T. Station 144+40.79 N 3,442,859.9380 E 12,135,244.7847
C.C. N 3,442,607.8598 E 12,134,771.7597
Back = S 38° 31' 19.49" E
Ahead = S 28° 03' 12.44" E
Chord Bear = S 33° 17' 15.96" E

Great Bridge Blvd.Constr.Baseline continued

Curve Data

Curve GBB_3
P.I. Station 145+92.07 N 3,442,726.4336 E 12,135,315.9301
Delta = 4° 07' 32.33" (RT)
Degree = 1° 21' 51.07"
Tangent = 151.2782
Length = 302.4257
Radius = 4,200.0000
External = 2.7235
Long Chord = 302.3604
Mid.Ord. = 2.7218
P.C. Station 144+40.79 N 3,442,859.9380 E 12,135,244.7847
P.T. Station 147+43.22 N 3,442,588.1566 E 12,135,377.2863
C.C. N 3,440,884.6985 E 12,131,538.2460
Back = S 28° 03' 12.44" E
Ahead = S 23° 55' 40.11" E
Chord Bear = S 25° 59' 26.28" E

Course from PT GBB_3 to GBB9 S 23° 55' 40.11" E Dist 356.7794

POT 3,442,262.0398 E 12,135,521.9908 Sta 151+00.00

RAMP I-464 SB I-64 EB Ramp Constr.Baseline

POT N 3,446,670.9031 E 12,135,629.3504 Sta 950+00.00

Course from SB46405 to SB46406 S 31° 20' 08.12" E Dist 184.2244

PI N 3,446,513.5504 E 12,135,725.1562 Sta 951+84.22

Course from SB46406 to SB46407 S 28° 12' 48.50" E Dist 336.3640

PI N 3,446,217.1490 E 12,135,884.1750 Sta 955+20.59

Course from SB46407 to PC I464SB_I64EBI
S 28° 20' 22.75" E Dist 130.8715

Curve Data

Curve I464SB_I64EBI
P.I. Station 958+31.21 N 3,445,943.7598 E 12,136,031.6241
Delta = 36° 49' 16.60" (RT)
Degree = ' 36' 37.19"
Tangent = 179.7455
Length = 347.0324
Radius = 540.0000
External = 29.1295
Long Chord = 341.0912
Mid.Ord. = 27.6386
P.C. Station 956+51.46 N 3,446,101.9626 E 12,135,946.2994
P.T. Station 959+98.49 N 3,445,765.9802 E 12,136,005.1130
C.C. N 3,445,845.6260 E 12,135,471.0189
Back = S 28° 20' 22.75" E
Ahead = S 8° 28' 53.85" W
Chord Bear = S 9° 55' 44.45" E

Course from PT I464SB_I64EBI to PC I464SB_I64EB2
S 8° 28' 53.85" W Dist 1,321.0145

RAMP I-464 SB I-64 EB Ramp Constr.Baseline continued

Curve Data

Curve I464SB_I64EB2
P.I. Station 975+56.05 N 3,444,225.4551 E 12,135,775.3851
Delta = 44° 47' 35.13" (RT)
Degree = 9° 58' 54.64"
Tangent = 236.5453
Length = 448.7457
Radius = 574.0000
External = 46.8298
Long Chord = 437.4048
Mid.Ord. = 43.2974
P.C. Station 973+19.51 N 3,444,459.4133 E 12,135,810.2737
P.T. Station 977+68.25 N 3,444,084.0061 E 12,135,585.7912
C.C. N 3,444,544.0739 E 12,135,242.5514
Back = S 8° 28' 53.85" W
Ahead = S 53° 16' 28.98" W
Chord Bear = S 30° 52' 41.42" W

RAMP I-464 SB I-64 CD RAMP Constr.Baseline

Curve Data

Curve I464SB_I64CDI
P.I. Station 571+93.94 N 3,444,213.6830 E 12,136,173.8885
Delta = 70° 58' 45.23" (RT)
Degree = 21° 03' 52.65"
Tangent = 193.9413
Length = 336.9594
Radius = 272.0000
External = 62.0617
Long Chord = 315.8221
Mid.Ord. = 50.5320
P.C. Station 570+00.00 N 3,444,060.4155 E 12,136,292.7259
P.T. Station 573+36.96 N 3,444,375.9835 E 12,136,280.0572
C.C. N 3,444,227.0834 E 12,136,507.6813
Back = N 37° 47' 18.86" W
Ahead = N 33° 11' 26.37" E
Chord Bear = N 2° 17' 56.24" W

Curve Data

Curve I464SB_I64CD2
P.I. Station 573+97.94 N 3,444,427.0177 E 12,136,313.4411
Delta = 12° 07' 44.58" (RT)
Degree = 9° 58' 54.64"
Tangent = 60.9835
Length = 121.5111
Radius = 574.0000
External = 3.2304
Long Chord = 121.2844
Mid.Ord. = 3.2124
P.C. Station 573+36.96 N 3,444,375.9835 E 12,136,280.0572
P.T. Station 574+58.47 N 3,444,469.8982 E 12,136,356.8029
C.C. N 3,444,061.7605 E 12,136,760.4111
Back = N 33° 11' 26.37" E
Ahead = N 45° 19' 10.96" E
Chord Bear = N 39° 15' 18.66" E

RAMP I-64 WB I-68 SB RAMP Constr.Baseline

Curve Data

Curve I64WB_I68SBI
P.I. Station 622+34.35 3,443,988.7055 E 12,135,765.5448
Delta = 39° 22' 21.07" (RT)
Degree = 8° 44' 50.81"
Tangent = 234.3468
Length = 450.1030
Radius = 655.0000
External = 40.6604
Long Chord = 441.2990
Mid.Ord. = 38.2839
P.C. Station 620+00.00 N 3,443,854.7685 E 12,135,573.2448
P.T. Station 624+50.10 N 3,443,970.2564 E 12,135,999.1642
C.C. N 3,443,317.2893 E 12,135,947.5991
Back = N 55° 08' 34.03" E
Ahead = S 85° 29' 04.90" E
Chord Bear = N 74° 49' 44.57" E

Curve Data

Curve I64WB_I68SB2
P.I. Station 630+07.03 N 3,443,926.4121 E 12,136,554.3634
Delta = 83° 51' 53.41" (RT)
Degree = 9° 14' 28.52"
Tangent = 556.9277
Length = 907.5049
Radius = 620.0000
External = 213.4078
Long Chord = 828.6345
Mid.Ord. = 158.7612
P.C. Station 624+50.10 N 3,443,970.2564 E 12,135,999.1642
P.T. Station 633+57.61 N 3,443,369.7069 E 12,136,570.1067
C.C. N 3,443,352.1807 E 12,135,950.3545
Back = S 85° 29' 04.90" E
Ahead = S 1° 37' 11.48" E
Chord Bear = S 43° 33' 08.19" E

Curve Data

Curve I64WB_I68SB3
P.I. Station 635+15.45 N 3,443,211.9327 E 12,136,574.5685
Delta = 19° 40' 47.40" (LT)
Degree = 6° 17' 46.46"
Tangent = 157.8373
Length = 312.5649
Radius = 910.0000
External = 13.5868
Long Chord = 311.0307
Mid.Ord. = 13.3869
P.C. Station 633+57.61 N 3,443,369.7069 E 12,136,570.1067
P.T. Station 636+70.17 N 3,443,064.8768 E 12,136,631.9023
C.C. N 3,443,395.4308 E 12,137,479.7431
Back = S 1° 37' 11.48" E
Ahead = S 21° 17' 58.89" E
Chord Bear = S 11° 27' 35.19" E

Course from PT I64WB_I68SB3 to SBI6802
S 21° 17' 58.89" E Dist 129.8309

POT SBI6802 N 3,442,943.9142 E 12,136,679.0628 Sta 638+00.00

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 1250' 2500'	0064-131-811	IG(3)

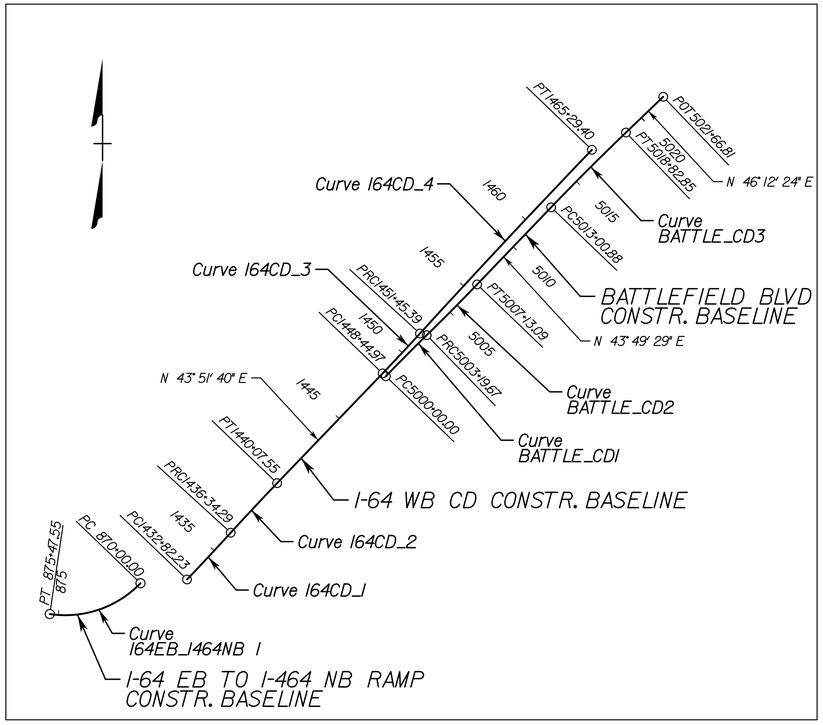
PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25,2015

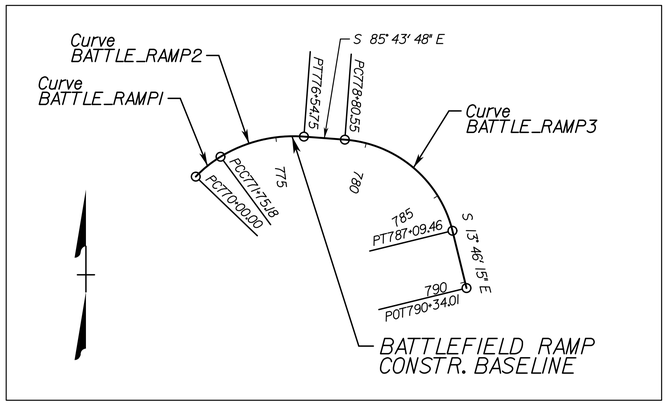
CONSTRUCTION ALIGNMENT DATA

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	IG(4)

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

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV





Battlefield_Blvd.Constr.Baseline

Curve Data
Curve BATTLE_CD1
P.I. Station 500+59.85 N 3,447,234.3874 E 12,138,977.6894
Delta = 1° 55' 26.12" (RT)
Degree = 0° 36' 06.65"
Tangent = 159.8499
Length = 319.6698
Radius = 9,520.0000
External = 1.3419
Long Chord = 319.6547
Mid.Ord. = 1.3417
P.C. Station 5000+00.00 N 3,447,119.1319 E 12,138,866.9277
P.T. Station 5003+19.67 N 3,447,345.8593 E 12,139,092.2582
C.C. N 3,440,522.6168 E 12,145,731.0672
Back = N 43° 51' 39.56" E
Ahead = N 45° 47' 05.68" E
Chord Bear = N 44° 49' 22.62" E

Curve Data
Curve BATTLE_CD2
P.I. Station 5005+16.40 N 3,447,483.0496 E 12,139,233.2597
Delta = 1° 57' 36.43" (LT)
Degree = 0° 29' 53.61"
Tangent = 196.7298
Length = 393.4212
Radius = 11,500.0000
External = 1.6826
Long Chord = 393.4020
Mid.Ord. = 1.8624
P.C. Station 5003+19.67 N 3,447,345.8593 E 12,139,092.2582
P.T. Station 5007+13.09 N 3,447,624.9824 E 12,139,369.4863
C.C. N 3,445,588.2191 E 12,131,072.6888
Back = N 45° 47' 05.68" E
Ahead = N 43° 49' 29.25" E
Chord Bear = N 44° 48' 17.46" E

Course from PT BATTLE_CD2 to PC BATTLE_CD3
N 43° 49' 29.25" E Dist 587.7877

Curve Data
Curve BATTLE_CD3
P.I. Station 501+91.91 N 3,448,259.0132 E 12,139,978.0268
Delta = 2° 22' 54.31" (RT)
Degree = 0° 24' 33.32"
Tangent = 291.0278
Length = 581.9718
Radius = 14,000.0000
External = 3.0246
Long Chord = 581.9299
Mid.Ord. = 3.0239
P.C. Station 501+00.88 N 3,448,049.0481 E 12,139,776.5031
P.T. Station 501+82.85 N 3,448,460.4222 E 12,140,188.1022
C.C. N 3,438,354.6725 E 12,149,876.9527
Back = N 43° 49' 29.25" E
Ahead = N 46° 12' 23.55" E
Chord Bear = N 45° 00' 56.40" E

Course from PT BATTLE_CD3 to POT
N 46° 12' 23.55" E Dist 283.9643

POT N 3,448,656.9427 E 12,140,393.0788 Sta 502+66.81

I-64CD Constr.Baseline

Curve Data
Curve I64CD_1
P.I. Station 1434+58.27 N 3,446,129.4909 E 12,137,895.5633
Delta = 1° 23' 24.63" (LT)
Degree = 0° 23' 41.54"
Tangent = 176.0377
Length = 352.0582
Radius = 14,510.0000
External = 1.0678
Long Chord = 352.0495
Mid.Ord. = 1.0677
P.C. Station 1432+82.23 N 3,446,002.3759 E 12,137,773.7804
P.T. Station 1436+34.29 N 3,446,259.5229 E 12,138,014.2265
C.C. N 3,456,040.3947 E 12,127,296.2675
Back = N 43° 46' 21.97" E
Ahead = N 42° 22' 57.33" E
Chord Bear = N 43° 04' 39.65" E

I-64CD Constr.Baseline continued

Curve Data
Curve I64CD_2
P.I. Station 1438+20.93 N 3,446,397.3884 E 12,138,140.0382
Delta = 1° 28' 42.23" (RT)
Degree = 0° 23' 45.86"
Tangent = 186.6426
Length = 373.2645
Radius = 14,466.0000
External = 1.2040
Long Chord = 373.2541
Mid.Ord. = 1.2039
P.C. Station 1436+34.29 N 3,446,259.5229 E 12,138,014.2265
P.T. Station 1440+07.55 N 3,446,531.9620 E 12,138,269.3649
C.C. N 3,436,508.3105 E 12,148,699.6845
Back = N 42° 22' 57.33" E
Ahead = N 43° 51' 39.56" E
Chord Bear = N 43° 07' 18.45" E

Course from PT I64CD_2 to PC I64CD_3 N 43° 51' 39.56" E Dist 837.4209

Curve Data
Curve I64CD_3
P.I. Station 1449+95.19 N 3,447,244.0716 E 12,138,953.7100
Delta = 1° 29' 48.29" (LT)
Degree = 0° 29' 53.61"
Tangent = 150.2169
Length = 300.4167
Radius = 11,500.0000
External = 0.9810
Long Chord = 300.4081
Mid.Ord. = 0.9810
P.C. Station 1448+44.97 N 3,447,135.7618 E 12,138,849.6231
P.T. Station 1451+45.39 N 3,447,355.0632 E 12,139,054.9324
C.C. N 3,455,104.2390 E 12,130,557.8579
Back = N 43° 51' 39.56" E
Ahead = N 41° 21' 51.27" E
Chord Bear = N 43° 06' 45.41" E

Curve Data
Curve I64CD_4
P.I. Station 1458+37.43 N 3,447,866.3969 E 12,139,521.2593
Delta = 1° 29' 48.29" (RT)
Degree = 0° 06' 29.33"
Tangent = 692.0426
Length = 1,384.0065
Radius = 52,980.0000
External = 4.5197
Long Chord = 1,383.9671
Mid.Ord. = 4.5193
P.C. Station 1451+45.39 N 3,447,355.0632 E 12,139,054.9324
P.T. Station 1465+29.40 N 3,448,365.3756 E 12,140,000.7833
C.C. N 3,411,654.9474 E 12,178,200.5852
Back = N 42° 21' 51.27" E
Ahead = N 43° 51' 39.56" E
Chord Bear = N 43° 06' 45.41" E

BATTLERAMP Constr.Baseline

Curve Data
Curve BATTLE_RAMP1
P.I. Station 770+88.08 N 3,447,998.3968 E 12,139,744.5211
Delta = 14° 45' 37.48" (RT)
Degree = 8° 25' 33.06"
Tangent = 88.0777
Length = 175.1801
Radius = 680.0000
External = 5.6805
Long Chord = 174.6961
Mid.Ord. = 5.6334
P.C. Station 770+00.00 N 3,447,934.8522 E 12,139,683.5312
P.T. Station 771+75.18 N 3,448,044.3056 E 12,139,819.6880
C.C. N 3,447,463.9826 E 12,140,174.1245
Back = N 43° 49' 29.25" E
Back = N 58° 35' 06.73" E
Chord Bear = N 51° 12' 17.99" E

Curve Data
Curve BATTLE_RAMP2
P.I. Station 774+23.03 N 3,448,173.4919 E 12,140,031.2064
Delta = 35° 41' 05.45" (RT)
Degree = 7° 26' 27.64"
Tangent = 247.8490
Length = 479.5699
Radius = 770.0000
External = 38.9061
Long Chord = 471.8563
Mid.Ord. = 37.0349
P.C. Station 771+75.18 N 3,448,044.3056 E 12,139,819.6880
P.T. Station 776+54.75 N 3,448,155.0377 E 12,140,278.3674
C.C. N 3,447,387.1751 E 12,140,221.0352
Back = N 58° 35' 06.73" E
Ahead = S 85° 43' 47.83" E
Chord Bear = N 76° 25' 39.45" E

Course from PT BATTLE_RAMP2 to PC BATTLE_RAMP3
S 85° 43' 47.83" E Dist 225.7983

Curve Data
Curve BATTLE_RAMP3
P.I. Station 783+59.71 N 3,448,102.5484 E 12,140,981.3684
Delta = 71° 57' 33.28" (RT)
Degree = 8° 40' 52.24"
Tangent = 479.1595
Length = 828.9110
Radius = 660.0000
External = 155.5942
Long Chord = 775.4967
Mid.Ord. = 125.9108
P.C. Station 778+80.55 N 3,448,138.2254 E 12,140,503.5389
P.T. Station 787+09.46 N 3,447,637.1618 E 12,141,095.4261
C.C. N 3,447,480.0574 E 12,140,454.3970
Back = S 85° 43' 47.83" E
Ahead = S 13° 46' 14.54" E
Chord Bear = S 49° 45' 01.19" E

Course from PT BATTLE_RAMP3 to POT
S 13° 46' 14.54" E Dist 324.5512

POT N 3,447,321.9395 E 12,141,172.6812 Sta 790+34.01

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 1250' 2500'	0064-131-811	IG(4)

11:49
03-AUG-2017
\\PWICSfcs_workingdir\100581\194021_22\D10436601G(4).dgn

PROJECT MANAGER Ricardo Correa, P.E.(757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25,2015

EXISTING UTILITY INFORMATION

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

TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	IH(1)

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

GENERAL NOTES:

GN1. A limited underground utility designation was performed by Johnson, Mirmiran & Thompson, Inc. dated November 25, 2015 within the specified limits and is depicted herein. The utility designation performed was performed in accordance with Quality Level B (location shown based on electronic information) unless otherwise noted herein. Where electronic signals could not be obtained, the approximate location of such utilities are shown at Quality Level C/D based on records and/or verbal information provided by the utility owner as well as physical features.

GN2. The utility sizes indicated in the designation information are based on information supplied by the utility owner (either by written records or by verbal information).

GN3. The Quality Level B utility designation was limited as follows:

* Interstate corridors: the designation effort was limited to identifying and designating only the known utilities shown on records (or visibly identified in the field) that cross the entire Interstate corridors (right-of-way to right-of-way). No designation of utilities running parallel with the Interstate right-of-ways (or outside in adjacent utility easements) was performed and no electronic sweeping of the Interstate corridors was performed.

* Arterial Roadways: Along the roadway corridors of Rotunda Avenue, Military Highway, Yadkin Road, George Washington Highway, Shell Road, Bainbridge Boulevard, Great Bridge Boulevard, and Campostella Road the designation effort included full utility designation from right-of-way to right-of-way (including adjacent utility easements) for the full length of roadway in the specified limits.

GN4. Virginia Department of Transportation owned facilities (electric, traffic management system, etc.) exist within the project limits but have not been designated. See General Note GN3.

GN5. City of Chesapeake owned facilities may exist within the project limits but have not been designated. See General Note GN3.

GN6. No utility designation or survey was performed along the bridge portion of the High Rise Bridge as this area was excluded from the utility designation/survey limits.

GN7. Base topographic survey/mapping was not available at the time of the utility designation/survey. Utility features shown at Quality Level C/D are approximated based on surveyed utility features, aerial imagery, and/or GIS mapping information.

GN8. Public and/or franchise utilities exist adjacent to and within the project limits but have not been designated except as otherwise shown herein. See General Note GN3.

GN9. Electronic signals either could not be obtained or the signal obtained was weak or questionable (possibly due to the depth of the facility). The approximate location is shown at Quality Level C/D based on a straight line alignment between the "EOI's" shown.

CATV NOTES:

TV1. The cable television facility is not shown on records. The facility appears to be a main cable however unable to confirm.

TV2. CATV records indicate an aerial crossing of I64 in this area. Field investigations indicates an underground crossing as shown. See Telephone Note T2.

TV3. CATV records indicate both coax and fiber optic facilities along Rotunda Avenue in this area. Based on field investigations these facilities may be buried jointly however unable to confirm.

TV4. CATV records indicate underground CATV facilities in area. Field inspection/investigation does not indicate CATV facilities crossing under/over I-64 in this area.

TV5. CATV records indicate coax and fiber optic facilities serving the cell tower. These facilities have not been designated. See General Note GN8.

TV6. CATV records indicate underground coax and fiber optic facilities crossing George Washington Highway in this area. Field investigation does not indicate the presence of such. The location shown is based on schematic record information provided by the utility owner.

TV7. CATV records indicate both coax and fiber optic facilities along Military Highway in this area. Based on field investigations these facilities may be buried jointly however unable to confirm.

TV8. CATV records indicate underground coax facilities on the west side of Cavalier Boulevard and coax (overhead) and fiber optic along the east side of Cavalier Boulevard. Field investigation indicates both coax and fiber optic facilities are present on the west side of Cavalier Boulevard. Unable to separate electronic signals on the facilities indicating they may be buried jointly, however unable to confirm.

TV9. CATV records indicate fiber optic facilities on the east side of Cavalier Boulevard (disposition of overhead vs underground is not provided). Field investigation indicates the presence of two (2) catv fiber optic facilities along the east side of cavalier Boulevard as shown.

TV10. Unable to obtain an electronic signal on a segment of catv fiber optic between the two "EoI's" shown. Alignment shown is approximated based on alignments of other utilities and the locations of the "EoI's" and alignments of the segments where an electronic signal was obtained. Records do not provide sufficient information to show an accurate alignment.

ELECTRIC NOTES:

E1. Roadway plans indicate the installation of a 30" casing under I64 for "joint utility" use. Electric records do not indicate a casing, however electronic signals obtained on the electric facility indicate that it may be contained within the casing, however unable to confirm.

E2. Electric records indicate an abandoned facility in the area. Unable to determine if facility is still present in the field. Record information provided is insufficient to show approximate location.

FIBER OPTIC NOTES:

FO1. Records indicate the fiber optic facility consists of two (2) 1.25" HDPE innerduct with tracer wire (directional bore under I64).

FO2. Telephone records indicates the presence of two fiber optic facilities along Cavalier Boulevard and unable to obtain separate electronic signals on the facilities indicating they may be buried jointly, however unable to confirm. Unable to obtain an electronic signal on the fibers between the two locate stations. The alignments of these fibers (jointly) have been approximated as a straight line between the two stations.

FO3. Telephone records indicates the presence of two fiber optic facilities along Cavalier Boulevard and unable to obtain separate electronic signals on the facilities indicating they may be buried jointly, however unable to confirm. Unable to obtain an electronic signal on the fibers past the "EoI" shown. The approximate location of the fiber optic facilities (jointly) is shown hereon based on schematic record information.

GAS/PETROLEUM NOTES:

G1. High pressure gas main (20-inch) is present adjacent to the right-of-way (complete alignment has not been verified) and has not been designated (see General Note GN8). The gas main has been designated crossing the I464 and I64 corridor as shown hereon.

G2. Gas records indicate 200' of 10" sealed casing north of Finck Lane however no detailed information is available to determine the approximate location of the casing.

G3. Gas records indicate a branch and stub in this area. Unable to determine existence or location of this feature and record information is insufficient to show accurate alignment and/or length.

G4. Gas records indicate a 8" x 6" reducer in this area. Records do not provide sufficient information to show accurate location.

G5. Gas records indicates the possible location of a test station in this area. Unable to field locate this feature and record information does not provide sufficient information to show an accurate location.

SANITARY SEWER FORCE MAIN NOTES:

FM1. Records indicate a 12" Sanitary Force Main (in 24" steel casing) to be removed or abandoned in this area. Investigation to determine if facility is still in place or has been removed was not performed.

FM2. City GIS records indicate a valve and stub in this area, however, HRSD records do not. Unable to field locate a valve and insufficient information available to accurately show location.

FM3. City GIS records indicate the presence of a force main valve in area. HRSD records do not indicate a valve at this location. Unable to locate structure in the field. GIS record information is insufficient to show accurate location of valve.

FM4. Unable to obtain an accurate electronic signal on the 12" sanitary sewer force main due to congestion of utilities in this area. The approximate location of the facility is shown based on record information.

FM5. Approximate location of a 30" x 24" reducer. Records do not provide sufficient information to show accurate location.

FM6. Approximate location of a 8" x 6" reducer. Records do not provide sufficient information to show accurate location.

SANITARY SEWER NOTES:

S1. Records indicate a 8" Sanitary Sewer Main (in 18" steel casing) to be removed or abandoned in this area. Investigation to determine if facility is still in place or has been removed was not performed.

S2. Previous utility test holes performed on the south side of I64 indicate the 8" sanitary sewer and the 8" sanitary sewer force main may be installed in casing pipe (28" +O.D.) however the exact length of casing pipe is not known.

S3. Records indicate this manhole is part of the sanitary sewer system to be removed or abandoned as part of the Dominion Boulevard Improvements. See Sanitary Sewer Note S1.

S4. Structure is not shown on records. Field investigation indicates this is possibly an air release valve, however unable to determine exact disposition. Structure has a "water" lid on it however, based on conversations with on-site construction personnel it is part of the sewer system.

TELEPHONE NOTES:

T1. Telephone facilities are the property of Verizon (Verizon Virginia and/or Verizon South) unless otherwise noted

T2. Telephone records indicate conduits inside a 30" casing crossing under I64, however no cables (copper or fiber optic) are indicated as being in these conduits. Electronic signal was obtained on a cable in a nearby telephone manhole and the designation results are shown hereon. Records indicate that electric and CATV facilities are also present in this casing

T3. Telephone records indicate Copper and Fiber Optic facilities serving the Cell Tower. Facilities have not been designated. See General Note GN8.

T4. Repeater mounted on pole.

T5. Telephone records indicate the presence of a duct system in area. Unable to determine which facility shown (if any) are installed in the duct.

T6. Air fitting is strapped to wooden post with telephone facility marker sign.

T7. Telephone cable is cut inside pedestal and is not shown on active records.

T8. Telephone records indicate this facility extends to the west and crosses under I64. Designation of this facility beyond the point shown has not been performed as it is outside of the designation limits. See General Note GN6.

T9. Omitted.

T10. Verizon records indicate a planned fiber optic facility (FIOS) in the area. Field investigations do not indicate the facility has been installed, however unable to confirm.

TRAFFIC CONTROL NOTES:

TC1. Traffic Control Records indicate 2" conduit.

TC2. Traffic Control Records indicates 5" casing crossing roadway.

TC3. Traffic Control Records indicate two (2) 2" conduits. Only one (1) electronic signal was obtained (possibly buried jointly however unable to confirm).

TC4. Facility inspection indicates three (3) empty 2" conduits in vault.

TC5. Traffic Control Records indicate 5" casing crossing roadway. Facility inspection of TC vault on west side of roadway indicate no cables are present in the facility however unable to verify.

TC6. Traffic control records were unavailable for this intersection. Traffic control facilities shown are based on physical features and electronic designation performed.

TC7. Field inspection indicates the facility is not in use at this time. Inspection of vault to the east indicates four (4) cut wires in the conduits.

TC8. Traffic control records indicate a 2" pvc conduit. Unable to open vault to the south. Field inspection of vault to the north indicates an empty 2" conduit.

TC9. Field inspection indicates an empty vault. Conduit configuration differs from records obtained. See Traffic Control Note TC4 and TC5.

TRAFFIC MANAGEMENT SYSTEM (TMS) NOTES:

TMS1. Records indicate Virginia Department of Transportation TMS Facilities (electric, communications, etc.) are attached to the bridge structure. See General Note GN4.

TMS2. Virginia Department of Transportation TMS Facilities exit the ground to the bridge structure.

TMS3. Virginia Department of Transportation TMS Facilities have not been designated within the Interstate corridor. Facilities shown are for general information only. See General Note GN4.

TMS4. Cable is cut inside vault.

UNKNOWN CONDUCTOR NOTES:

U1. Old Roadway plans indicate the installation of 270'-24" concrete pipe (3000) for conduit. Investigation to determine the existence/non-existence of this pipe was not performed. Facility is not indicated on active records obtained from the public/franchise utility companies.

U2. Electronic signals obtained on an unknown conductor as shown. Depth readings on the conductors were inconsistent. Conductor may be part of a roadway reinforcement however unable to confirm.

U3. Survey/Site Development Plan for Watchcard Fleet Fueling, Woodfin Oil, Chesapeake, Virginia indicates a "concrete pad with cablnet marked VDOT TMS Cablnet" at this location.

U4. Electronic signal obtained on unknown conductor (possibly CATV, however unable to confirm).

U5. Concrete pad with exposed empty conduits. Possibly an old VDOT TMS Cablnet based on evidence of similar structure on south side of Military Highway west of the I64 West Bound Lane exit ramp onto Military Highway. See Unknown Conductor Note U3.

U6. Old roadway plans indicate a gas main in this approximate location. The facility is not shown on active gas records. Unable to verify if the electronic signal obtained is part of this facility.

U7. Old roadway plans indicate a water main in this approximate location. The facility is not shown on active water records. Unable to verify if the electronic signal obtained is part of this facility.

U8. Electronic signals were obtained on unknown conductors as shown. Electric records indicate an abandoned electric facility in this area and the unknown conductors shown may be part of the abandoned electric facility, however unable to confirm.

WATER NOTES:

W1. Approximate location of 10" x 12" reducer. Records do not provide sufficient information to show accurate location.

W2. Approximate location of 6" x 8" reducer. Records do not provide sufficient information to show accurate location.

W3. Records indicate a 8" Water Main (in 18" steel casing) to be removed or abandoned in this area. Investigation to determine if facility is still in place or has been removed was not performed.

W4. Old Roadway plans indicate a 6" water main in 18" casing crossing under I64. Active water records do not indicate the presence of a 6" water main here. Unable to confirm existence/non-existence of 6" water main.

W5. Electronic signal obtained on the casing pipe for the 10" water main. Unable to obtain a electronic signal on the 10" water main.

W6. Approximate location of 30" x 24" reducer.

W7. Water records indicates a potential casing at this location but size and length of casing are not specified on the record drawing obtained.

W8. Dominion Boulevard construction plans indicate a fire hydrant and valve to be installed in this area. Area is under construction and at this time these structures are not present in the field.

W9. Water valve is not shown on records at this location. Dominion Boulevard construction plans indicate a valve to be installed west of the 90 degree bend (south of valve shown) however, unable to field locate the valve.

W10. Roadway construction plans indicate a possible water line in this area. However, water relocation plan sheets (of the roadway construction plans) does not indicate a water line in this area. No electronic signal could be obtained in this area as it relates to the water line in question.

Utility Owners

Cable Television:

Cox Communications (COX)
5200 Cleveland Street
Virginia Beach, Virginia 23462
Contact: Vicki Kincaid
Telephone: 757-222-6579
E-mail: vicki.kincaid@cox.com

Electric:

Dominion Virginia Power (DVP)
(Automated request/delivery of records via e-mail)
Contact: Facility.Locate.Request@dom.com

Virginia Department of Transportation (VDOT)
970 Reon Drive
Virginia Beach, Virginia 23464
Contact: Steve Pearson
Telephone: 757-424-9943
E-mail: steven.pearson@vdot.virginia.gov

Fiber Optic:

Level 3 Communications (LTC)
1025 Eldorado Boulevard
Broomfield, Colorado 80021
Contact: Mickey Worthington
Telephone: 720-888-0336
E-mail: mickey.worthington@level3.com

Lightower Fiber Networks (aka Sidera Networks) (SID)
10976 Richardson Road
Ashland, Virginia 23005
Contact: Ricky Stransky
Telephone: N/A
E-mail: rstransky@lightower.com

Qwest/CenturyLink (QWEST)
243F Burgess Road
Greensboro, North Carolina 27107
Contact: Richard Browning
Telephone: 703-363-8912
E-mail: dennis.browning@centurylink.com

Verizon (VZN)
2920 Elmhurst Lane
Portsmouth, Virginia 23701
Contact: Jim Fulton
Telephone: 757-663-6721
E-mail: jfulton@teclic.co

Verizon (VZN)
765 S. Battlefield Boulevard
Chesapeake, Virginia 23322
Contact: Toney Hunt
Telephone: 757-482-8004
E-mail: toney.hunt@verizon.com

Gas:

Colonial Pipeline Company (CPL)
P.O. Box 1624
Alpharetta, Georgia 30009
Contact: Lamar Crowe
Telephone: 678-762-2259
E-mail: gcrowe@colpipe.com

Columbia Pipeline Group (CPG)
1596 Baxter Road
Prince George, Virginia 23875
Contact: Cedric Kline
Telephone: 804-733-2486
E-mail: ckline@cpg.com

Virginia Natural Gas (VNG)
544 S. Independence Boulevard
Virginia Beach, Virginia 23452
Contact: Victoria Mansfield Duffer
Telephone: 757-466-5441
E-mail: vmansfle@agiresources.com

Columbia Gas (CGV)
1600 Dublin Road
Columbus, Ohio 43215
Contact: Jack Johnson
Telephone: N/A
E-mail: jackjohnson@nisource.com

Sanitary Sewer/Force Main:

Hampton Roads Sanitation District (HRSD)
1434 Air Rail Avenue
Virginia Beach, Virginia 23455
Contact: Jared Haynes
Telephone: 757-460-7020
E-mail: jhaynes@hrsd.com

City of Chesapeake (CHP)
Department of Public Utilities
306 Cedar Road
Chesapeake, Virginia 23322
Contact: Robert Conley
Telephone: 757-382-6672
E-mail: rconley@cityofchesapeake.net

Telephone:

Verizon (VZN)
2920 Elmhurst Lane
Portsmouth, Virginia 23701
Contact: Jim Fulton
Telephone: 757-663-6721
E-mail: jfulton@teclic.co

Verizon (VZN)
765 S. Battlefield Boulevard
Chesapeake, Virginia 23322
Contact: Toney Hunt
Telephone: 757-482-8004
E-mail: toney.hunt@verizon.com

Traffic Control/TMS:

Virginia Department of Transportation (VDOT)
970 Reon Drive
Virginia Beach, Virginia 23464
Contact: Steve Pearson
Telephone: 757-424-9943
E-mail: steven.pearson@vdot.virginia.gov

City of Chesapeake (CHP)
Department of Public Works
306 Cedar Road
Chesapeake, Virginia 23322
Contact: Walter Neln
Telephone: 757-382-6101
E-mail: wneln@cityofchesapeake.net

Water:

City of Chesapeake (CHP)
Department of Public Utilities
306 Cedar Road
Chesapeake, Virginia 23322
Contact: Robert Conley
Telephone: 757-382-6672
E-mail: rconley@cityofchesapeake.net

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	IH(1)

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	IH(2)

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

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

TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

UNDERGROUND UTILITIES TEST HOLE INFORMATION

PLAN SHEET	TEST HOLE	DISTANCE (FEET)	STATION (1) & ROADWAY CONSTRUCTION BASELINE (RTE 64)	OWNER	TYPE OF FACILITY	(2) ELEV. (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	UTILITY (5) ADJUSTMENT REQUIRED
N/A	1	80.4±RT	288 + 46.05	3	1.5" Telephone	12.83		Test Hole moved over Electronic signal	
N/A	2	50.0±LT	289 + 17.22	3	1.5" Telephone	13.80			
N/A	3	76.3±RT	288 + 54.04	3	2.0' Telephone Ductbank	12.66			
N/A	3A	77.0±RT	288 + 55.74	3	2.0' Telephone Ductbank	12.47			
N/A	4	50.9±LT	289 + 24.70	3	2.0' Telephone Ductbank	12.58			
N/A	4A	49.6±LT	289 + 25.99	3	2.0' Telephone Ductbank	12.21			
N/A	5	70.9±RT	288 + 89.01	6	20" Water	11.57			
N/A	6	53.0±LT	289 + 56.50	6	20" Water	12.99			
N/A	7	63.1±RT	289 + 33.60	3	0.5" Fiber Optic	12.70			
N/A	8	58.0±LT	290 + 00.84	3	0.5" Fiber Optic	12.43			
N/A	9	65.9±RT	289 + 36.55	5	30" Sanitary Force Main	12.09		Test Hole moved over Electronic signal	
N/A	10	55.4±LT	290 + 02.57	5	30" Sanitary Force Main	11.84			
N/A	11	58.8±RT	289 + 39.86	1	(2) 1" Cable TV	12.79		Test Hole moved over Electronic signal	
N/A	12	61.1±LT	290 + 06.19	1	(2) 1" Cable TV	13.46			
N/A	13	63.8±RT	289 + 42.59	2	2.0' Electric Ductbank	12.56		Test Hole moved over Electronic signal	
N/A	13A	62.6±RT	289 + 41.18	2	2.0' Electric Ductbank	12.57			
N/A	14	55.2±LT	290 + 06.21	2	2.1' Electric Ductbank	12.87			
N/A	14A	54.0±LT	290 + 07.89	2	2.1' Electric Ductbank	12.81			
N/A	15	61.9±RT	289 + 54.16	NA	No Utility Found	N/A			
N/A	16	58.4±LT	290 + 17.42	3	(2) 1.5" Fiber Optic	11.57			
N/A	17	63.4±RT	289 + 69.85	NA	No Utility Found	N/A			
N/A	18	41.3±LT	290 + 29.22	NA	No Utility Found	N/A		Test Hole moved west of conc wall	
N/A	19	170.4±RT	321 + 23.98	NA	No Utility Found	N/A			
N/A	19A	168.7±RT	321 + 20.98	7	(2) 2" Fiber Optic	10.17			
N/A	20	24.4±RT	321 + 58.67	NA	No Utility Found	N/A			
N/A	20A	23.3±RT	321 + 55.73	7	(2) 2" Fiber Optic	10.56			
N/A	21	78.7±RT	405 + 38.59	1	(3)1.5" CableTV Fiber	6.23			
N/A	22	43.6±RT	405 + 44.89	1	(3)1.5"CableTV Fiber	7.04		Test Hole moved over Electronic signal	
N/A	23	74.4±RT	405 + 41.11	2	4" Electric	9.00			
N/A	24	49.1±RT	405 + 42.37	2	4" Electric	8.48		Test Hole moved over Electronic signal	
N/A	25	79.9±RT	405 + 41.03	1	1" Cable TV	8.27			
N/A	26	47.3±RT	405 + 44.80	1	1" Cable TV	7.95			
N/A	27	76.8±RT	405 + 43.35	6	10" Water	7.18			
N/A	28	43.4±RT	405 + 47.50	6	10" Water	7.26			
N/A	29	81.9±RT	405 + 67.66	3	1.7' Telephone Ductbank	6.64			
N/A	29A	81.9±RT	405 + 65.95	3	1.7' Telephone Ductbank	6.55			
N/A	30	48.2±RT	405 + 72.59	3	1.7' Telephone Ductbank	6.74			
N/A	30A	48.7±RT	405 + 70.80	3	1.7' Telephone Ductbank	6.69			
N/A	31	80.3±RT	405 + 70.95	4	4" Gas	7.65			
N/A	32	44.3±RT	405 + 75.39	4	4" Gas	7.50			

PLAN SHEETS	TEST HOLES	DISTANCE (FEET)	STATION (1) & ROADWAY SURVEY CENTERLINE	OWNER	TYPE OF FACILITY	(2) ELEV. (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	UTILITY (5) ADJUSTMENT REQUIRED
N/A	33	74.3±RT	539 + 00.92	4	8" Gas	2.77			
N/A	34	175.8±RT	539 + 96.91	6	Water	1.46			
N/A	35	168.7±RT	542 + 83.55	6	Water	−0.75			
N/A	36	163.1±RT	545 + 69.95	6	10" Water	1.45			
N/A	37	186.7±RT	548 + 91.74	6	10" Water	1.98			
N/A	38	142.6±RT	558 + 57.00	6	No Utility Found	N/A			
N/A	39	72.7±RT	558 + 62.79	6	No Utility Found	N/A			
N/A	40	120.1±RT	569 + 35.90	6	Sanitary	−0.54			
N/A	41	119.41±RT	569 + 49.16	5	Force Main	1.00			
N/A	42	108.0±RT	577 + 38.60	5	Force Main	1.24			
N/A	43	119.8±RT	579 + 64.17	Unknown	Unknown Utility	3.18			
N/A	44	118.2±RT	579 + 76.02	6	No Utility Found	N/A			
N/A	45	118.5±RT	579 + 78.99	N/A	No Utility Found	N/A			
N/A	46	118.8±RT	579 + 85.18	4	Gas	3.60			
N/A	47	89.2±RT	620 + 37.37	4	Gas	11.32			
N/A	48	222.9±RT	620 + 44.58	4	Gas	12.26			
N/A	49	274.3±RT	643 + 68.84	2, 3, 1	27" Casing Pipe	14.97		50 & 51 Also Found In Casing Pipe	
N/A	52	253.2±RT	645 + 52.46	6	Water	12.21			

UTILITY OWNERS

1 – Cox Communications (COX)
Vicki Kincaid
(757) 222-6579

2 – Dominion Virginia Power (DOM)
facility.locate.request@dom.com

3 – Verizon (VZN)
Toney Hunt
(757) 482-8004

4 – Virginia Natural Gas (VNG)
Victoria Mansfield Duffer
(757) 466-5441

5 – Hampton Roads Sanitation District (HRS)
Jared Haynes
(757) 460-7020

6 – City Of Chesapeake (CHP)
Robert Conley
(757) 382-6672

7 – Qwest/Centurylink (QWE)
Richard Browning
(703) 363-8912

ACCUMARK
9500 KING AIR COURT
ASHLAND, VA. 23005
(800) 542-2990 www.accumark.us

ACCUMARK #VDOT-079
City Of Chesapeake
ROUTE 64, 106692
TEST HOLE SUMMARY SHEET
DATE: 10/20/16

NOTES:
(1) ALL TEST HOLES ARE REFERENCED FROM THE SURVEY BASELINE UNLESS OTHERWISE NOTED.
(2) ELEVATIONS SHOWN HEREON ARE TO THE TOP OF THE FACILITY UNLESS OTHERWISE NOTED.
(3) YES OR NO; NO INDICATES NO DIRECT CONFLICT, HOWEVER, CLEARANCE MAY BE LESS THAN ACCEPTABLE TO UTILITY OWNER.
(4) REMARKS TO INCLUDE CLEARANCE DIMENSION (REGARDLESS OF DISTANCE).
(5) YES OR NO; INFORMATION TO BE PROVIDED BY THE VDOT DISTRICT UTILITY ENGINEER.

– SEE TEST HOLE CERTIFICATION FORM FOR ADDITIONAL INFORMATION.

Revised 1–95
SPECIAL DESIGN SECTION
DRAWING NO. A–41

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	IH(2)

03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

UTILITY CONFLICTS

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	IH(3)

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

UTILITY NUMBER	STATION	NEAREST CROSS ST	TYPE	UG/OH/BA	SIZE	MATERIAL	OWNER	PLAN SHEET	EXISTING UTILITY DESCRIPTION	CONFLICT DESCRIPTION	MITIGATION/ PLAN
10	1100+52	Military Highway	T/Tg	UG	2"	Transite	Verizon	10	Parallel to Military on west side TH-1,2: 1.5'-3.9' cover: 7' off EOP Behind GR	Prop Bridge piers	Verizon to quote relocation CJV responsible for ACM abatement
16	1101+43	Military Highway	CATV	UG	(2) 1"	DBC	Cox	10	Parallel to Military on west side TH-11,12: 2.0' to 2.9' Cover	Bridge foundation and BPPS	Relocate with dir drill - Cox to provide quote
17	1101+45	Military Highway	UG Electric	UG	3-600 mcm	Conc DB	Dom Dist	10	Parallel to Military on east side TH-13,14: 2.1'-2.9' cover	Bridge foundation	Relocate with two 8” directional drill conduits. Dominion will provide preliminary estimate for this relocation
113	1200+10	Rte 17	CAFO	OH			Cox	18	Overhead Crosses Hwy 20.9' Clearance Shared Dom Power Poles	Roadway Overlay Clearance	Unable to raise cables due to space constraints on poles Relocate underground
44	1219+90	Shell Road	OH Electric	OH	3 Phase		Dom Dist	19	Crossing Hwy	Overhead clearance for bridge construction	Relocate Undergound
45	1220+00	Shell Road	CAFO	UG	(3) 1.5	Conduit	Cox	19	Parallel along Shell on West side TH-21, 22: 3.1'-3.6' Cover: 4.5'-6.3' from EOP	Bridge Foundations	Cox stated that this cable is resilient, and can be pushed over push over for clearance
52	1247+01	Southway	T/Tg	UG			Verizon	21	UG crossing highway No depth info	Likely conflict with drainage Soundwall	Relocate - Directional Drill Straddle line with soundwall posts
110	1335+00	Bainbridge Blvd	T/Tg	UG	25 Pr	DBC	Verizon	27	Longitudinal along Prop HRB	New HRB piers	Relocate, use existing casing under RR Quote by Verizon
59	1343+40	Bainbridge Blvd	OH Transmission	OH	230 KV		Dom Trans	28	Highway crossing	Tower in conflict with prop HRB	Separate contract to relocate. Lines will be raised to provide 50' clearance from prop bridge deck. Substation will be removed No work under lines from 4/2/18 to 7/1/18
64	1353+74	Bainbridge Blvd	Water	UG	16"	DIP	Chesapeake	28	Parallel along Bainbridge		Add Fire hydrant for bridge fire protection supply
68	1354+07	Bainbridge Blvd	T/Tg	UG			Verizon	29	Parallel along Bainbridge	New HRB piers	Relocate to clear bridge piers Quote by Verizon
107	1355+00	Libertyville Road	Water	UG	10"		Chesapeake	29	Parallel along Libertyville TH-34,35,36,37: Cover 3.5'-5.2'	New HRB piers	Relocate 480 LF - clear from bridge piers
116	1355+00	Libertyville Road	OH Electric	OH	3 Phase		Dom Dist	29	Parallel along Libertyville	Overhead lines have proper clearance to proposed road and bridge. Poles in conflict with Libertyville realignment	Relocate to clear from Libertyville realignment Dominion Distribution agreed to provide price for relocation
108	1355+00	Libertyville Road	T/FO	OH			Lightower (Sidera)	29	Parallel along Liberty ville Shared Dom Power Poles	Overhead lines have proper clearance to proposed road and bridge. Poles in conflict with Libertyville realignment	Relocate to clear from Libertyville realignment Lightower agreed to provide price for relocation
67	1360+00	Libertyville Road	Water	UG	8"	DIP	Chesapeake	29	Parallel along Libertyville	Libertyville Rd	Add 140 LF and fire hydrant at East abutment of HRB for fire protection supply Under Libertyville
112	1384+08	Great Bridge Blvd	T/FO	OH			Verizon South	31	Overhead crossing Highway Shared Dom Power Poles Roadway clearance 20.9'	Roadway Clearance	Abandoned - Cut and Remove
115	1394+80	Great Bridge Blvd	SFM	UG	8"	DIP	Chesapeake	31	Parallel to Greatbridge	MSE Wall	relocate 8" on west side of HRSD 30" Ties into HRSD at FM-8 HRSD record shows tap on west side of 30" Light Clearing

03-AUG-2017
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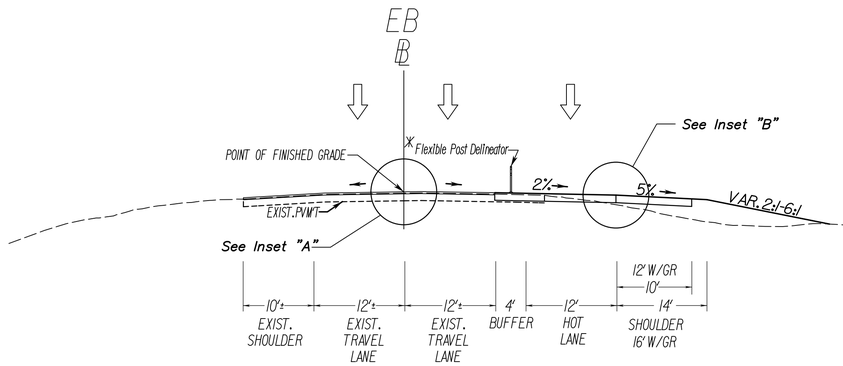
PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25,2015

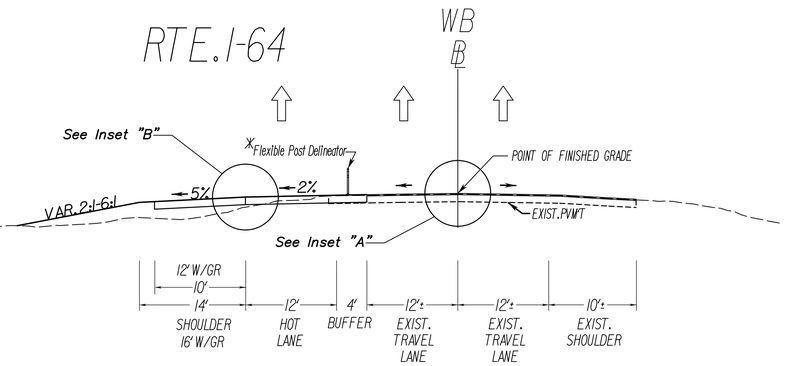
TYPICAL SECTIONS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	2A(1)

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

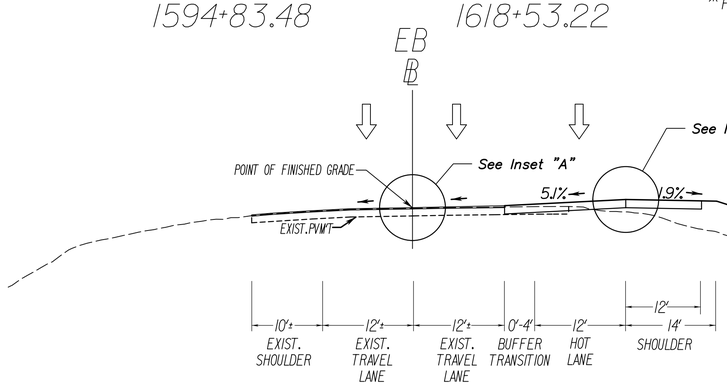


STATION 1515+38.49 TO STATION 1560+99.64
STATION 1594+83.48 TO STATION 1618+53.22

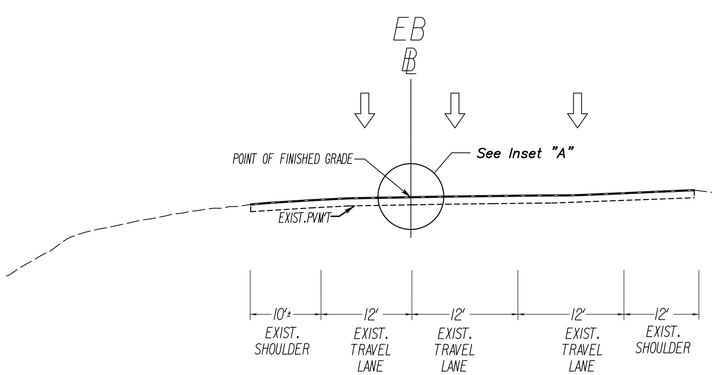


STATION 1030+57.06 TO STATION 1075+60.93
STATION 1109+70.13 TO STATION 1131+87.77

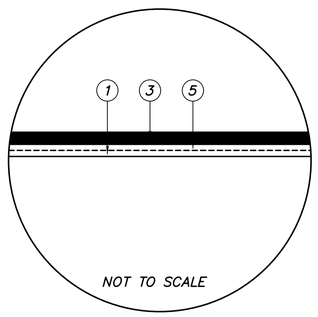
Flexible Post Delineator to end at Sta.1540+00.00 EB and begin at Sta.1063+00.00 WB.



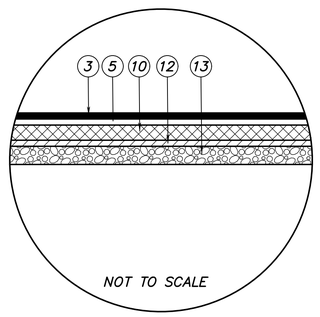
STATION 1504+72.81 TO STATION 1515+38.49



STATION 1489+33.00 TO STATION 1504+72.81



INSET A



INSET B

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

1. 1.0 In. Milling
2. 1.5 In. Asphalt Concrete Surface, Type SMA-12.5
3. 2.0 In. Asphalt Concrete Surface, Type SMA-12.5
4. Variable Depth Asphalt Concrete Surface, Type SMA-19.0
5. 2.0 In. Asphalt Concrete Surface, Type SMA-19.0
6. 3.0 In. Asphalt Concrete Surface, Type SMA-19.0
7. 2.5 In. Asphalt Concrete Base, Type BM-25.0
8. 3.0 In. Asphalt Concrete Base, Type BM-25.0
9. 4.0 In. Asphalt Concrete Base, Type BM-25.0
10. 5.0 In. Asphalt Concrete Base, Type BM-25.0
11. 7.5 In. Asphalt Concrete Base, Type BM-25.0
12. 2.0 In. Stabilized Open Graded Drainage Layer (OGDL)
13. 6.0 In. Cement Treated Aggregate, Type I, Size No. 21-A Pugmill Mixed with 4% Cement by Weight (CTA)
14. 6.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B
15. 7.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	2A(1)

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiran & Thompson Nov.25,2015

TYPICAL SECTIONS

RTE.I-64

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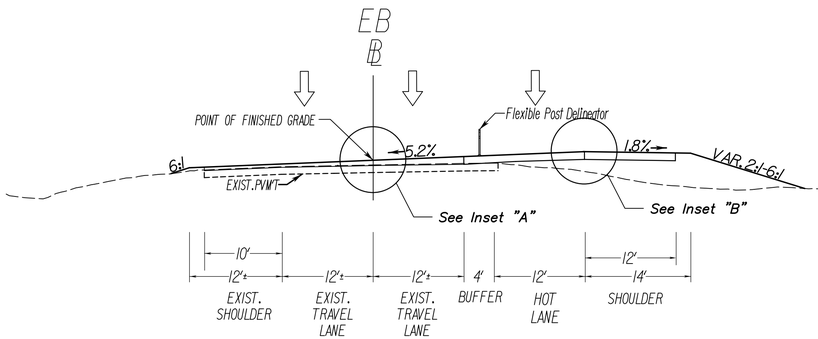
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	2A(2)

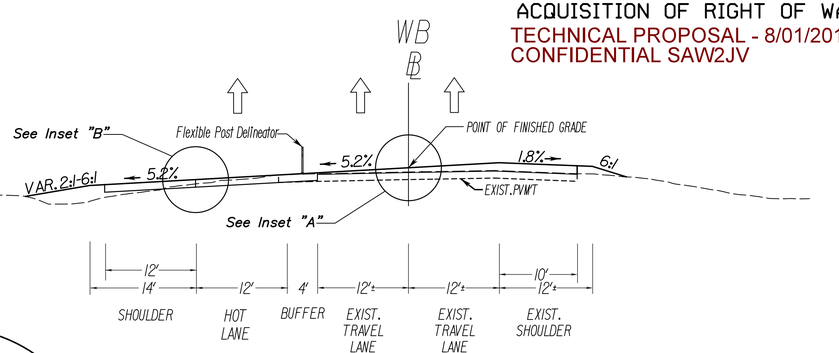
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

EB

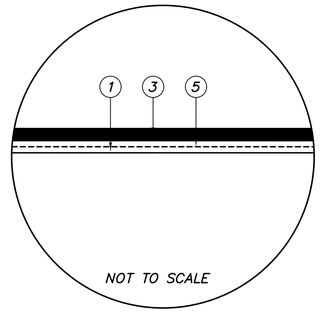


STATION 1618+53.22 TO STATION 1663+82.83

WB

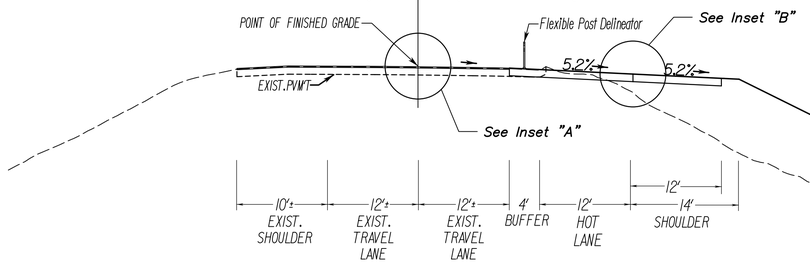


STATION 1131+87.77 TO STATION 1177+74.35



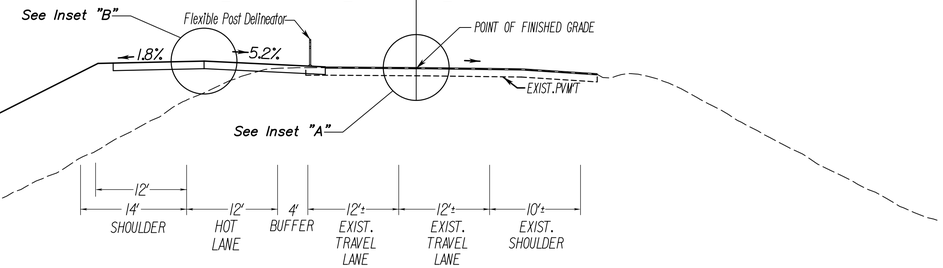
INSET A

EB

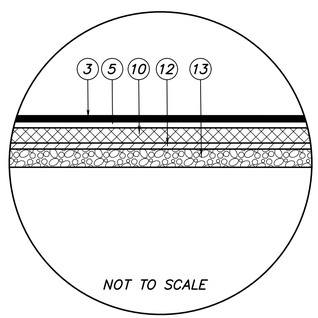


STATION 1560+99.64 TO STATION 1594+83.48

WB



STATION 1075+60.93 TO STATION 1109+70.13

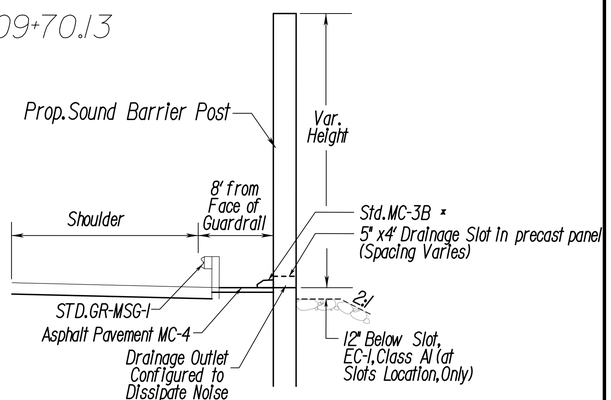


INSET B

Ramp Noise Wall Drainage Slots			
LT			
NOISE BARRIER	FROM	TO	MAX SPACING (FT)
464 SB to 64 EB	N/A	N/A	130
465 SB to 64 EB	974+00	976+00	200
466 SB to 64 EB	964+00	960+00	200
467 SB to 64 EB	956+50	950+50	100
64 WB to 68 SB	N/A	N/A	300
65 WB to 68 SB	621+25	625+25	200
66 WB to 68 SB	629+75	631+75	200
BATTLEFIELD	775+50	788+50	250

Noise Wall Drainage Slots			
WBL			
RT			
NOISE BARRIER	FROM	TO	MAX SPACING (FT)
4-5	1115+00	1121+98	300
	1129+70	1131+43	150
	1149+00	1173+00	150
7	1192+00	1193+00	300
	1194+00	1206+50	300
	1220+75	1222+50	150
	1233+00	1239+00	150
	1253+00	1260+09	300
11	1394+00	1400+00	300
-	Ramp	1115+00	300
-	Ramp	1173+00	300
-	Ramp	1192+00	300
11	Ramp	1406+50	200
	Ramp	1406+00	200
15	Ramp	1467+50	250

Noise Wall Drainage Slots			
EBL			
LT			
NOISE BARRIER	FROM	TO	MAX SPACING (FT)
-	1487+43	1492+68	300
6	1646+18	1658+25	150
8	1681+00	1692+00	150
	1694+39	1704+01	150
	1705+23	1710+00	300
	1731+35	1743+00	300
12	1879+90	1887+75	130
-	Ramp	1658+25	300
-	Ramp	1681+00	300
12	Ramp	1891+00	200
12	Ramp	1902+50	200
12	Ramp	1906+00	100



NOISE WALL DETAIL
See Plans for Locations

*MC-3B Omitted at Drainage Slot

1. 1.0 In. Milling
2. 1.5 In. Asphalt Concrete Surface, Type SMA-12.5
3. 2.0 In. Asphalt Concrete Surface, Type SMA-12.5
4. Variable Depth Asphalt Concrete Surface, Type SMA-19.0
5. 2.0 In. Asphalt Concrete Surface, Type SMA-19.0
6. 3.0 In. Asphalt Concrete Surface, Type SMA-19.0
7. 2.5 In. Asphalt Concrete Base, Type BM-25.0
8. 3.0 In. Asphalt Concrete Base, Type BM-25.0
9. 4.0 In. Asphalt Concrete Base, Type BM-25.0
10. 5.0 In. Asphalt Concrete Base, Type BM-25.0
11. 7.5 In. Asphalt Concrete Base, Type BM-25.0
12. 2.0 In. Stabilized Open Graded Drainage Layer (OGDL)
13. 6.0 In. Cement Treated Aggregate, Type I, Size No. 21-A Pugmill Mixed with 4% Cement by Weight (CTA)
14. 6.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B
15. 7.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	2A(2)

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

TYPICAL SECTIONS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	2A(3)

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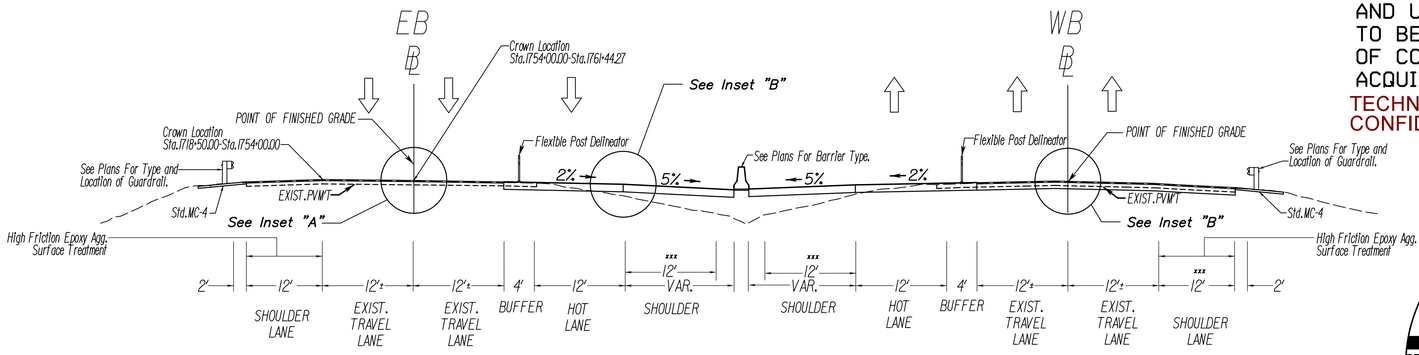
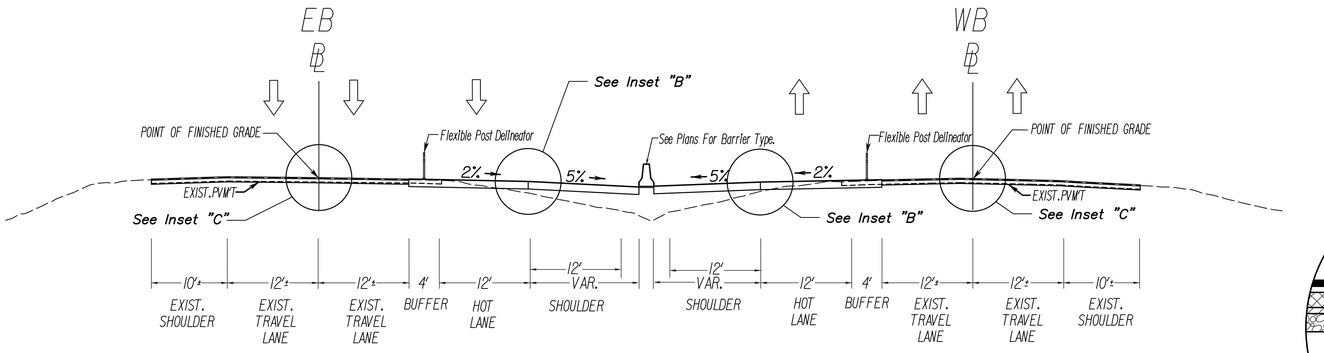
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

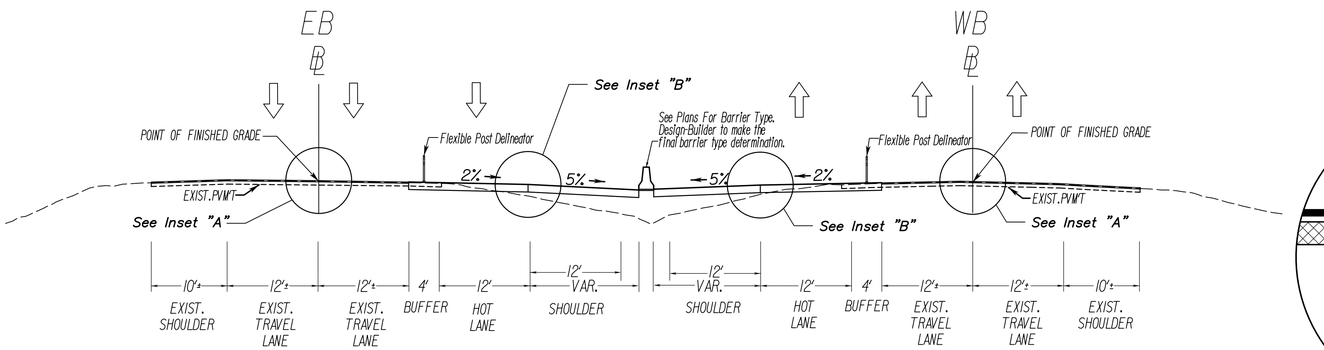
RTE. I-64



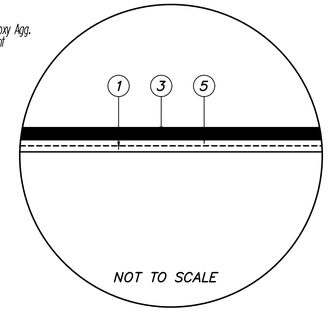
STATION	TO	STATION
1721+85.00		1759+00.00
1237+50.00		1274+56.87



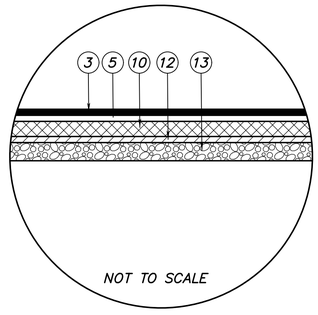
STATION	TO	STATION
1669+50.00		1672+50.00
1185+50.00		1187+75.00



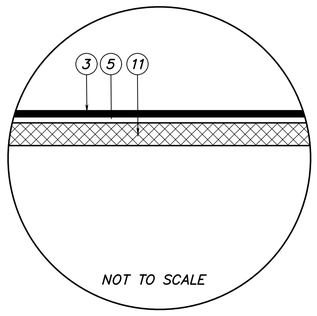
STATION	TO	STATION
1663+82.83		1669+50.00
1672+50.00		1721+88.00
1177+74.35		1185+50.00
1187+75.00		1237+50.00



INSET A



INSET B



INSET C

*Std.MC-4 Req'd. where new or replacement shoulder is full depth pavement.

** Shoulder transition will be required at each side of structure B662. Shoulder width will vary from 12' to 15'.

*** Shoulder transition will be required at each side of structures B668 and B669. Shoulder width will vary from 9' to 12'.

NOTE:
"Rolling" shoulder cross slopes (variable slopes) are to be considered to attain approximately 0.3% minimum (0.5% desirable) effective longitudinal grades along the median concrete barrier "gutter" line to minimize/eliminate potential surface water ponding.

1. 1.0 In. Milling
2. 1.5 In. Asphalt Concrete Surface, Type SMA-12.5
3. 2.0 In. Asphalt Concrete Surface, Type SMA-12.5
4. Variable Depth Asphalt Concrete Surface, Type SMA-19.0
5. 2.0 In. Asphalt Concrete Surface, Type SMA-19.0
6. 3.0 In. Asphalt Concrete Surface, Type SMA-19.0
7. 2.5 In. Asphalt Concrete Base, Type BM-25.0
8. 3.0 In. Asphalt Concrete Base, Type BM-25.0
9. 4.0 In. Asphalt Concrete Base, Type BM-25.0
10. 5.0 In. Asphalt Concrete Base, Type BM-25.0
11. 7.5 In. Asphalt Concrete Base, Type BM-25.0
12. 2.0 In. Stabilized Open Graded Drainage Layer (OGDL)
13. 6.0 In. Cement Treated Aggregate, Type I, Size No. 21-A Pugmill Mixed with 4% Cement by Weight (CTA)
14. 6.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B
15. 7.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	2A(3)

03-AUG-2017
\\PWICSIcs_workingdir\10060\211357_8IRPP-TypicalSection_2A(3).dgn

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

TYPICAL SECTIONS

RTE. I-64

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	2A(4)

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

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

PRIVATE AND COMMERCIAL ENTRANCES

TYPE I
Crusher Run Aggr.
6" Crusher Run Aggr. 25 or 26

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

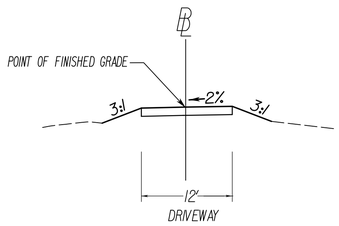
TYPE III
Asphalt
Asphalt Conc. Type SM-9.5A @ 220 Lbs. per S.Y.
4" Aggr. Base Mat'l. Ty. I No. 21B

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

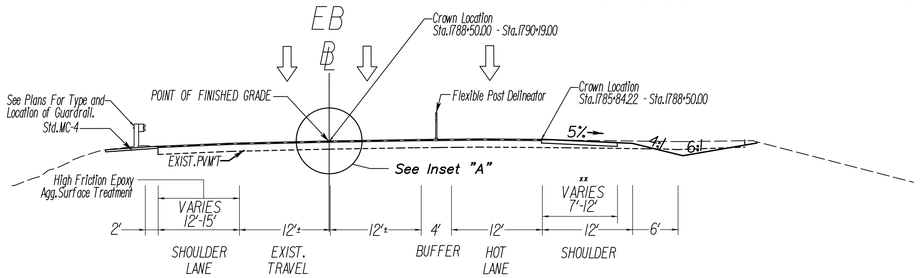
NOT TO SCALE

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

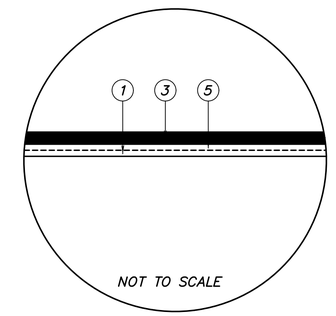
TIDE GATE ACCESS DRIVE



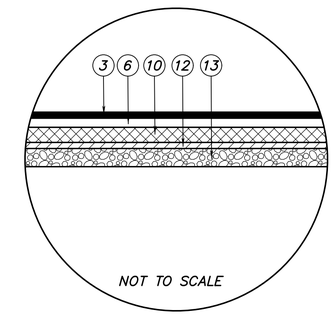
STATION 10+10.00 TO STATION 10+43.59



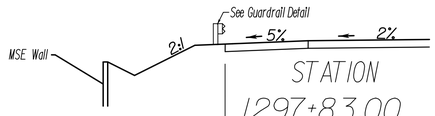
STATION 1785+84.22 TO STATION 1790+39.45



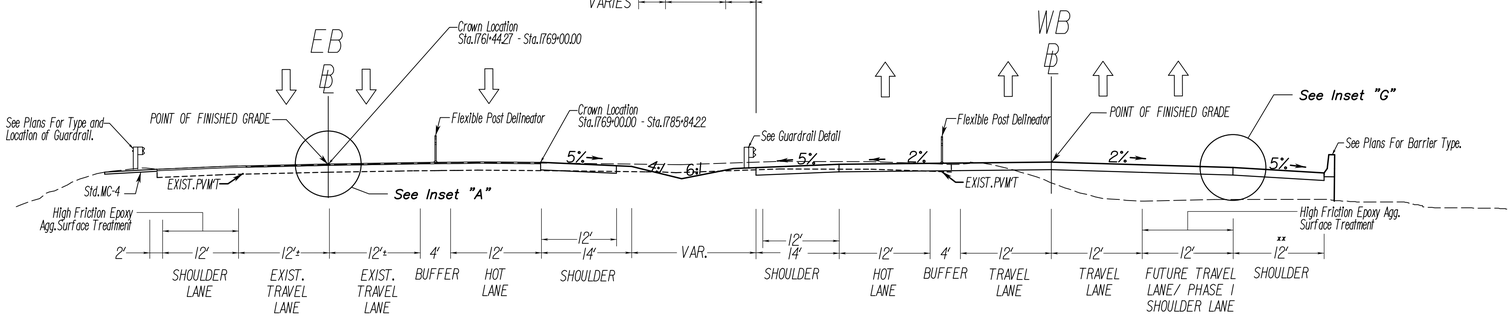
INSET A



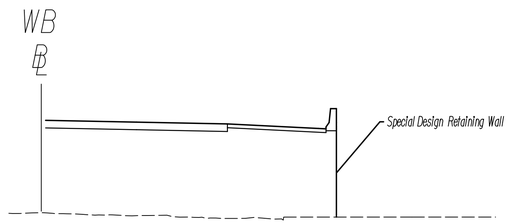
INSET G



STATION 1297+83.00 TO STATION 1301+93.00



STATION 1759+00.00 TO STATION 1785+84.22
STATION 1274+56.87 TO STATION 1301+62.00



STATION 1279+00.00 TO STATION 1301+62.00
STATION 1365+41.00 STATION 1367+50.00

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13. 6.0 In. Cement Treated Aggregate, Type I, Size No. 21-A Pugmill Mixed with 4% Cement by Weight (CTA)
14. 6.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B
15. 7.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B

[X] Std.MC-4 Req'd.where new or replacement shoulder is full depth pavement.

[X] Shoulder transition will be required at each side of structure B662. Shoulder width will vary from 12' to 15'.

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	2A(4)

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
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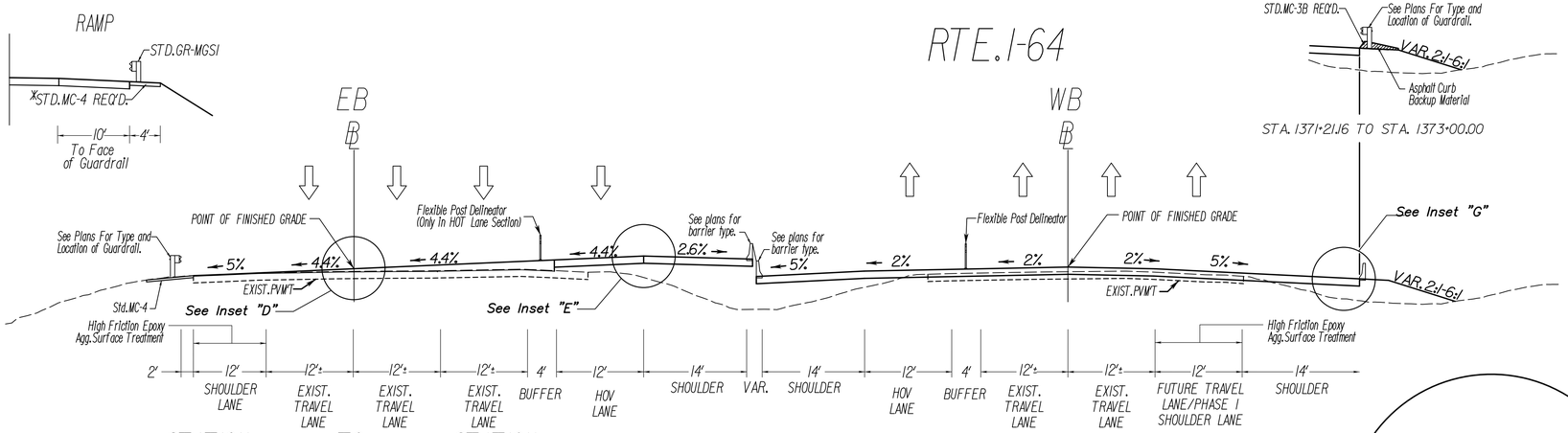
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	2B(1)

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

TYPICAL SECTIONS

RTE. I-64



STATION 1852+77.09 TO STATION 1857+27.44

STATION 1368+50.00 TO STATION 1373+00.00

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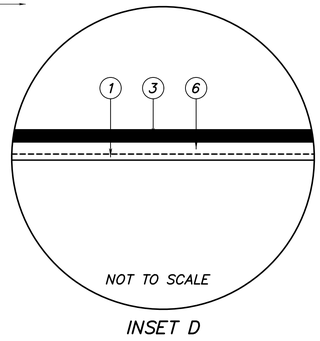
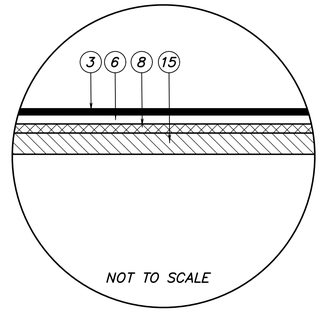
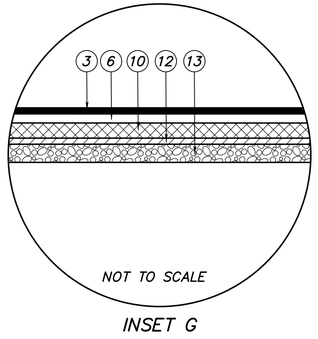
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



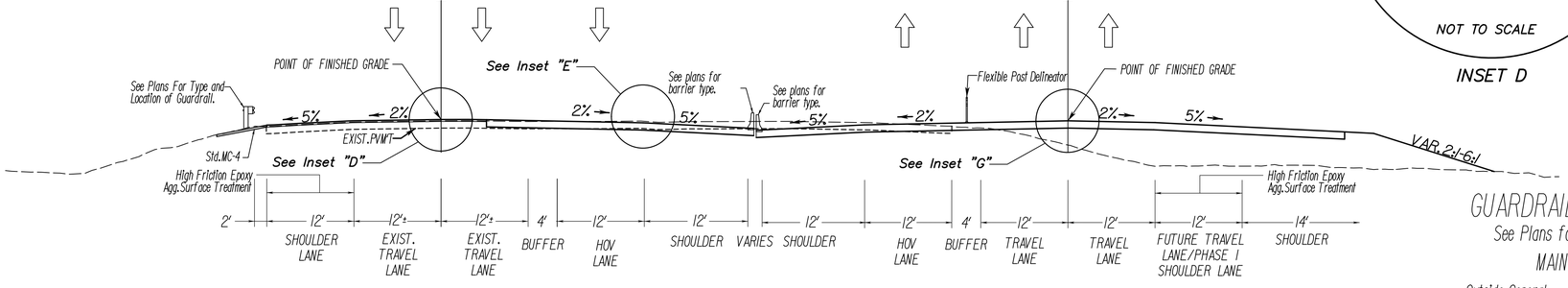
INSET D



INSET E



INSET G



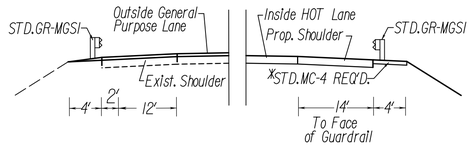
STATION 1849+90.62 TO STATION 1852+77.09

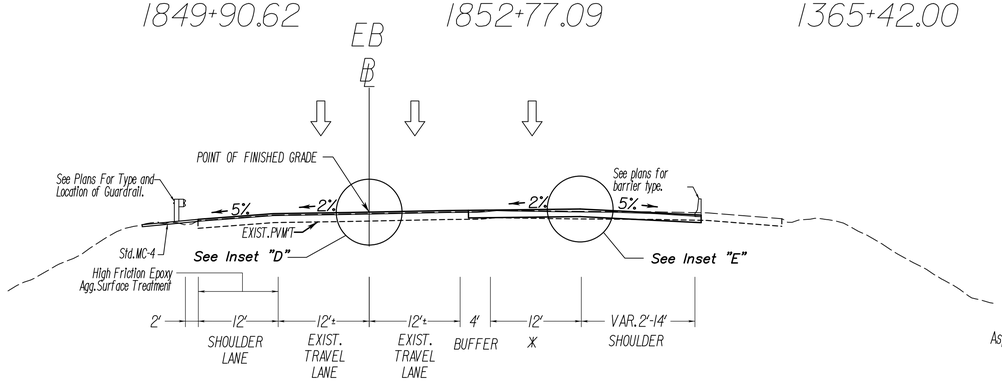
STATION 1365+42.00 TO STATION 1368+50.00

GUARDRAIL LOCATION

See Plans for locations.

MAINLINE

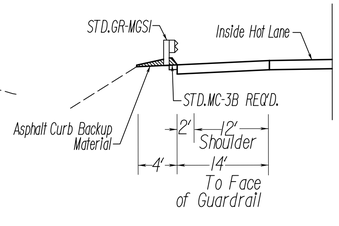




STATION 1838+63.58 TO STATION 1849+98.67 *HOT LANE

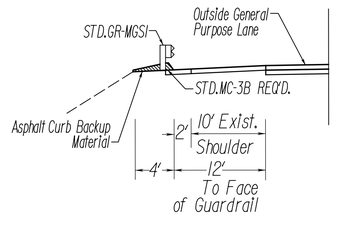
WB STD.MC-3B DETAIL

(See Tables Below for Locations)



EB STD.MC-3B DETAIL

(See Tables for Locations)



MC-3B WBL LT(MED)	
FROM	TO
1134+42	1148+00
1287+00	1291+50

MC-3B EBL LT (OUTSIDE)	
FROM	TO
1492+68	1503+31
1602+86	1618+15
1621+90	1636+97

1. 1.0 In. Milling
2. 1.5 In. Asphalt Concrete Surface, Type SMA-12.5
3. 2.0 In. Asphalt Concrete Surface, Type SMA-12.5
4. Variable Depth Asphalt Concrete Surface, Type SMA-19.0
5. 2.0 In. Asphalt Concrete Surface, Type SMA-19.0
6. 3.0 In. Asphalt Concrete Surface, Type SMA-19.0
7. 2.5 In. Asphalt Concrete Base, Type BM-25.0
8. 3.0 In. Asphalt Concrete Base, Type BM-25.0
9. 4.0 In. Asphalt Concrete Base, Type BM-25.0
10. 5.0 In. Asphalt Concrete Base, Type BM-25.0
11. 7.5 In. Asphalt Concrete Base, Type BM-25.0
12. 2.0 In. Stabilized Open Graded Drainage Layer (OGDL)
13. 6.0 In. Cement Treated Aggregate, Type I, Size No. 21-A Pugmill Mixed with 4% Cement by Weight (CTA)
14. 6.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B
15. 7.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B

SKANSKA in association with WSP

SCALE 0 50' 100'	PROJECT	SHEET NO.
	0064-131-811	2B(1)

03-AUG-2017
\\PWICS\ics_workingdir\100601\211357_1\RFP-TypicalSection_2B(1).dgn

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

TYPICAL SECTIONS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	2B(2)

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

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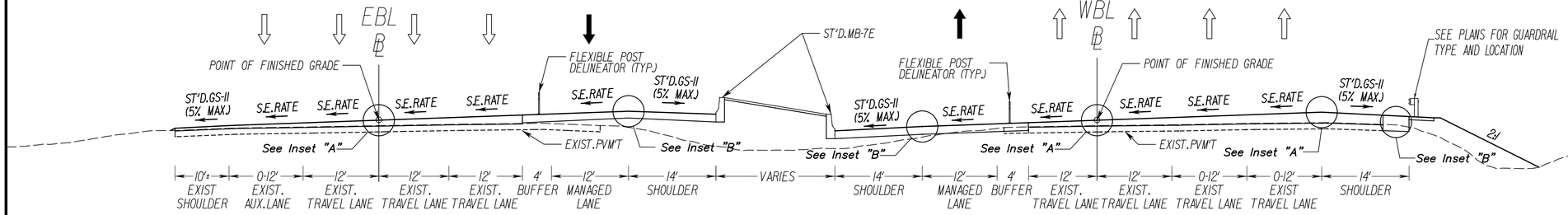
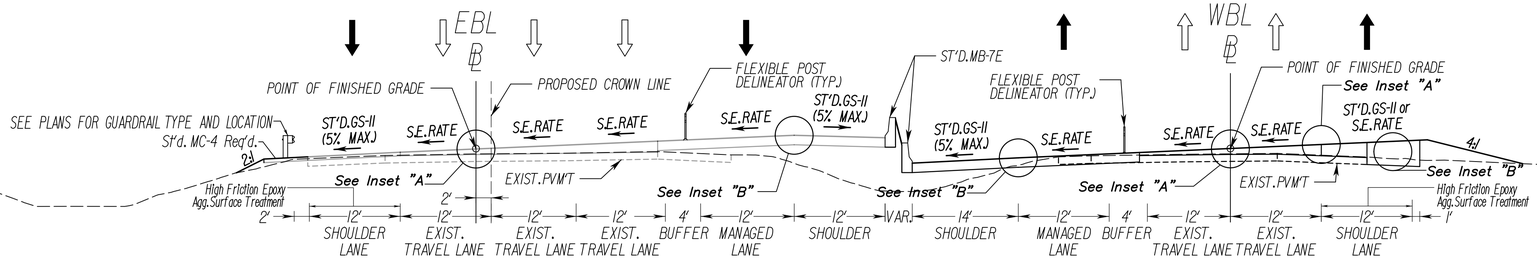
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

RTE.I-64



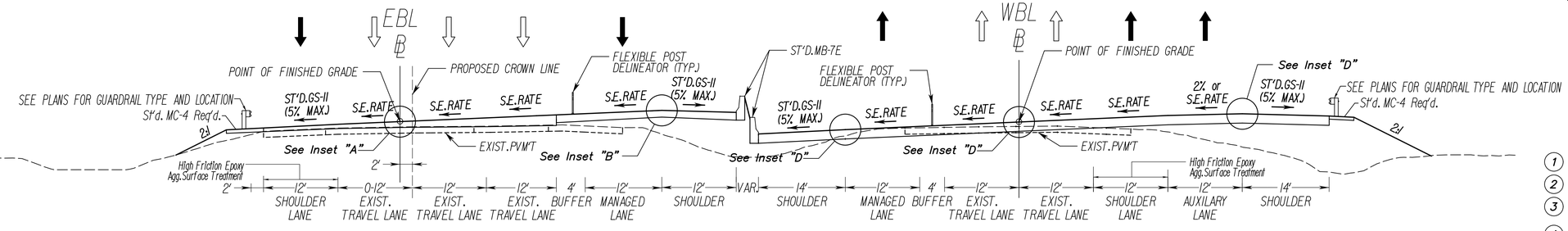
STATION 1879+50.00 TO STATION 1894+00.00

STATION 1390+00.00 TO STATION 1403+00.00



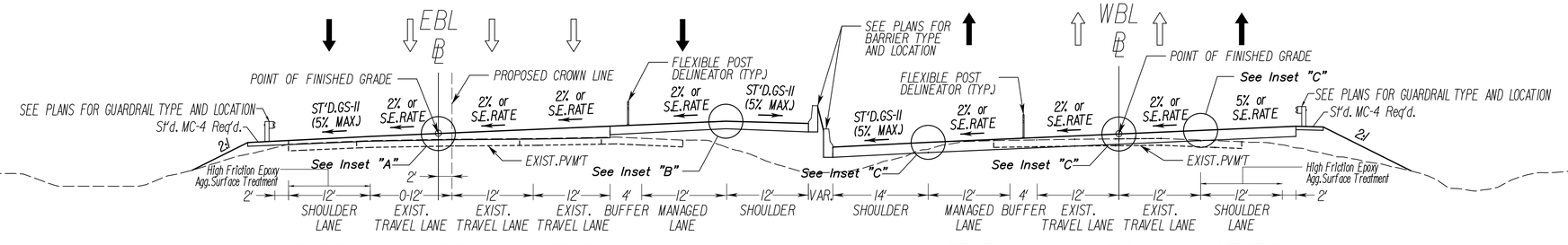
STATION 1869+72.80 TO STATION 1879+50.00

STATION 1384+75.00 TO STATION 1390+00.00



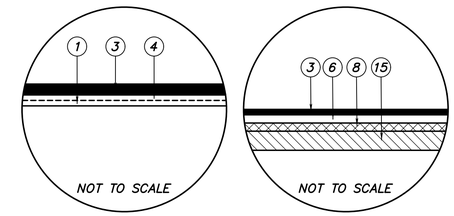
STATION 1865+90.32 TO STATION 1869+72.80

STATION 1381+75.00 TO STATION 1384+75.00



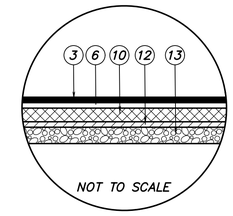
STATION 1857+27.13 TO STATION 1865+90.32

STATION 1373+00.00 TO STATION 1381+75.00

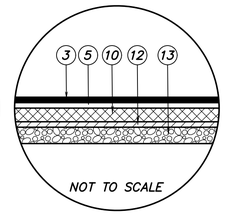


INSET A

INSET B



INSET C



INSET D

1. 1.0 In. Milling
2. 1.5 In. Asphalt Concrete Surface, Type SMA-12.5
3. 2.0 In. Asphalt Concrete Surface, Type SMA-12.5
4. Variable Depth Asphalt Concrete Surface, Type SMA-19.0
5. 2.0 In. Asphalt Concrete Surface, Type SMA-19.0
6. 3.0 In. Asphalt Concrete Surface, Type SMA-19.0
7. 2.5 In. Asphalt Concrete Base, Type BM-25.0
8. 3.0 In. Asphalt Concrete Base, Type BM-25.0
9. 4.0 In. Asphalt Concrete Base, Type BM-25.0
10. 5.0 In. Asphalt Concrete Base, Type BM-25.0
11. 7.5 In. Asphalt Concrete Base, Type BM-25.0
12. 2.0 In. Stabilized Open Graded Drainage Layer (OGDL)
13. 6.0 In. Cement Treated Aggregate, Type I, Size No. 21-A Pugmill Mixed with 4% Cement by Weight (CTA)
14. 6.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B
15. 7.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B

SKANSKA in association with

PROJECT	SHEET NO.
0064-131-811	2B(2)

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

TYPICAL SECTIONS

RTE.I-64

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	2B(3)

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

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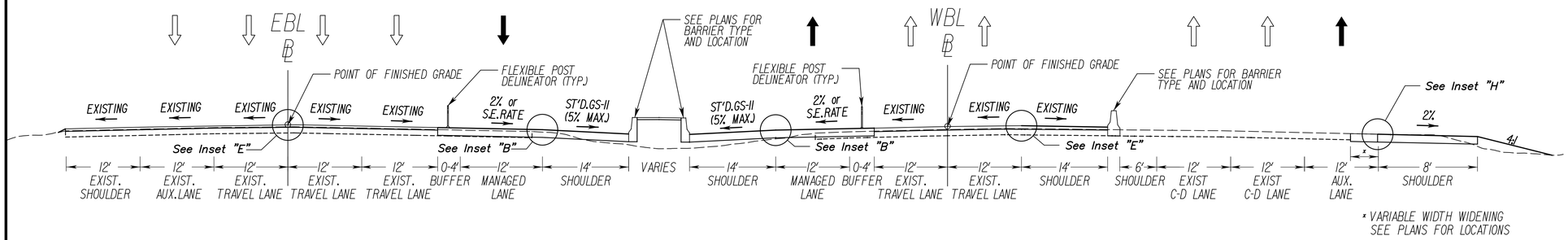
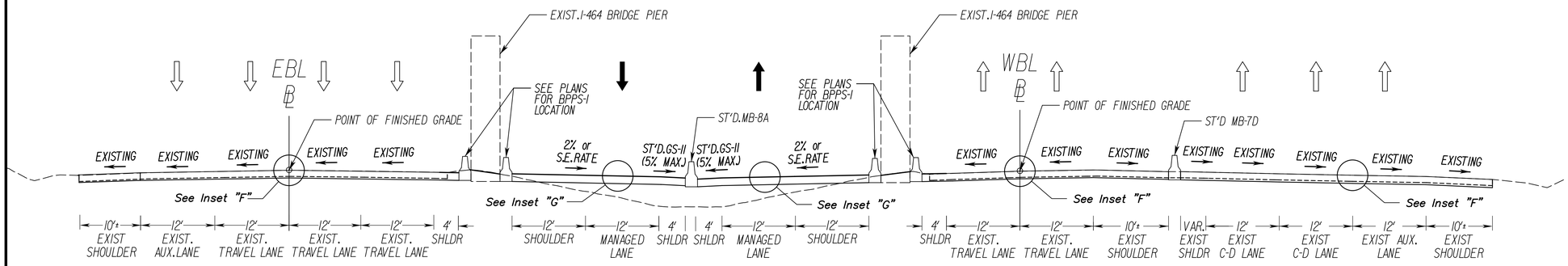
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



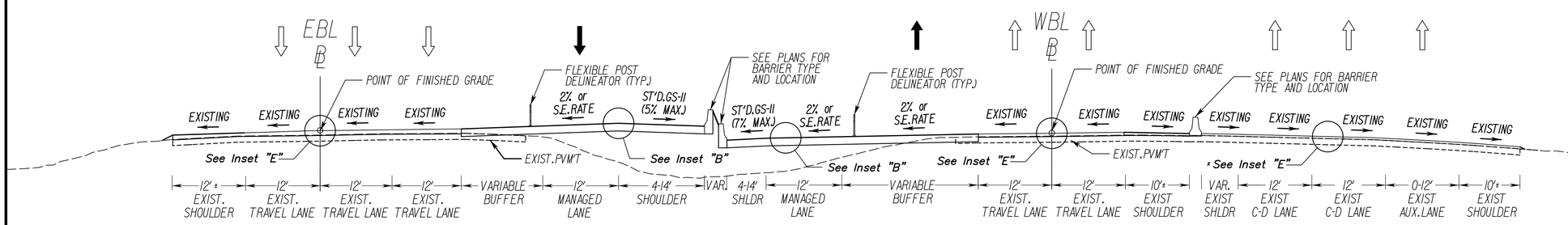
STATION 1913+63.20 TO STATION 1925+58.00

STATION 1432+82.23 TO STATION 1449+36.03



STATION 1899+00.00 TO STATION 1903+75.00

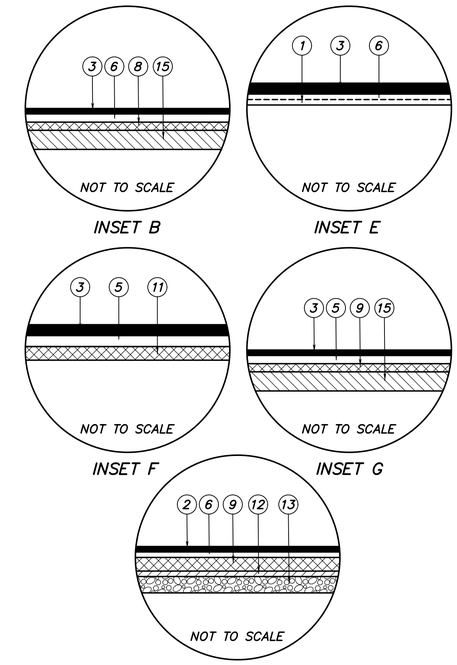
STATION 1415+45.00 TO STATION 1419+50.00



STATION 1894+00.00 TO STATION 1899+00.00
STATION 1903+75.00 STATION 1913+63.20

STATION 1403+00.00 TO STATION 1415+45.00
STATION 1419+50.00 STATION 1432+82.23

x MILL AND OVERLAY OF I-64 C-D ROAD FROM STA.1403+00.00 TO STA.1412+00.00 ONLY



1. 1.0 In. Milling
2. 1.5 In. Asphalt Concrete Surface, Type SMA-12.5
3. 2.0 In. Asphalt Concrete Surface, Type SMA-12.5
4. Variable Depth Asphalt Concrete Surface, Type SMA-19.0
5. 2.0 In. Asphalt Concrete Surface, Type SMA-19.0
6. 3.0 In. Asphalt Concrete Surface, Type SMA-19.0
7. 2.5 In. Asphalt Concrete Base, Type BM-25.0
8. 3.0 In. Asphalt Concrete Base, Type BM-25.0
9. 4.0 In. Asphalt Concrete Base, Type BM-25.0
10. 5.0 In. Asphalt Concrete Base, Type BM-25.0
11. 7.5 In. Asphalt Concrete Base, Type BM-25.0
12. 2.0 In. Stabilized Open Graded Drainage Layer (OGDL)
13. 6.0 In. Cement Treated Aggregate, Type I, Size No. 21-A Pugmill Mixed with 4% Cement by Weight (CTA)
14. 6.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B
15. 7.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	2B(3)

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03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

TYPICAL SECTIONS

RTE. I-64

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	2B(4)

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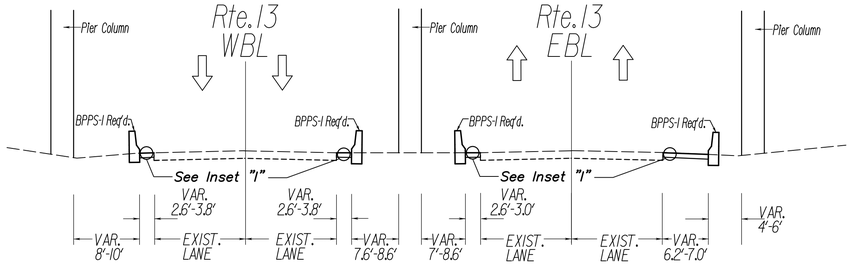
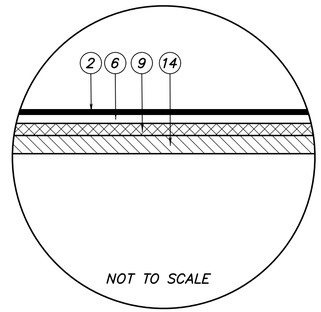
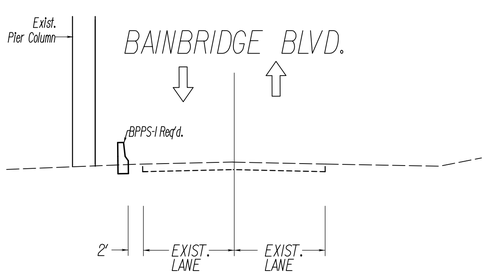
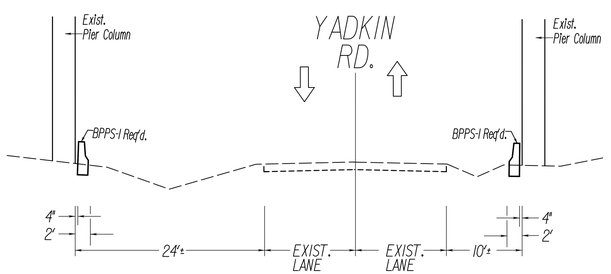
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

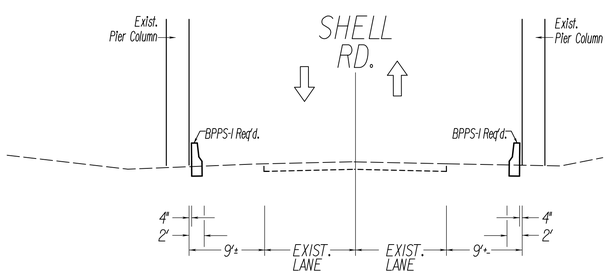




INSET I







(1) 1.0 In. Milling
(2) 1.5 In. Asphalt Concrete Surface, Type SMA-12.5
(3) 2.0 In. Asphalt Concrete Surface, Type SMA-12.5
(4) Variable Depth Asphalt Concrete Surface, Type SMA-19.0
(5) 2.0 In. Asphalt Concrete Surface, Type SMA-19.0
(6) 3.0 In. Asphalt Concrete Surface, Type SMA-19.0
(7) 2.5 In. Asphalt Concrete Base, Type BM-25.0
(8) 3.0 In. Asphalt Concrete Base, Type BM-25.0
(9) 4.0 In. Asphalt Concrete Base, Type BM-25.0
(10) 5.0 In. Asphalt Concrete Base, Type BM-25.0
(11) 7.5 In. Asphalt Concrete Base, Type BM-25.0
(12) 2.0 In. Stabilized Open Graded Drainage Layer (OGDL)
(13) 6.0 In. Cement Treated Aggregate, Type I, Size No. 21-A Pugmill Mixed with 4% Cement by Weight (CTA)
(14) 6.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B
(15) 7.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	2B(4)

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiran & Thompson Nov.25,2015

TYPICAL SECTIONS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	2B(5)

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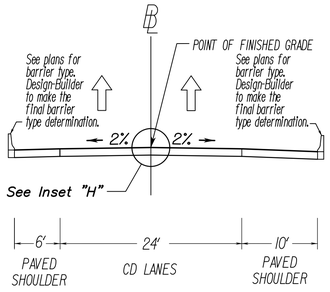
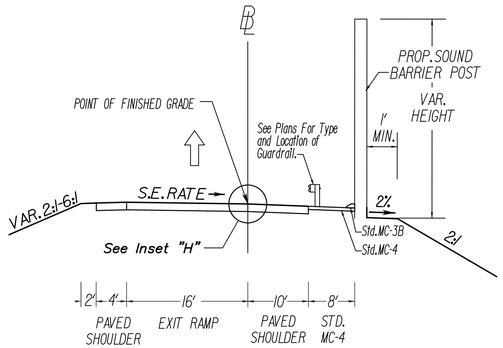
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

BATTLEFIELD BLVD RAMP



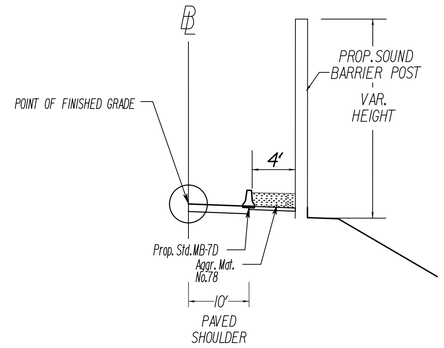
STATION 5000+00.00 TO STATION 5018+82.85

CD TO BATTLEFIELD BLVD.RAMP



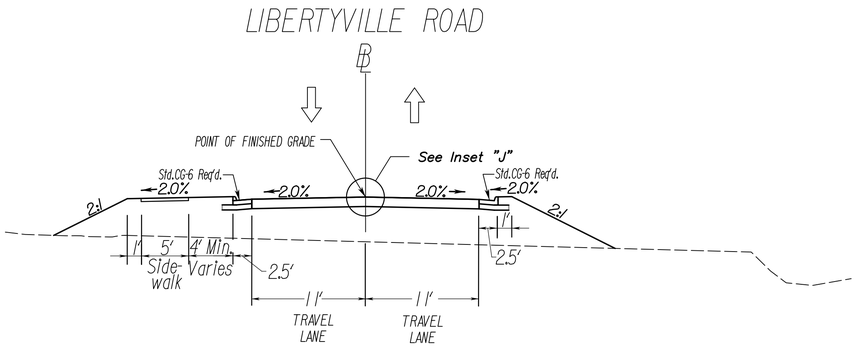
STATION 770+00.00 TO STATION 777+88.93

BATTLEFIELD BLVD.RAMP



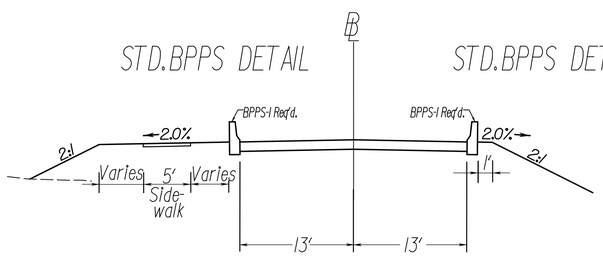
STATION 770+78.00 TO STATION 772+76.00

LIBERTYVILLE ROAD

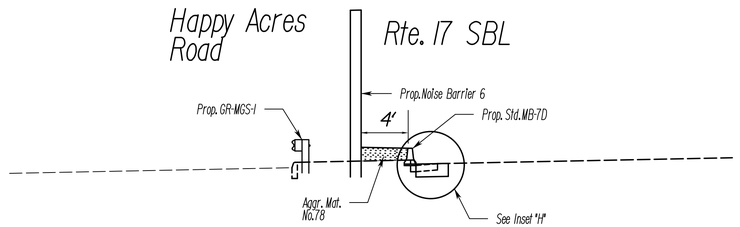


STATION 10+12.00 TO STATION 21+50.00

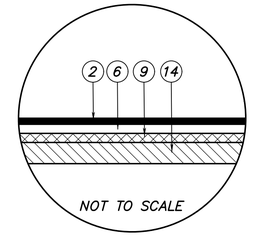
STD.BPPS DETAIL STD.BPPS DETAIL



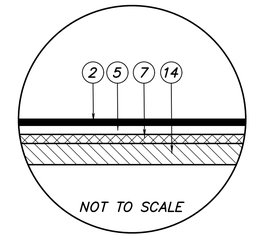
Happy Acres Road — Rte. 17 SBL



RTE 17 SB



INSET H



INSET J

1. 1.0 In. Milling
2. 1.5 In. Asphalt Concrete Surface, Type SMA-12.5
3. 2.0 In. Asphalt Concrete Surface, Type SMA-12.5
4. Variable Depth Asphalt Concrete Surface, Type SMA-19.0
5. 2.0 In. Asphalt Concrete Surface, Type SMA-19.0
6. 3.0 In. Asphalt Concrete Surface, Type SMA-19.0
7. 2.5 In. Asphalt Concrete Base, Type BM-25.0
8. 3.0 In. Asphalt Concrete Base, Type BM-25.0
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10. 5.0 In. Asphalt Concrete Base, Type BM-25.0
11. 7.5 In. Asphalt Concrete Base, Type BM-25.0
12. 2.0 In. Stabilized Open Graded Drainage Layer (OGDL)
13. 6.0 In. Cement Treated Aggregate, Type I, Size No. 21-A Pugmill Mixed with 4% Cement by Weight (CTA)
14. 6.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B
15. 7.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21-B

SKANSKA in association with

PROJECT	SHEET NO.
0064-131-811	2B(5)

03-AUG-2017
\\PWICS\ics_workingdir\100601211357_2\RFP-TypicalSection_2B(5).dgn

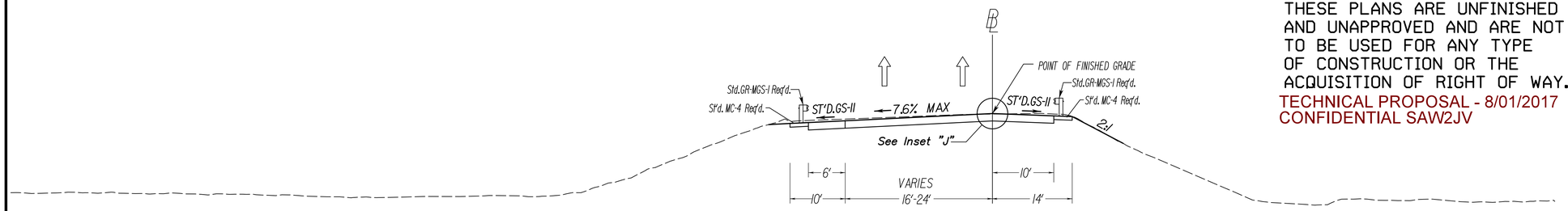
PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	2B(6)

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

TYPICAL SECTIONS

GREAT BRIDGE BLVD. RAMP



STATION 600+00.00 TO STATION 611+48.87

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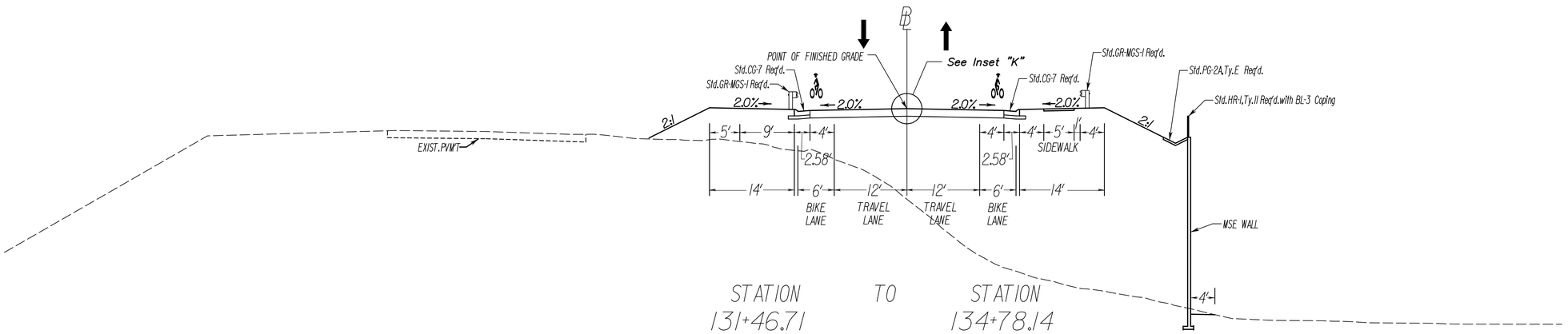
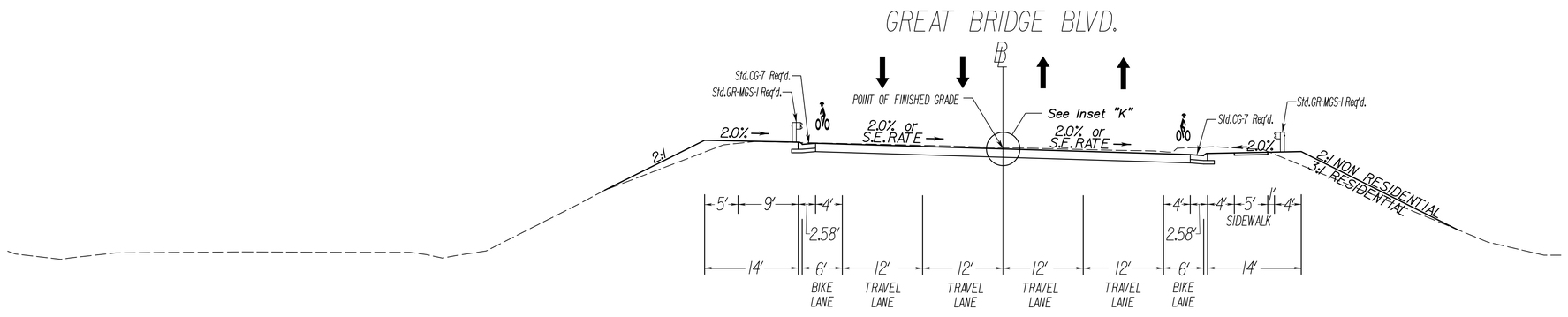
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

GREAT BRIDGE BLVD.

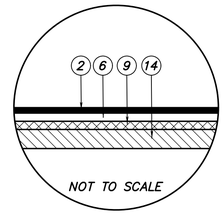


STATION 131+46.71 TO STATION 134+78.14
STATION 138+27.29 141+12.46

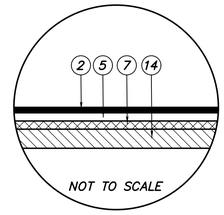
GREAT BRIDGE BLVD.



STATION 141+37.89 TO STATION 144+40.79



INSET J



INSET K

1. 1.0 In. Milling
2. 1.5 In. Asphalt Concrete Surface, Type SMA–12.5
3. 2.0 In. Asphalt Concrete Surface, Type SMA–12.5
4. Variable Depth Asphalt Concrete Surface, Type SMA–19.0
5. 2.0 In. Asphalt Concrete Surface, Type SMA–19.0
6. 3.0 In. Asphalt Concrete Surface, Type SMA–19.0
7. 2.5 In. Asphalt Concrete Base, Type BM–25.0
8. 3.0 In. Asphalt Concrete Base, Type BM–25.0
9. 4.0 In. Asphalt Concrete Base, Type BM–25.0
10. 5.0 In. Asphalt Concrete Base, Type BM–25.0
11. 7.5 In. Asphalt Concrete Base, Type BM–25.0
12. 2.0 In. Stabilized Open Graded Drainage Layer (OGDL)
13. 6.0 In. Cement Treated Aggregate, Type I, Size No. 21–A Pugmill Mixed with 4% Cement by Weight (CTA)
14. 6.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21–B
15. 7.0 In. Minimum Dense Graded Aggregate Subbase, Type I, Size No. 21–B

SKANSKA in association with

PROJECT	SHEET NO.
0064-131-811	2B(6)

15:31

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	3

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

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

1487+43.00

Std.GR-MGS-3 Req'd.

Std.GR-MGS-1 Req'd.

Noise Barrier 2

Flume Located To Visible Edge

Existing Limited Access Line

EXISTING OVERHEAD SPAN STRUCTURE AND SIGN PANELS TO REMAIN IN PLACE

Exit 299A East Portsmouth Norfolk

Exit 299B (13) (58) (460) Bowers Hill Suffolk Newport News

Curve 1-64EB_1
PI = 1490+89.08
DELTA = 1° 58' 24.93" (LT)
D = 1° 44' 10"
T = 346.08'
L = 689.63'
R = 3,300.00'
PC = 1487+43.00
PCC = 1494+32.63
V = 70 mph
LR = 261'

Begin Const./Begin Project 0064-131-811,PE-101
Sta.1489+33.00 EB I-64 Const.℄

I-64 EASTBOUND

I-64 EB Constr. ℄

PC 487+43.00

GEORGE RASBERRY II ET ALS
DB 1890 PG 501
TAX ID# 0230000001760
0.545 AC.

ROTUNDA AVENUE

NORFOLK & WESTERN RAILWAY CO
TAX ID# 0220000002400
22.572 AC.

MID-ATLANTIC LEASING CORPORATION
DB 1744 PG 433
MB 51 PG 86
TAX ID# 0230000001511
0.167 AC.

GEORGE RASBERRY II ET ALS
DB 1890 PG 501
TAX ID# 0230000001760
3.032 AC.

ALBERT G BARLOW ET ALS
WB 158 PG 486
MB 19 PG 35
TAX ID# 0230000001510
0.925 AC.

Existing R/W & Limited Access Line

Std.FOA-2,Ty-I Req'd.

Std.GR-MGS-4 Req'd.

Std.GR-MGS-1 Req'd.

Std. FOA-2,Ty-II Req'd

Std.GR-MGS-4 Req'd.

I-64 EBL

Match Line Station 1492+50 EBL- See Sheet 4

EXSTING GUARDRAIL TO REMAIN

I-64 WB Constr. ℄

PC 999+86.32

I-64 WESTBOUND

I-64 WBL

Match Line Station 1008+00 WBL- See Sheet 4

Curve I-64WB_1
PI = 1016+01.93
DELTA = 44° 00' 50.31" (LT)
D = 1° 26' 00"
T = 1,615.61'
L = 3,070.74'
R = 3,997.38'
PC = 999+86.32
PT = 1030+57.06
V = 70 mph
LR = 225'

COMMONWEALTH MARINE REPAIR INC
DB 4154 PG 36
MB 120 PG 45
TAX ID# 0230000001490
16.882 AC.

MID-ATLANTIC LEASING CORPORATION
DB 1749 PG 641
TAX ID# 0230000001491
0.824 AC.

MID-ATLANTIC LEASING CORPORATION
DB 1744 PG 433
MB 51 PG 86
TAX ID# 0230000001511
5.632 AC.

GEORGE RASBERRY II ET ALS
DB 1890 PG 501
TAX ID# 0230000001760
0.245 AC.

028 029 030

PROP.DMS ON BUTTERFLY STRUCTURE

PROP.DMS ON BUTTERFLY STRUCTURE

N.T.S.

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(1)
PROFILES	3A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	3

03-AUG-2017

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11:59

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	3A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

I-64 Eastbound

SPLINE GRADE
BEGIN CONSTR. STA. 1489+33.00
PROP. I-64EB CONSTR. ℄
PROPOSED GRADE LINE
-3.0% (Approximate)
EXISTING GROUND
ROTUNDA AVENUE
Match Line Station 1496+00 EBL- See Sheet 4A

50 45 40 35 30 25 20 15 10

33.04 16.70 16.83 33.00 45.83 45.83 45.61 45.61 45.21 45.21 44.72 44.72 44.08 44.09 43.30 43.30 42.39 42.39 41.30 41.30 40.11 40.10 38.70 38.70 37.27 37.27 35.77 35.77 34.23 34.23 32.74

1488+00.00 1489+00.00 1490+00.00 1491+00.00 1492+00.00 1493+00.00 1494+00.00 1495+00.00 1496+00.00

I-64 Westbound

EXISTING GROUND
-2.8% (Approximate)
ROTUNDA AVENUE
Match Line Station 1010+00 WBL- See Sheet 4A

50 45 40 35 30 25 20

5FT
0FT
0FT 50FT

46.54 22.17 16.64 21.46 42.77 43.44 42.62 41.77 40.77 39.70 38.54 37.29 35.98 34.60 33.18 31.72 30.29 28.88 27.58 26.41 25.29

1000+00.00 1001+00.00 1002+00.00 1003+00.00 1004+00.00 1005+00.00 1006+00.00 1007+00.00 1008+00.00 1009+00.00 1010+00.00

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	3A

03-AUG-2017

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15:31

PROJECT MANAGER Ricardo Correa, P.E. (757)494-2476 (Hampton Roads District)
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	4

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Curve I-64EB_1
PI = 1490+89.08
DELTA = 11° 58' 24.93" (LT)
D = 1° 44' 10"
T = 346.08'
L = 689.63'
R = 3,300.00'
PC = 1487+43.00
PCC = 1494+32.63
V = 70 mph
LR = 261'

Curve I-64EB_2
PI = 1506+36.30
DELTA = 34° 43' 21.92" (LT)
D = 1° 29' 18"
T = 1,203.67'
L = 2,333.20'
R = 3,850.00'
PCC = 1494+32.63
PT = 1517+65.83
V = 70 mph
LR = 230'

Match Line Station 1492+50 EBL- See Sheet 3

Match Line Station 1508+00 EBL- See Sheet 5

Match Line Station 1008+00 WBL- See Sheet 3

Match Line Station 1023+00 WBL- See Sheet 5

GEORGE RASBERRY II ET ALS
DB 1890 PG 501
TAX ID# 023000000I760
3.032 AC.

LONE OAK - CHESAPEAKE L L C
DB 8920 PG 833
MB 139 PG 72
TAX ID# 023000000232O
42.105 AC.

SUMITOMO MACHINERY CORP AMERICA
DB 2376 PG 534
MB 92 PG 25
TAX ID# 024000000I2I0
50.645 AC.

MID-ATLANTIC LEASING CORPORATION
DB 1744 PG 433
MB 51 PG 86
TAX ID# 023000000I5II
5.632 AC.

MID-ATLANTIC LEASING CORPORATION
DB 1759 PG 236
MB 56 PG 10
TAX ID# 023000000I520
2.715 AC.

MID-ATLANTIC LEASING CORP
DB 1922 PG 501
TAX ID# 023000000I540
0.405 AC.

MID-ATLANTIC LEASING CORPORATION
DB 1908 PG 791
MB 14 PG 23
GPIN# 023000000I550
0.244 AC.

MID-ATLANTIC LEASING CORPORATION
DB 1908 PG 791
TAX ID# 023000000I560
1.604 AC.

FLEETWAY PROPERTIES LLC
DB 9530 PG 503
MB 78 PG 39
TAX ID# 023000000I570
0.932 AC.

FLEETWAY PROPERTIES LLC
DB 9530 PG 503
MB 78 PG 39
TAX ID# 023000000I580
1.610 AC.

FLEETWAY PROPERTIES LLC
DB 9530 PG 503
MB 51 PG 121
TAX ID# 023000000I606
1.331 AC.

FLEETWAY PROPERTIES LLC
DB 9530 PG 503
MB 51 PG 121
TAX ID# 023000000I605
1.358 AC.

FLEETWAY PARK INC
DB 3955 PG 756
MB 51 PG 121
TAX ID# 023000000I607
0.052 AC.

WILLIAM E CURLING & BONNIE N CURLING
DB 2187 PG 132
MB 51 PG 121
TAX ID# 023000000I604
3.031 AC.

R & S PROPERTIES
DB 2527 PG 731
MB 87 PG 81
TAX ID# 023000000I650
6.723 AC.

I-64 EASTBOUND

I-64 WESTBOUND

I-64 EB Constr. ℄

I-64 WB Constr. ℄

Existing R/W & Limited Access Line

PROP. 34' CANTILEVER STRUCTURE

REMOVE EXISTING OVERHEAD CANTILEVER STRUCTURE

PROP. 82' SPAN STRUCTURE

INFORMATIONAL DMS, BETWEEN INTERCHANGES, GENERAL PURPOSE LANES

Std. GR-MGS-1 Req'd. & Std. MC-3B Req'd

Std. GR-MGS-1 Req'd.

Std. GR-MGS-2 Req'd.

Std. GR-MGS-3 Req'd.

Std. GR-MGS-4 Req'd.

70:1 TAPER

TIE TO EXISTING SHOULDER STA. 1494+68.00

TIE TO EXISTING GUARDRAIL STA. 1494+68.00

BEGIN 3° BUILD UP
BEGIN WIDENING

1503+31a

1503+31

+30.86

Prop. Grass Channel (1035+10 to 1008+00)

Curve I-64WB_1
PI = 1016+01.93
DELTA = 44° 00' 50.31" (LT)
D = 1° 26' 00"
T = 1,615.61'
L = 3,070.74'
R = 3,997.38'
PC = 999+86.32
PT = 1030+57.06
V = 70 mph
LR = 225'

PROP. GROUND MOUNT SSP-VIA

PROP. GROUND MOUNT SSP-VIA

EXPRESS LANES NO EXIT TO 460

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(1)
PROFILES	4A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	4

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	4A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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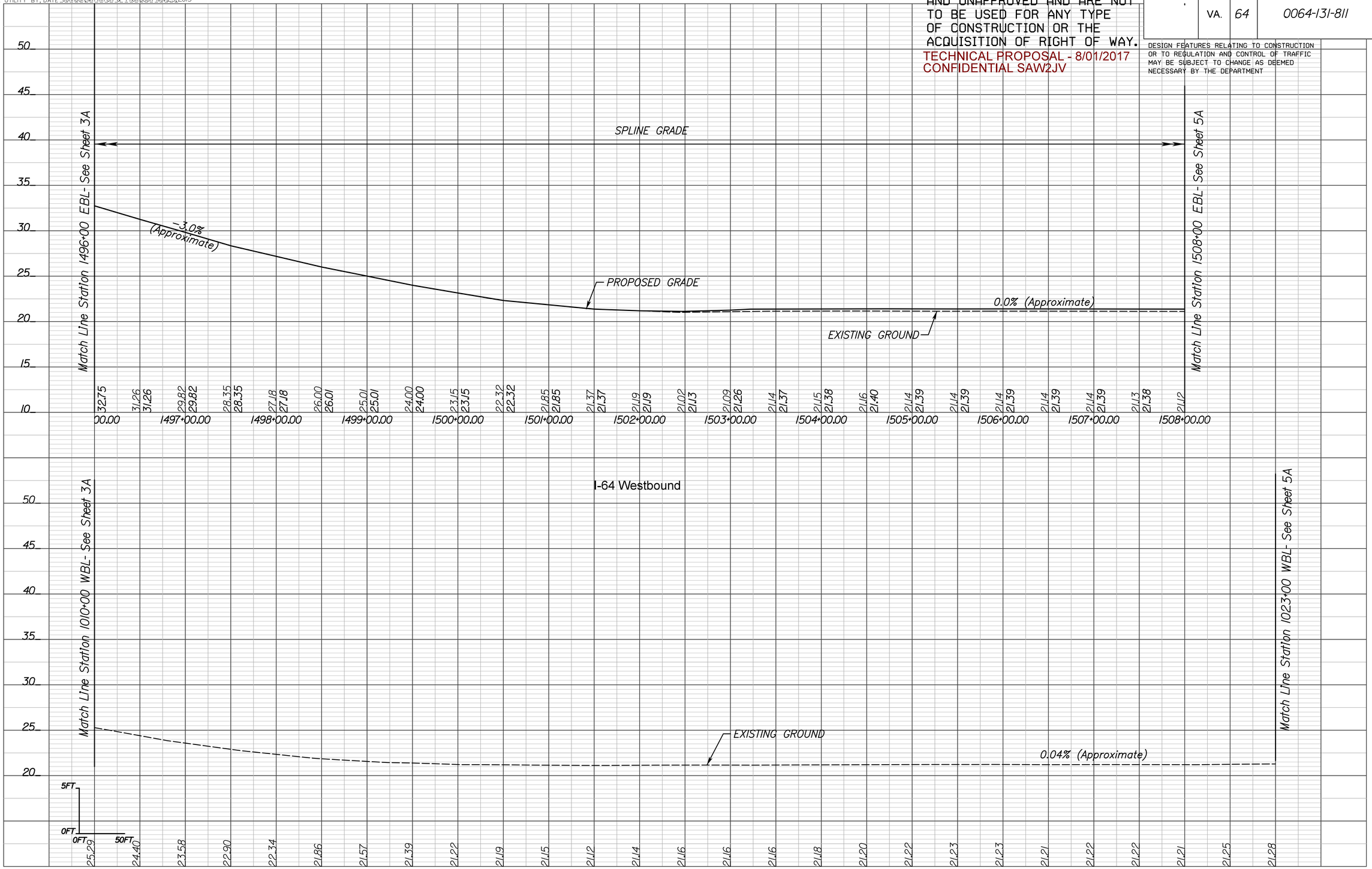
I-64 Eastbound



I-64 Westbound

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	4A

03-AUG-2017
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15:31

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiran & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	5

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

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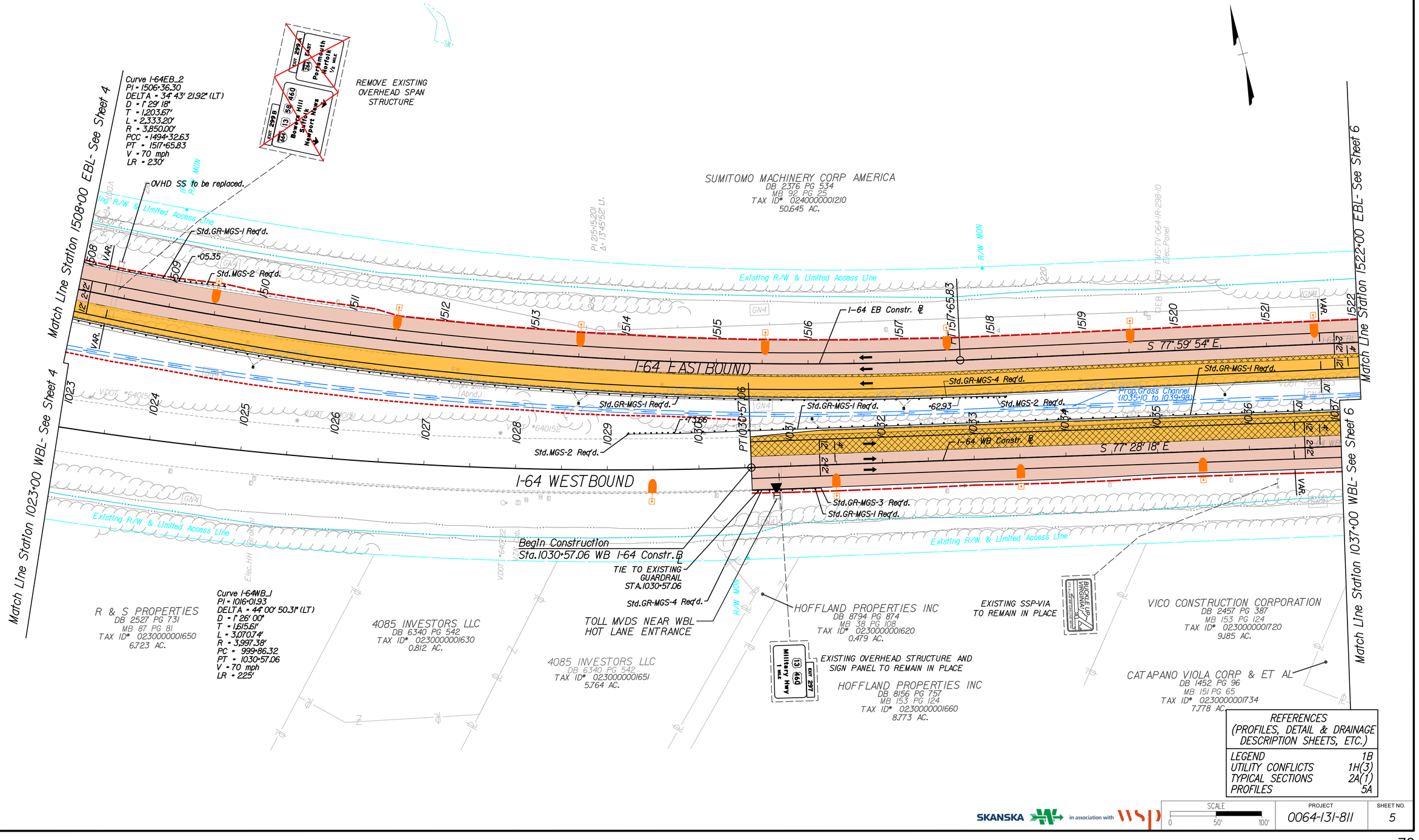
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(1)
PROFILES	5A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	5

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	5A

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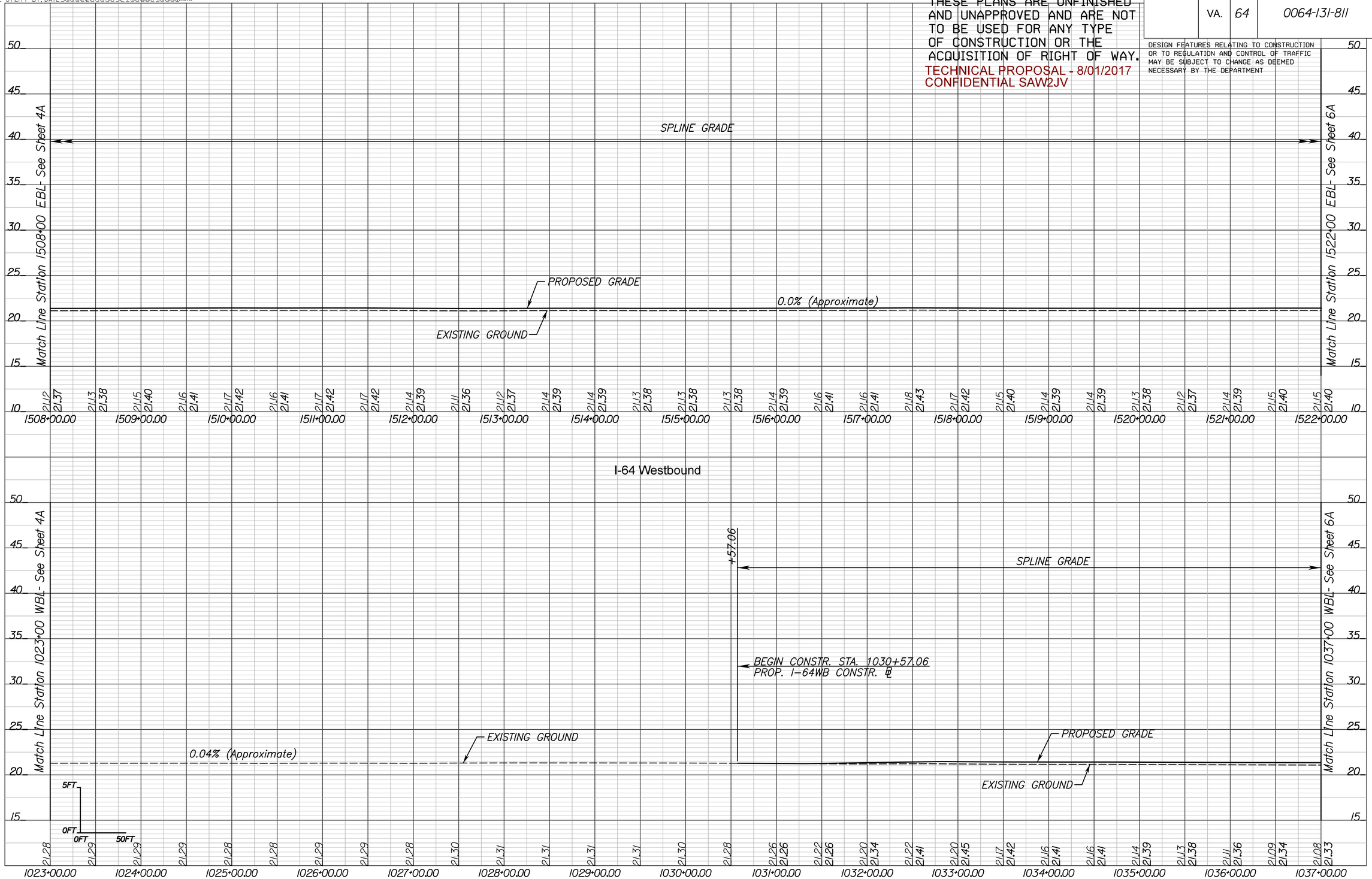

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	5A

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03-AUG-2017
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15:31

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	6

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

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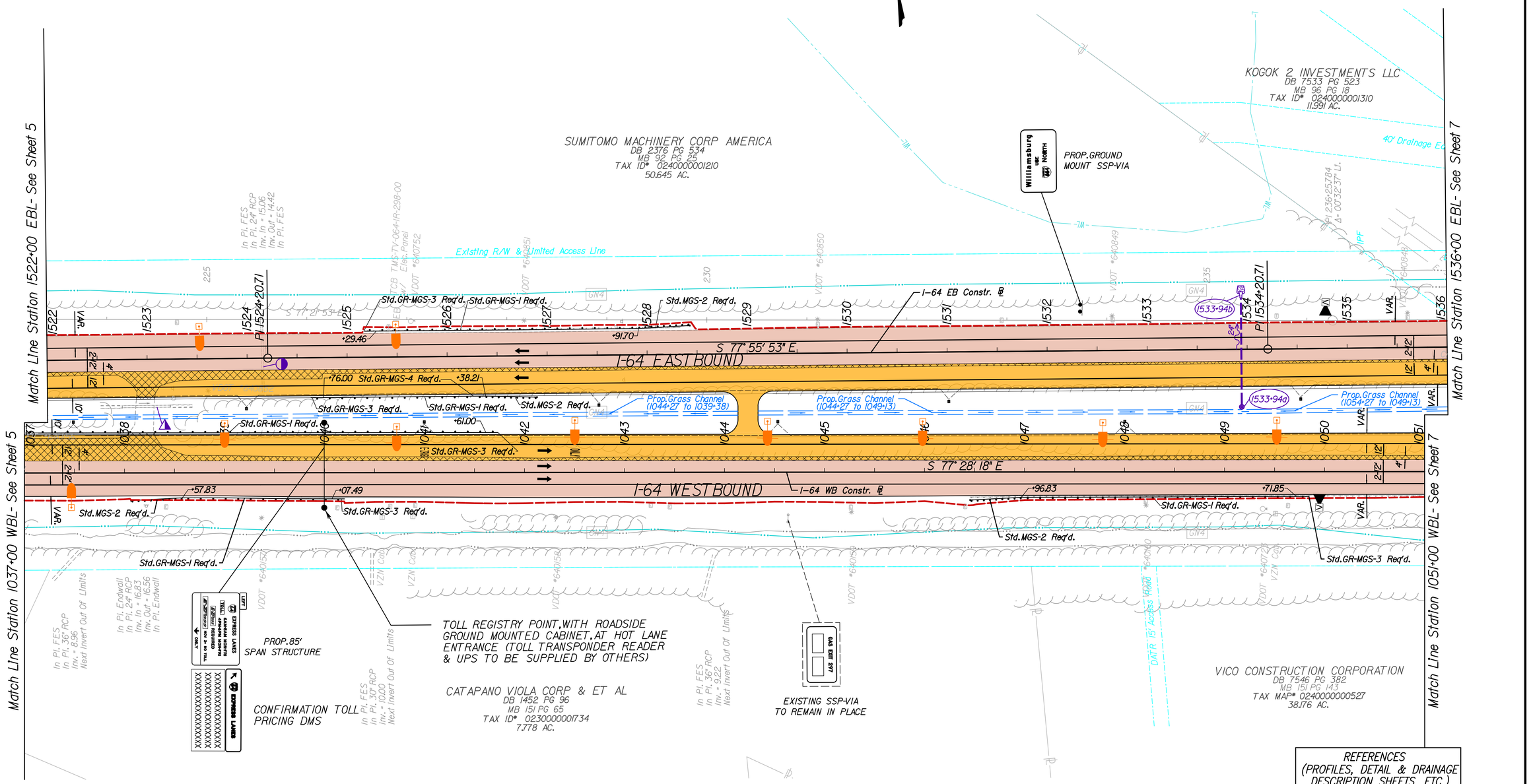
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(1)
PROFILES	6A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	6

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	6A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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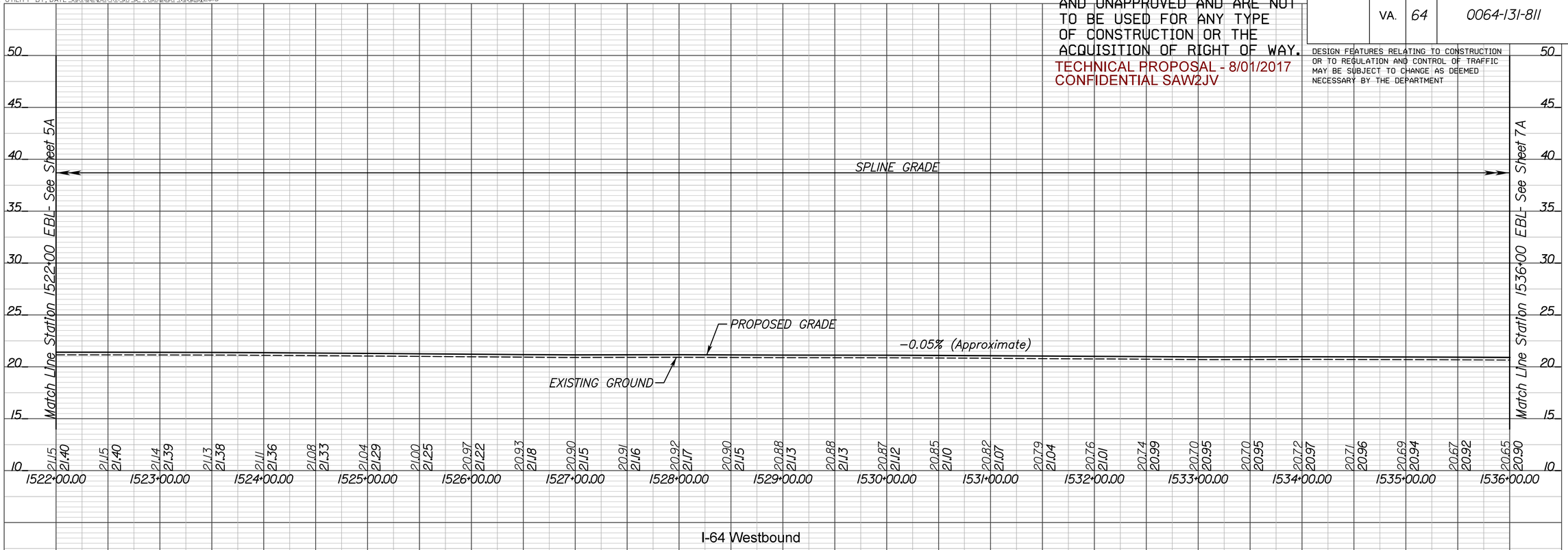
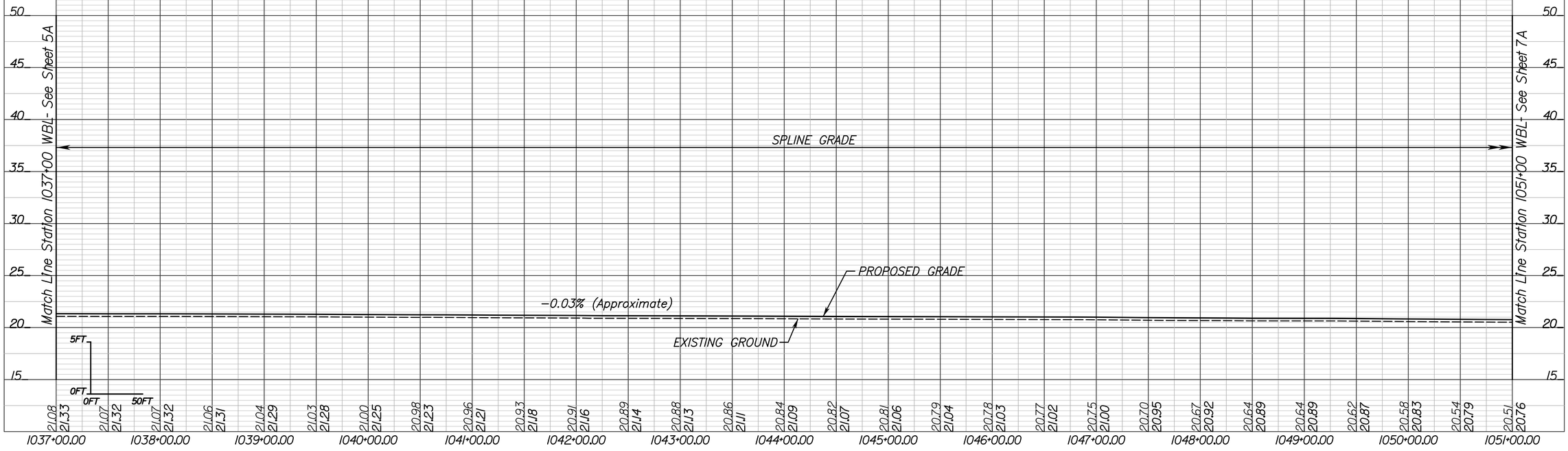
I-64 Eastbound



I-64 Westbound



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	6A

11:59
03-AUG-2017
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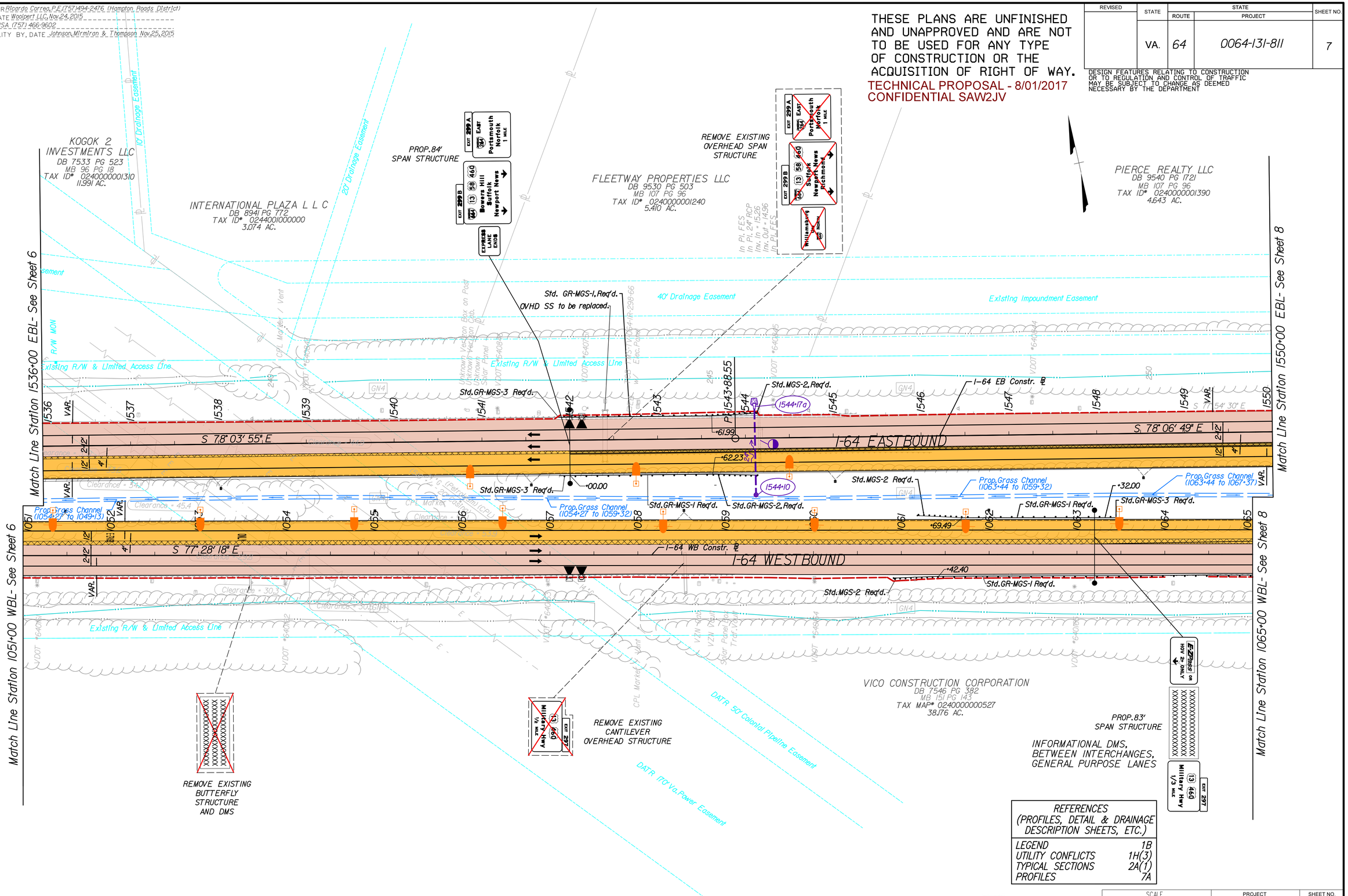
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	7

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



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

LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(1)
PROFILES	7A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	7

15:31
03-AUG-2017
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11:59

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	7A

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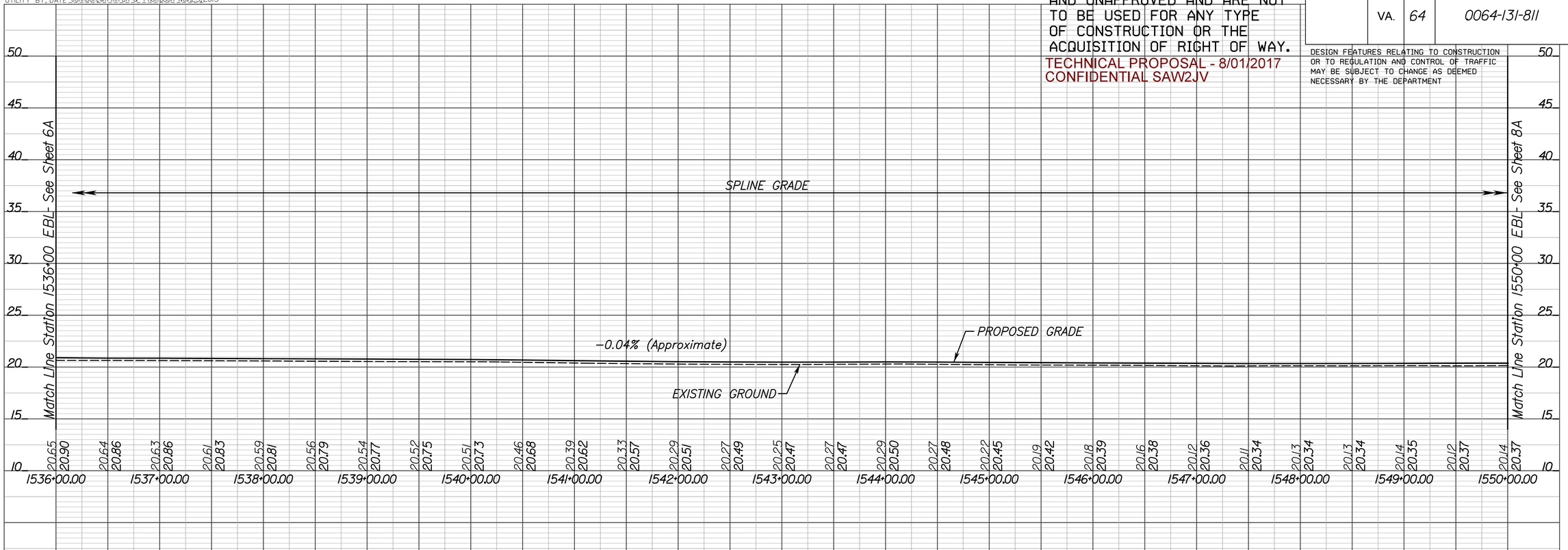
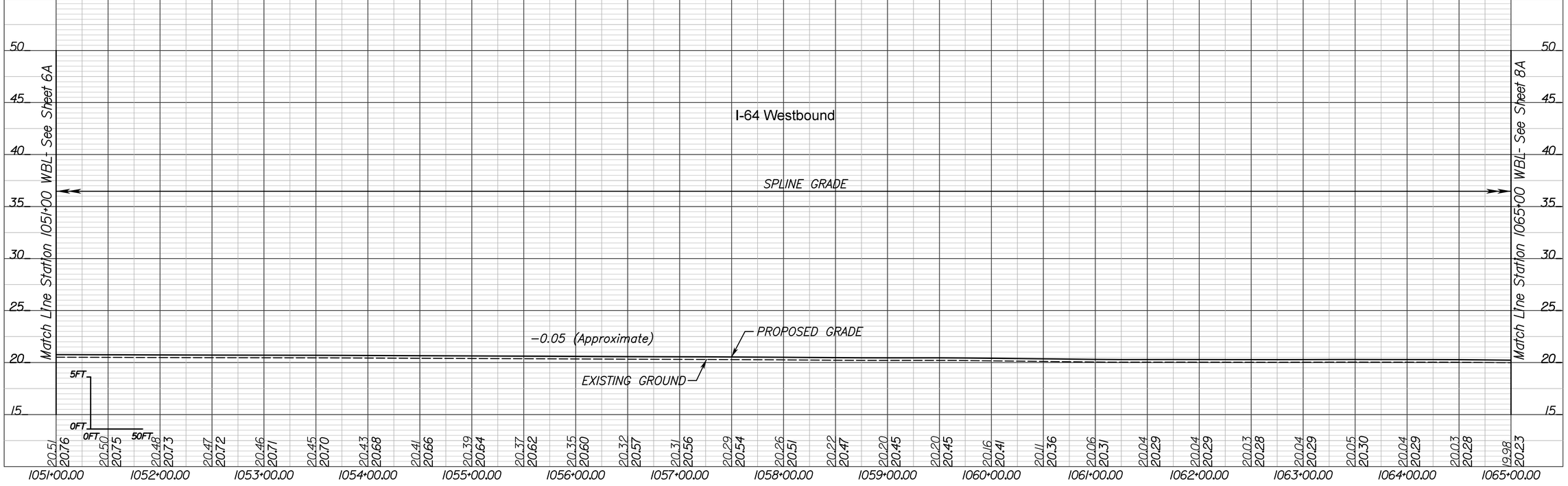
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound



I-64 Westbound



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	7A

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	8

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PIERCE REALTY LLC
DB 9540 PG 1721
MB 107 PG 96
TAX ID# 0240000001390
4.643 AC.

3933 HOLLAND L C
DB 4164 PG 157
MB 94 PG 71
GPIN# 0240000001280
2.451 AC.

In Pl. FES
In Pl. 24" RCP
Inv. In = 15.08
Inv. Out = 14.28
In Pl. FES

TECHNICAL SHELTER WITH ENFORCEMENT AREA

RWF LLC
DB 6920 PG 335
MB 101 PG 72
TAX ID# 0240000001380
1.573 AC.

TOLL GANTRY

REDI RENTALS INC
DB 2423 PG 735
MB 90 PG 75
TAX ID# 0240000001200
4.577 AC.

PROP. 84' OVERHEAD SPAN STRUCTURE
EXIT 299A EAST 24 Portsmouth Norfolk 1½ MILES
EXIT 299B 460 58 13 Bowers Hill Suffolk Newport News
EXPRESS LANE USER ½ MILE

REMOVE EXISTING SPAN STRUCTURE

EVANS INVESTMENT GROUP LLC
DB 8686 PG 97
MB 90 PG 77
TAX ID# 0240000001220
3.242 AC.

20' Drainage Easement

Curve I-64EB_3
PI = 1579+11.64
DELTA = 50° 45' 26.98" (RT)
D = 1° 30' 00"
T = 1,812.00'
L = 3,383.83'
R = 3,819.72'
PC = 1560+99.64
PT = 1594+83.48
HOT LANE ONLY: V = 70 mph; LR = 156'; e = 5.2%

DONNA J DUNCAN
DB 2177 PG 456
MB 82 PG 98
TAX ID# 0240000001170
1.537 AC.

125' Drainage Easement

In Pl. FES

Existing Impoundment Easement
40' Drainage Easement
Existing Impoundment Easement
Existing R/W & Limited Access Line
Existing R/W & Limited Access Line

Std.GR-MGS-3 Req'd.
Std.MB-7D Req'd
OVHD SS to be replaced.
Std.GR-MGS-1 Req'd.
(1563+94D)

Match Line Station 1550+00 EBL- See Sheet 7
Match Line Station 1564+00 EBL- See Sheet 9
Match Line Station 1065+00 WBL- See Sheet 7
Match Line Station 1079+00 WBL- See Sheet 9

I-64 EB Constr. ℄
I-64 WB Constr. ℄

1550 1551 1552 1553 1554 1555 1556 1557 1558 1559 1560 1561 1562 1563 1564
1065 1066 1067 1068 1069 1070 1071 1072 1073 1074 1075 1076 1077 1078 1079

Pl 1553+88.55
+89.42
PC 1560+99.64
PT 1594+83.48
PC 1075+60.93
PT 1109+70.13
+53.02
+29.02
+10.78

S 78° 06' 49" E
S 77° 55' 45" E
I-64 EASTBOUND
S 77° 28' 18" E
I-64 WESTBOUND

(1552+23)
(1552+24)
(1557+75)
(1557+75a)
(1073+36a)
(1073+36)

Prop. Grass Channel (1063+44 to 1067+37)
Prop. Grass Channel (1070+34 to 1067+37)
Begin GR 1069+00
End GR 1072+62
Std.FOA-2, TY-I, Req'd.
Std.MGS-4 Req'd.
Std.MGS-2 Req'd.
Std.MGS-1 Req'd.
Std.MB-7D Req'd
Std.GR-MGS-3 Req'd.
Std.GR-MGS-1 Req'd.
Std.MGS-4, Std.FOA-2 Req'd. TY-I, Req'd.
Begin GR 1558+50
Prop. Grass Channel (1070+34 to 1079+10)

VAR. 2-12' 12' 4'

Existing R/W & Limited Access Line
DATR Bass Swamp Road (A.K.A. Bass Lane)

TOLL GANTRY
ENFORCEMENT AREA

VICO CONSTRUCTION CORPORATION
DB 7546 PG 382
MB 151 PG 143
TAX MAP# 0240000000527
38.176 AC.

REMOVE EXISTING SPAN STRUCTURE
EXIT 297 460 13 Military Hwy

PROP. 46' OVERHEAD CANTILEVER
EXIT 297 460 13 Military Hwy

WILSON TRUCKING CORP
DB 3985 PG 177
MB 137 PG 23
TAX ID# 0240000001670
16.297 AC.

Curve I-64WB_4
PI = 1093+88.49
DELTA = 5° 08' 16.49" (RT)
D = 1° 30' 00"
T = 1,827.56'
L = 3,409.20'
R = 3,819.72'
PC = 1075+60.93
PT = 1109+70.13
HOT LANE ONLY: V = 70 mph; LR = 156'; e = 5.2%

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(1), 2A(2)
PROFILES	8A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	8

03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	8A

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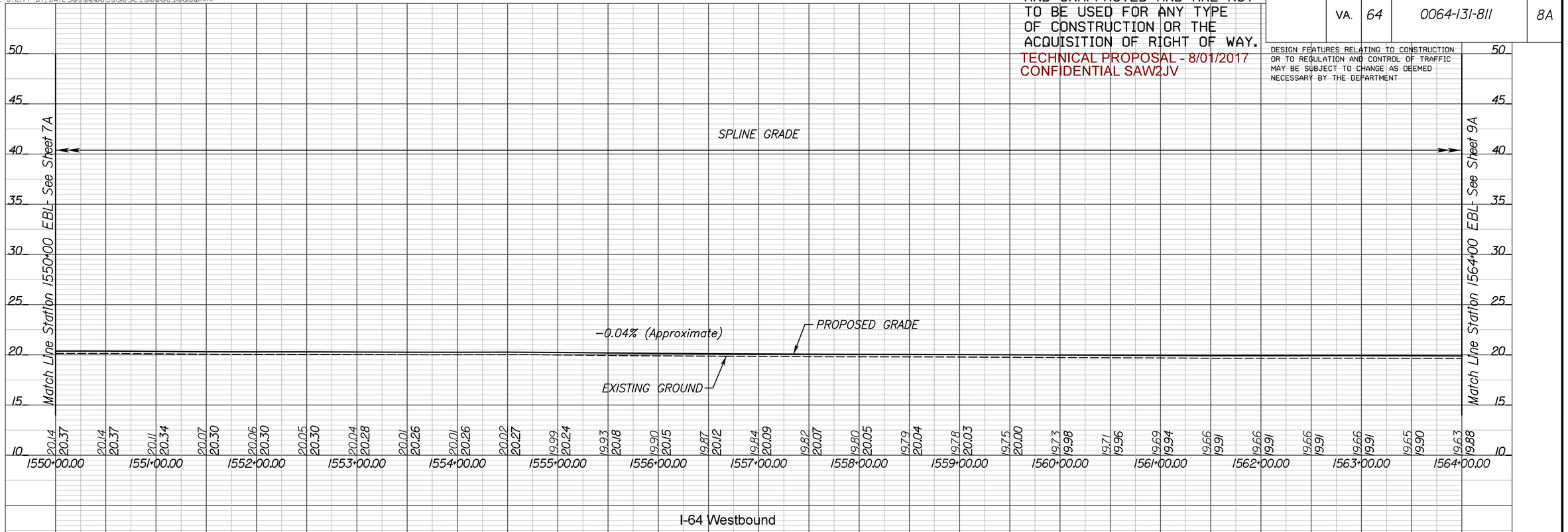
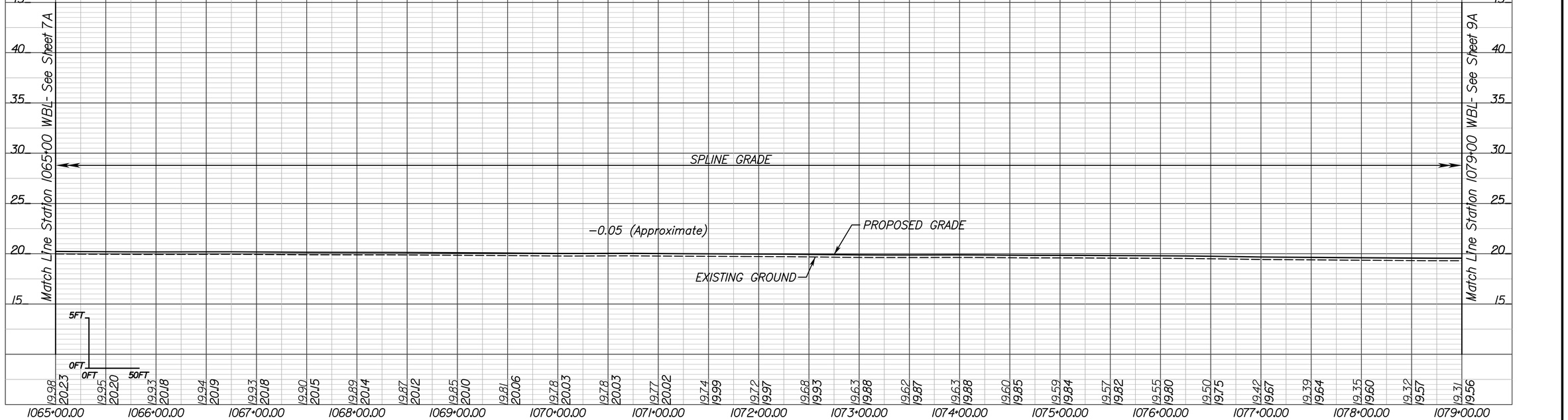
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound



I-64 Westbound



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	8A

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03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
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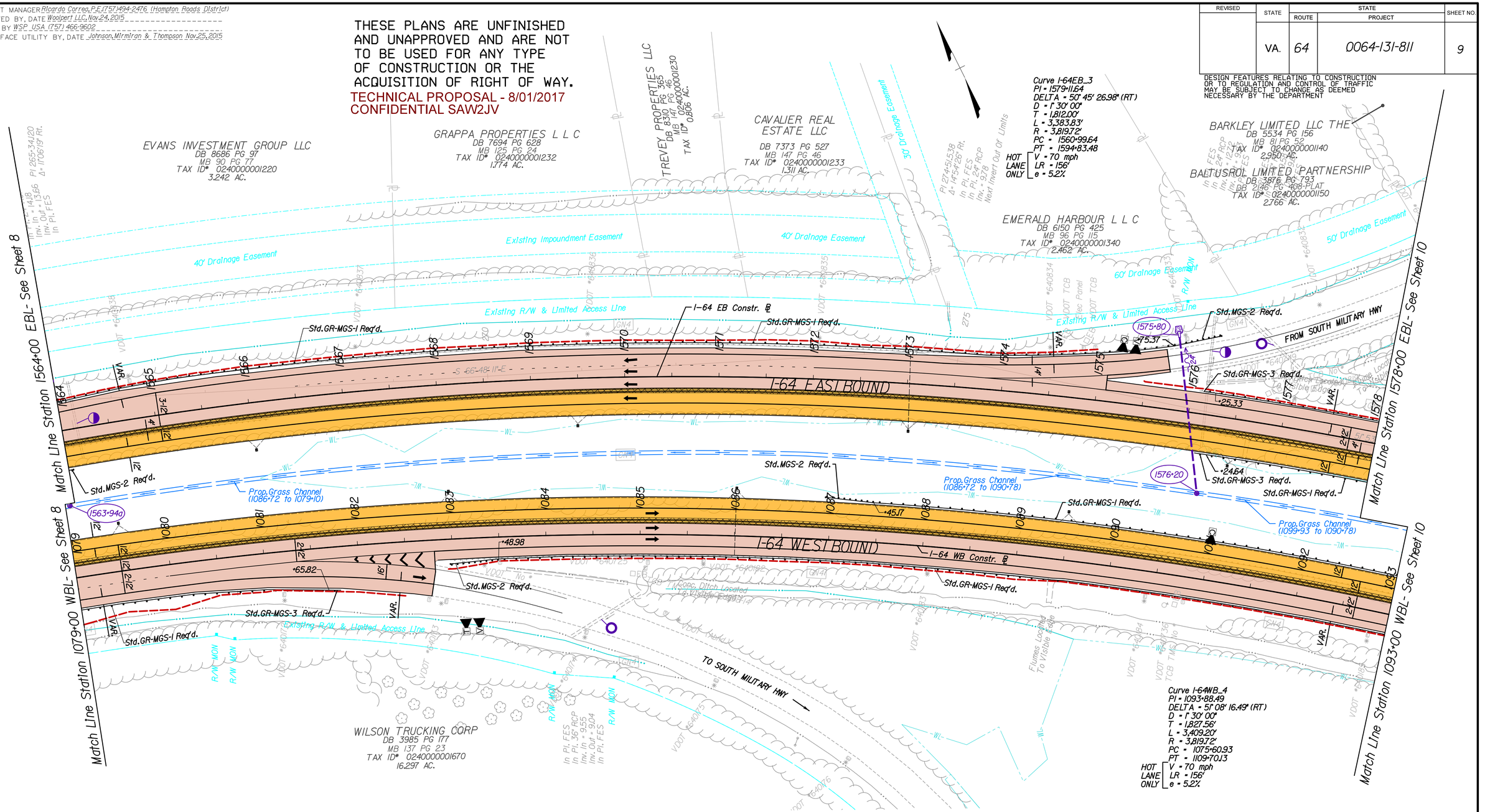
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	9

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(2)
PROFILES	9A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	9

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
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DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	9A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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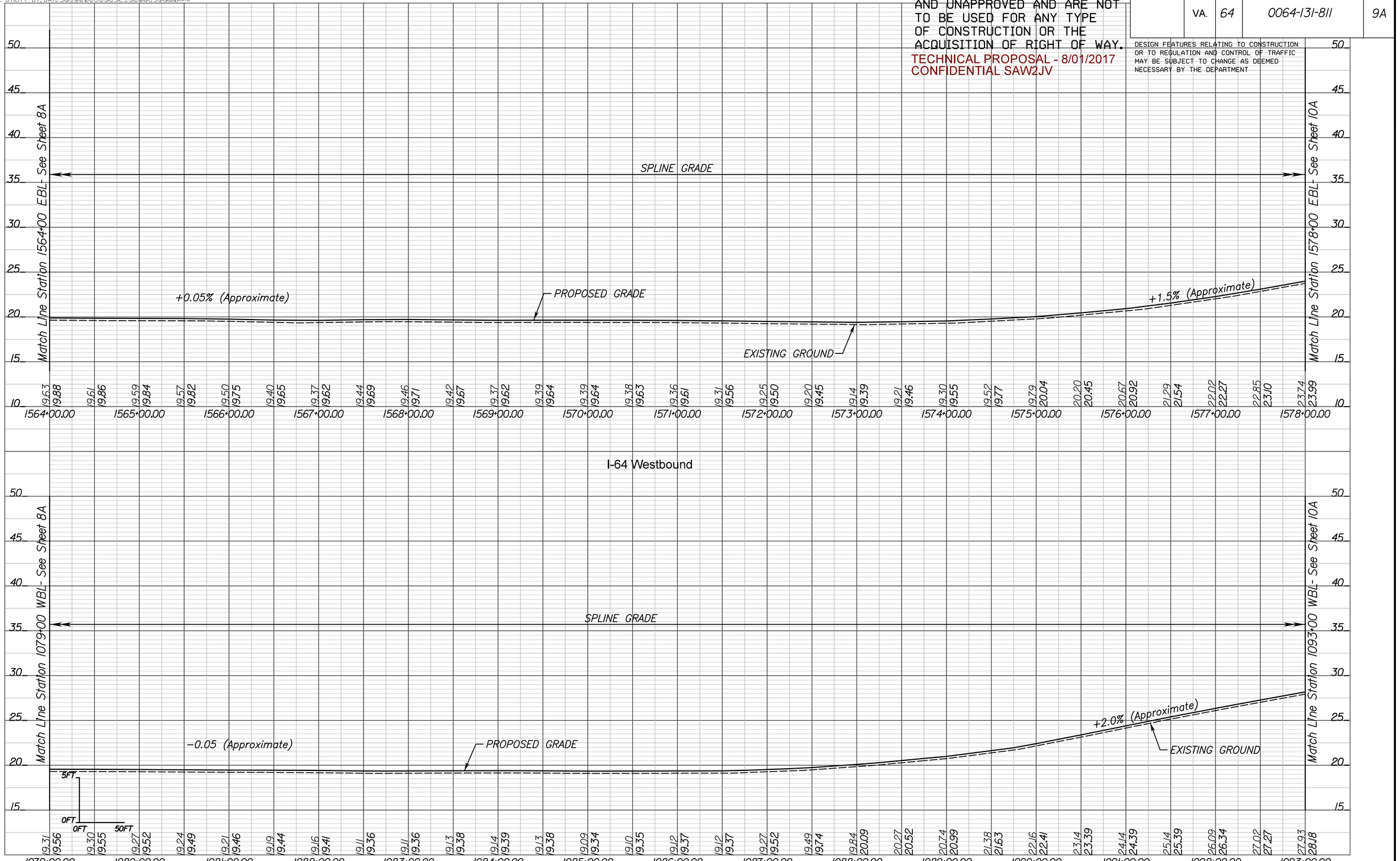
I-64 Eastbound



I-64 Westbound

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	9A

03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

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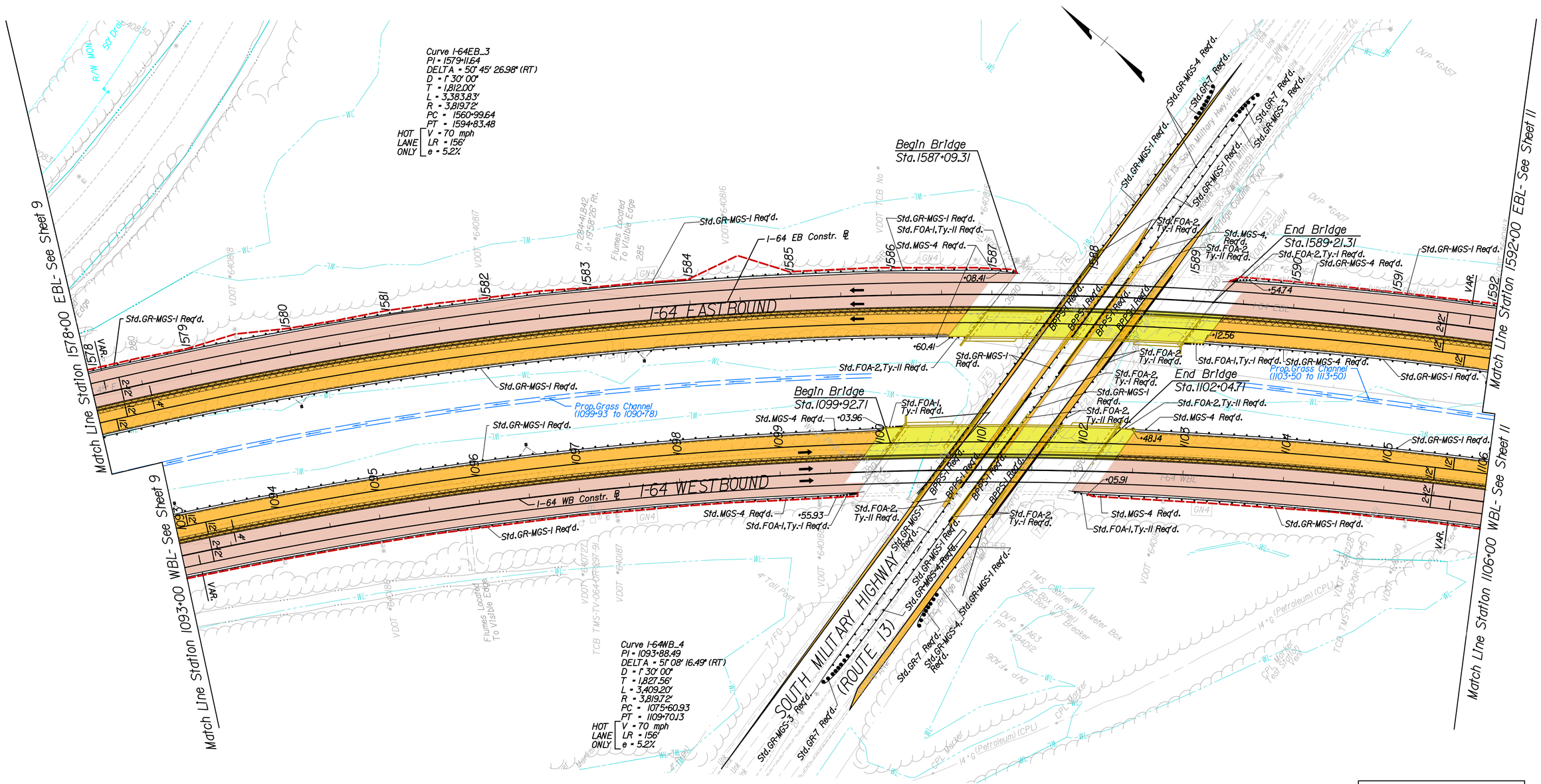
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	10

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(2)
PROFILES	10A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	10

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	10A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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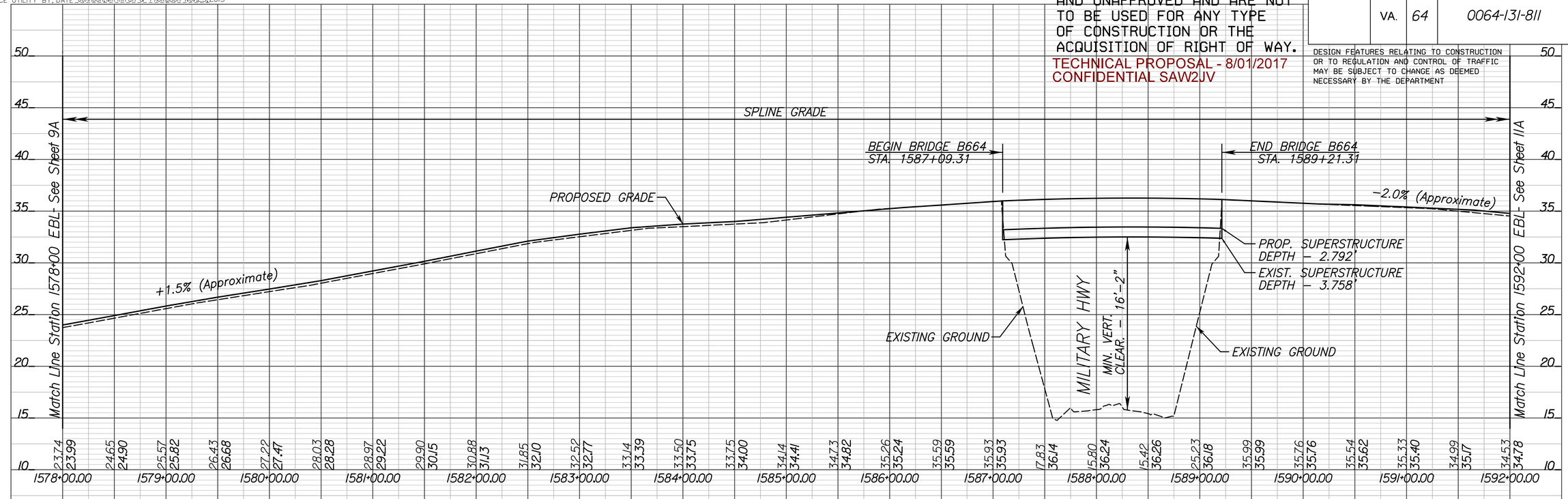
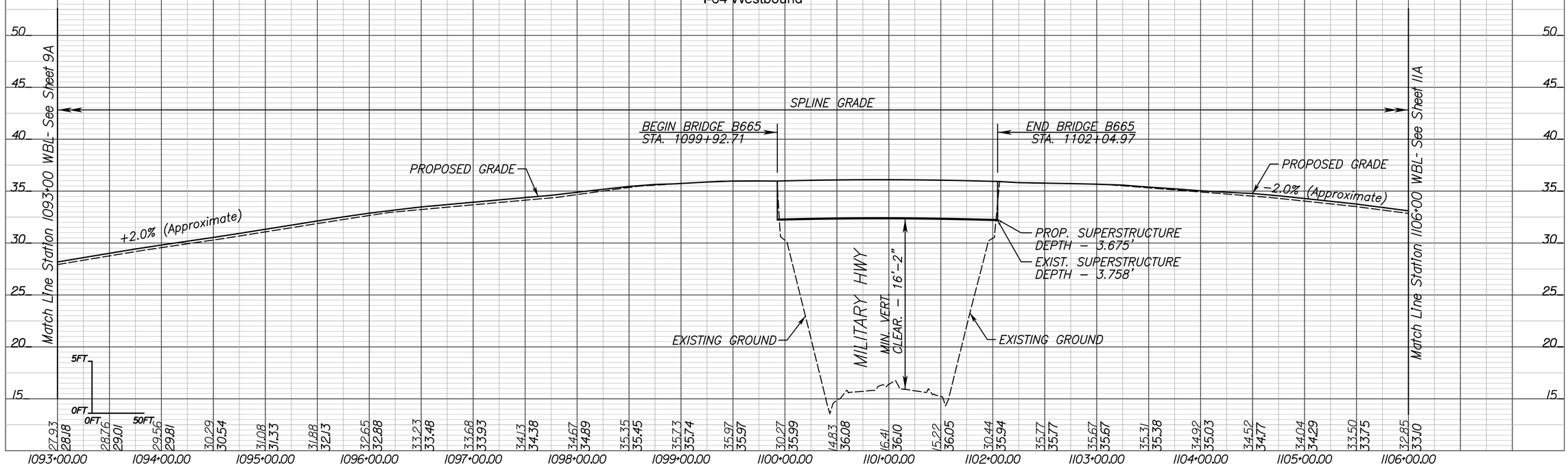
I-64 Eastbound



I-64 Westbound



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	10A

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03-AUG-2017
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15:31

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	11

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Match Line Station 1592+00 EBL- See Sheet 10

Match Line Station 1606+00 EBL- See Sheet 12

Match Line Station 1106+00 WBL- See Sheet 10

Match Line Station 1120+00 WBL- See Sheet 12

Curve I-64EB_3
PI = 1579+11.64
DELTA = 50° 45' 26.98" (RT)
D = 1° 30' 00"
T = 1,812.00'
L = 3,383.83'
R = 3,819.72'
PC = 1560+99.64
PT = 1594+83.48
HOT LANE ONLY: V = 70 mph, LR = 156', e = 5.2%

Curve I-64WB_4
PI = 1093+88.49
DELTA = 51° 08' 16.49" (RT)
D = 1° 30' 00"
T = 1,827.56'
L = 3,409.20'
R = 3,819.72'
PC = 1075+60.93
PT = 1109+70.13
HOT LANE ONLY: V = 70 mph, LR = 156', e = 5.2%

I-64 EASTBOUND

I-64 WESTBOUND

TO SOUTH MILITARY HWY

FROM SOUTH MILITARY HWY

S 27° 10' 18" E

S 26° 20' 02" E

GORDON REALTY LLC
DB 8665 PG 784
TAX ID# 0240000000252
22.677 AC.

ARTHUR CASSELL
DB 614 PG 585
TAX ID# 0240000000240
42.509 AC.

PROP. 97' SPAN STRUCTURE

EXIT 299B Petersburg Via 460

EXIT 297 (13) 460 Military Hwy

KAREN W CANSLER
DB 8474 PG 442
DB 8236 PG 801
TAX ID# 0240000000250
0.923 AC.

EDWARD CABEY ET AL
DB 7043 PG 107
MB 70 PG 98
TAX ID# 0240000000253
0.837 AC.

ROSLYN I BLY
DB 6867 PG 727
TAX ID# 0240000000200
0.405 AC.

DENNIS CUFFEE & JACELYN CUFFEE
DB 1236 PG 181
TAX ID# 0230000002400
0.385 AC.

HEARNDON GR BUILDERS LLC
DB 9499 PG 1618
DB 7080 PG 253
TAX ID# 0240000000193
1.910 AC.

HEARNDON GR BUILDERS LLC
DB 9499 PG 1641
MB 158 PG 82
TAX ID# 0240000001760
20.026 AC.

JOSEPH F FAULK & EDNA S FAULK
DB 2655 PG 779
TAX ID# 0240000000191
0.914 AC.

ELAINE WILLIAMSON
WB 151 PG 106
MB 158 PG 182
TAX ID# 0240000000190
0.400 AC.

Match Line - See Sheet IIB

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(1),2A(2)
PROFILES	11A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	11

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	11A

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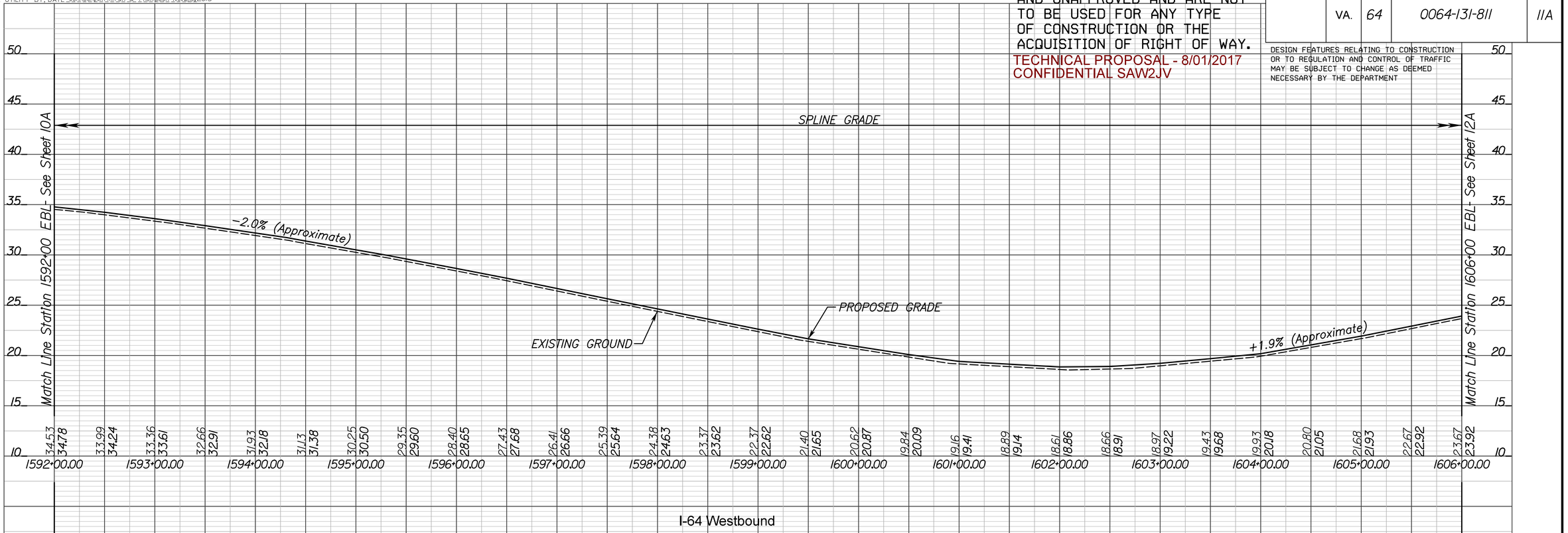
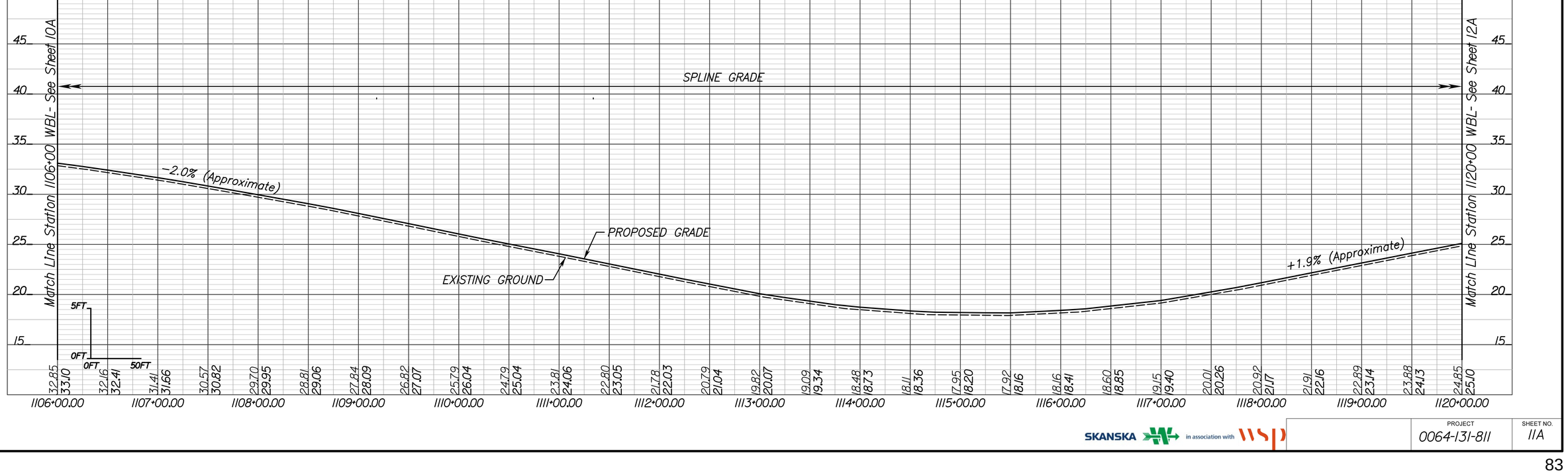
I-64 Eastbound



I-64 Westbound



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	11A

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
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TECHNICAL PROPOSAL - 8/01/2017
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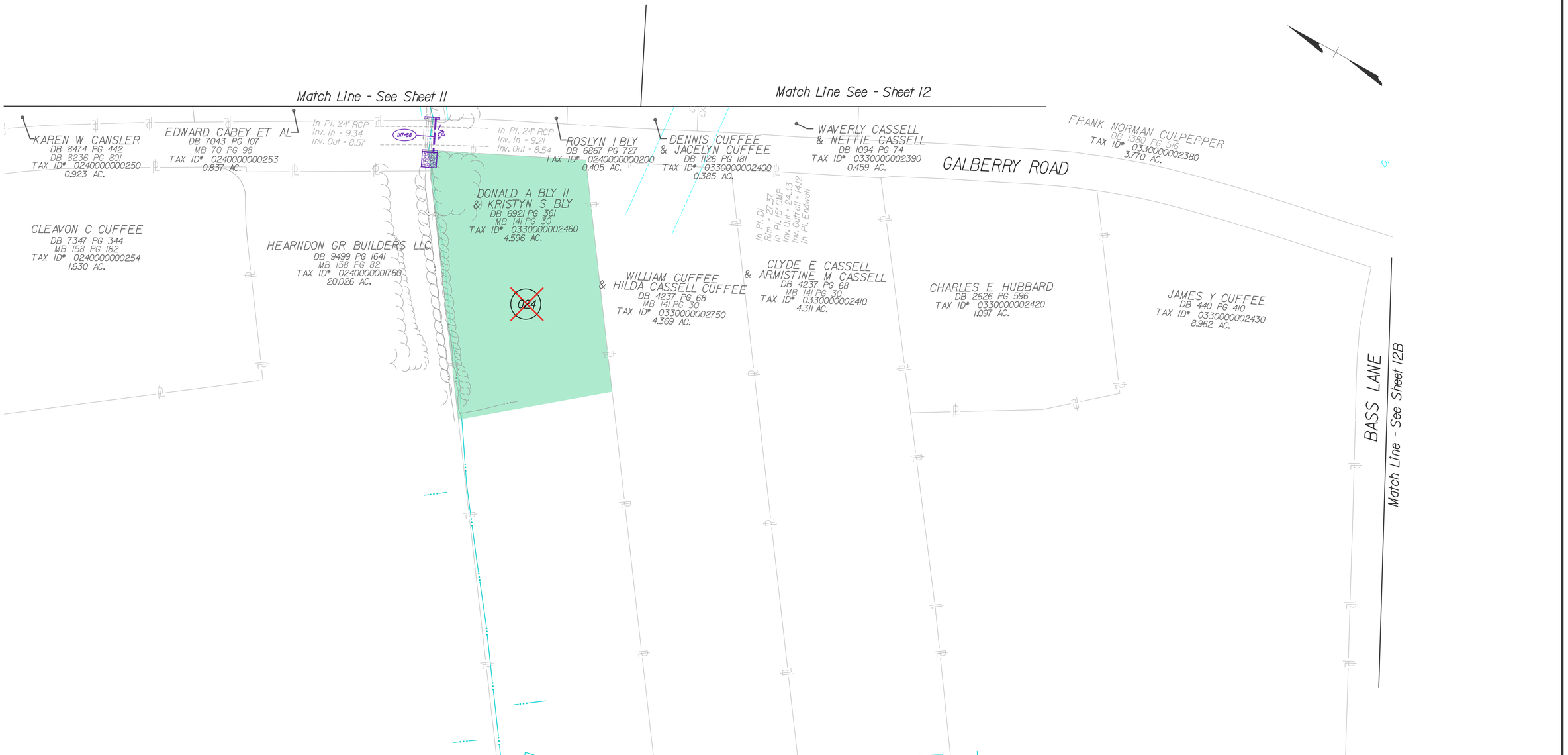
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	IIB

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	N/A
PROFILES	N/A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	IIB

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E.(757)494-2476 (Hampton Roads District)
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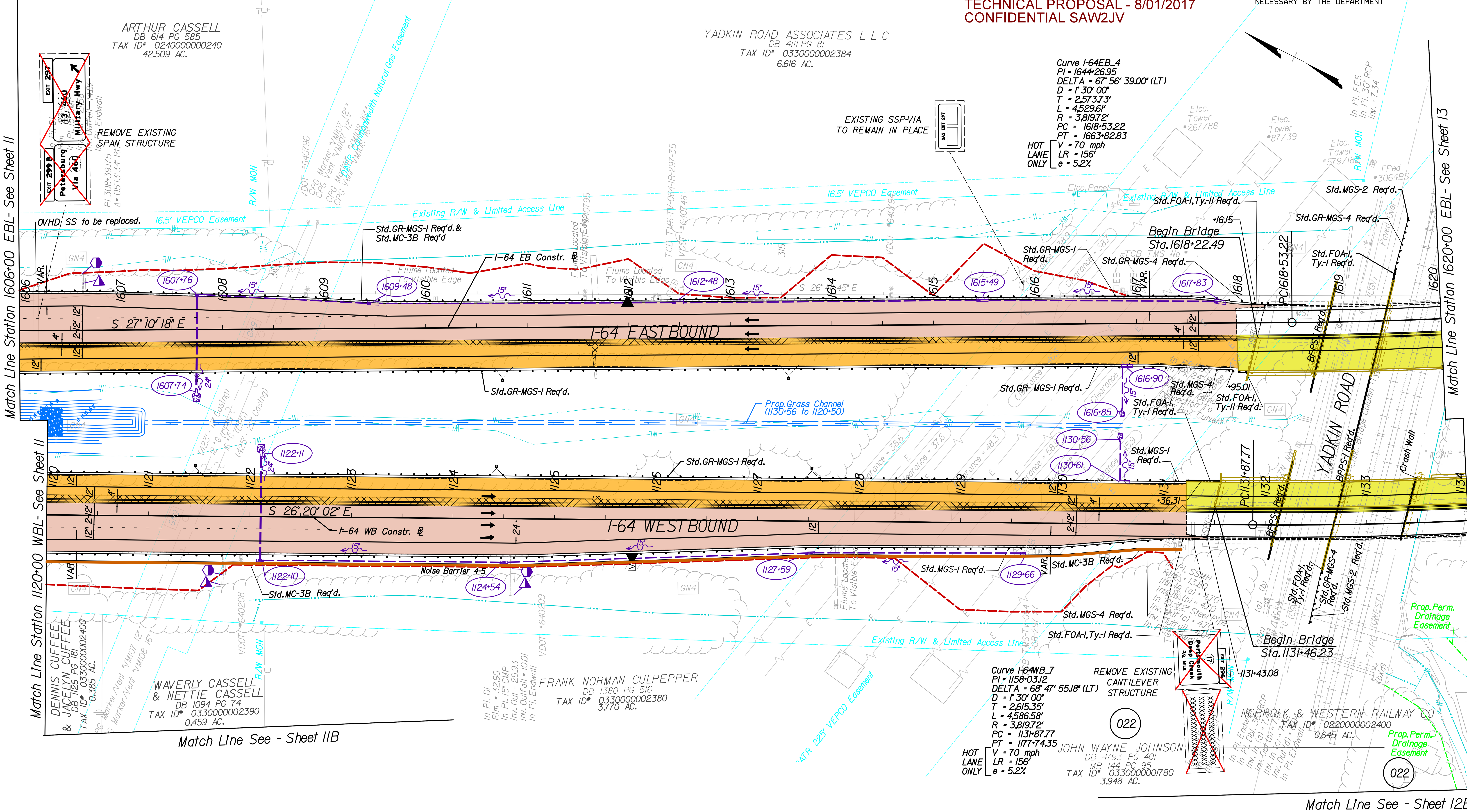
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	12

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(1),2A(2)
PROFILES	12A

03-AUG-2017

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SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	12

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03-AUG-2017
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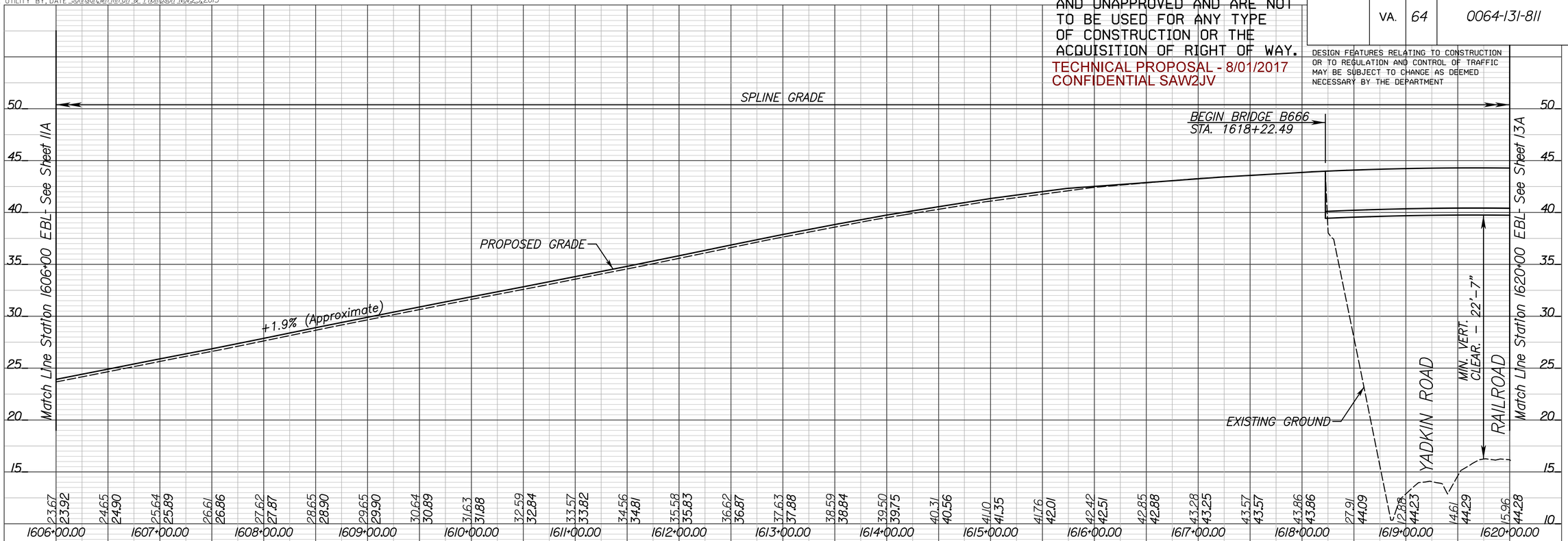
PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	12A

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound



I-64 Westbound

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	12A

15:32

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	12B

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

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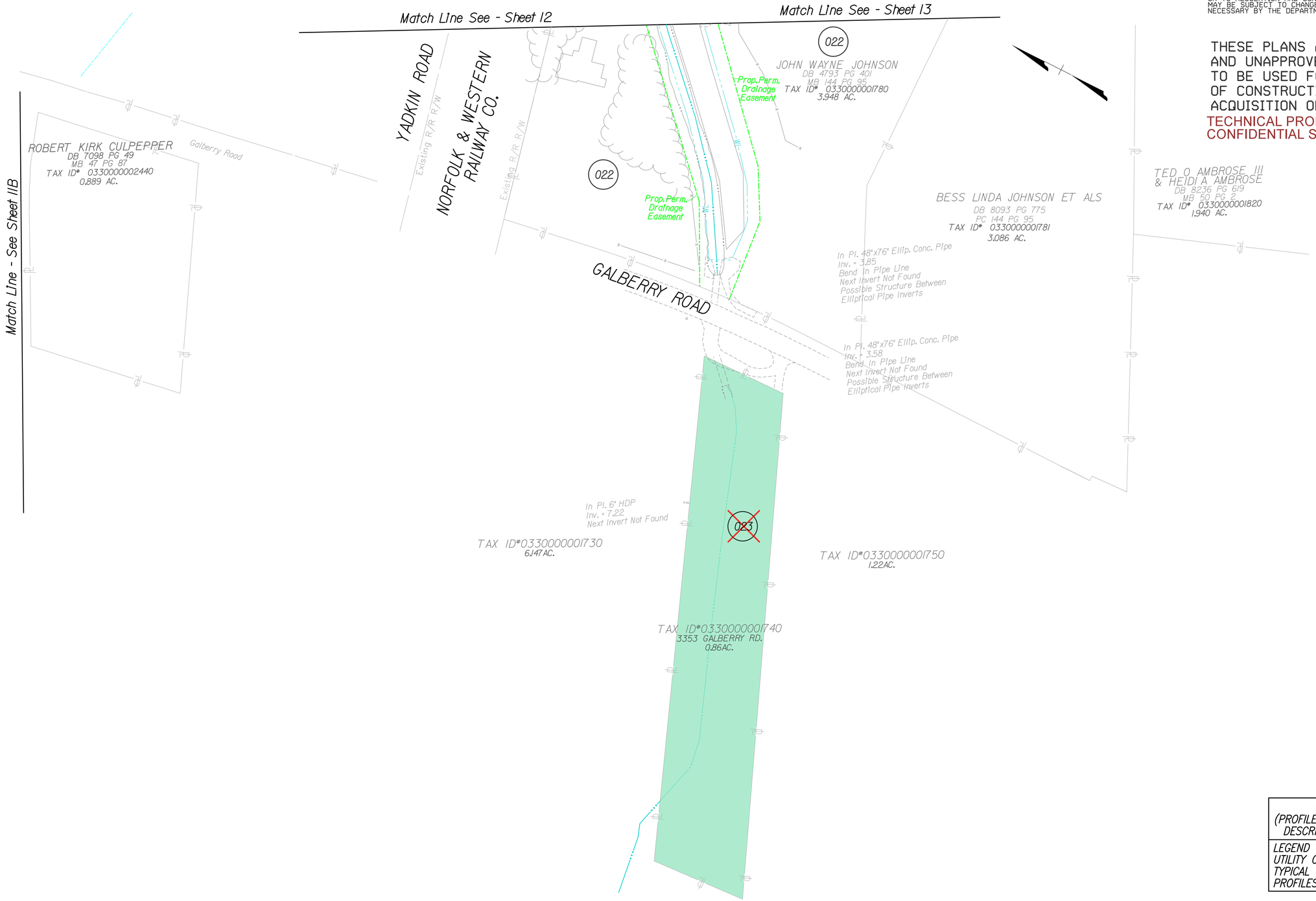
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	N/A
PROFILES	N/A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	12B

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E.(757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25, 2015

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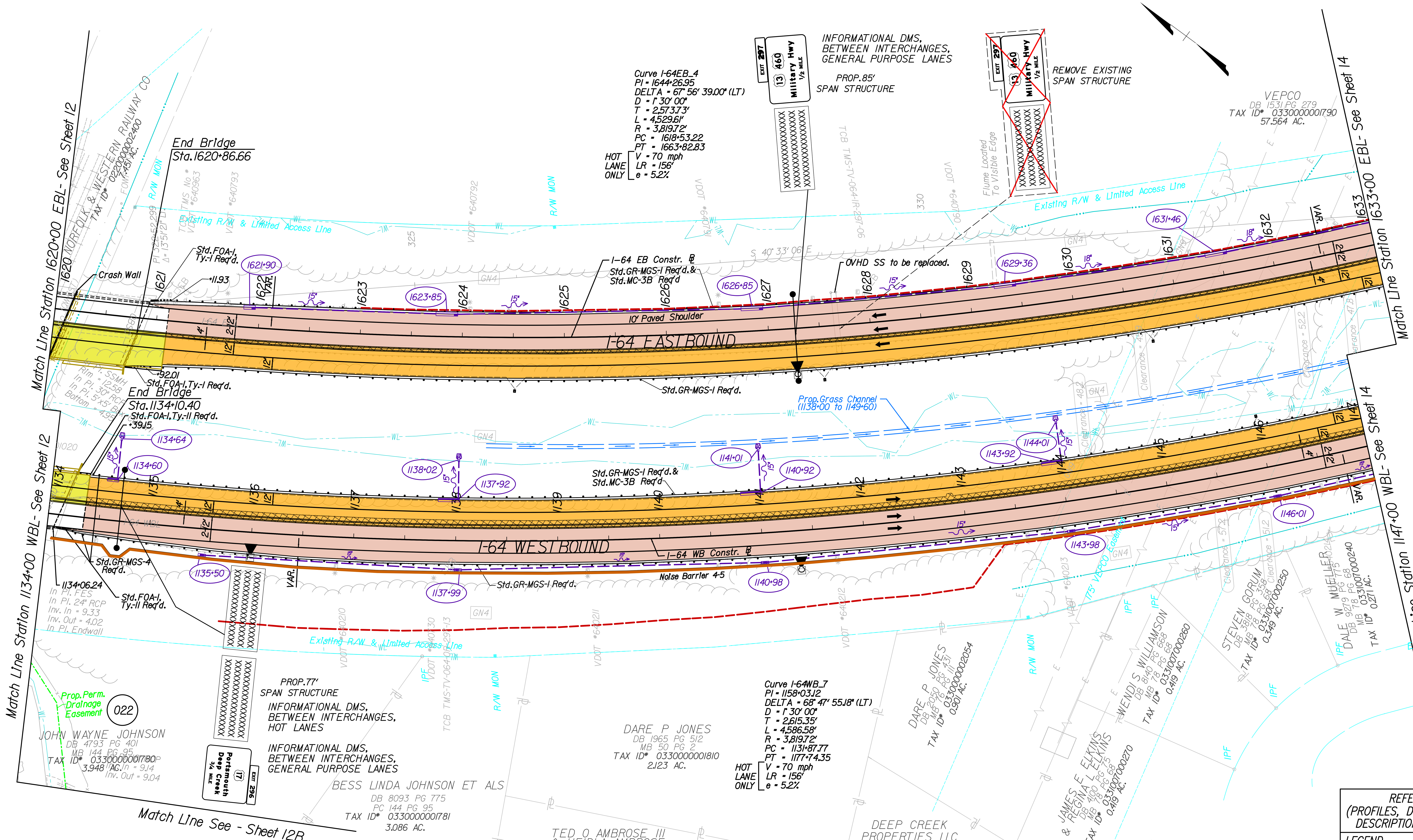
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	13

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(2)
PROFILES	13A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	13

15:31 03-AUG-2017 E:\ics_workingdir\3210\200720_12\D10436613.dgn

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	13A

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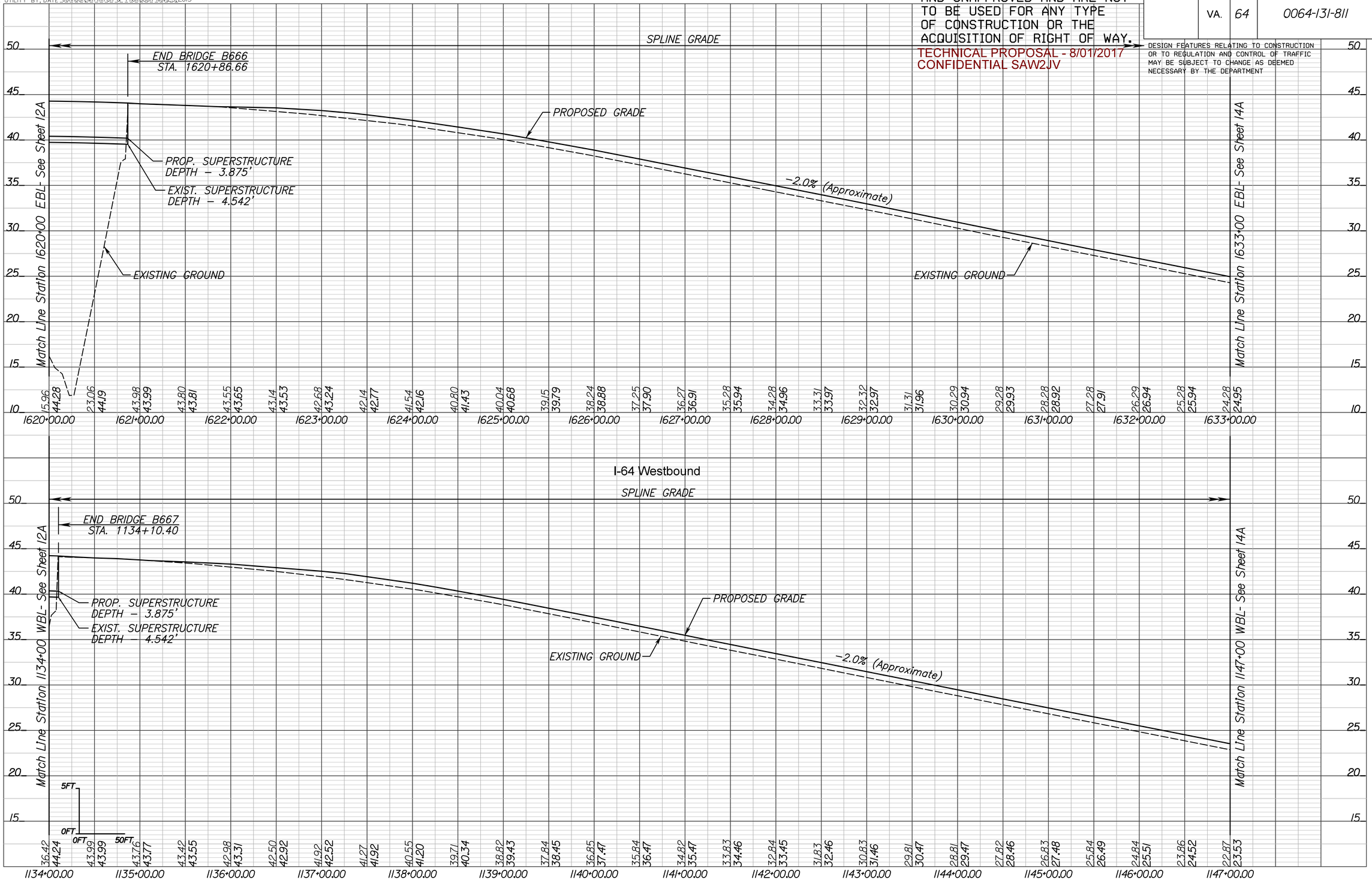
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound



I-64 Westbound

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	13A

03-AUG-2017
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15:32

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiron & Thompson Nov 25, 2015

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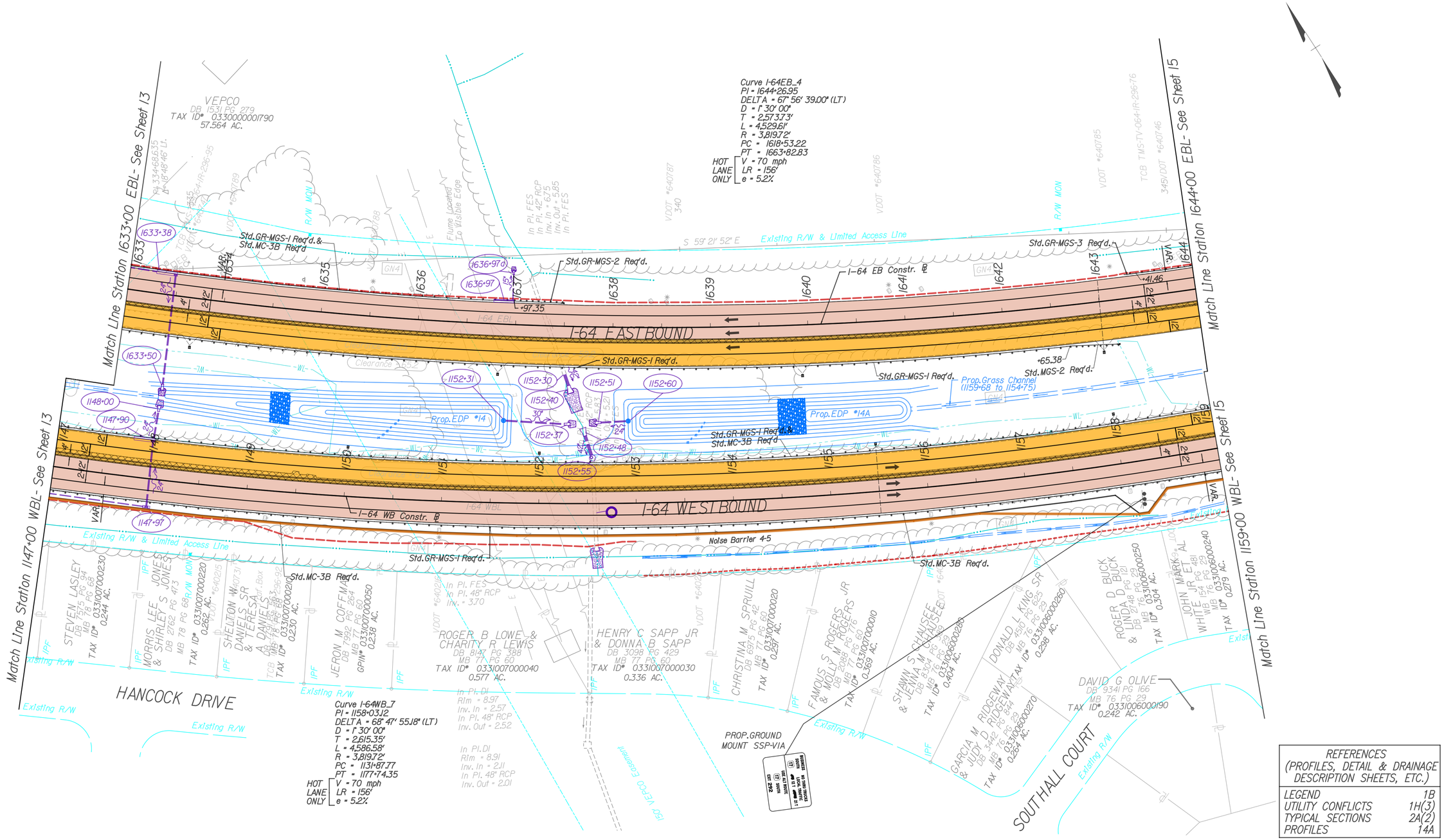
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	14

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(2)
PROFILES	14A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	14

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	14A

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

I-64 Eastbound

Match Line Station 1633+00 EBL- See Sheet 13A

SPLINE GRADE

-2.0% (Approximate)

PROPOSED GRADE

EXISTING GROUND

-0.2% (Approximate)

+0.2% (Approximate)

Match Line Station 1644+00 EBL- See Sheet 15A

1633+00.00	1634+00.00	1635+00.00	1636+00.00	1637+00.00	1638+00.00	1639+00.00	1640+00.00	1641+00.00	1642+00.00	1643+00.00	1644+00.00
24.28 / 24.95	23.26 / 23.94	22.28 / 22.90	21.29 / 21.86	20.34 / 20.92	19.38 / 19.97	18.54 / 19.13	17.72 / 18.33	17.06 / 17.77	16.45 / 17.17	15.94 / 16.69	15.52 / 16.31	15.21 / 16.02	15.04 / 15.86	14.93 / 15.74	14.91 / 15.70	14.89 / 15.66	14.86 / 15.64	14.85 / 15.60	14.87 / 15.56	14.88 / 15.55	14.88 / 15.56	14.89 / 15.57

I-64 Westbound

Match Line Station 1147+00 WBL- See Sheet 13A

SPLINE GRADE

-2.0% (Approximate)

PROPOSED GRADE

EXISTING GROUND

-0.2% (Approximate)

+0.02% (Approximate)

Match Line Station 1159+00 WBL- See Sheet 15A

5FT
0FT
0FT
50FT

1147+00.00	1148+00.00	1149+00.00	1150+00.00	1151+00.00	1152+00.00	1153+00.00	1154+00.00	1155+00.00	1156+00.00	1157+00.00	1158+00.00	1159+00.00
22.87 / 23.53	21.89 / 22.53	20.90 / 21.57	19.90 / 20.68	19.02 / 19.79	18.18 / 18.89	17.42 / 18.03	16.77 / 17.54	16.19 / 17.09	15.79 / 16.63	15.43 / 16.17	15.14 / 15.78	14.99 / 15.66	14.91 / 15.60	14.94 / 15.61	14.90 / 15.56	14.82 / 15.46	14.80 / 15.43	14.82 / 15.45	14.88 / 15.52	14.92 / 15.56	14.95 / 15.58	14.98 / 15.59	14.98 / 15.58	14.96 / 15.57

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	14A

03-AUG-2017
\\PWICSIics_workingdir\10061\200720_57\D10436614A.dgn

15:32

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiron & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	15

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

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Match Line Station 1644+00 EBL- See Sheet 14

Match Line Station 1657+00 EBL- See Sheet 16

Match Line Station 1159+00 WBL- See Sheet 14

Match Line Station 1173+00 WBL- See Sheet 16

I-64 EASTBOUND

I-64 WESTBOUND

I-64 EB Constr. ℄

I-64 WB Constr. ℄

Existing R/W & Limited Access Line

Curve I-64EB_4
PI = 1644+26.95
DELTA = 67° 56' 39.00" (LT)
D = 1° 30' 00"
T = 2,573.73'
L = 4,529.61'
R = 3,819.72'
PC = 1618+53.22
PT = 1663+82.83
HOT LANE ONLY: V = 70 mph, LR = 156', e = 5.2%

Curve I-64WB_7
PI = 1158+03.12
DELTA = 68° 47' 55.18" (LT)
D = 1° 30' 00"
T = 2,615.35'
L = 4,586.58'
R = 3,819.72'
PC = 1131+87.77
PT = 1177+74.35
HOT LANE ONLY: V = 70 mph, LR = 156', e = 5.2%

PROP. 38' CANTILEVER STRUCTURE

EXISTING OVERHEAD CANTILEVER STRUCTURE TO BE REMOVED

EXISTING SPAN STRUCTURE TO BE REMOVED

REMOVE EXISTING SSP-VIA GROUND MOUNT STRUCTURE

PROP. 94' SPAN STRUCTURE

OVHD SS to be replaced.

Std.GR-MGS-1 Req'd.
Std.GR-MGS-2 Req'd.
Std.GR-MGS-3 Req'd.
Std.MC-3B Req'd.
Std.MGS Req'd.
Noise Barrier 6
Noise Barrier 4-5
Prop.Grass Channel (1159+68 to 1154+75)
Prop.Grass Channel (1172+70 to 1161+30)

VEPCO
DB 1531 PG 279
TAX ID# 0330000001790
57.564 AC.

CHESAPEAKE LAND DEVELOPMENT LLC
DB 5293 PG 865
TAX ID# 0330000002190
12.826 AC.

WILEY BROWN & LUCY BROWN
DB 628 PG 19
TAX ID# 0330000002200
8.754 AC.

BETHEL I LLC
DB 8582 PG 151
TAX ID# 0330000002110
11.040 AC.

ANTONIO LUNDY
DB 6497 PG 1482
MB 149 PG 16
TAX ID# 0341010000030
0.345 AC.

PRESTON A JENKINS & KATHLYNE JENKINS
DB 1242 PG 850
MB 149 PG 16
TAX ID# 0341010000020
0.353 AC.

MARCUS L BAINES & LISA L KRAMER
DB 3744 PG 410
MB 76 PG 29
TAX ID# 0331006000230
0.326 AC.

MARLON VAN COLLEY
DB 2713 PG 807
MB 58 PG 33
TAX ID# 0330000002240
1.163 AC.

SHEILA S ELLIOTT & S W JOHNSON
DB 4200 PG 194
TAX ID# 0330000002210
1.704 AC.

WILEY BROWN & LUCY BROWN
DB 628 PG 19
TAX ID# 0330000002200
1.364 AC.

CHESAPEAKE LAND DEVELOPMENT LLC
DB 5293 PG 865
TAX ID# 0330000002190
1.484 AC.

SCHOOL BOARD CITY OF CHESAPEAKE
DB 1795 PG 104
MB 151 PG 102
TAX ID# 0330000002060
50.360 AC.

SNH CHS PROPERTIES TRUST
DB 5048 PG 65
DB 1788 PG 396
TAX ID# 0342000800280
4.803 AC.

MATTHEW CHURCHMAN & ERIKA M CHURCHMAN
DB 5962 PG 251
MB 154 PG 28
TAX ID# 0331006000200
0.220 AC.

JOHN MARK WHITE JR ET AL
MB 154 PG 28
76 PG 29
TAX ID# 0331006000240
0.279 AC.

KIMBERLY M GREEN & JAMES C GREEN JR
DB 3439 PG 101
MB 76 PG 29
TAX ID# 0331006000220
0.263 AC.

MARK A DUNCAN
DB 3641 PG 259
MB 76 PG 29
TAX ID# 0331006000210
0.335 AC.

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

LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(2)
PROFILES	15A

SKANSKA in association with WSP

SCALE 0 50' 100'

PROJECT	SHEET NO.
0064-131-811	15

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	15A

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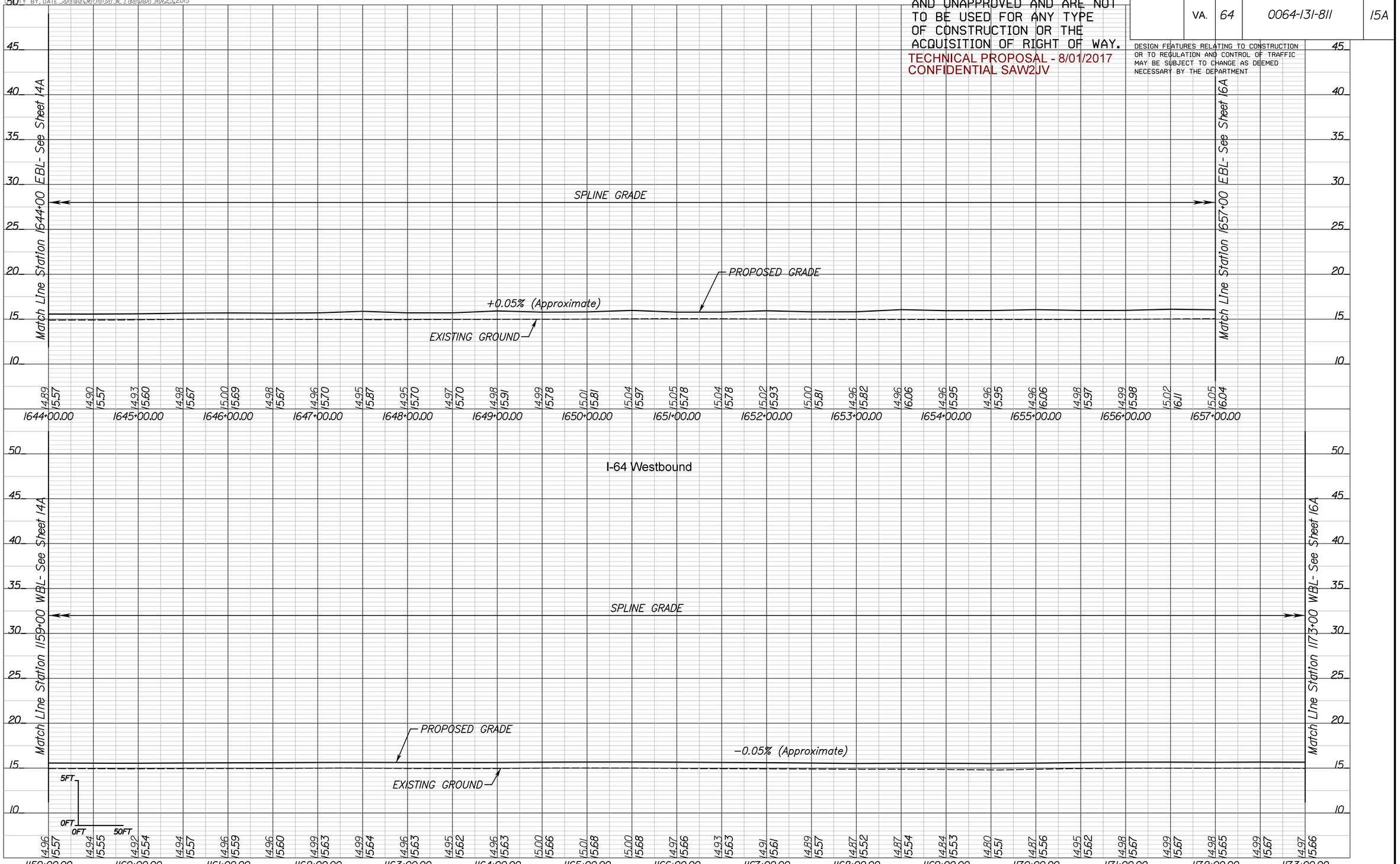
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound



I-64 Westbound

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	15A

03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	16

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

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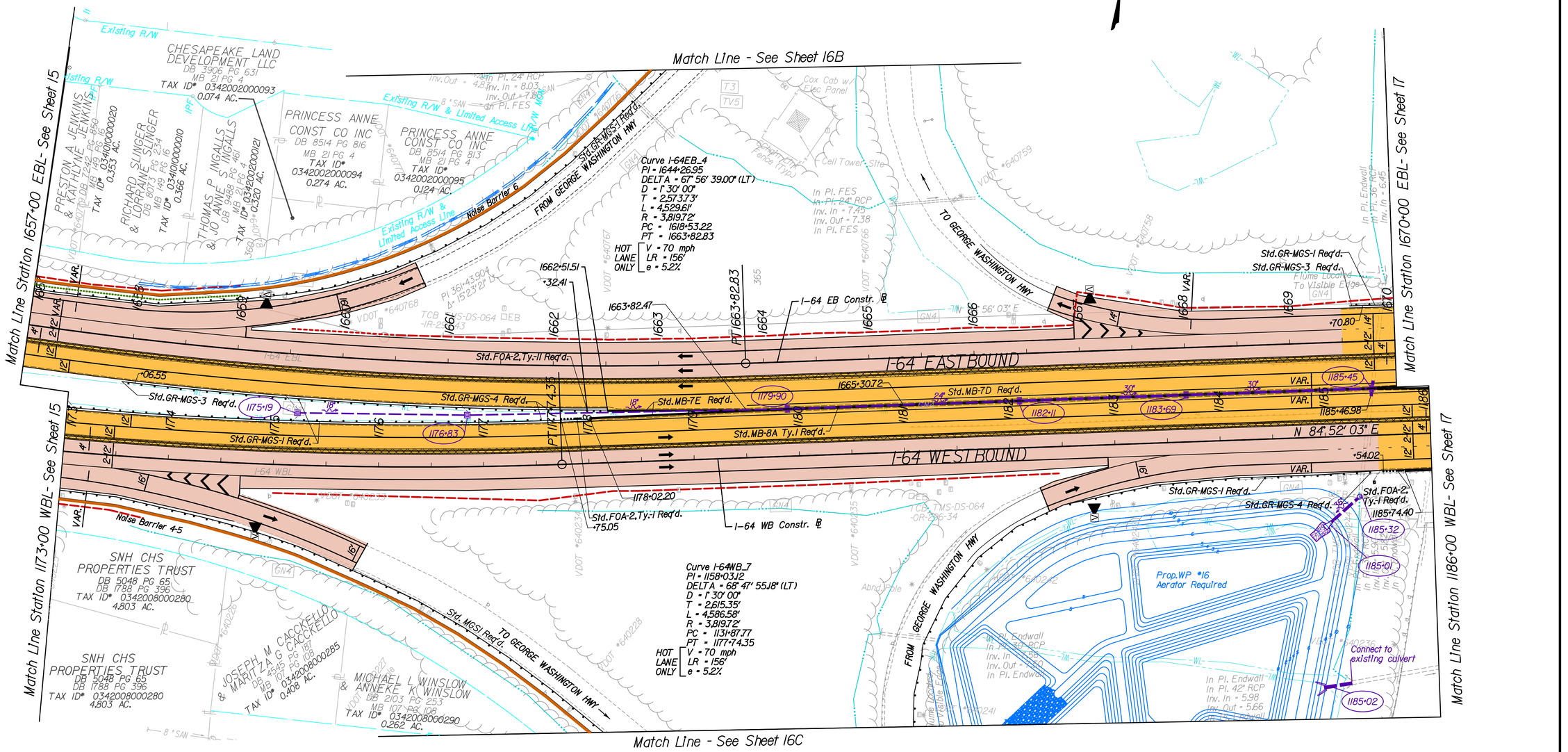
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(2),2A(3)
PROFILES	16A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	16

03-AUG-2017

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03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	16A

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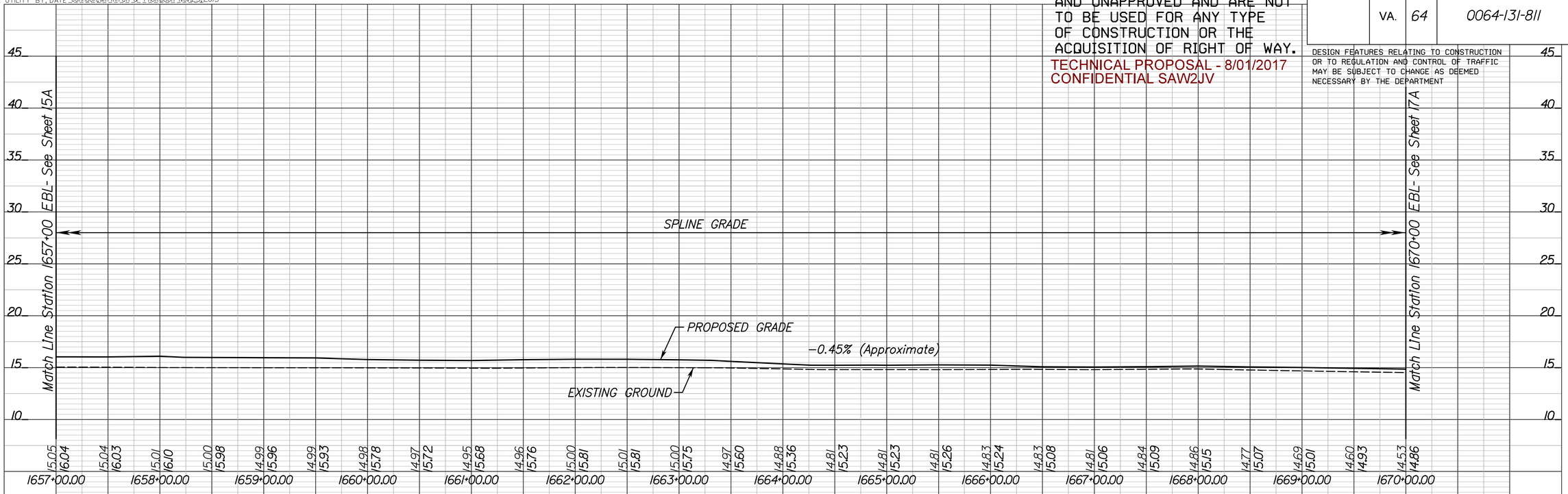
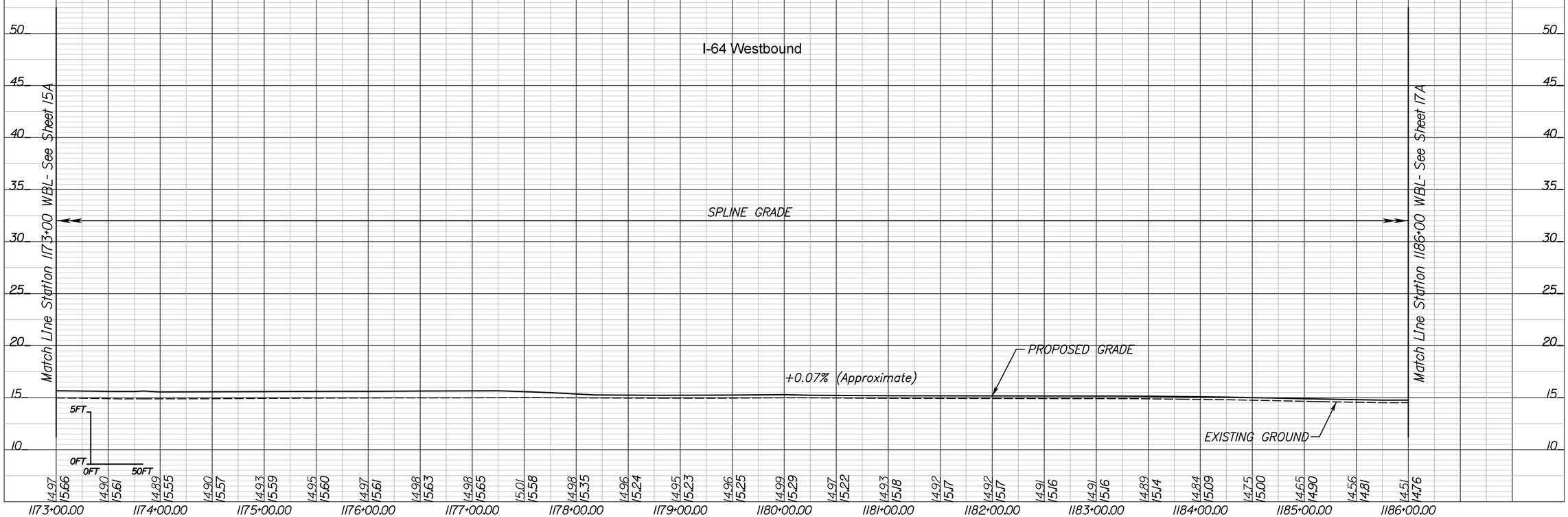
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound



I-64 Westbound



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	16A

15:32

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	16B

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

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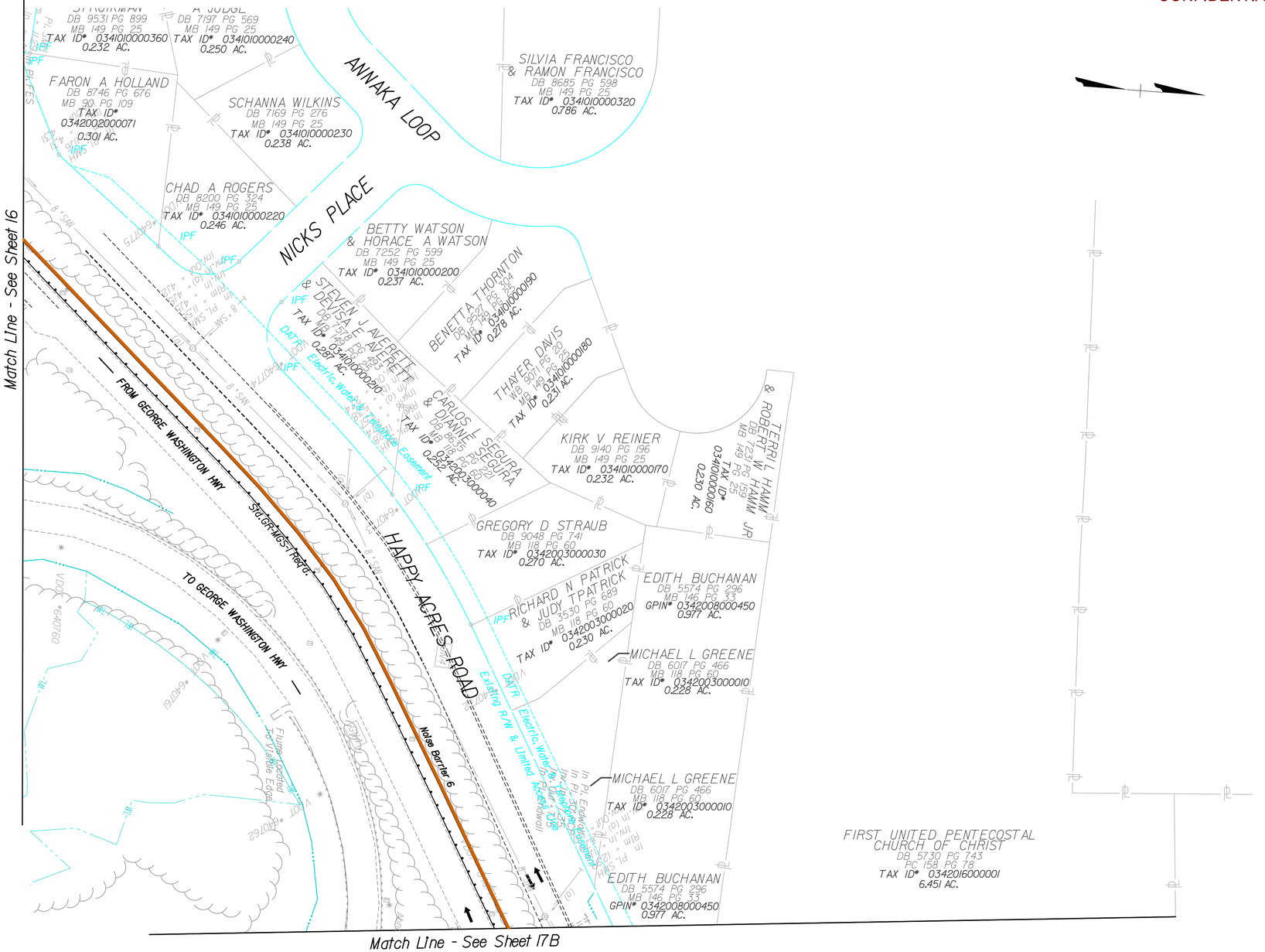
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	N/A
PROFILES	N/A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	16B

03-AUG-2017

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15:32

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

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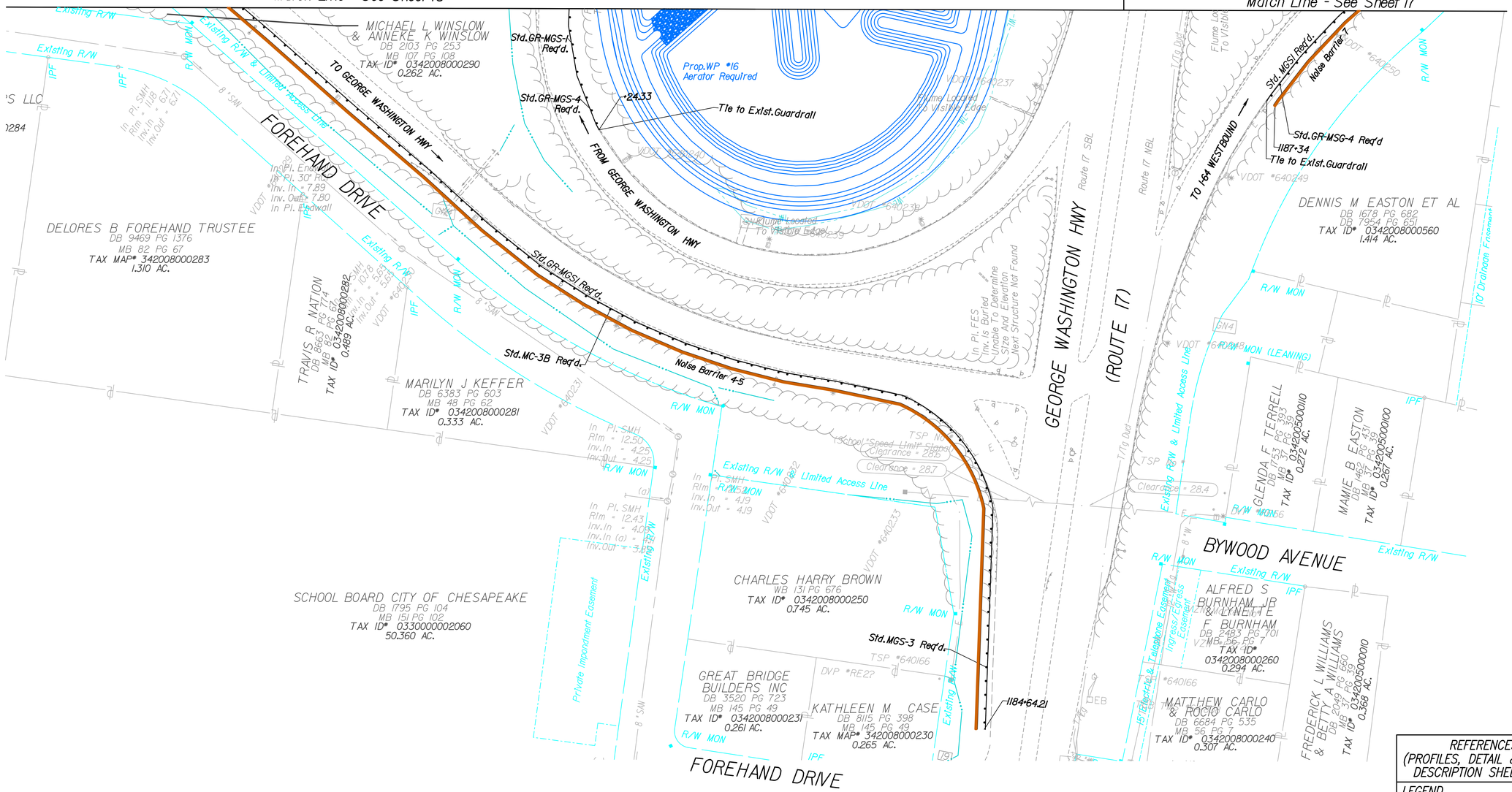
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	16C

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	N/A
PROFILES	N/A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	16C

03-AUG-2017

E:\ics_workingdir\3210\200720_34\D10436616C.dgn

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
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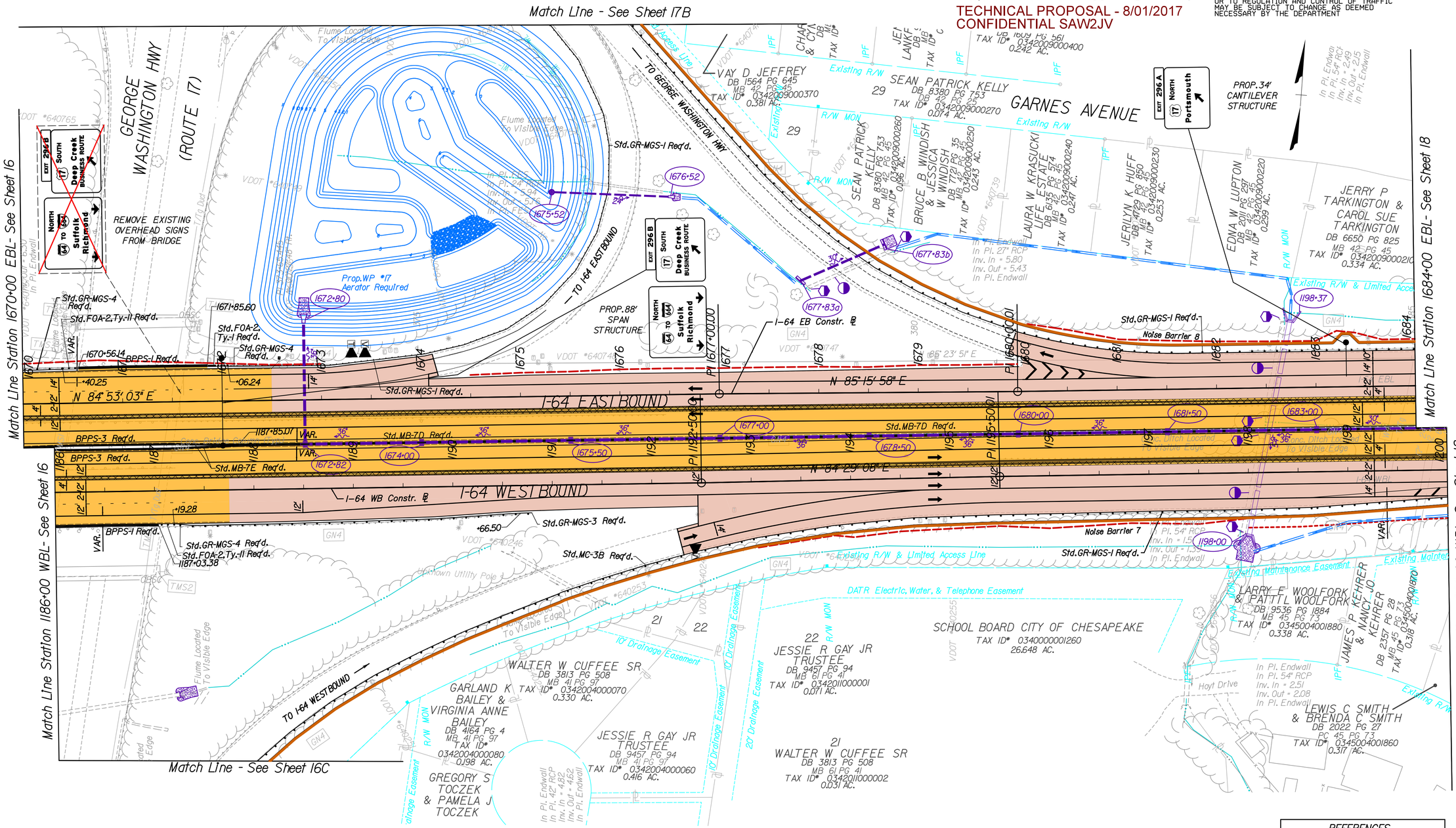
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	17

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(3)
PROFILES	17A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	17

PROJECT MANAGER Ricardo Correa, P.E (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	17A

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound

Match Line Station 1670+00 EBL- See Sheet 16A

ROUTE 17

SPLINE GRADE

+0.03% (Approximate)

PROPOSED GRADE

EXISTING GROUND

Match Line Station 1684+00 EBL- See Sheet 18A

1670+00.00	1671+00.00	1672+00.00	1673+00.00	1674+00.00	1675+00.00	1676+00.00	1677+00.00	1678+00.00	1679+00.00	1680+00.00	1681+00.00	1682+00.00	1683+00.00	1684+00.00
14.53 / 14.86	14.52 / 14.85	14.52 / 14.84	14.47 / 14.80	14.42 / 14.75	14.52 / 14.81	14.62 / 14.93	14.69 / 14.94	14.74 / 14.99	14.76 / 15.06	14.79 / 15.09	14.81 / 15.10	14.83 / 15.12	14.83 / 15.10	14.81 / 15.06	14.83 / 15.07	14.85 / 15.12	14.85 / 15.14	14.82 / 15.11	14.78 / 15.07	14.74 / 15.08	14.74 / 15.13	14.74 / 15.05	14.80 / 15.06	14.86 / 15.12	14.87 / 15.15	14.85 / 15.13	14.85 / 15.14	14.90 / 15.21

I-64 Westbound

Match Line Station 1186+00 WBL- See Sheet 16A

ROUTE 17

SPLINE GRADE

−0.05% (Approximate)

PROPOSED GRADE

EXISTING GROUND

5FT
0FT
0FT
50FT

Match Line Station 1200+00 WBL- See Sheet 18A

1186+00.00	1187+00.00	1188+00.00	1189+00.00	1190+00.00	1191+00.00	1192+00.00	1193+00.00	1194+00.00	1195+00.00	1196+00.00	1197+00.00	1198+00.00	1199+00.00	1200+00.00
14.51 / 14.76	14.52 / 14.77	14.49 / 14.74	14.50 / 14.75	14.62 / 14.87	14.72 / 14.97	14.79 / 15.04	14.80 / 15.05	14.80 / 15.05	14.78 / 15.03	14.79 / 15.04	14.81 / 15.06	14.81 / 15.06	14.80 / 15.05	14.78 / 15.02	14.81 / 15.10	14.83 / 15.18	14.82 / 15.27	14.82 / 15.26	14.81 / 15.26	14.80 / 15.25	14.81 / 15.25	14.82 / 15.25	14.82 / 15.26	14.84 / 15.28	14.89 / 15.34	14.89 / 15.34	14.88 / 15.32	14.87 / 15.31

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	17A

03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E.(757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25, 2015

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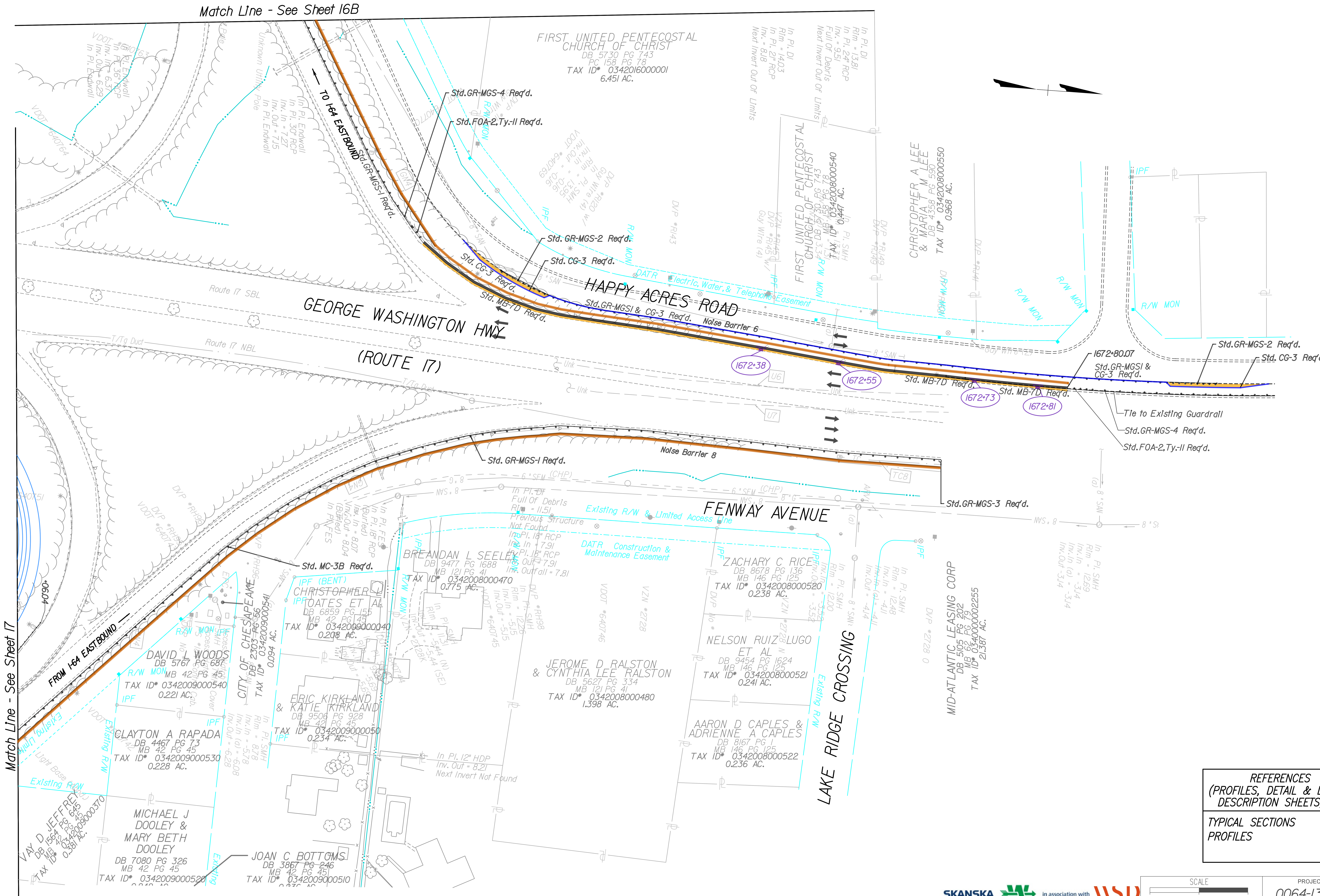
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	64	0064-131-811	17B

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
TYPICAL SECTIONS	N/A
PROFILES	N/A

SKANSKA in association with wsp

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	17B

15:32
03-AUG-2017
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15:32

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	18

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

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Match Line Station 1684+00 EBL- See Sheet 17

Match Line Station 1698+00 EBL- See Sheet 19

Match Line Station 1200+00 WBL- See Sheet 17

Match Line Station 1214+00 WBL- See Sheet 19

JERRY P TARKINGTON & CAROL SUE TARKINGTON
DB 6650 PG 825
MB 42 PG 45
TAX ID# 0342009000210
0.334 AC.

CHARLES JAMES SCHOOLCRAFT & J C SCHOOLCRAFT
DB 1345 PG 408
TAX ID# 0342009000190
0.238 AC.

JANICE L KRIEGER
DB 5796 PG 232
MB 88 PG 34
TAX ID# 0347001000080
0.353 AC.

BRIAN M STARKES
DB 3113 PG 780
MB 42 PG 45
TAX ID# 0342009000200
0.264 AC.

MATTHEW S SEVERE
DB 7774 PG 539
MB 88 PG 34
TAX ID# 0347001000090
0.243 AC.

LAURETTA R WOOTEN
DB 6622 PG 9
MB 88 PG 34
TAX ID# 0347001000100
0.203 AC.

MARK R RADE & THERESA M IMM
DB 6167 PG 310
MB 88 PG 34
TAX ID# 0347001000110
0.206 AC.

BRYAN E KEITH
DB 7631 PG 228
MB 88 PG 34
TAX ID# 0347001000120
0.226 AC.

EDWARD JEFFERSON & SHIRLEY JEFFERSON
DB 4261 PG 508
MB 88 PG 34
TAX ID# 0347001000130
0.356 AC.

SAMUEL J GIBSON JR & BETTY P GIBSON
DB 2333 PG 838
MB 85 PG 30
TAX ID# 0347001000140
0.314 AC.

JAMES W CONNOLLY SR & STACEY Q CONNOLLY
DB 3970 PG 99
MB 85 PG 115
TAX ID# 0347002000150
0.386 AC.

GREGORY G MOQUEL ET AL
DB 9255 PG 537
MB 85 PG 115
TAX ID# 0347002000140
0.316 AC.

JESSICA K FAHRMAN
DB 9269 PG 44
MB 85 PG 115
TAX ID# 0347002000130
0.198 AC.

BRYANT K DUNSTON & RITA F DUNSTON
DB 2623 PG 325
MB 85 PG 115
TAX ID# 0347002000120
0.282 AC.

GERALD L BARBER JR & SHERI BARBER
DB 6661 PG 158
MB 85 PG 115
TAX ID# 0347002000110
0.221 AC.

MARGARET ANN CUMMINGS
WB 65 PG 367
TAX ID# 0340000002130
2.887 AC.

PATRICIA LYNN AYDLETT ET AL
WB 63 PG 379
TAX ID# 0340000002132
1.770 AC.

RELOCATE EXISTING SIGN PANEL ONTO NEW SSP-VIA SUPPORTS AND FOUNDATIONS

EST. SPA
GAS A
GAS B
GAS A

Begin Shoulder's High Friction Surface Treatment
Sta.1686+50.00

Begin Shoulder's High Friction Surface Treatment
Sta.1201+00.00

Existing R/W & Limited Access Line

Std.GR-MGS-I Req'd.

I-64 EB Constr. ℄

Noise Barrier 8

N 84°53'03" E

I-64 EASTBOUND

Std.MB-7D Req'd.

Std.MC-3B Req'd.

I-64 WB Constr. ℄

N 84°52'03" E

I-64 WESTBOUND

Noise Barrier 7

Std.GR-MGS-I Req'd.

Std.MC-3B Req'd.

Existing R/W & Limited Access Line

CHRISTOPHER E SLUSHER
DB 8809 PG 490
MB 45 PG 73
TAX ID# 0345004001840
0.304 AC.

LEWIS C SMITH & BRENDA C SMITH
DB 4223 PG 203
TAX ID# 0345004001880
0.317 AC.

CLARENCE LEE HASTY & JANICE L HASTY
DB 1392 PG 73
MB 45 PG 73
TAX ID# 0345004001850
0.315 AC.

KATHY M MARTIN & JENNIFER M MARTIN
DB 6254 PG 97
MB 45 PG 73
TAX ID# 0345004002290
0.349 AC.

HOEFLEIN RENTALS LLC
DB 8242 PG 789
MB 45 PG 73
TAX ID# 0345004002280
0.241 AC.

FREDERIC G NUCKLES & SHIRLEY A NUCKLES
DB 1689 PG 313
MB 45 PG 73
TAX ID# 0345004002180
0.270 AC.

COREY GRIMSTEAD ET AL
DB 4295 PG 384
MB 45 PG 73
TAX ID# 0345004002190
0.289 AC.

RICHARD W REESE
DB 2869 PG 343
TAX ID# 0345004002600
0.301 AC.

JEFFREY P HARVEY & ELLEN S HARVEY
DB 6378 PG 349
MB 45 PG 73
TAX ID# 0345004002590
0.311 AC.

MARK C HENRY & THERESA A HENRY
DB 2459 PG 341
MB 67 PG 100
TAX ID# 0345010000006
0.278 AC.

ROBERT A MCMILLION & MARY H MCMILLION
DB 9264 PG 173
MB 28 PG 12
TAX ID# 0340000002210
1.589 AC.

MARGARET C YORK LIFE ESTATE
DB 3221 PG 737
MB 99 PG 84
TAX ID# 0340000002200
2.053 AC.

HUNTER RAY PHILLIPS
DB 8420 PG 274
TAX ID# 0340000002140
0.621 AC.

BOBBY PHELPS JR
DB 7180 PG 15
MB 28 PG 12
TAX ID# 0340000002170
3.508 AC.

TRENT AVENUE

PLANTATION DRIVE

WINWOOD DRIVE

In Pl. DI
Rim = 7.41
In Pl. 18" RCP
Inv. (a) = 3.81
In Pl. 24" RCP

Curve I-64WB_40
PI = 1214+75.85
DELTA = 0° 50' 08.55" (LT)
D = 0° 23' 40"
T = 105.95'
L = 211.90'
R = 14,528.00'
PC = 1213+69.90
PRC = 1215+81.80
V = 70 mph
e = N.C.

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(3)
PROFILES	18A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	18

03-AUG-2017

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11:56

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	18A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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I-64 Eastbound

Match Line Station 1684+00 EBL- See Sheet 17A

SPLINE GRADE

+0.11% (Approximate)

PROPOSED GRADE

+1.9% (Approximate)

EXISTING GROUND

Match Line Station 1698+00 EBL- See Sheet 19A

1684+00.00	1685+00.00	1686+00.00	1687+00.00	1688+00.00	1689+00.00	1690+00.00	1691+00.00	1692+00.00	1693+00.00	1694+00.00	1695+00.00	1696+00.00	1697+00.00	1698+00.00
14.90 / 15.21	14.93 / 15.21	14.92 / 15.22	14.91 / 15.25	14.97 / 15.25	14.99 / 15.27	14.97 / 15.25	14.95 / 15.21	14.97 / 15.27	15.01 / 15.36	15.03 / 15.38	15.04 / 15.33	15.07 / 15.35	15.14 / 15.42	15.24 / 15.54	15.45 / 15.74	15.68 / 15.96	16.09 / 16.32	16.51 / 16.76	17.12 / 17.36	17.74 / 17.96	18.50 / 18.73	19.27 / 19.50	20.16 / 20.40	21.12 / 21.36	22.10 / 22.33	23.07 / 23.32	24.06 / 24.31	25.07 / 25.32

I-64 Westbound

Match Line Station 1200+00 WBL- See Sheet 17A

SPLINE GRADE

+0.01% (Approximate)

PROPOSED GRADE

+1.9% (Approximate)

EXISTING GROUND

5FT
0FT
0FT
50FT

Match Line Station 1214+00 WBL- See Sheet 19A

1200+00.00	1201+00.00	1202+00.00	1203+00.00	1204+00.00	1205+00.00	1206+00.00	1207+00.00	1208+00.00	1209+00.00	1210+00.00	1211+00.00	1212+00.00	1213+00.00	1214+00.00
14.87 / 15.31	14.87 / 15.30	14.88 / 15.32	14.89 / 15.33	14.91 / 15.35	14.92 / 15.36	14.91 / 15.36	14.92 / 15.37	14.93 / 15.38	14.94 / 15.39	14.95 / 15.40	14.98 / 15.42	15.01 / 15.45	15.13 / 15.57	15.30 / 15.75	15.58 / 16.02	15.88 / 16.31	16.35 / 16.78	16.83 / 17.27	17.43 / 17.86	18.05 / 18.50	18.86 / 19.31	19.71 / 20.15	20.66 / 21.12	21.63 / 22.08	22.61 / 23.06	23.61 / 24.05	24.60 / 25.06	25.55 / 26.00

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	18A

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiron & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	19

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

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Match Line Station 1698+00 EBL- See Sheet 18

Match Line Station 1712+00 EBL- See Sheet 20

Match Line Station 1214+00 WBL- See Sheet 18

Match Line Station 1228+00 WBL- See Sheet 20

I-64 EASTBOUND

I-64 WESTBOUND

SHELL ROAD

FIRMAN STREET

Curve I-64EB_5
PI = 1700+52.20
DELTA = 0° 56' 19.83" (RT)
D = 0° 23' 40"
T = 119.03'
L = 238.05'
R = 14,528.00'
PC = 1699+33.17
PRC = 1701+71.23
HOT LANE ONLY: V = 70 mph, e = N.C.

Curve I-64EB_6
PI = 1702+60.97
DELTA = 0° 57' 20.01" (LT)
D = 0° 31' 57"
T = 89.74'
L = 179.48'
R = 10,762.00'
PRC = 1701+71.23
PT = 1703+50.71
HOT LANE ONLY: V = 70 mph, e = N.C.

Curve I-64EB_7
PI = 1706+57.92
DELTA = 0° 54' 50.02" (LT)
D = 0° 31' 57"
T = 85.83'
L = 171.66'
R = 10,762.00'
PC = 1705+72.09
PRC = 1707+43.75
HOT LANE ONLY: V = 70 mph, e = N.C.

Curve I-64EB_8
PI = 1708+61.41
DELTA = 0° 55' 50.20" (RT)
D = 0° 23' 44"
T = 117.66'
L = 235.32'
R = 14,488.00'
PRC = 1707+43.75
PT = 1709+79.07
HOT LANE ONLY: V = 70 mph, e = N.C.

PROP. 149' SPAN STRUCTURE

REMOVE EXISTING SPAN STRUCTURE

EXIT 296A (17) NORTH Portsmouth 1/4 MILE

EXIT 296B (17) SOUTH Deep Creek BUSINESS ROUTE 1/2 MILE

Begin Bridge Sta.1703+98.62

End Bridge Sta.1705+20.12

Begin Bridge Sta.1219+56.71

End Bridge Sta.1220+78.21

Std.GR-MGS-1 Req'd.
Std.MC-3B Req'd.
Std.MGS-4 Req'd.
Std.FOA-I,Ty-II Req'd.
Std.FOA-I,Ty-I Req'd.
Std.GR-MGS-2 Req'd.
Std.GR-MGS-3 Req'd.
Std.GR-MGS2 Req'd.
Std.MB-7D Req'd.
Std.MB-7E Req'd.
I-64 EB Constr. ℄
I-64 WB Constr. ℄
Noise Barrier 8
Noise Barrier 7
OVHD SS to be replaced.
Flume Located To Visible Edge
Existing R/W & Limited Access Line
Existing R/W
Existing Limited Access Line
5' Non Ingress/Egress Easement
Clearance = 17.2
Clearance = 18.5

MARGARET ANN CUMMINGS
WB 65 PG 367
TAX ID# 0340000002130
2.887 AC.

PATRICIA LYNN AYDLETT ET AL
WB 163 PG 379
TAX ID# 0340000002132
1.770 AC.

FRANKLIN I HOLCOMB & DEBRA L HOLCOMB
DB 3476 PG 499
TAX ID# 0340000002131
0.910 AC.

ROBERT E CHILLDRES & RUTH A CHILLDRES
DB 1599 PG 318
MB 26 PG 251
TAX ID# 0340000001590
4.931 AC.

CILVIS M RYLAND & AVA J RYLAND
DB 2127 PG 495
MB 68 PG 36
TAX ID# 0346002000330
0.303 AC.

HUNTER RAY PHILLIPS
DB 8420 PG 274
TAX ID# 0340000002140
0.621 AC.

HUNTER RAY PHILLIPS
DB 8420 PG 274
TAX ID# 0340000002141
0.259 AC.

BOBBY PHELPS JR
DB 7180 PG 15
MB 28 PG 12
TAX ID# 0340000002170
3.508 AC.

JOHN J WINN & MALISA D WINN
DB 6637 PG 23
TAX ID# 0340000002150
0.811 AC.

SOFIA E POTTER TRUSTEE
DB 8753 PG 183
MB 91 PG 11
TAX ID# 0340000002160
0.668 AC.

ARLENE F MANEY ET AL
DB 1894 PG 455
TAX ID# 0346003000070
0.288 AC.

EDWARD D FORREST III & LEMOND C E FORREST
DB 2095 PG 368
MB 73 PG 3
TAX ID# 0346003000060
0.293 AC.

JOSHUA T STEWART & JESSICA L STEWART
DB 9429 PG 697
MB 75 PG 3
TAX ID# 0346003000080
0.274 AC.

JOHN R ALLISON & ANNE T ALLISON
DB 2556 PG 389
MB 75 PG 3
TAX ID# 0346003000090
0.268 AC.

NELLIESSON INVESTMENTS INC
DB 9023 PG 58
MB 75 PG 3
TAX ID# 0346003000100
0.235 AC.

BRENDA E RAWLS-SMITH
DB 5239 PG 176
MB 75 PG 3
TAX ID# 0346003000260
0.230 AC.

RUSSELL H WRIGHT & JANICE D WRIGHT
DB 7770 PG 418
MB 75 PG 3
TAX ID# 0346003000250
0.244 AC.

LARRY E HART & JUDITH E HART
DB 5268 PG 302
MB 75 PG 3
TAX ID# 0346003000270
0.219 AC.

JAMES M SMITH & GINA M SMITH
DB 2395 PG 434
MB 75 PG 3
TAX ID# 0346003000290
0.306 AC.

STEVE A BLOXOM
WB 158 PG 185
MB 75 PG 3
TAX ID# 0346003000280
0.232 AC.

INFORMATIONAL DMS, BETWEEN INTERCHANGES, GENERAL PURPOSE LANES

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(3)
PROFILES	19A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	19

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	19A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound

Match Line Station 1698+00 EBL- See Sheet 18A

Match Line Station 1712+00 EBL- See Sheet 20A

SPLINE GRADE

BEGIN BRIDGE B668
STA. 1703+98.62

END BRIDGE B668
STA. 1705+20.12

PROPOSED GRADE

+1.9% (Approximate)

EXISTING GROUND

PROP. SUPERSTRUCTURE DEPTH = 3.250'

EXIST. SUPERSTRUCTURE DEPTH = 3.792'

MIN. VERT. CLEAR. = 15'-8"

SHELL ROAD

EXISTING GROUND

PROPOSED GRADE

-1.7% (Approximate)

1698+00.00	1699+00.00	1700+00.00	1701+00.00	1702+00.00	1703+00.00	1704+00.00	1705+00.00	1706+00.00	1707+00.00	1708+00.00	1709+00.00	1710+00.00	1711+00.00	1712+00.00
25.07 25.32	25.98 26.23	26.78 27.05	27.54 27.81	28.26 28.53	28.90 29.16	29.40 29.66	29.88 30.16	30.35 30.50	30.74 30.86	30.87 30.92	30.99 31.05	28.43 31.10	10.98 31.15	19.04 31.12	30.89 30.97	30.70 30.78	30.35 30.47	29.82 30.14	29.28 29.57	28.68 28.99	28.05 28.36	27.35 27.65	26.65 26.93	25.84 26.13	25.02 25.32	24.15 24.44	23.27 23.54	22.41 22.70

I-64 Westbound

Match Line Station 1214+00 WBL- See Sheet 18A

Match Line Station 1228+00 WBL- See Sheet 20A

SPLINE GRADE

BEGIN BRIDGE B669
STA. 1219+56.71

END BRIDGE B669
STA. 1220+78.21

PROPOSED GRADE

+1.9% (Approximate)

PROP. SUPERSTRUCTURE DEPTH = 3.250'

EXIST. SUPERSTRUCTURE DEPTH = 3.792'

MIN. VERT. CLEAR. = 15'-10"

SHELL ROAD

EXISTING GROUND

EXISTING GROUND

PROPOSED GRADE

-1.8% (Approximate)

5FT
0FT
0FT 50FT

1214+00.00	1215+00.00	1216+00.00	1217+00.00	1218+00.00	1219+00.00	1220+00.00	1221+00.00	1222+00.00	1223+00.00	1224+00.00	1225+00.00	1226+00.00	1227+00.00	1228+00.00
25.55 26.00	26.42 26.87	27.19 27.66	27.92 28.38	28.54 29.02	29.13 29.62	29.64 30.14	30.13 30.41	30.49 30.68	30.82 30.88	30.91 30.96	30.96 31.05	9.20 31.14	14.39 31.14	30.92 31.00	30.76 30.82	30.44 30.61	30.04 30.33	29.44 29.83	28.77 29.23	28.11 28.55	27.44 27.88	26.76 27.20	26.04 26.48	25.25 25.69	24.40 24.83	23.48 23.91	22.56 22.99	21.63 22.07

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	19A

03-AUG-2017
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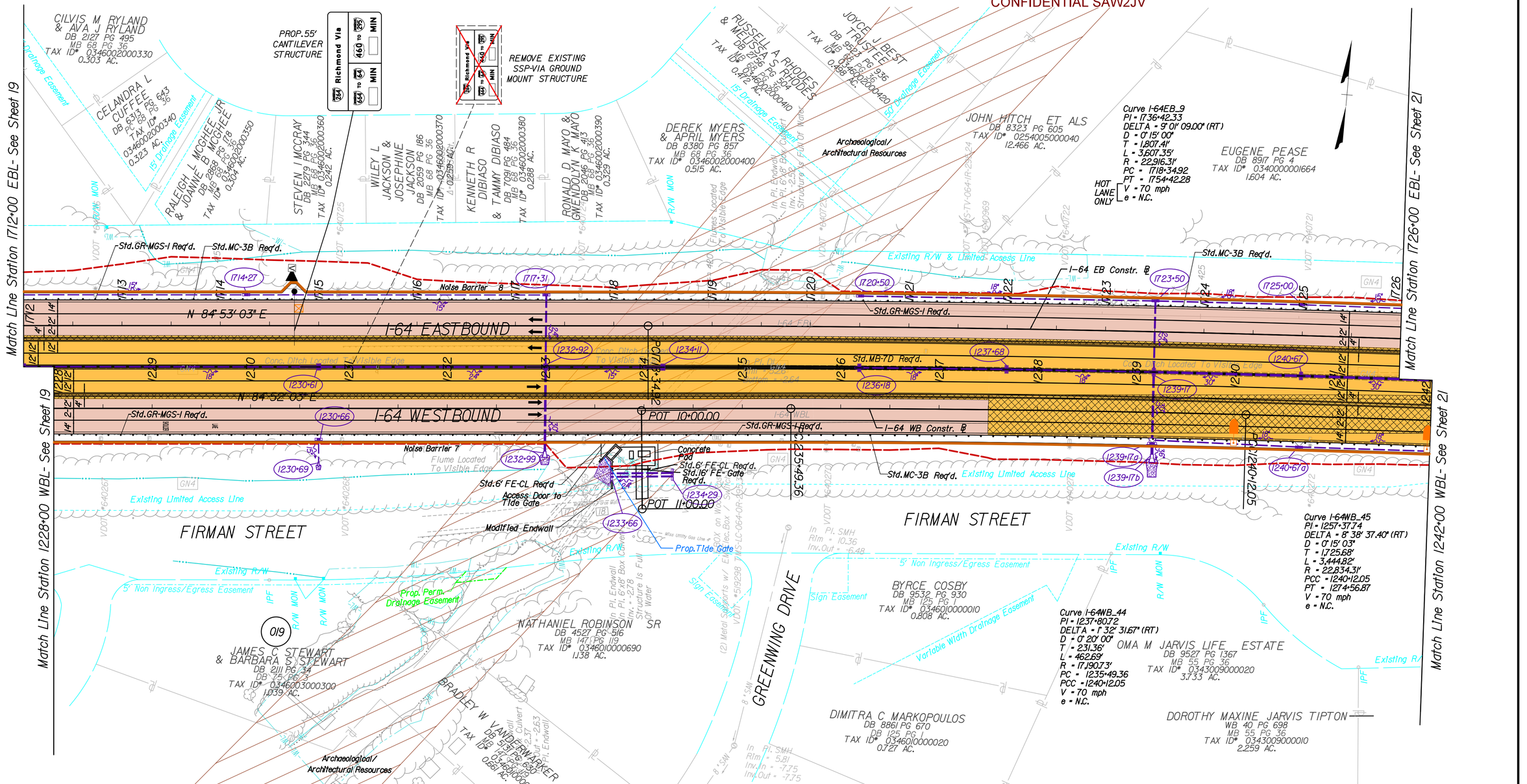
PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

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

TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	20

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(3)
PROFILES	20A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	20

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	20A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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I-64 Eastbound

Match Line Station 1712+00 EBL- See Sheet 19A

Match Line Station 1726+00 EBL- See Sheet 21A

SPLINE GRADE

−1.7% (Approximate)

PROPOSED GRADE

EXISTING GROUND

−0.06% (Approximate.)

1712+00.00	1713+00.00	1714+00.00	1715+00.00	1716+00.00	1717+00.00	1718+00.00	1719+00.00	1720+00.00	1721+00.00	1722+00.00	1723+00.00	1724+00.00	1725+00.00	1726+00.00
22.41 / 22.70	21.55 / 21.85	20.63 / 20.92	19.65 / 19.94	18.72 / 19.00	17.85 / 18.14	17.03 / 17.31	16.32 / 16.60	15.61 / 15.88	14.92 / 15.19	14.24 / 14.51	13.68 / 13.95	13.15 / 13.41	12.81 / 13.09	12.50 / 12.78	12.30 / 12.57	12.12 / 12.45	12.07 / 12.40	12.03 / 12.36	12.02 / 12.34	12.00 / 12.32	12.00 / 12.30	11.99 / 12.28	11.96 / 12.28	11.93 / 12.26	11.96 / 12.29	11.99 / 12.33	11.99 / 12.30	11.98 / 12.28

I-64 Westbound

Match Line Station 1228+00 WBL- See Sheet 19A

Match Line Station 1242+00 WBL- See Sheet 21A

SPLINE GRADE

−1.8% (Approximate)

PROPOSED GRADE

EXISTING GROUND

+0.04% (Approximate.)

5FT
0FT
0FT
50FT

1228+00.00	1229+00.00	1230+00.00	1231+00.00	1232+00.00	1233+00.00	1234+00.00	1235+00.00	1236+00.00	1237+00.00	1238+00.00	1239+00.00	1240+00.00	1241+00.00	1242+00.00
21.63 / 22.07	20.73 / 21.17	19.84 / 20.28	18.91 / 19.35	17.99 / 18.43	17.22 / 17.65	16.45 / 16.88	15.75 / 16.18	15.06 / 15.48	14.42 / 14.85	13.82 / 14.25	13.27 / 13.69	12.87 / 13.29	12.51 / 12.93	12.27 / 12.70	12.07 / 12.50	12.00 / 12.43	11.96 / 12.38	11.97 / 12.28	11.96 / 12.17	11.90 / 12.10	11.84 / 12.04	11.83 / 12.03	11.82 / 12.02	11.81 / 12.01	11.83 / 12.03	11.85 / 12.06	11.83 / 12.05	11.84 / 12.20

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	20A

03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	21

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

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Match Line Station 1726+00 EBL- See Sheet 20

Match Line Station 1740+00 EBL- See Sheet 22

Match Line Station 1242+00 WBL- See Sheet 20

Match Line Station 1256+00 WBL- See Sheet 22

JARVIS ROAD

TUTTLE STREET

GRUEN STREET

FIRMAN STREET

I-64 EASTBOUND

I-64 WESTBOUND

EUGENE PEASE
DB 8917 PG 4
TAX ID# 0340000001664
1.604 AC.

NICHOLAS KRIEG & FAITH KRIEG
DB 9205 PG 103
MB 43 PG 73
TAX ID# 0343007000160
0.471 AC.

JASON C SHORT & WENDY HALL SHORT
WB 4775 PG 399
MB 43 PG 73
TAX ID# 0343007000150
0.393 AC.

MARGARET E DUMAS-CARTER ET AL
DB 8169 PG 255
MB 43 PG 73
TAX ID# 0343007000140
0.422 AC.

DONALD K WARD JR
DB 2589 PG 872
MB 144 PG 63
TAX ID# 0340000001690
0.548 AC.

DAVID CHAPMAN & DONNA R CHAPMAN
DB 3867 PG 825
MB 128 PG 45
TAX ID# 0343023001100
0.195 AC.

MONTINI BATTISTA ONEAL & GINA B ONEAL
DB 7236 PG 786
MB 138 PG 19
TAX ID# 0343023000820
0.186 AC.

IVAN C COLE & TONEKA L COLE
DB 5944 PG 113
MB 142/PG 57
TAX ID# 0343023000810
0.165 AC.

RENARD L JENKIN & SONDRA S JENKIN
DB 4448 PG 379
MB 142 PG 57
TAX ID# 0343023000780
0.211 AC.

JAMES C CANNADY JR & ANGELA L CANNADY
DB 4462 PG 433
MB 142 PG 57
TAX ID# 0343023000760
0.187 AC.

ROBERT L GORHAM
DB 4671 PG 772
MB 142 PG 57
TAX ID# 0343023000730
0.199 AC.

BARRY EDWARDS & SHARON HILL EDWARDS
DB 4448 PG 391
MB 142 PG 57
TAX ID# 0343023000720
0.357 AC.

BELINDA DANIELS
DB 6895 PG 4
MB 142 PG 57
TAX ID# 0343023000710
0.255 AC.

JEROME NICHOLSON & JACQUELINE NICHOLSON
DB 5019 PG 409
MB 43 PG 46
TAX ID# 0343006000060
0.318 AC.

STANLEY JAY SMITH & PATTY JEAN SMITH
DB 2035 PG 531
MB 43 PG 46
TAX ID# 0343006000050
0.302 AC.

JOHN P JEFFERSON ET AL
DB 4201 PG 461
MB 43 PG 46
TAX ID# 0343006000040
0.314 AC.

GENARD IRVIN PATRICK
DB 825 PG 534
MB 43 PG 46
TAX ID# 0343006000030
0.348 AC.

DANIEL A RECKLEY & TANDE S RECKLEY
DB 7700 PG 89
MB 42 PG 46
TAX ID# 0343006000100
1.411 AC.

DAVID H WESTON II & RUBY J WESTON

JUDITH HOLLOWELL LEACH
DB 2448 PG 67
MB 73 PG 47
TAX ID# 0340000001751

FRANK L HOLLOWELL
DB 1957 PG 606
MB 73 PG 47
TAX ID# 0340000001755
1.288 AC.

DREAM VENTURES LLC
DB 7341 PG 258
MB 73 PG 47
TAX ID# 0340000001752

EDWILYN VIRGINIA HOLLOWELL ET AL
WB 117 PG 176
MB 73 PG 47
TAX ID# 0340000001756
0.618 AC.

E C HOLLOWELL JR
DB 1174 PG 334
MB 19 PG 30
TAX ID# 0340000001770
0.615 AC.

Curve I-64EB_9
PI = 1736+42.33
DELTA = 9°01'09.00" (RT)
D = 0°15'00"
T = 1,807.41'
L = 3,607.35'
R = 22,916.31'
PC = 1718+34.92
PT = 1754+42.28
V = 70 mph
e = N.C.

Curve I-64WB_45
PI = 1257+37.74
DELTA = 8°38'37.40" (RT)
D = 0°15'03"
T = 1,725.68'
L = 3,444.82'
R = 22,834.31'
PCC = 1240+12.05
PT = 1274+56.87
V = 70 mph
e = N.C.

HOT LANE ONLY

REMOVE EXISTING CANTILEVER STRUCTURE

REMOVE EXISTING STP-I GROUND MOUNT SIGN

REMOVE EXISTING CANTILEVER STRUCTURE

INFORMATIONAL DMS, BETWEEN INTERCHANGES, GENERAL PURPOSE LANES

INFORMATIONAL DMS, BETWEEN INTERCHANGES, HOT LANES

PROP. 150' SPAN STRUCTURE

OVHD SS to be replaced.

Std.GR-MGS-I Req'd.

Std.MC-3B Req'd.

Std.MB-7D Req'd.

Noise Barrier B

Noise Barrier 7

I-64 EB Constr. ℄

I-64 WB Constr. ℄

Existing R/W & Limited Access Line

Existing R/W

Archaeological/ Architectural Resources

TRUCKS & COMBINATION VEHICLES USE RIGHT LANE WHEN OPERATED BELOW 60 MPH

TRUCKS & COMBINATION VEHICLES USE RIGHT LANE WHEN POSTED BELOW 60 MPH

Portsmouth Deep Creek 1 MILE

exit 296 A-B

exit 291-290

Norfolk Business (64) Battlefield Blvd 3 MILES

North (460) Norfolk (58) Business (168) Battlefield Blvd 3 MILES

South (58) Outer Banks (168) TOLL

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(3)
PROFILES	21A

SKANSKA in association with WSP

SCALE 0 50' 100'

PROJECT	SHEET NO.
0064-131-811	21

03-AUG-2017

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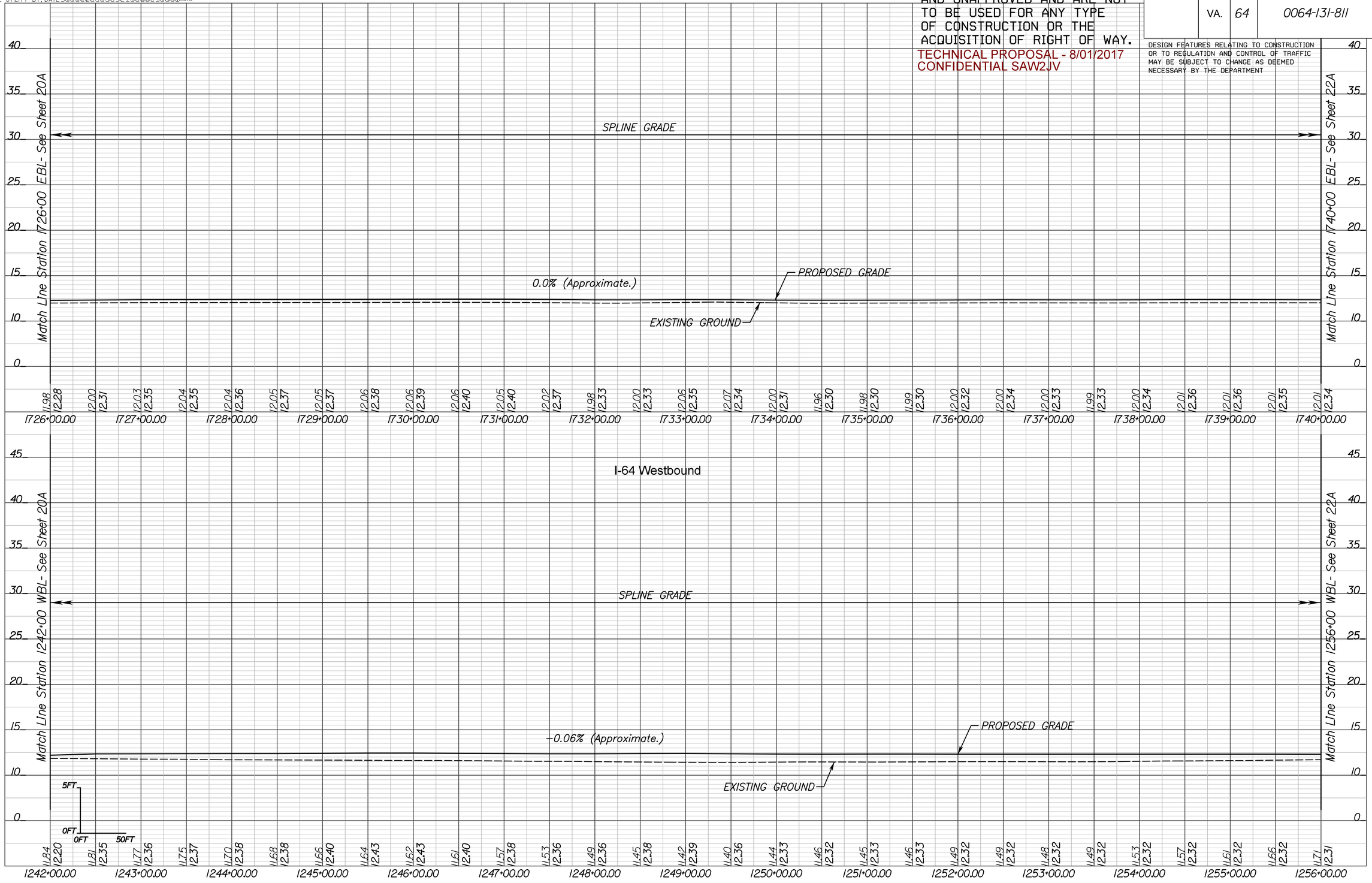
PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	21A

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	21A

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03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP_USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	22

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

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Match Line Station 1740+00 EBL- See Sheet 21

Match Line Station 1256+00 WBL- See Sheet 21

Match Line Station 1754+50 EBL- See Sheet 23

Match Line Station 1270+00 WBL- See Sheet 23

JAMES W ADGER & BETH O ADGER
DB 4180 PG 99
TAX ID# 0343023001560
0.184 AC.

LAWANDO D SHANNON
DB 7871 PG 147
MB 147 PG 122
TAX ID# 0343023001350
0.185 AC.

RUSSELL L BAKER & BETTY L BAKER
DB 9348 PG 141
TAX ID# 0343023001340
0.184 AC.

WESLEY N PATRICK
DB 9348 PG 141
TAX ID# 0343023001330
0.184 AC.

PATRICK D FLOYD & LAURA A FLOYD
DB 9348 PG 141
TAX ID# 0343023001320
0.184 AC.

JAMES J MCMILLIAN & TONI M MCMILLIAN
DB 8967 PG 855
MB 142 PG 57
TAX ID# 0343023000540
0.402 AC.

BONNIE HEDGEPETH
DB 4508 PG 511
MB 142 PG 57
TAX ID# 0343023000550
2.279 AC.

CHESAPEAKE LAND DEVELOPMENT
DB 8394 PG 185
MB 147 PG 122
TAX ID# 0342017000330
0.581 AC.

CLARENCE A LAWSON JR & DANA N LAWSON
DB 6978 PG 549
MB 147 PG 122
TAX ID# 0342017000300
0.476 AC.

& STEPHANIE JOHNSON
CEDRIC D JOHNSON
DB 7871 PG 868
MB 147 PG 122
TAX ID# 0342017000320
0.578 AC.

ROSALYNN L SANDERLIN & VERNON E SANDERLIN
DB 6910 PG 594
MB 147 PG 122
TAX ID# 0342017000310
0.821 AC.

BELINDA DANIELS
DB 6895 PG 4
MB 142 PG 57
TAX ID# 0343023000710
0.255 AC.

LONDON PLANE CREST

RELOCATE EXISTING SIGN PANEL ONTO NEW SSP-VIA SUPPORTS AND FOUNDATIONS

Curve I-64EB_9
PI = 1736+42.33
DELTA = 9° 01' 09.00" (RT)
D = 0° 15' 00"
T = 1,807.41'
L = 3,607.35'
R = 22,916.31'
PC = 1718+34.92
PT = 1754+42.28
HOT LANE ONLY
V = 70 mph
e = N.C.

VIRGINIA DEPARTMENT OF TRANSPORTATION
PROJECT NO.0064-131-F11,RW-203
DB 4035 PG 821
MB 142 PG 57

Existing R/W & Limited Access Line

Std.GR-MGS-I Req'd.

I-64 EB Constr. B

Noise Barrier 8

Std.MC-3B Req'd.

I-64 EASTBOUND

I-64 WESTBOUND

Std.MB-7D Req'd.

Conc. Ditch Lock to Visible Edge

I-64 WB Constr. B

Noise Barrier 7

Std.GR-MGS-I Req'd.

Std.MC-3B Req'd.

Std.FE-WI Req'd.

Prop. Perm. Drainage Easement

Archaeological/ Architectural Resources

Drainage Buffer & Preservation Easement

DATR Drainage Easement

Landscape Width Drainage Easement

Pr. Dr. Structure is Surcharged
Dr. Structure = 6.37
Inv. In = 1.65
In Pr. 48" RCP
Inv. Out = 1.89
Invert is Surcharged
In Pr. Endwall

In Pr. Endwall
In Pr. 48" RCP

FRANK L HOLLOWELL
DB 1957 PG 606
MB 73 PG 47
TAX ID# 0340000001757
0.624 AC.

E C HOLLOWELL JR
DB 1174 PG 334
MB 19 PG 30
TAX ID# 0340000001770
0.615 AC.

FIRMAN STREET

FRANK L HOLLOWELL
DB 1957 PG 606
MB 73 PG 47
TAX ID# 0340000001754
3.271 AC.

Curve I-64WB_45
PI = 1257+37.74
DELTA = 8° 38' 37.40" (RT)
D = 0° 15' 03"
T = 1,725.68'
L = 3,444.82'
R = 22,834.31'
PCC = 1240+12.05
PT = 1274+56.87
V = 70 mph
e = N.C.

ELEODORA M IGNACIO
DB 1933 PG 169
MB 72 PG 18
TAX ID# 0340000001791
10.883 AC.

JESUS T IGNACIO & ELEODORA M IGNACIO TRUST
DB 3858 PG 506
DB 1466 PG 132
TAX ID# 0340000001792
15.159 AC.

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(3)
PROFILES	22A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	22

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	22A

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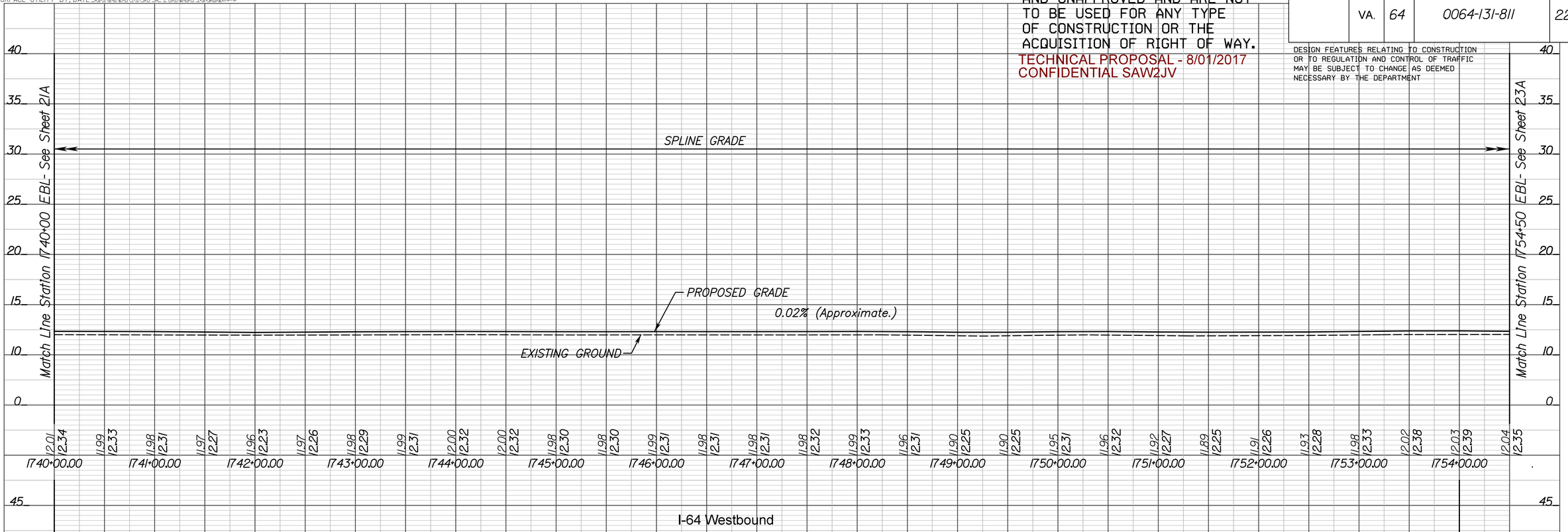
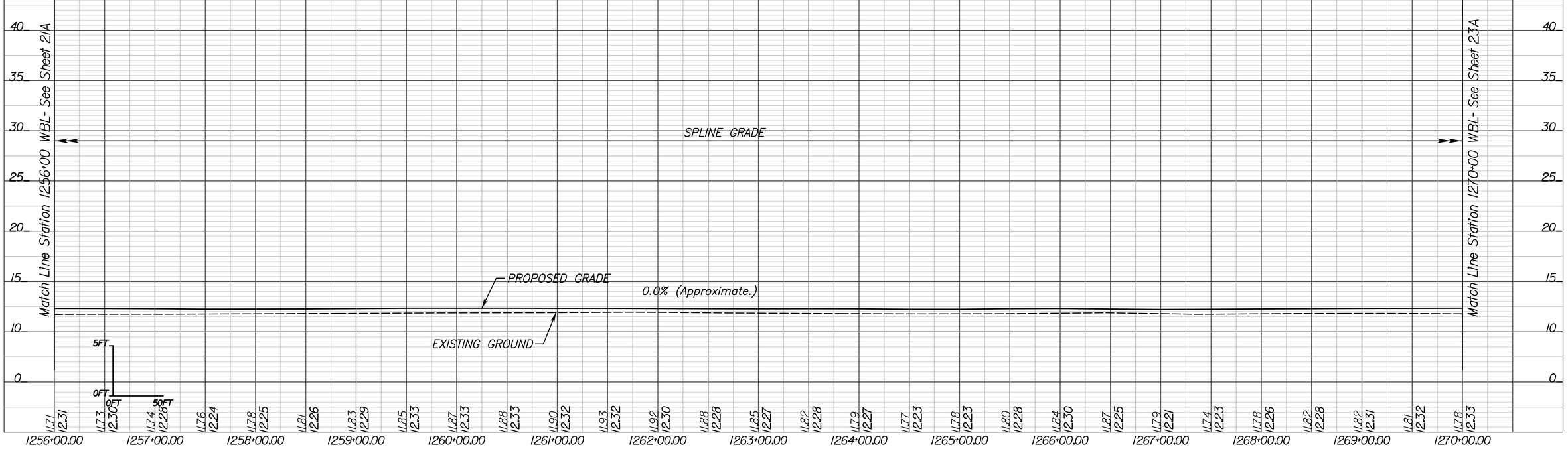
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound



I-64 Westbound



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	22A

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03-AUG-2017
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15:33

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	23

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

Match Line Station 1270+00 WBL - See Sheet 22

Match Line Station 1754+50 EBL- See Sheet 22

Match Line Station 1769+00 EBL- See Sheet 24

Match Line Station 1284+00 WBL- See Sheet 24

CLARENCE A LAWSON JR & DANA N LAWSON
DB 6978 PG 549
MB 147 PG 122
TAX ID# 0342017000300
0.476 AC.

RIVERS EDGE OWNERS ASSOCIATION
DB 6798 PG 518
MB 147 PG 122
TAX ID# 0342017000001
5.265 AC.

STEEL STREET TERMINALS LLC
DB 6625 PG 740
MB 144 PG 116
TAX ID# 0350000000592
54.513 AC.

RIVERS EDGE OWNERS ASSOCIATION
DB 7141 PG 261
MB 147 PG 122
TAX ID# 0342017000003
17.253 AC.

JESUS T IGNACIO & ELEODORA M IGNACIO TRUST
DB 3858 PG 506
DB 1466 PG 132
TAX ID# 0340000001792
15.159 AC.

Archaeological/ Architectural Resources

100' RPA Buffer & Preservation Easement

Variable Width Drainage Easement

Variable Width Adams Outdoor Sign Easement

Existing R/W & Limited Access Line

Slope Maintenance Easement

Noise Barrier 8

Emergency Pull Off

I-64 EB Constr. ℄

I-64 WB Constr. ℄

I-64 EASTBOUND

I-64 WESTBOUND
FUTURE 12' LANE

I-64 EBL

HT 27.5587

Prop.WP #23

Prop.RW & Limited Access Line

Moment Slab Barrier

Wall B

Curve I-64WB_45
PI = 1257+37.74
DELTA = 8° 38' 37.40" (RT)
D = 0° 15' 03"
T = 1725.68'
L = 3,444.82'
R = 22,834.31'
PCC = 1240+12.05
PT = 1274+56.87
V = 70 mph
e = N.C.

S 86° 05' 48" E

S 84° 56' 48" E

1274+56.48

1757+55.66

1760+21.00

1275+75.76

1278+53.78

1279+00.00

1281+98

1283+99

1284+00

1282+00

1280+00

1278+60

1276+50a

1275+00a

1273+50a

1272+90a

1272+90b

1270+55a

1270+55b

1272+06

1273+50

1275+00

1276+50

1278+58

1280+00a

1281+67

1283+67

1755+00

1757+35

1758+00

1759+50

1761+00

1762+50

1764+00

1765+50

Std.GR-MGS-1 Req'd.

Std.MC-3B Req'd.

Std.MB-7E Req'd.

Std.MB-7F Req'd.

Std.FOA-2,Ty.-I Req'd.

Std.GR-MGS-4 Req'd.

Std.GR-MGS-2 Req'd.

Std.GR-MGS-3 Req'd.

Std.MGS-4 Req'd.

Std.MGS-3 Req'd.

Std.MGS-2 Req'd.

Impact Attenuator Req'd.

Std.FE-WI Req'd.

In Pl 15" RCP
Out In = 8.86
Inv. Out = 7.86

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

LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(3),2A(4)
PROFILES	23A

SKANSKA in association with WSP

SCALE 0 50' 100'

PROJECT	SHEET NO.
0064-131-811	23

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

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

TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	23A

I-64 Eastbound

Match Line Station 1754+50 EBL- See Sheet 22A

Match Line Station 1769+00 EBL- See Sheet 24A

SPLINE GRADE

PROPOSED GRADE

0.06% (Approximate.)

EXISTING GROUND

12.04 12.35 | 12.04 12.34 | 12.05 12.36 | 12.01 12.31 | 11.96 12.27 | 11.98 12.29 | 12.01 12.32 | 11.98 12.28 | 11.93 12.24 | 11.89 12.20 | 11.86 12.16 | 11.86 12.16 | 11.86 12.17 | 11.89 12.19 | 11.93 12.23 | 11.94 12.24 | 11.95 12.25 | 11.97 12.26 | 11.99 12.28 | 11.92 12.23 | 11.80 12.11 | 11.71 12.01 | 11.72 12.03 | 11.73 12.03 | 11.73 12.04 | 11.74 12.04 | 11.64 11.95 | 11.56 11.86 | 11.66 11.95 | 11.73 12.02

1755+00.00 | 1756+00.00 | 1757+00.00 | 1758+00.00 | 1759+00.00 | 1760+00.00 | 1761+00.00 | 1762+00.00 | 1763+00.00 | 1764+00.00 | 1765+00.00 | 1766+00.00 | 1767+00.00 | 1768+00.00 | 1769+00.00

I-64 Westbound

Match Line Station 1270+00 WBL- See Sheet 22A

Match Line Station 1284+00 WBL- See Sheet 24A

SPLINE GRADE

+00.00

PVT

PROPOSED GRADE

0.5%

EXISTING GROUND

5FT

0FT

0FT 50FT

11.78 12.33 | 11.75 12.35 | 11.72 12.36 | 11.69 12.39 | 11.64 12.38 | 11.60 12.38 | 11.52 12.39 | 11.44 12.37 | 11.31 12.34 | 11.16 12.31 | 11.02 12.27 | 11.16 12.28 | 10.83 12.30 | 10.50 12.33 | 9.80 12.36 | 9.14 12.38 | 8.34 12.39 | 8.12 12.49 | 7.63 12.59 | 7.10 12.69 | 5.32 12.79 | 4.23 12.89 | 3.32 12.99 | 2.02 13.09 | 1.69 13.19 | 2.00 13.29 | 1.93 13.39 | 0.71 13.49 | 1.37 13.59

1270+00.00 | 1271+00.00 | 1272+00.00 | 1273+00.00 | 1274+00.00 | 1275+00.00 | 1276+00.00 | 1277+00.00 | 1278+00.00 | 1279+00.00 | 1280+00.00 | 1281+00.00 | 1282+00.00 | 1283+00.00 | 1284+00.00

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	23A

03-AUG-2017 11:56

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15:32

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiran & Thompson Nov.25,2015

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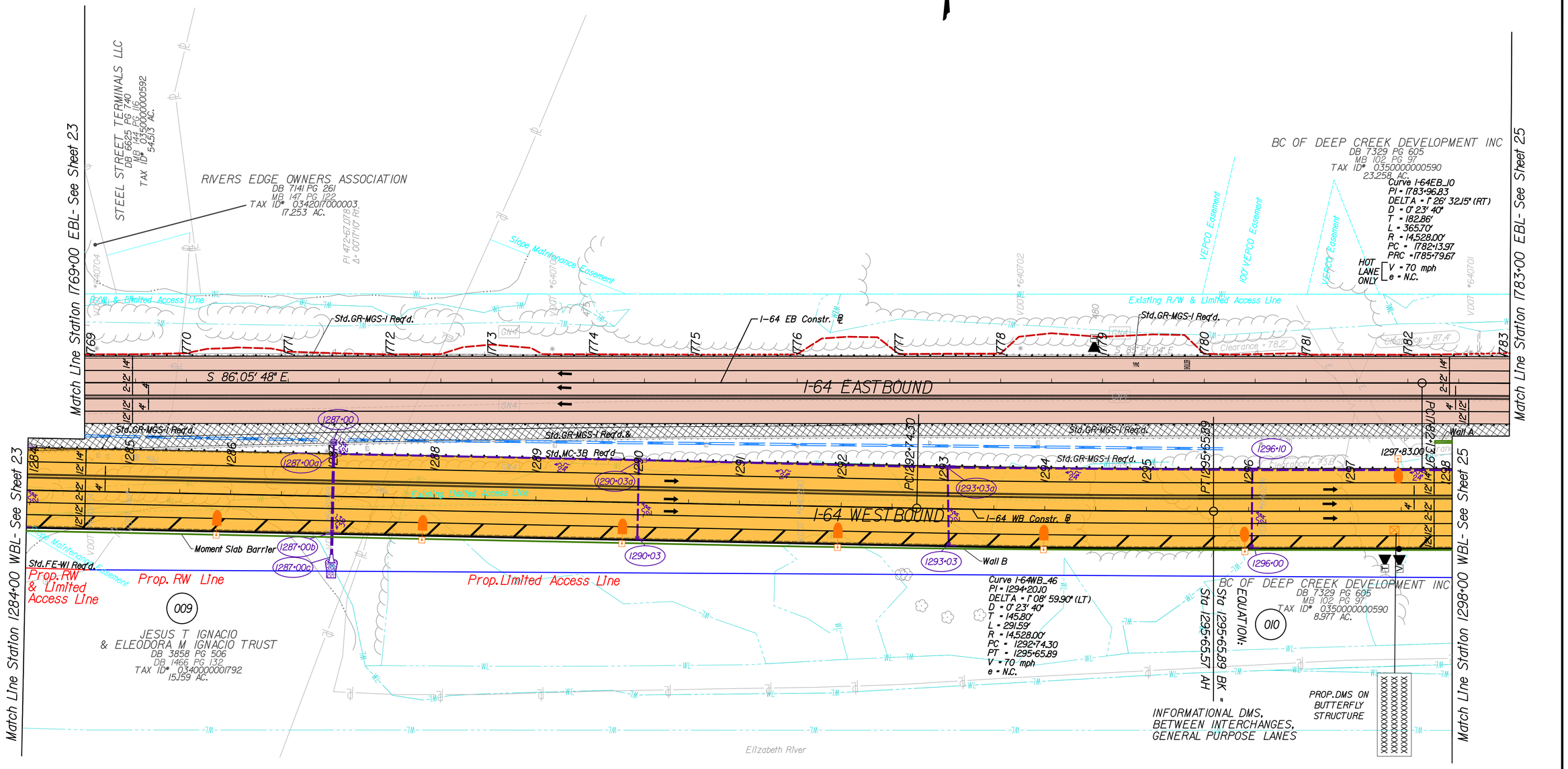
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	24

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(4)
PROFILES	24A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	24

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	24A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound

Match Line Station 1769+00 EBL- See Sheet 23A

SPLINE GRADE

-0.16% (Approximate.)

PROPOSED GRADE

EXISTING GROUND

Match Line Station 1783+00 EBL- See Sheet 25A

I-64 Westbound

Match Line Station 1284+00 WBL- See Sheet 23A

PROPOSED GRADE

0.5%

+3.00%

STA. 1295+65.89 BK
STA. 1295+65.57 AH

STA = 1293+15.00
EL = 15.42
K = 196
L = 550.00
V = 70 MPH

EXISTING GROUND

5FT
0FT
0FT
50FT

Match Line Station 1298+00 WBL- See Sheet 25B

1769+00.00	1770+00.00	1771+00.00	1772+00.00	1773+00.00	1774+00.00	1775+00.00	1776+00.00	1777+00.00	1778+00.00	1779+00.00	1780+00.00	1781+00.00	1782+00.00	1783+00.00
11.73 / 12.02	11.74 / 12.03	11.74 / 12.03	11.69 / 11.98	11.63 / 11.91	11.67 / 11.95	11.77 / 12.06	11.86 / 12.17	11.97 / 12.28	12.01 / 12.32	12.03 / 12.33	12.01 / 12.31	12.00 / 12.30	12.01 / 12.31	12.01 / 12.31	11.97 / 12.27	11.92 / 12.23	11.89 / 12.21	11.86 / 12.18	11.85 / 12.16	11.81 / 12.14	11.88 / 12.22	11.98 / 12.30	12.01 / 12.32	12.02 / 12.32	12.01 / 12.31	12.00 / 12.29	12.01 / 12.31	12.06 / 12.43

1284+00.00	1285+00.00	1286+00.00	1287+00.00	1288+00.00	1289+00.00	1290+00.00	1291+00.00	1292+00.00	1293+00.00	1294+00.00	1295+00.00	1296+00.00	1297+00.00	1298+00.00
1.37 / 13.59	2.56 / 13.69	1.31 / 13.79	0.56 / 13.89	0.28 / 13.99	0.51 / 14.09	0.53 / 14.19	1.00 / 14.29	3.28 / 14.39	3.10 / 14.49	2.66 / 14.59	3.41 / 14.69	2.90 / 14.79	3.54 / 14.89	3.04 / 15.08	3.20 / 15.40	3.30 / 15.84	3.48 / 16.41	3.48 / 17.11	4.02 / 17.94	3.61 / 18.89	2.88 / 19.97	2.77 / 21.18	2.89 / 22.51	4.55 / 23.97	5.62 / 25.47	6.35 / 26.97	5.10 / 28.47	5.16 / 29.97

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	24A

03-AUG-2017
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15:33

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25, 2015

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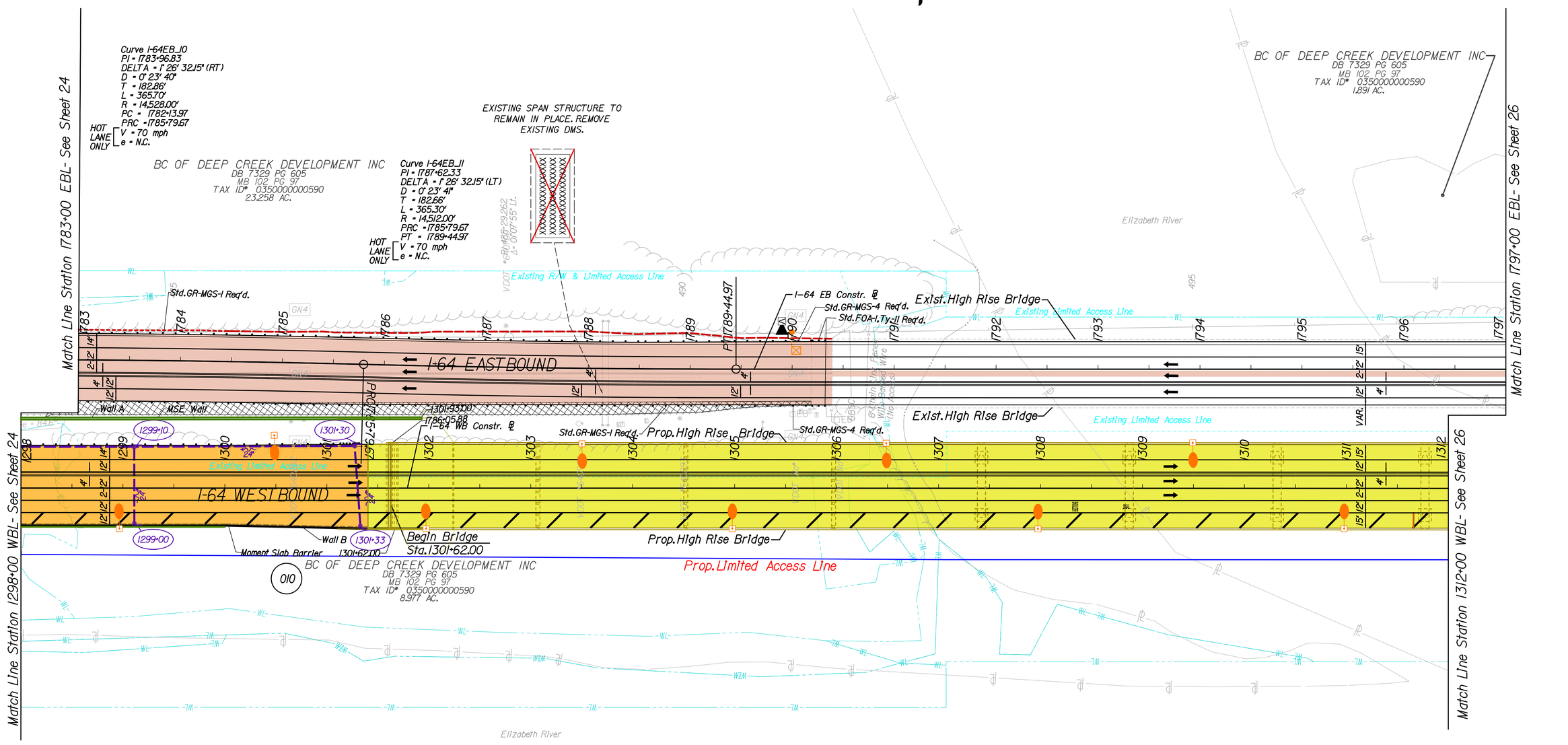
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	25

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(4)
PROFILES	25A,25B

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	25

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

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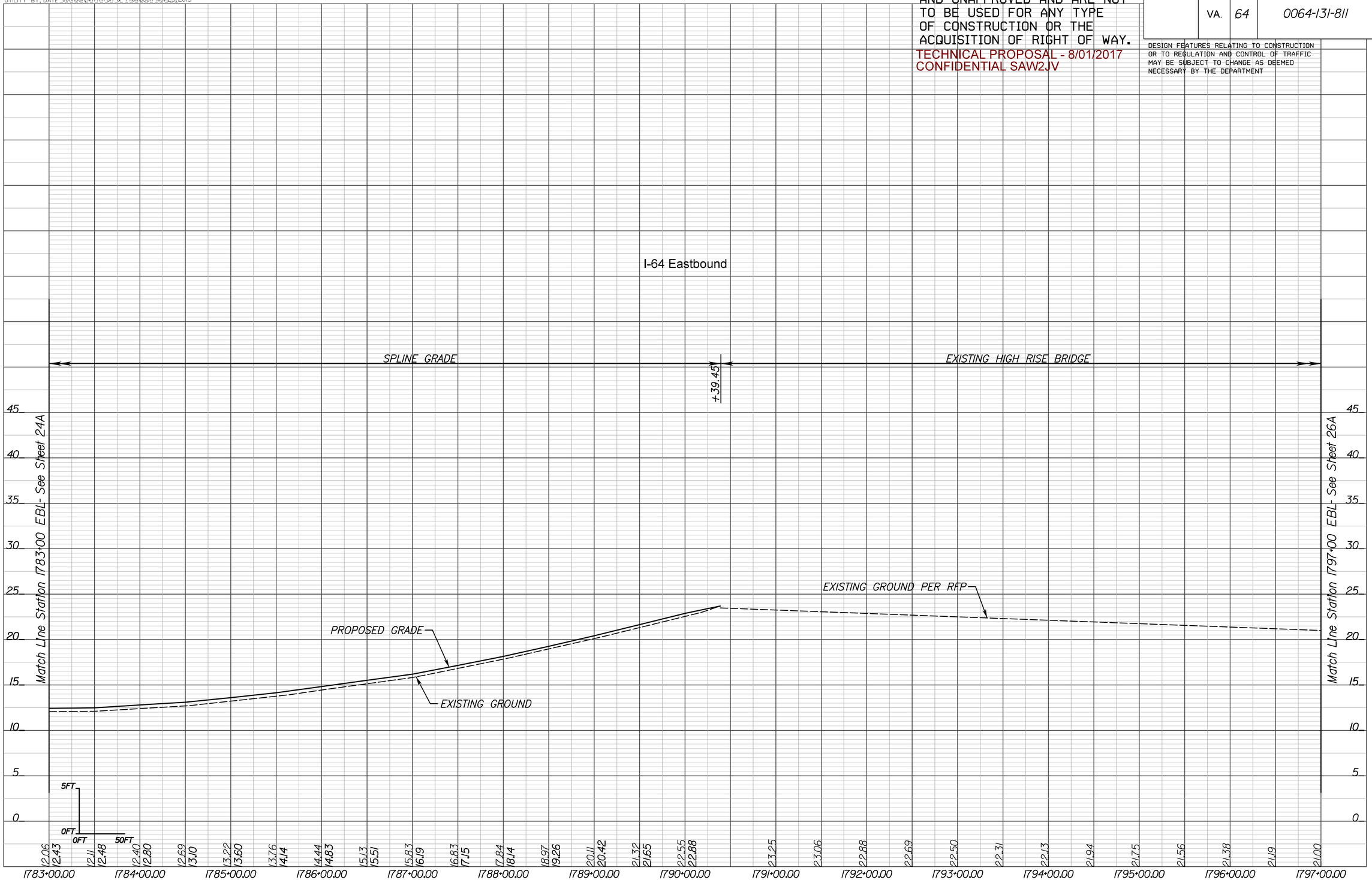
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	25A

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



SKANSKA in association with WSP

	PROJECT	SHEET NO.
	0064-131-811	25A

11:57

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

I-64 Westbound

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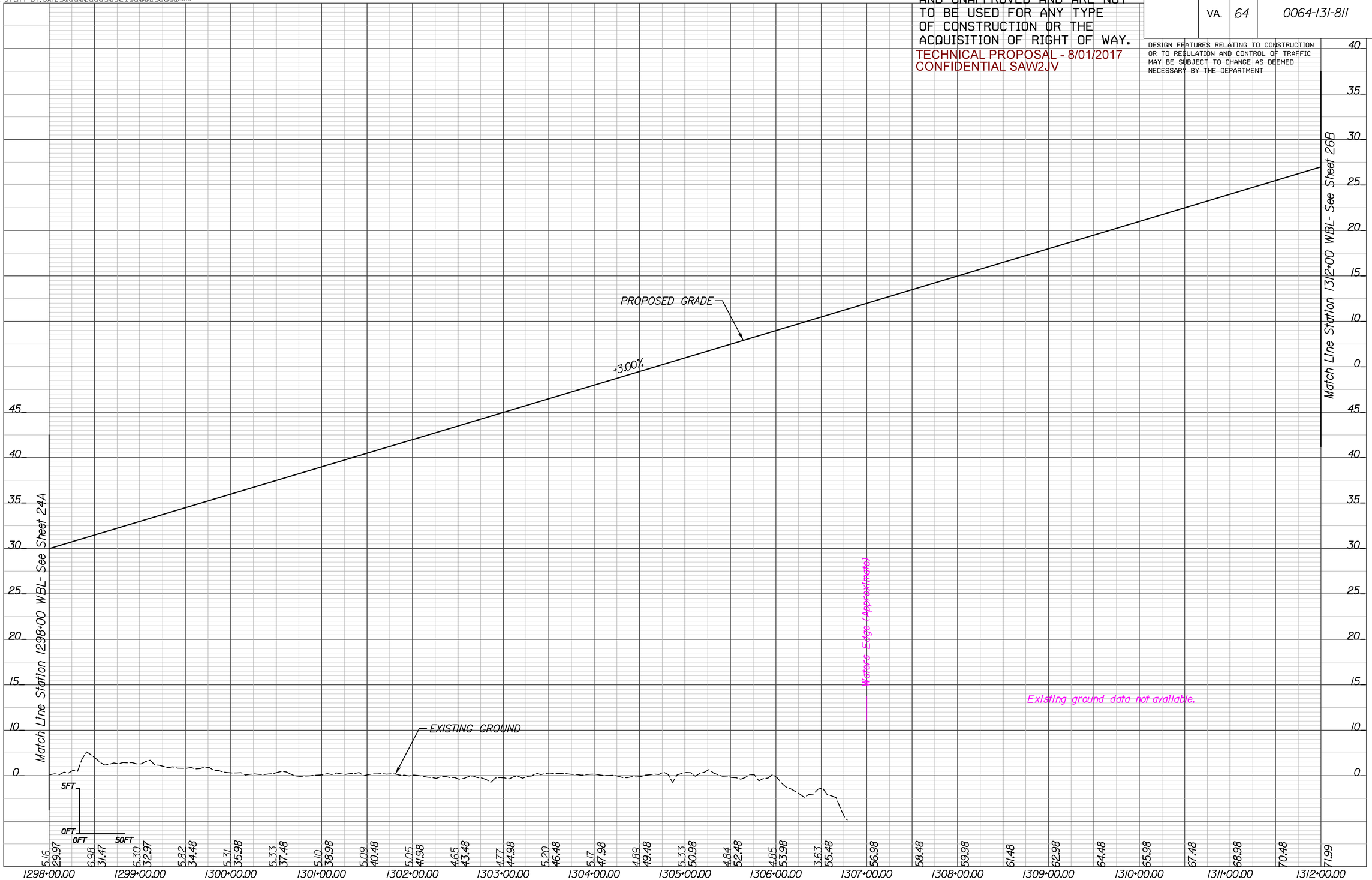
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	25B

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



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	25B

03-AUG-2017

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15:33

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

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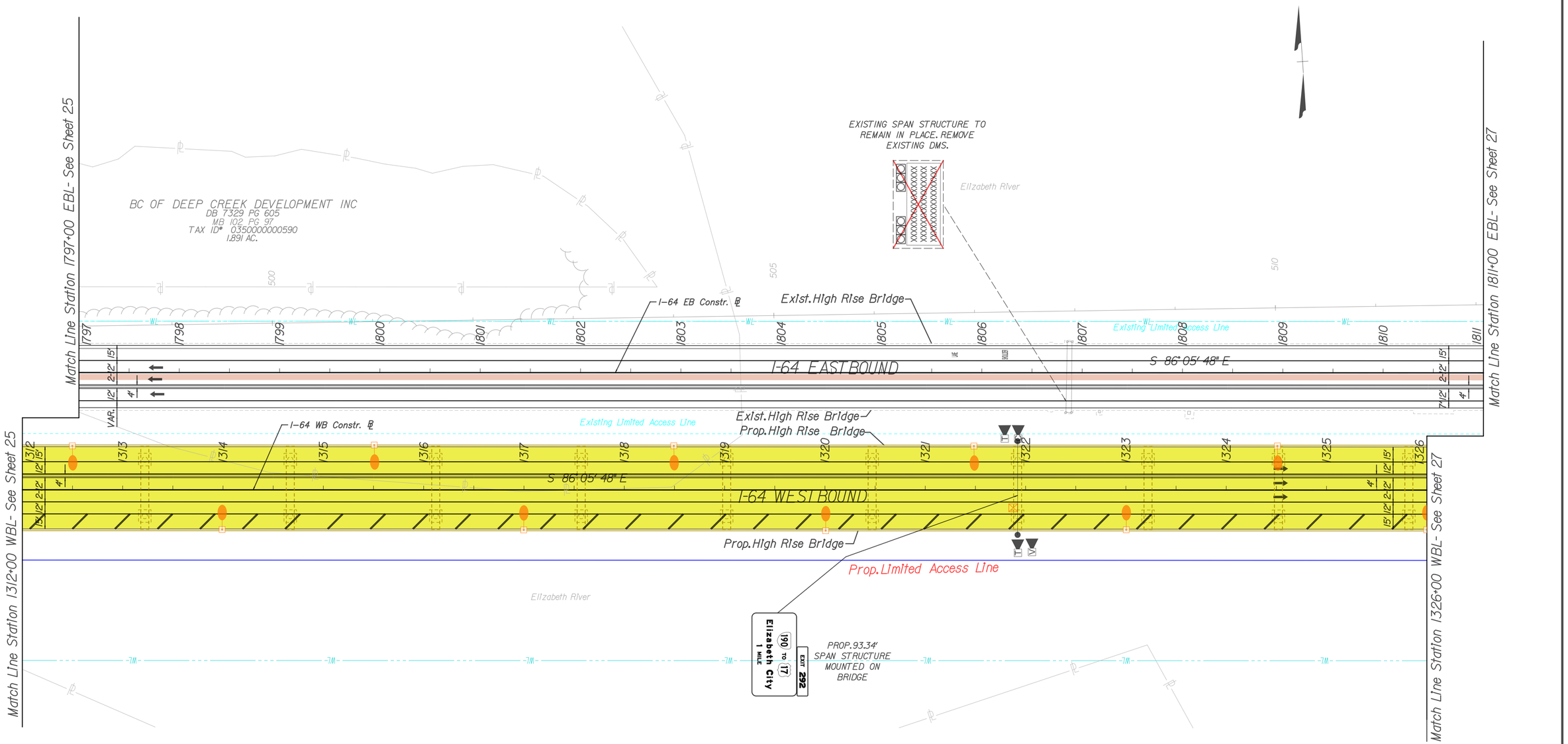
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	26

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	
PROFILES	26A,26B

SKANSKA in association with WSP

SCALE 0 50' 100'	PROJECT 0064-131-811	SHEET NO. 26

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

I-64 Eastbound

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	26A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

EXISTING HIGH RISE BRIDGE

Match Line Station 1797+00 EBL- See Sheet 25A

Match Line Station 1811+00 EBL- See Sheet 27A

EXISTING GROUND PER RFP

5FT
0FT
0FT
50FT

45 40 35 30 25 20 15 10 5 0

21.00 20.81 20.63 20.44 20.25 20.06 19.88 19.69 19.50 19.31 19.13 18.94 18.75 18.56 18.38 18.19 18.00 17.81 17.63 17.44 17.25 17.06 16.88 16.69 16.50 16.31 16.13 15.94 15.75

1797+00.00 1798+00.00 1799+00.00 1800+00.00 1801+00.00 1802+00.00 1803+00.00 1804+00.00 1805+00.00 1806+00.00 1807+00.00 1808+00.00 1809+00.00 1810+00.00 1811+00.00

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	26A

11:57 03-AUG-2017 \\PWICStics_workingdir\10061\200720_70\D10436626A.dgn

11:58

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

I-64 Westbound

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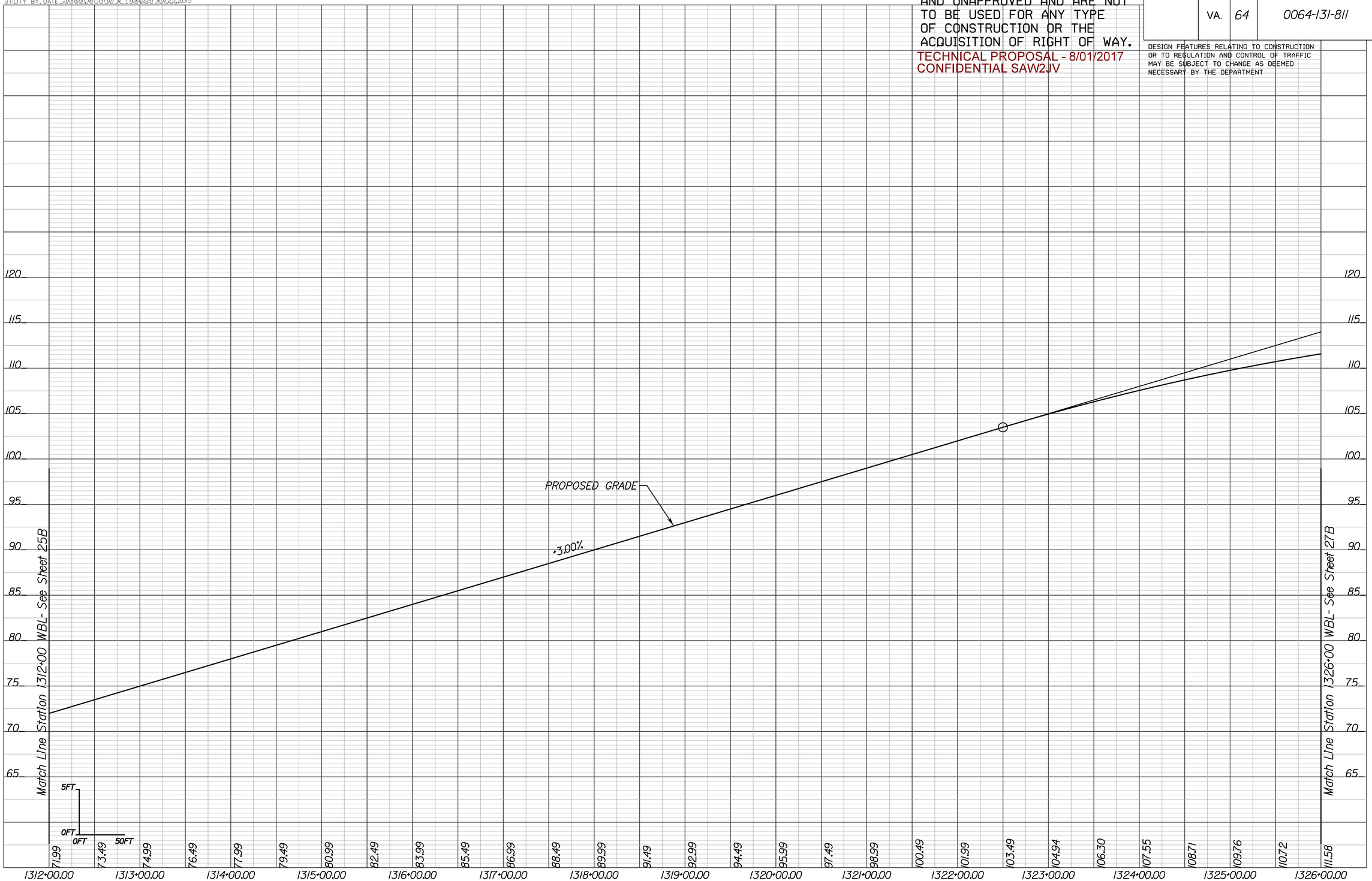
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	26B

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



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	26B

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiron & Thompson Nov.25, 2015

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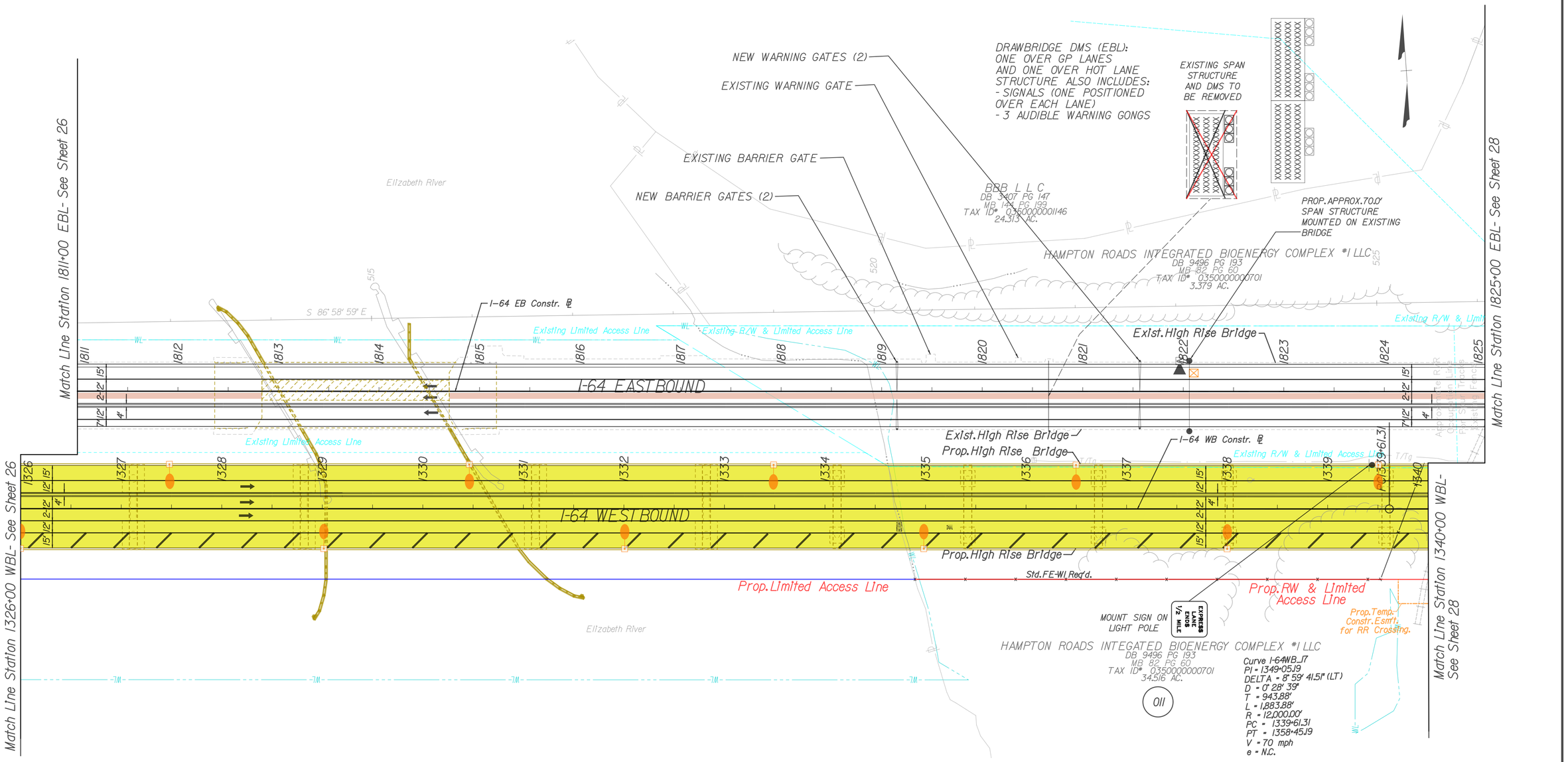
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	27

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	
PROFILES	27A,27B

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	27

03-AUG-2017
E:\ics_workingdir\32171200720_26\D10436627.dgn

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

I-64 Eastbound

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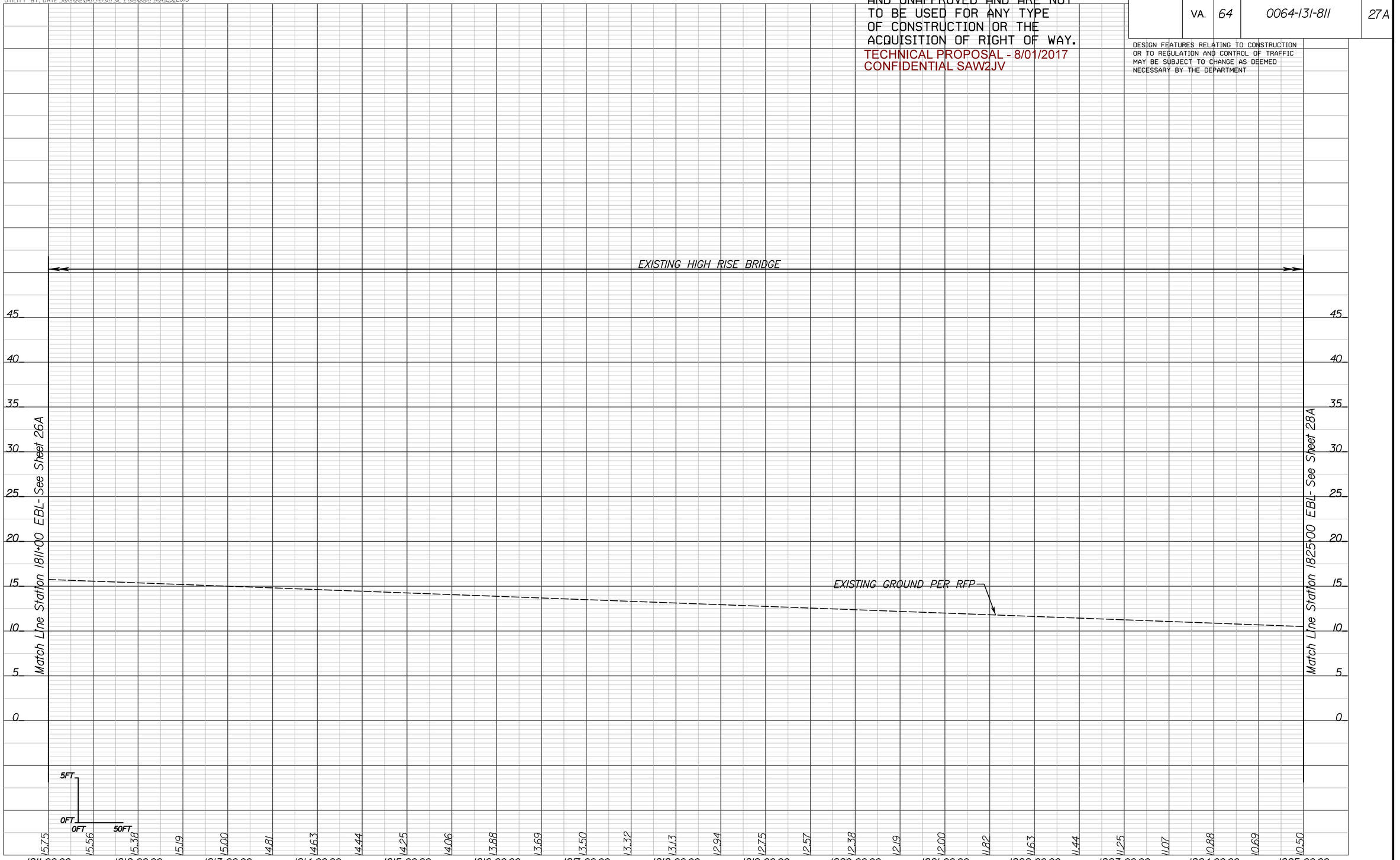
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	27A

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



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	27A

11:58
03-AUG-2017
\\PWCSIcs_workingdir\10061\200720_72\D10438627A.dgn

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

I-64 Westbound

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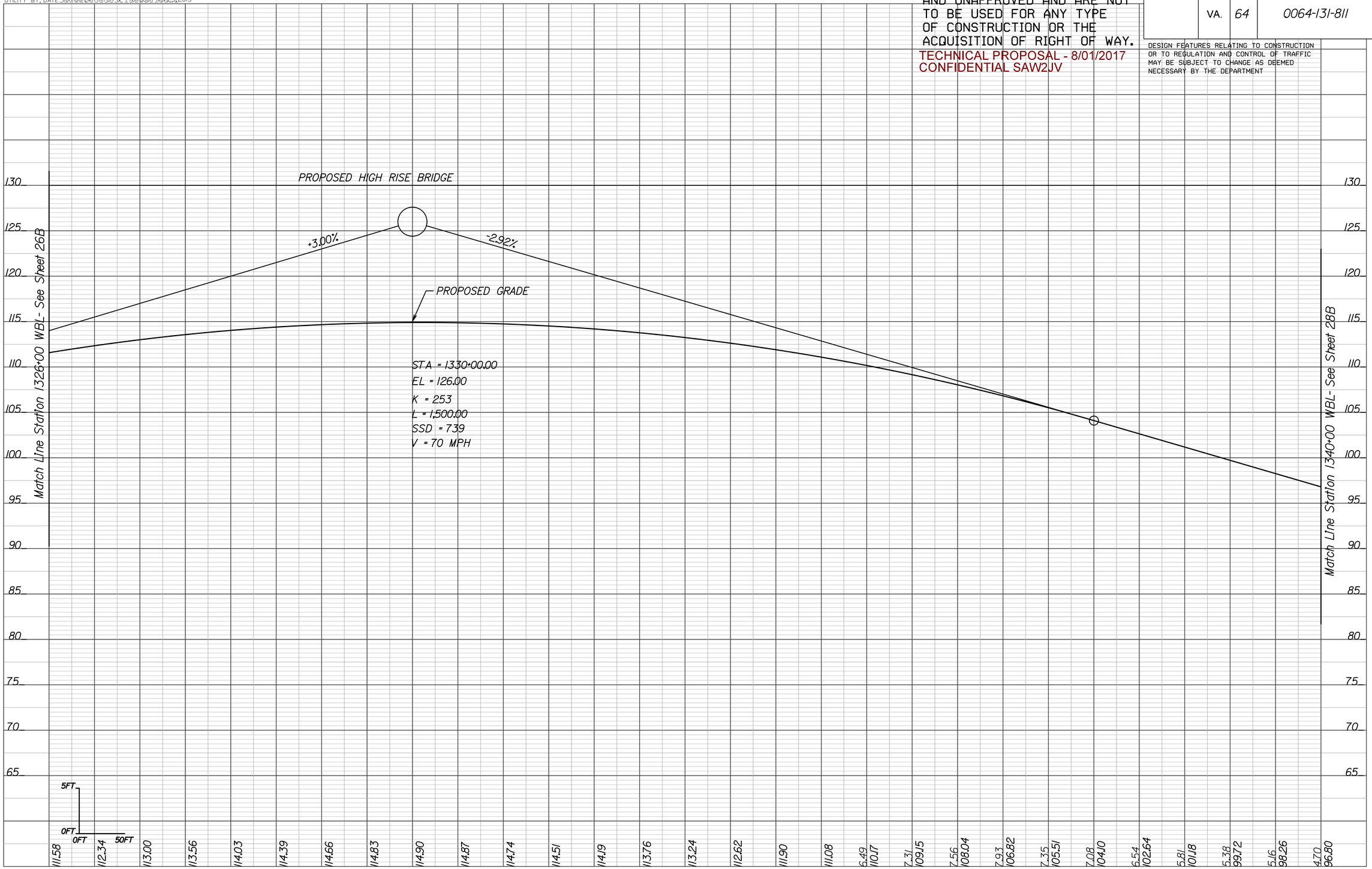
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	27B

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



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	27B

PROJECT MANAGER Ricardo Correa, P.E.(757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25, 2015

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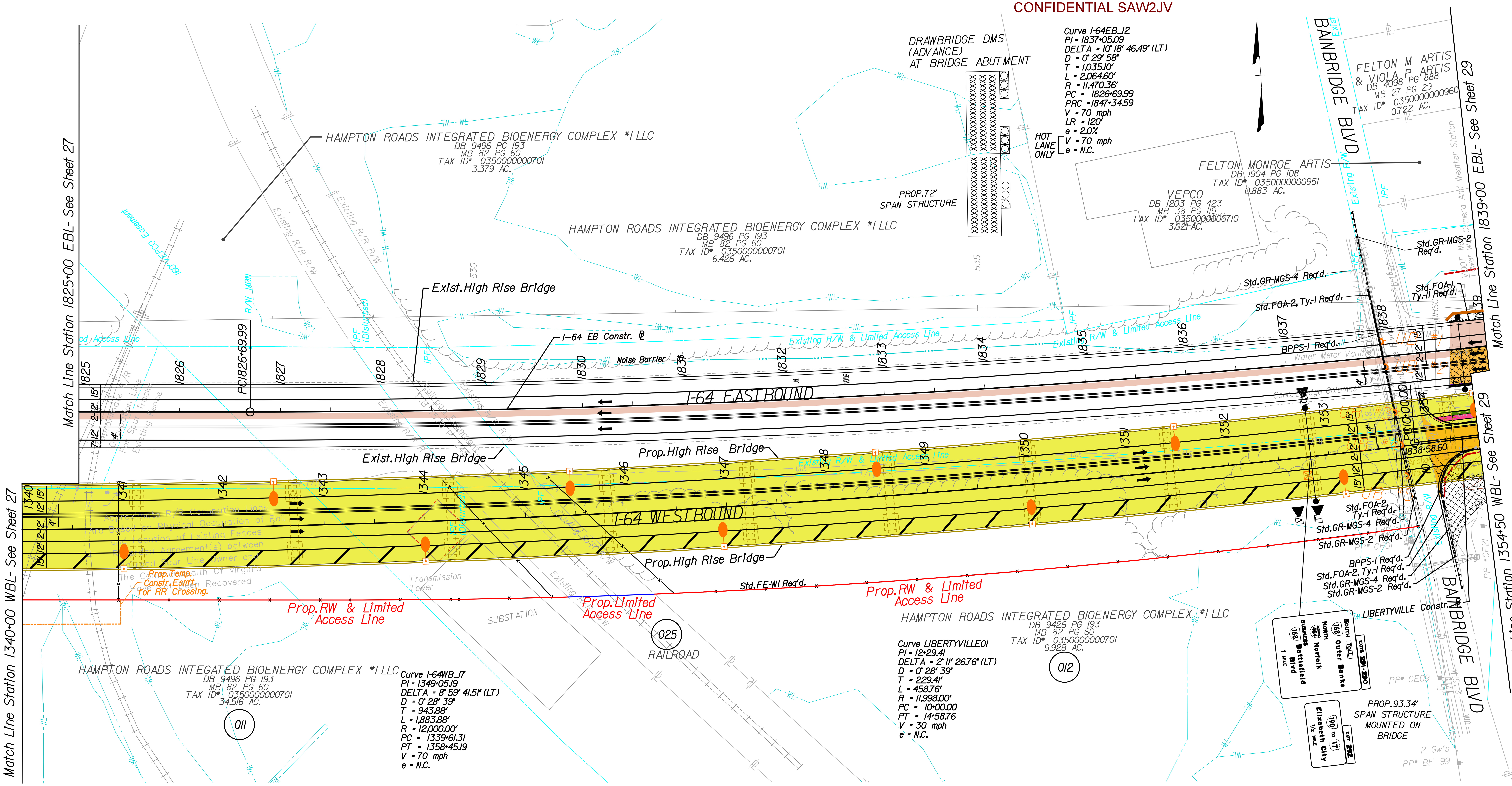
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	28

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	
PROFILES	28A,28B

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	28

16:37
03-AUG-2017
E:\ics_workingdir\3217\200720_27\D10436628.dgn

11:55

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

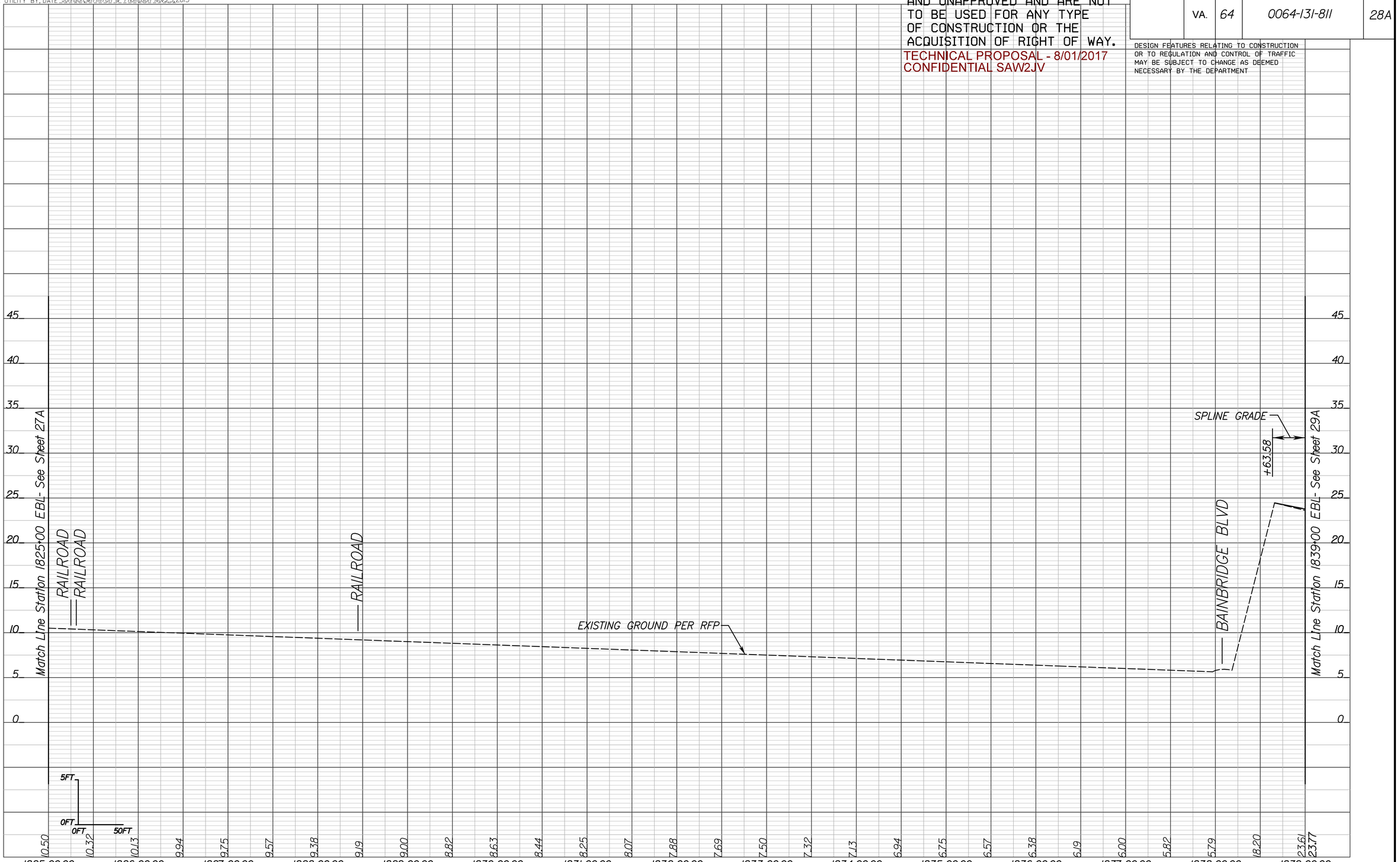
I-64 Eastbound

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

TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	28A

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



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	28A

03-AUG-2017

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11:57

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

I-64 Westbound

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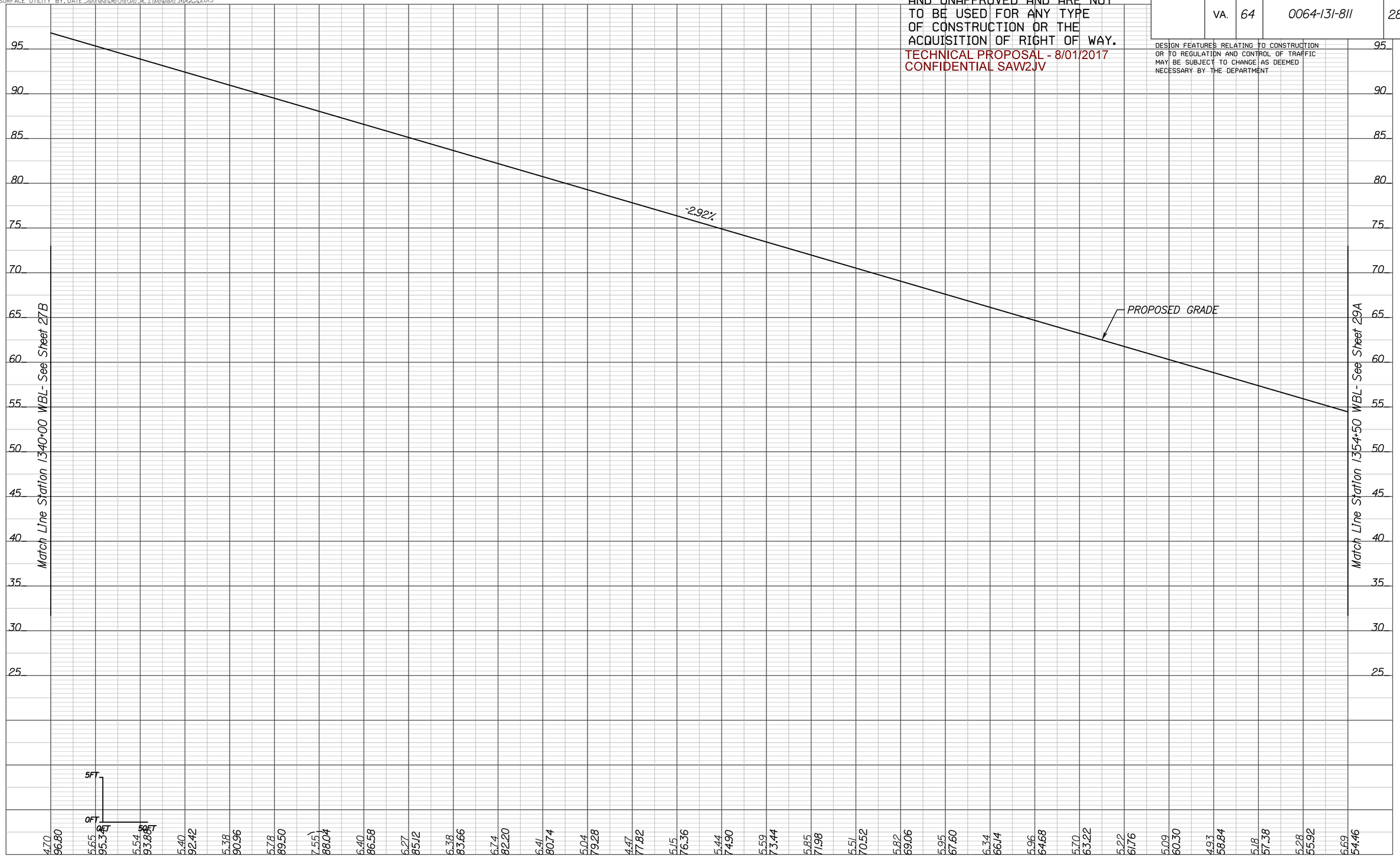
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	28B

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



SKANSKA in association with WSP

	PROJECT	SHEET NO.
	0064-131-811	28B

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	29

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

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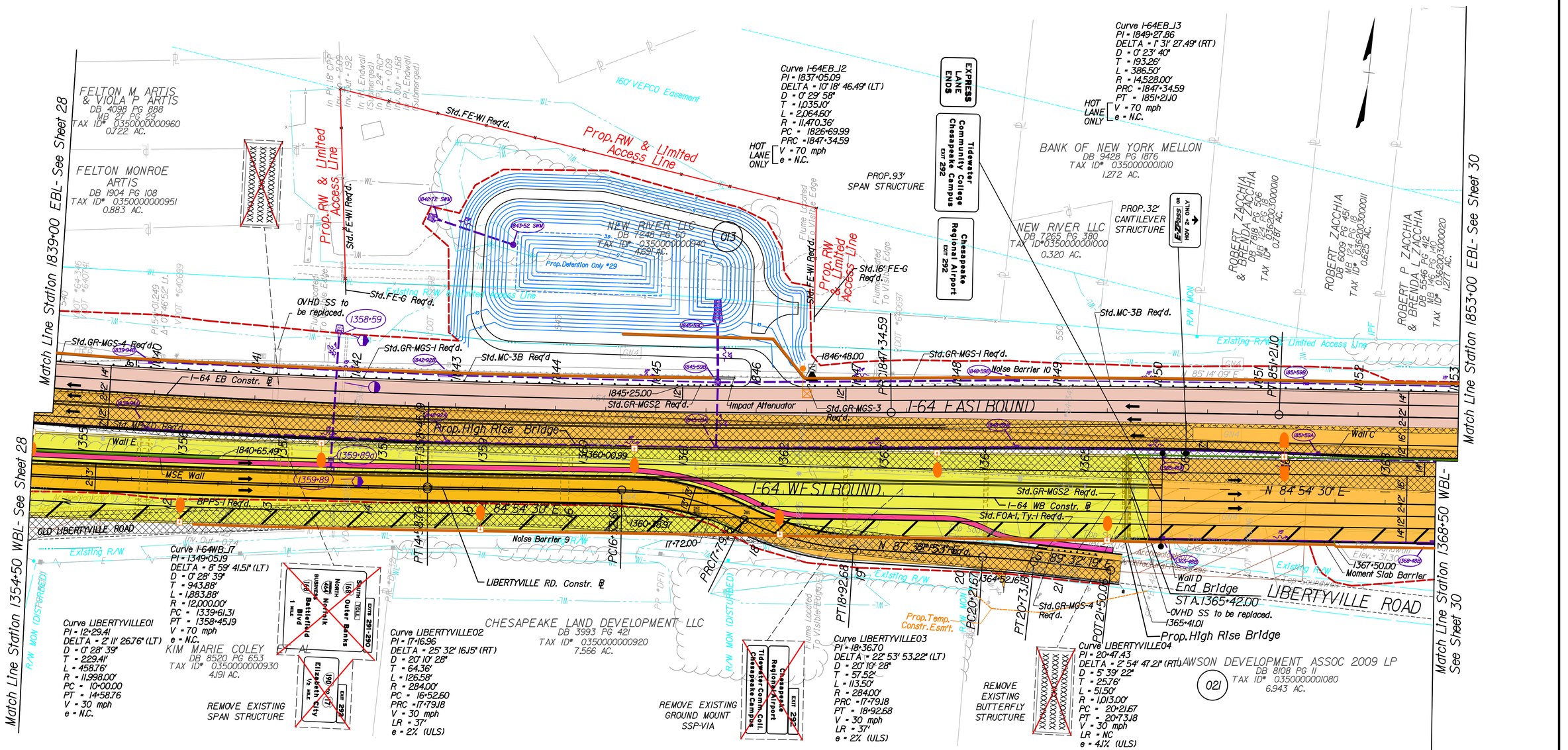
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(4),2B(1)
PROFILES	29A,29B

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	29

16:37
03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	29A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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I-64 Eastbound

Match Line Station 1839+00 EBL - See Sheet 28A

SPLINE GRADE

-2.5% (Approximate.)

PROPOSED GRADE

EXISTING GROUND

-0.03% (Approximate.)

Match Line Station 1853+00 EBL - See Sheet 30A

1839+00.00	1840+00.00	1841+00.00	1842+00.00	1843+00.00	1844+00.00	1845+00.00	1846+00.00	1847+00.00	1848+00.00	1849+00.00	1850+00.00	1851+00.00	1852+00.00	1853+00.00
23.61 23.77	22.46 22.67	21.22 21.46	19.91 20.18	18.63 18.93	17.53 17.78	16.54 16.88	15.68 16.06	14.89 15.32	14.25 14.66	13.64 14.03	13.23 13.54	12.83 13.13	12.63 12.91	12.43 12.69	12.39 12.69	12.37 12.65	12.33 12.64	12.33 12.63	12.28 12.57	12.24 12.53	12.23 12.50	12.22 12.49	12.17 12.47	12.17 12.47	12.16 12.46	12.14 12.43	12.13 12.39	12.13 12.38

I-64 Westbound

Match Line Station 1354+50 WBL - See Sheet 28B

-2.92%

END BRIDGE STA. 1365+42.00

PROPOSED GRADE

-2.92%

Match Line Station 1368+50 WBL - See Sheet 30A

EXISTING GROUND

5FT
0FT
0FT
50FT

1355+00.00	1356+00.00	1357+00.00	1358+00.00	1359+00.00	1360+00.00	1361+00.00	1362+00.00	1363+00.00	1364+00.00	1365+00.00	1366+00.00	1367+00.00	1368+00.00
6.69 54.46	5.08 53.00	4.50 51.54	3.54 50.08	3.25 48.62	2.80 47.16	2.67 45.70	2.67 44.24	2.82 42.78	3.10 41.32	3.10 39.86	3.19 38.40	3.04 36.94	2.90 35.48	4.92 34.02	4.77 32.56	5.32 31.10	5.30 29.64	5.79 28.18	5.95 26.72	6.33 25.26	7.04 23.80	7.84 22.34	8.05 20.88	8.35 19.49	8.82 18.22	9.55 17.09	9.56 16.08	9.51 15.21

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	29A

03-AUG-2017
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11:59

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

Libertyville Road

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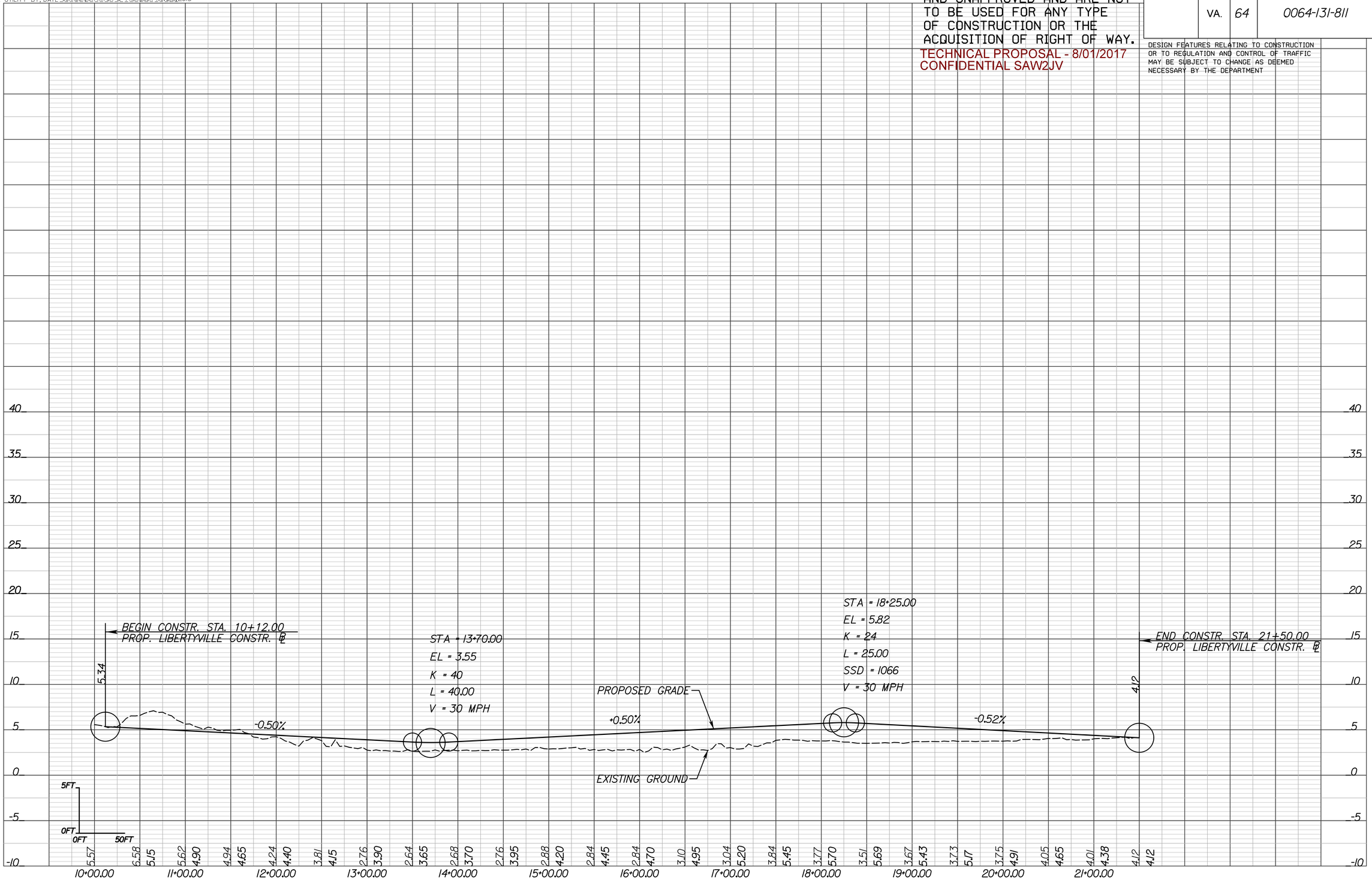
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	29B

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



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	29B

03-AUG-2017

\\PWICSSIcs_workingdir\10061\200720_87\D10436629B.dgn

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiran & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	30

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

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Match Line Station 1853+00 EBL- See Sheet 29

Match Line Station 1866+00 EBL- See Sheet 31

Match Line Station 1368+50 WBL- See Sheet 29

Match Line Station 1382+00 WBL- See Sheet 31

ROBERT P ZACCHIA & BRENDA L ZACCHIA
DB 5546 PG 412
MB 146 PG 140
TAX ID* 0362003000020
1.277 AC.

ROBERT ZACCHIA
DB 4664 PG 629
MB 7 PG 88
TAX ID* 0362003000050
1.496 AC.

ROBERT ZACCHIA
DB 4998 PG 319
MB 7 PG 88
TAX ID* 0362003000050
1.282 AC.

ROBERT ZACCHIA
DB 4915 PG 202
MB 144 PG 191
TAX ID* 0362003000040
0.492 AC.

SCHOOL BOARD CITY OF CHESAPEAKE
MB 102 PG 39
TAX ID* 0360000000070
26.734 AC.

OM INVESTMENTS INC
DB 4483 PG 342
TAX ID* 0360000000160
2.667 AC.

ANANIAS MANN
DB 1068 PG 389
TAX ID* 0360000000240
0.776 AC.

LAWSON DEVELOPMENT ASSOC 2009 LP
DB 8108 PG 11
TAX ID* 0350000001080
6.943 AC.

LAWSON DEVELOPMENT ASSOC 2009 LP
DB 8108 PG 7
TAX ID* 0350000001090
7.165 AC.

THIEN H UMBERGER ET AL
DB 9022 PG 174
MB 7 PG 88
TAX ID* 0362003000060
0.095 AC.

FREDERICK KEARNEY
DB 3519 PG 8
MB 7 PG 88
TAX ID* 0362003000070
0.093 AC.

MYRNA M TAYLOR
DB 5603 PG 61
MB 7 PG 88
TAX ID* 0362003000080
0.117 AC.

KEYBRA E RIDDICK ET ALS
DB 3604 PG 355
MB 7 PG 88
TAX ID* 0362003000090
0.109 AC.

LINDA J BELCH
DB 9421 PG 1170
MB 7 PG 88
TAX ID* 0362003000100
0.158 AC.

DOROTHY B THOMAS
DB 1509 PG 27
MB 7 PG 88
TAX ID* 0362003000110
0.084 AC.

SERENITY PH LLC
DB 8588 PG 689
MB 7 PG 88
TAX ID* 0362003000120
0.162 AC.

RONALD WAGWOOD BLACKWOOD
DB 7964 PG 618
TAX ID* 0360000000260
0.387 AC.

RONALD BISHOP
DB 5671 PG 82
TAX ID* 0360000000250
0.164 AC.

CURTIST HAQQ
DB 976 PG 445
TAX ID* 0360000000230
0.166 AC.

PROPERTIES INC
DB 8196 PG 582
TAX ID* 0360000000200
0.088 AC.

THOMAS C HASBARGEN & DEBRA J HASBARGEN
DB 8487 PG 345
MB 38 PG 122
TAX ID* 0360000000180
0.1220 AC.

ROBERT ZACCHIA
DB 4805 PG 133
MB 38 PG 122
TAX ID* 0360000000190
0.563 AC.

QUENTIN J ROGERS & PRISCILLA D ROGERS
DB 8469 PG 61
DB 1107 PG 119
TAX ID* 0360000000220
0.246 AC.

TOLL MVDS NEAR HOT LANE ENTRANCE

PROP.GROUND MOUNT SSP-VIA

Curve 164EB_I4
PI = 1868+34.15
DELTA = 21° 33' 51.87" (LT)
D = 1°13' 23"
T = 892.20'
L = 1,763.29'
R = 4,685.00'
PC = 1859+41.94
PT = 1877+05.24
V = 70 mph
LR = 226'
e = 4.3%

Curve 164WB_I2
PI = 1382+45.52
DELTA = 16° 08' 06.02" (LT)
D = 1°14' 59"
T = 649.89'
L = 1,291.18'
R = 4,585.00'
PC = 1375+95.63
PT = 1388+86.81
V = 70 mph
LR = 231'
e = 4.4%

PROP.80' SPAN STRUCTURE

REMOVE EXISTING SPAN STRUCTURE

I-64 EAST BOUND

I-64 WEST BOUND

LIBERTYVILLE ROAD

NOISE BARRIER 10

1,030' TAPER

300' TAPER

440' AUX. LANE

Std.MB-7E Req'd.

Std.MB-8A Ty.II Req'd.

Std.MB-8A Ty.III Req'd.

Std.MC-3B Req'd.

Std.GR-MGS-I Req'd.

Std.GR-MSG-3 Req'd.

Std.MB-7D Req'd.

Std.EOA-2,Ty-II Req'd.

Std.GR-MGS-4 Req'd.

Std.MGS-2 Req'd.

Impact Attenuator

Prop.RW & Limited Access Line

Std.FE-WI Req'd.

Existing Utility Easement

PropWP #30

1857+05.17

1857+27.13 AH'D 2,000' L SHIFT

1857+27.44 429.9' RT 35.48

1857+27.38

1854+76.95

1853+76.91

N 85° 06' 53" E

96.11

I-64 WB Constr. @

1857+28.74 BK

1857+73.00 53 AH'D

38.36' RT 00.00

Top Soundwall Elev.= 31.18

Top Soundwall Elev.= 31.23

Top Soundwall Elev.= 31.24

Top Soundwall Elev.= 31.32

Top Soundwall Elev.= 32.31

Top Soundwall Elev.= 32.40

Top Soundwall Elev.= 32.51

Top Soundwall Elev.= 32.26

In Pl. 12" CMP Inv. In = 3.45 Inv. Out = 3.29

In Pl. CMHWL Elev.= 4.95 Inv.(In) = -6.00 Inv.(Out) = -6.05

In Pl. Endwall In Pl. 42" RCP Inv. = 2.67 Unable To Determine Next Invert

In Pl. Endwall In Pl. 36" RCP Inv. = 2.90 Unable To Determine Next Invert

2" Asphalt Concrete Base w/3 Conduits VDOT #64343

Existing R/W

Prop.Limited Access Line

Prop.RW & Limited Access Line

Std.GR-MGS-I Req'd.

Std.MC-3B Req'd.

Std.GR-MGS-4 Req'd.

137+21.16 Tie to exist. Sound Wall

End MC-3B

Great Bridge Outer Banks ½ MILE 168 South TOLL exit 291B

Ches Expwy Outer Banks ½ MILE 168 South TOLL exit 291B

Elizabeth City 190 to (I) exit 282

Elizabeth City 190 to (I) exit 282

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

LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(1),2B(2)
PROFILES	30A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	30

\\PWICSfss_workingdir\10129\2007\20_29\D10436630.dgn

03-AUG-2017

16:09

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	30A

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

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

I-64 Eastbound

Match Line Station 1853+00 EBL- See Sheet 29A

SPLINE GRADE

POT 1857+27.13 AH'D 2' B/L SHIFT LT

SPLINE GRADE

PROPOSED GRADE

EXISTING GROUND

Match Line Station 1866+00 EBL- See Sheet 31A

1853+00.00	1854+00.00	1855+00.00	1856+00.00	1857+00.00	1858+00.00	1859+00.00	1860+00.00	1861+00.00	1862+00.00	1863+00.00	1864+00.00	1865+00.00	1866+00.00
12.13 / 12.38	12.12 / 12.38	12.11 / 12.37	12.10 / 12.37	12.07 / 12.34	12.04 / 12.30	12.03 / 12.30	12.05 / 12.31	12.06 / 12.33	12.08 / 12.46	12.10 / 12.48	12.10 / 12.52	12.13 / 12.55	12.9 / 12.67	12.23 / 12.78	12.23 / 12.83	12.22 / 12.84	12.21 / 12.86	12.20 / 12.86	12.21 / 12.86	12.21 / 12.84	12.22 / 12.84	12.22 / 12.84	12.23 / 12.90	12.23 / 12.94	12.20 / 12.91	12.17 / 12.86	12.20 / 12'

I-64 Westbound

Match Line Station 1368+50 WBL- See Sheet 29A

PROPOSED GRADE

12.92

0.5% MIN

-2.92%

STA = 1369+00.00
EL = 12.12
K = 192
L = 600.00
V = 70 MPH

5FT
0FT
0FT
50FT

SPLINE GRADE

PROPOSED GRADE

EXISTING GROUND

Match Line Station 1382+00 WBL- See Sheet 31A

1369+00.00	1370+00.00	1371+00.00	1372+00.00	1373+00.00	1374+00.00	1375+00.00	1376+00.00	1377+00.00	1378+00.00	1379+00.00	1380+00.00	1381+00.00	1382+00.00
9.51 / 15.21	10.17 / 14.46	10.39 / 13.85	10.56 / 13.36	11.14 / 13.01	11.11 / 12.78	11.08 / 12.68	11.21 / 12.72	11.31 / 12.82	11.32 / 12.92	11.34 / 13.02	11.40 / 13.03	11.52 / 13.04	11.67 / 13.05	11.85 / 13.06	12.06 / 13.08	12.07 / 13.09	12.06 / 13.10	12.11 / 13.11	12.19 / 13.12	12.18 / 13.13	12.17 / 13.14	12.18 / 13.15	12.21 / 13.16	12.28 / 13.18	12.31 / 13.19	12.30 / 13.20	12.30 / 13.21

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	30A

03-AUG-2017
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21:11

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E.(757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
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SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25, 2015

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CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	31

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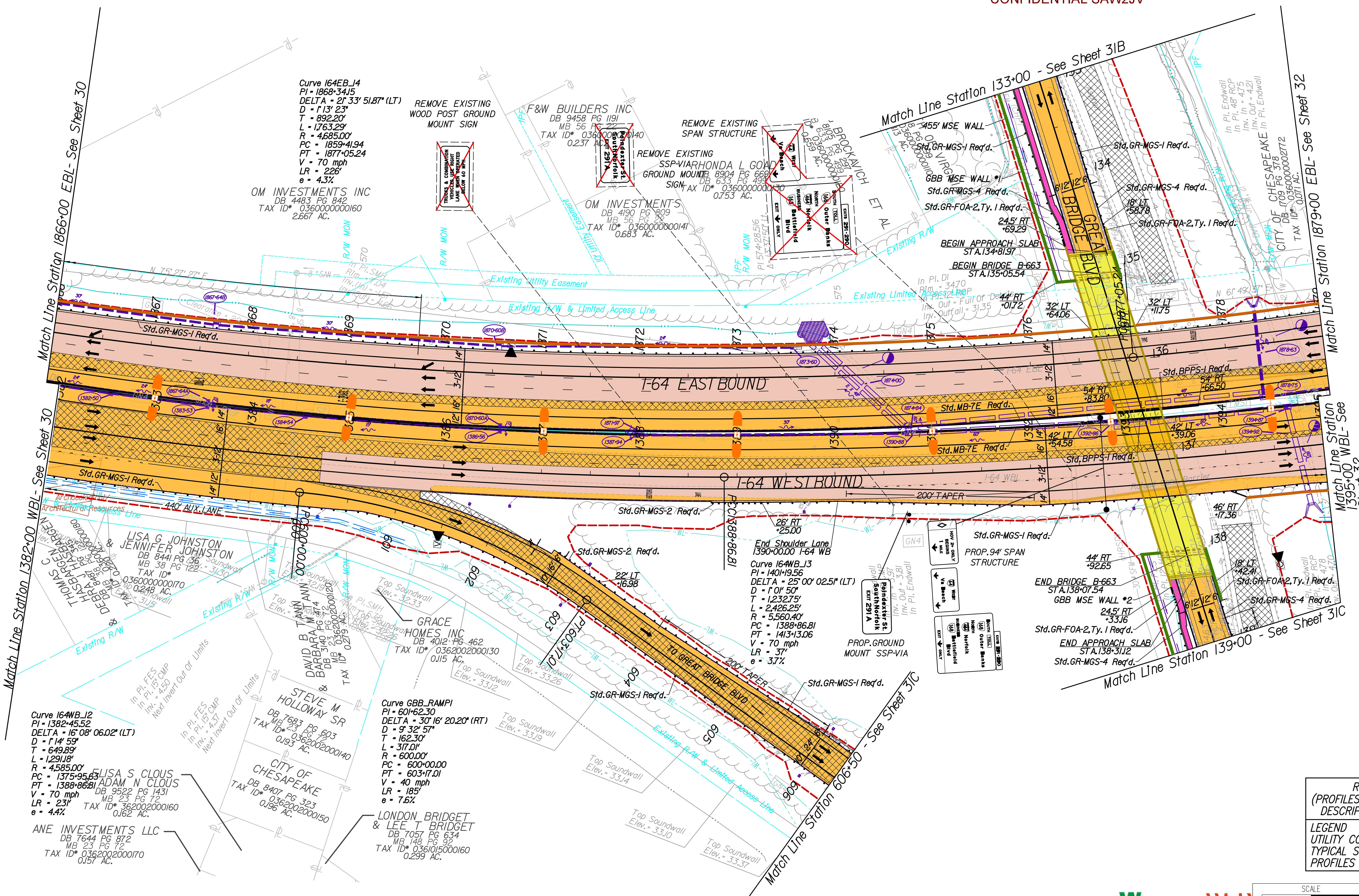

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(2),2B(6)
PROFILES	31A,31D,31E

SKANSKA in association with WSP

SCALE 0 50' 100'

PROJECT	SHEET NO.
0064-131-811	31

15:58

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	31A

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I-64 Eastbound

Match Line Station 1866+00 EBL - See Sheet 30A

Match Line Station 1879+00 EBL - See Sheet 32A

SPLINE GRADE

PROPOSED GRADE

EXISTING GROUND

1866+00.00	1867+00.00	1868+00.00	1869+00.00	1870+00.00	1871+00.00	1872+00.00	1873+00.00	1874+00.00	1875+00.00	1876+00.00	1877+00.00	1878+00.00	1879+00.00
12.17 / 12.86	12.20 / 12.88	12.24 / 12.90	12.28 / 12.93	12.31 / 12.95	12.36 / 13.02	12.41 / 13.10	12.49 / 13.18	12.60 / 13.26	12.71 / 13.32	12.75 / 13.40	12.80 / 13.46	12.86 / 13.53	12.92 / 13.58	12.99 / 13.66	13.06 / 13.74	13.13 / 13.82	13.17 / 13.90	13.23 / 13.97	13.31 / 14.03	13.34 / 14.06	13.22 / 13.99	13.15 / 13.89	13.31 / 13.90	13.46 / 13.98	13.56 / 14.11	13.70 / 14.27

I-64 Westbound

Match Line Station 1382+00 WBL - See Sheet 30A

Match Line Station 1395+00 WBL - See Sheet 32A

SPLINE GRADE

PROPOSED GRADE

EXISTING GROUND

5FT
0FT
0FT 50FT

1382+00.00	1383+00.00	1384+00.00	1385+00.00	1386+00.00	1387+00.00	1388+00.00	1389+00.00	1390+00.00	1391+00.00	1392+00.00	1393+00.00	1394+00.00	1395+00.00
12.30 / 13.21	12.31 / 13.22	12.31 / 13.23	12.30 / 13.24	12.36 / 13.25	12.43 / 13.26	12.51 / 13.28	12.58 / 13.29	12.63 / 13.33	12.68 / 13.38	12.74 / 13.42	12.79 / 13.46	12.83 / 13.50	12.89 / 13.55	12.96 / 13.55	13.02 / 13.59	13.06 / 13.65	13.08 / 13.69	13.10 / 13.72	13.19 / 13.80	13.26 / 13.85	13.24 / 13.86	13.22 / 13.87	13.30 / 13.91	13.37 / 13.97	13.45 / 14.08	13.65 / 14.23

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	31A

03-AUG-2017

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03-AUG-2017
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PROJECT MANAGER Ricardo Correa, P.E.(757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25, 2015

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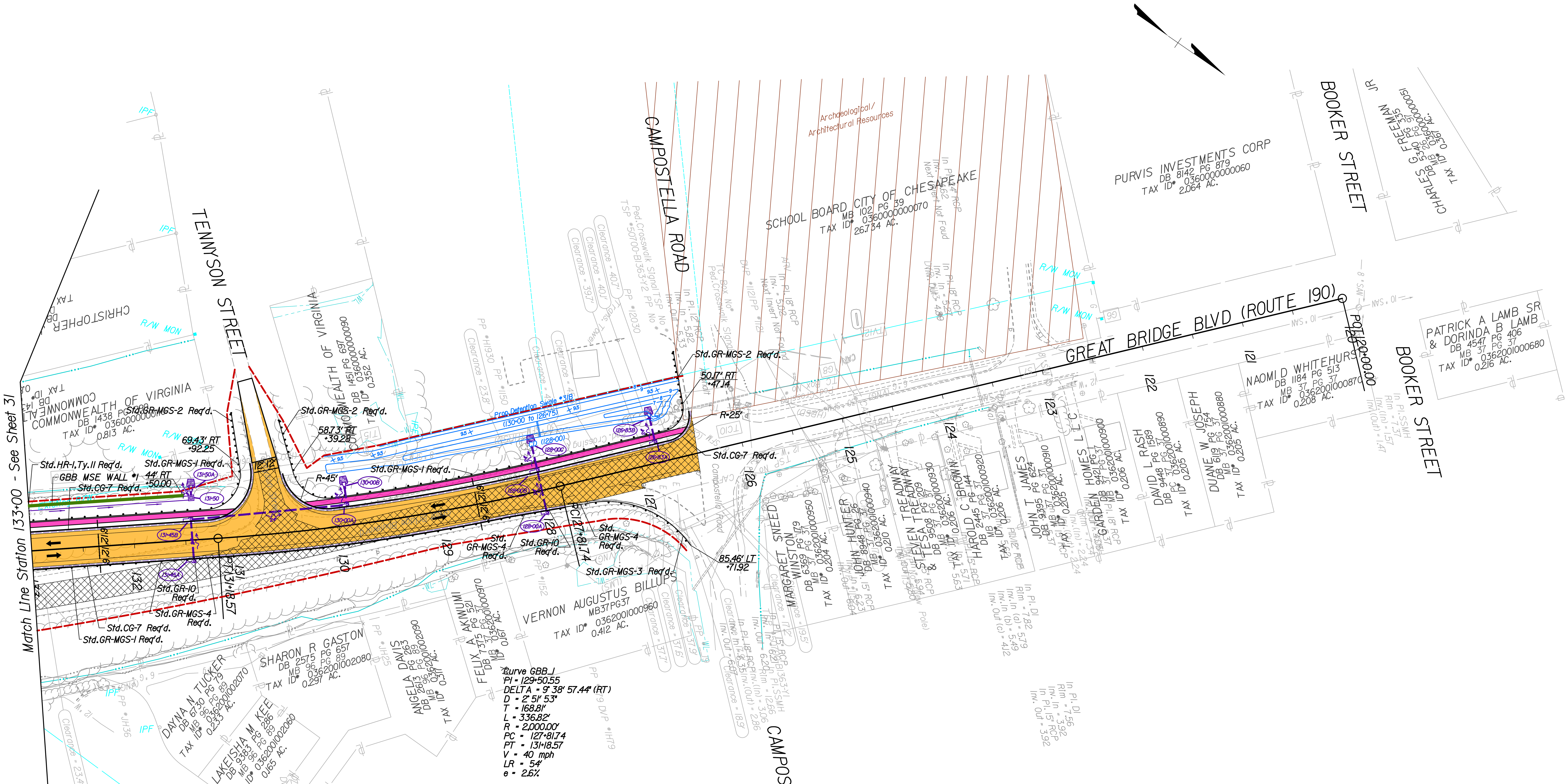
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	31B

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(6)
PROFILES	31E

SKANSKA in association with wsp

SCALE 0 50' 100'

PROJECT	SHEET NO.
0064-131-811	31B

PROJECT MANAGER Ricardo Correa, P.E.(757)494-2476 (Hampton Roads District)
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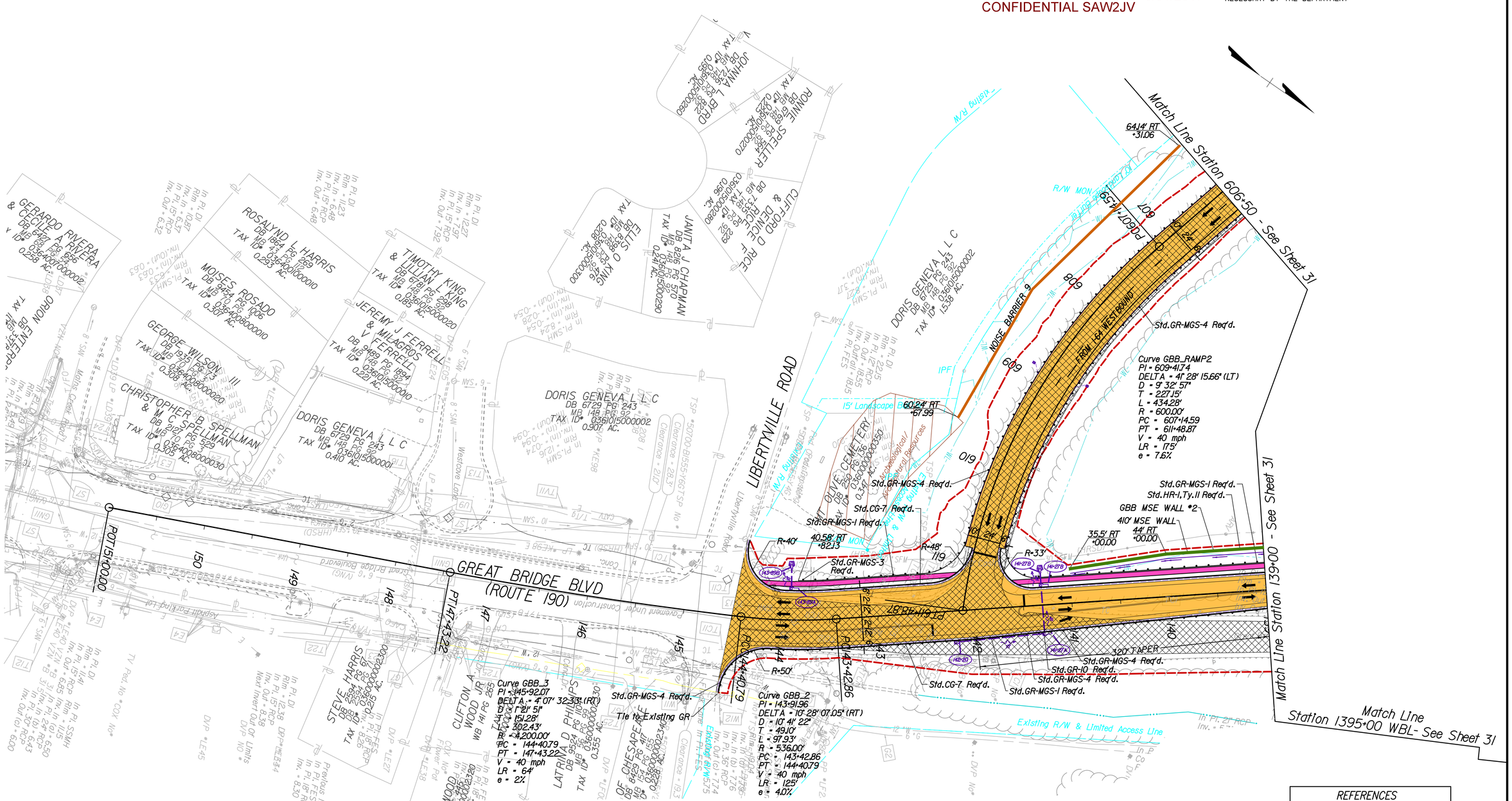
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	31C

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



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(6)
PROFILES	31D,31E,31F

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	31C

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

I-64 WB to GBB Ramp

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	31D

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TECHNICAL PROPOSAL - 8/01/2017
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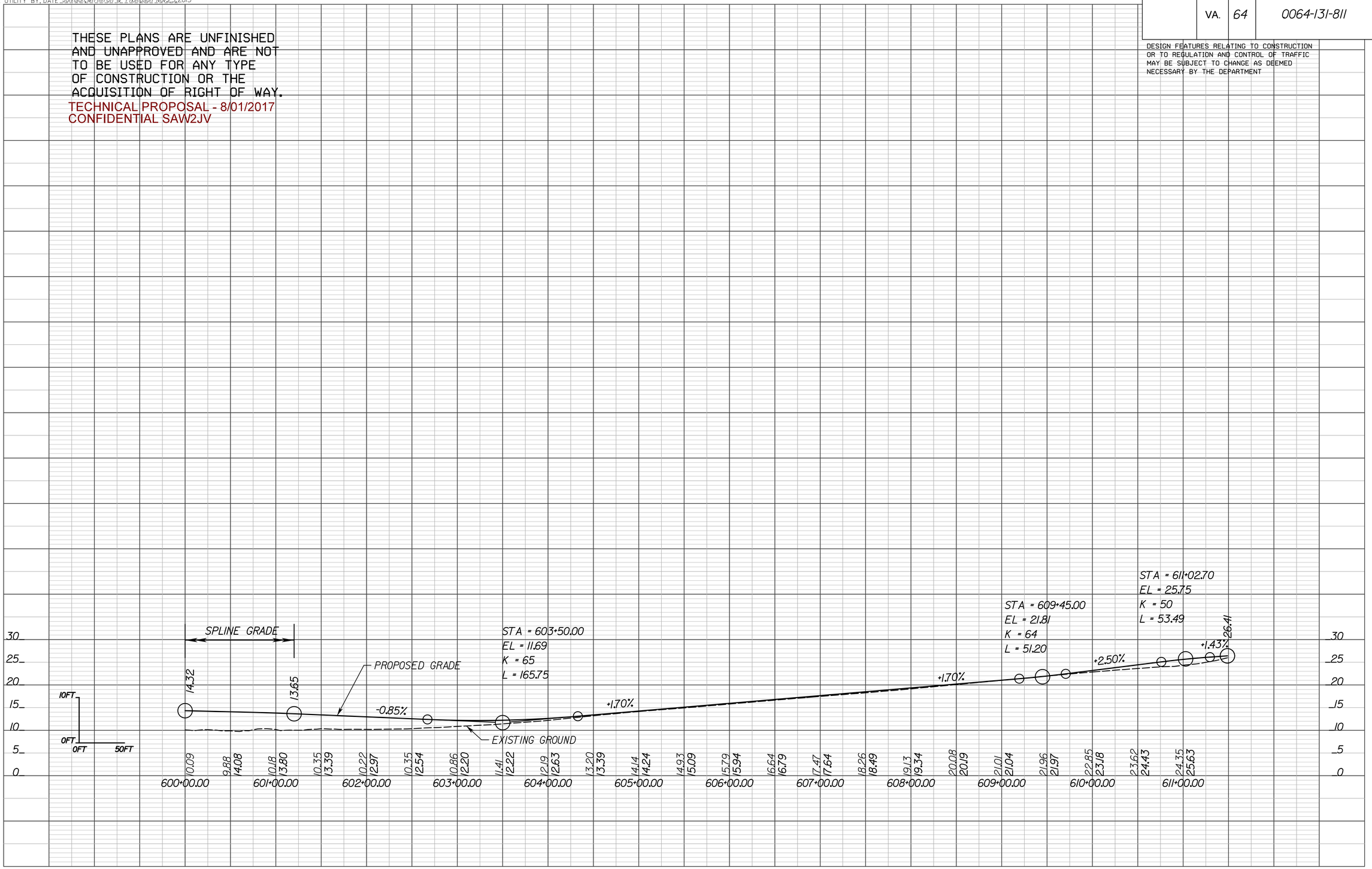

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	31D

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
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DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	31E

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

Great Bridge Boulevard

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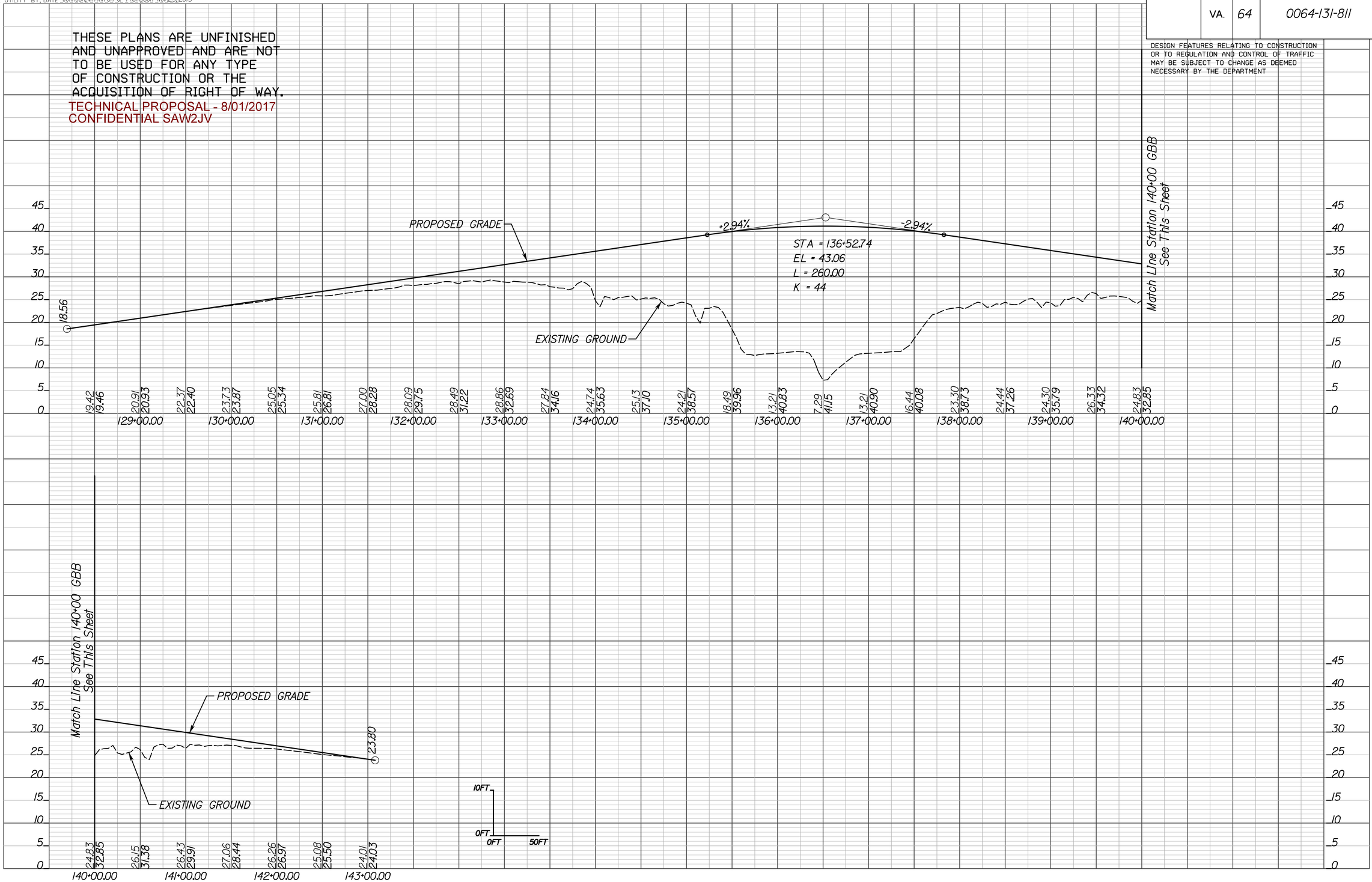
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	31E

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
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SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

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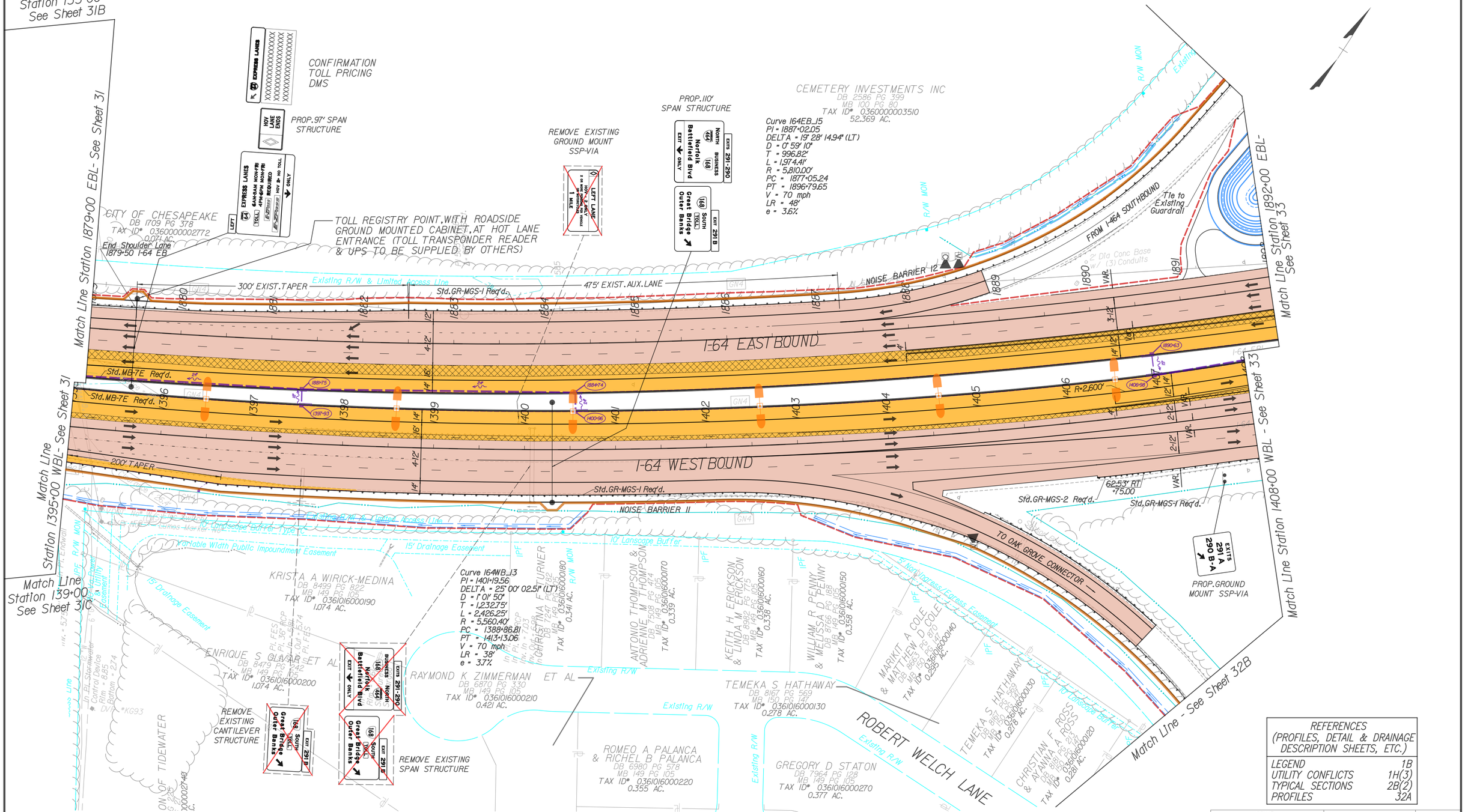
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	32

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



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

LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(2)
PROFILES	32A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	32

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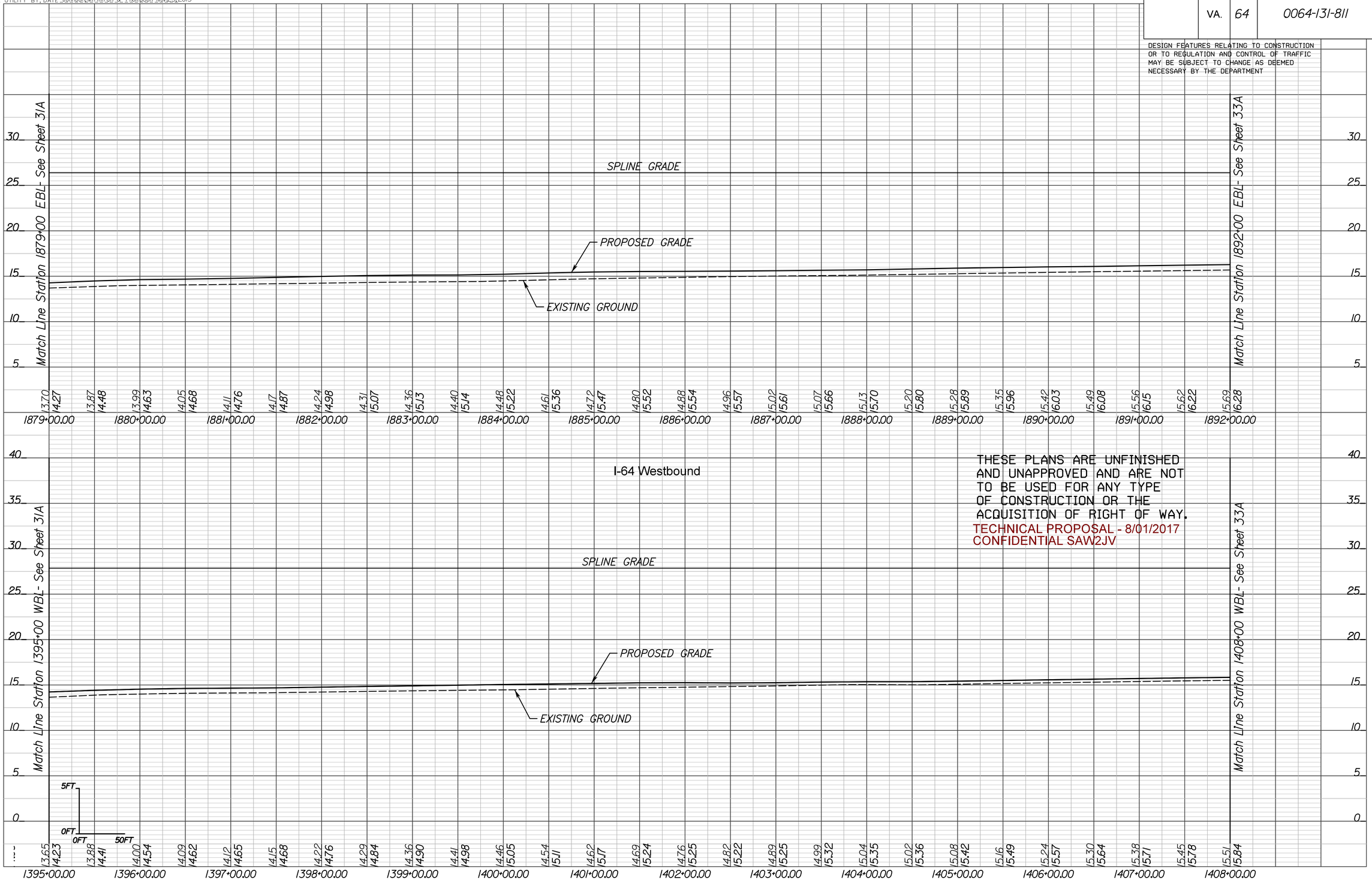
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	32A

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

I-64 Eastbound



I-64 Westbound

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	32A

03-AUG-2017
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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	32B

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

Match Line - See Sheet 32

Std.GR-MGS-I Req'd.

627-75

627-75A

TO OAK GROVE CONNECTOR FROM I-64 WESTBOUND

NOISE BARRIER II

Existing R/W & Limited Access Line

Existing R/W

ROUTE 168 NORTHBOUND

Route 168 NBL

ROUTE 168 SOUTHBOUND

SBL

Std.GR-MGS-I Req'd.

Std.GR-MGS-3 Req'd.

Existing R/W & Limited Access Line

IPF (BENT)

5' Non Ingress/ Egress Easement

R/W MON (DISTURBED)

AREA UNDER CONSTRUCTION

CITY OF CHESAPEAKE
DB 521 PG 128
Tax ID# 0360000003790
0.198 AC.

JOE DOROTHY FLETCHER
DB 1090 PG 0010
MB 0.524 AC.
Tax ID# 0360000010

VICTOR PERALTA
DB 8437 PG 0821
MB 149 PG 105
Tax ID# 0361016000100
0.339 AC.

ALICIA D MCCOY
DB 9410 PG 0215
MB 149 PG 105
Tax ID# 0360000090
0.338 AC.

DEBORAH L FELDS
DB 7526 PG 0357
MB 149 PG 105
Tax ID# 0360000080
0.338 AC.

FRANK D WASHINGTON & KAMEKA M WASHINGTON
DB 7480 PG 0591
MB 149 PG 105
Tax ID# 0360000070
0.356 AC.

JAMES H GORHAM & TRACEY PG 105
DB 7202 PG 105
MB 149 PG 105
Tax ID# 0360000060
0.383 AC.

REYNALDO R QUILON & JENELYN M QUILON
DB 7259 PG 515
MB 149 PG 105
Tax ID# 0360000050
0.373 AC.

ADONTE HARRELL
DB 8810 PG 0521
MB 149 PG 105
Tax ID# 0360000040
0.400 AC.

MICHAEL P HALL & ELENA P HALL
DB 6937 PG 656
MB 149 PG 105
Tax ID# 0360000030
0.248 AC.

LATANYA T TAYLOR
DB 8144 PG 592
MB 149 PG 105
Tax ID# 0360000020
0.400 AC.

DYLAN M MELL
DB 8498 PG 256
MB 149 PG 105
Tax ID# 0360000010
0.462 AC.

JAMES A WHITFIELT ALS
DB 1423 PG 0123
MB 149 PG 105
Tax ID# 0360000290
0.344 AC.

PAUL A COMPTON
DB 8147 PG 0561
MB 149 PG 105
Tax ID# 0360000280
0.344 AC.

BROOKE N BROSCHART
DB 6931 PG 0691
MB 149 PG 105
Tax ID# 0360000270
0.364 AC.

MICHAEL N BROSCHART & NANCY
DB 6931 PG 0691
MB 149 PG 105
Tax ID# 0360000260
0.344 AC.

In Pl. DI
Rim = 45.22
In Pl. 15" PVC Pipe
Inv. Out = 43.00
Inv. Outfall = 14.89
In Pl. FES

In Pl. DI
Rim = 39.89
In Pl. 15" PVC Pipe
Inv. Out = 36.66
Inv. Outfall = 11.49
In Pl. FES

In Pl. DI
Rim = 39.97
In Pl. 15" PVC Pipe
Inv. Out = 11.72
Inv. Outfall = 9.69
In Pl. FES

In Pl. FES
In Pl. 36" RCP
Inv. In = 9.23
Inv. Out = 9.58
In Pl. FES

In Pl. FES
In Pl. 36" RCP
Inv. In = 9.96
Inv. Out = 9.31
In Pl. FES

In Pl. DI
Rim = 33.53
In Pl. 36" PVC Pipe
Inv. Out = 32.13
Inv. Outfall = 11.59
In Pl. FES

In Pl. DI
Rim = 36.68
In Pl. 36" PVC Pipe
Inv. Out = 33.91
Inv. Outfall = 13.38
In Pl. FES

In Pl. 24" RCP FES
Inv. = 12.68

In Pl. SSMH
Rim = 20.85
Inv. In = 16.85
In Pl. 18" RCP
Inv. Out = 16.65
Inv. Outfall = 15.4
In Pl. FES

In Pl. DI
Rim = 39.11
In Pl. 15" PVC
Inv. Out = 34.48

VDOT #6406649

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(2)

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	32B

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	33

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

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Match Line - See Sheet 32
Match Line - See Sheet 33B
Match Line - See Sheet 33B
Match Line - See Sheet 34B
Match Line Station 1892+00 EBL- See Sheet 32
Match Line Station 1905+00 EBL- See Sheet 34
Match Line Station 1408+00 WBL - See Sheet 32
Match Line Station 1421+00 WBL- See Sheet 34

R/W & Limited Access Line
Std.GR-MGS-1 Req'd.
Std.GR-MGS-4 Req'd.
NOISE BARRIER #2
FROM I-464 SOUTHBOUND
Std.GR-MGS-1 Req'd.
Curve 164EB_I5
PI = 1887+02.05
DELTA = 19° 28' 14.94" (LT)
D = 0° 59' 10"
T = 996.82'
L = 1,974.41'
R = 5,810.00'
PC = 1877+05.24
PT = 1896+79.65
V = 70 mph
LR = 48'
e = 3.6%
TO OAK GROVE CONNECTOR
Std.GR-MGS-2 Req'd.
Std.GR-MGS-3 Req'd.
Std.GR-MGS-1 Req'd.
24' LT +0.00
24' LT +96.50
PT 1896+79.65
I-64 EASTBOUND
I-64 WESTBOUND
I-464 SOUTHBOUND
I-464 NORTHBOUND
I-464 SBL
I-464 NBL
REMOVE EXISTING OVERHEAD SIGNS FROM BRIDGE
PROP. 77' SPAN STRUCTURE
EXIT 291B
SOUTH (I-64 WBL) (I-464 SBL)
Elizabeth City Outer Banks
NORTH (I-64 EBL) (I-464 NBL)
Portsmouth Suffolk Richmond
EXIT 291-S
Std.MB-8A Ty.II Req'd.
Std.MB-8A Ty.I Req'd.
Std.MB-7E Req'd.
Std.MB-7D Req'd.
Std.BPPS-I Req'd.
Impact Attenuator Req'd.
36.36' RT +05.23
36.36' RT +50.00
31.45' RT +27.30
28' RT +50.00
18' RT +03.22
28' LT +0.00
51.96' LT +23.01
19.61' LT +44.48
24.68' LT +24.79
24.68' LT +21.09
16' LT +24.51
16' LT +21.09
20.81' RT +96.30
67.34' RT +00.00
24.4' RT +45.00
24' RT +20.00
R=2,600'
R=17,200'
R=16,597'
Curve 164WB_I3
PI = 1401+19.56
DELTA = 25° 00' 02.51" (LT)
D = 1° 01' 50"
T = 1,232.75'
L = 2,426.25'
R = 5,560.40'
PC = 1388+86.81
PT = 1413+13.06
V = 70 mph
LR = 38'
e = 3.7%
REMOVE EXISTING WOOD POST GROUND MOUNT
EXISTING CANTILEVER STRUCTURE TO REMAIN IN PLACE
PROP. STP-1 GROUND MOUNT POST
HOV 2+ ONLY ½ MILE
LEFT LANE
Battlefield Blvd ¼ MILE
EXITS 290 B-A
Downtown Norfolk
EXIT 291A
TO I-464 NORTHBOUND
FROM I-464 SOUTHBOUND
Prop.WFI #33
In Pl. Endwall
In Pl. 36" RCP
Inv. In = 9.80
Inv. Out = 9.29
In Pl. Endwall
In Pl. FES
In Pl. 24" RCP
Inv. Out = 8.59
Inv. Outfall = 8.42
In Pl. FES
In Pl. Dbl. DI
Rim (WBU) = 15.59
Rim (WB C-D) = 16.24
In Pl. 15" RCP
In Pl. 6'x6' Dbl. Culvert
Inv. In (a) = 4.85
Inv. In (b) = 4.67
Inv. Out (c) = 4.67
Inv. Out (d) = 4.66
In Pl. Dbl. DI
Rim (WBU) = 16.44
Rim (WB C-D) = 16.24
Inv. In = 8.84
Inv. Out = 8.44
Possible Blind Connection
Box Culvert
In Pl. 6'x6' Dbl. Culvert
Box Culvert
Inv. In (a) = 5.22
Inv. In (b) = 5.18
Inv. Out (c) = 4.95
Inv. Out (d) = 4.96
In Pl. Dbl. DI
Rim (WBU) = 16.77
Rim (WB C-D) = 16.79
Inv. In = 11.59
In Pl. 15" RCP
Inv. Out = 8.24
Possible Blind Connection To Box Culvert
VDOT #640740
VDOT #640338
VDOT #640340
VDOT #640766
VDOT #TMS-STV-464-N-PSID
OBSC
GN4
DEB
WL
TM

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(2),2B(3)
PROFILES	33A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	33

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
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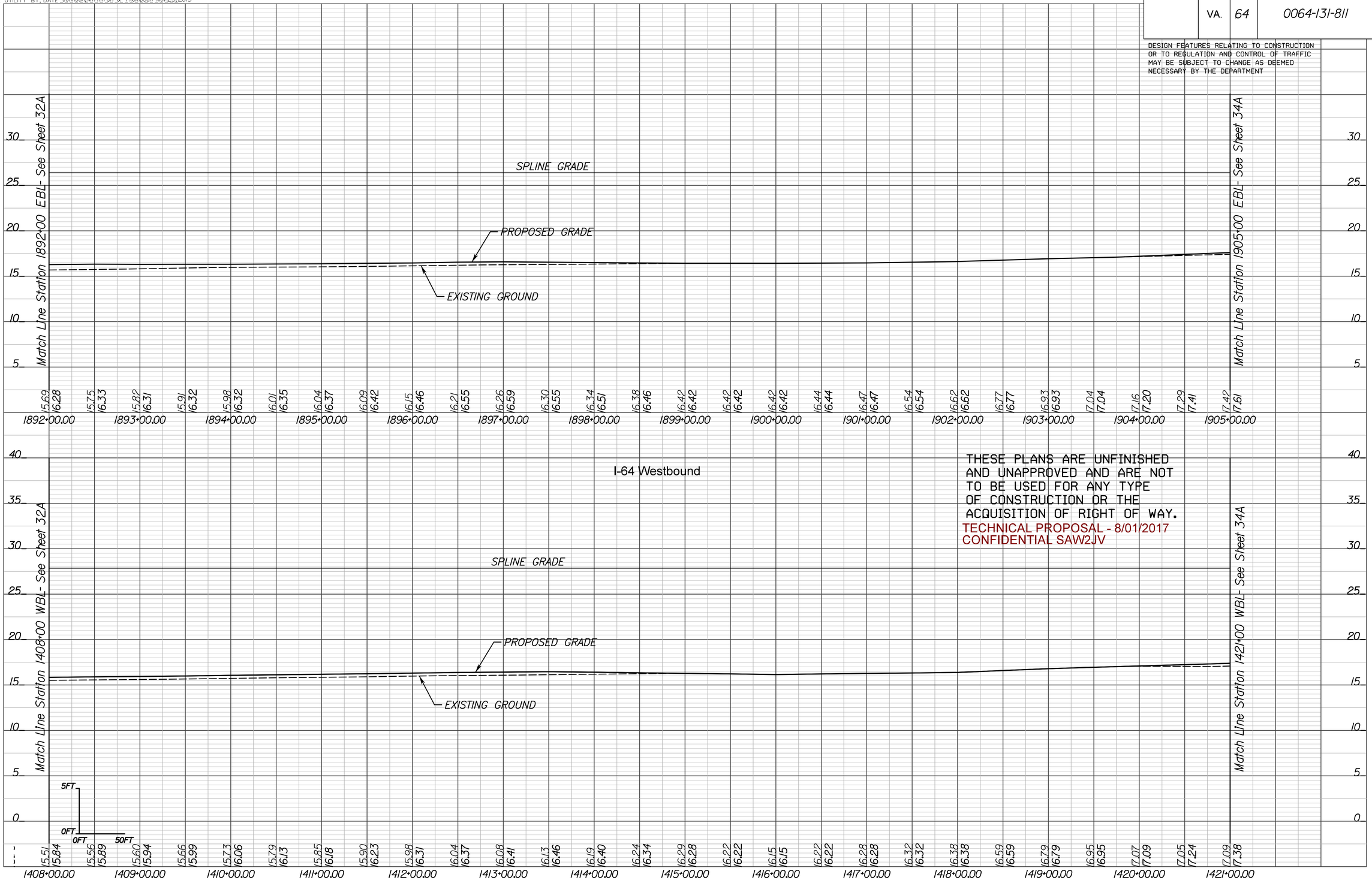
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	33A

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

I-64 Eastbound



I-64 Westbound

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	33A

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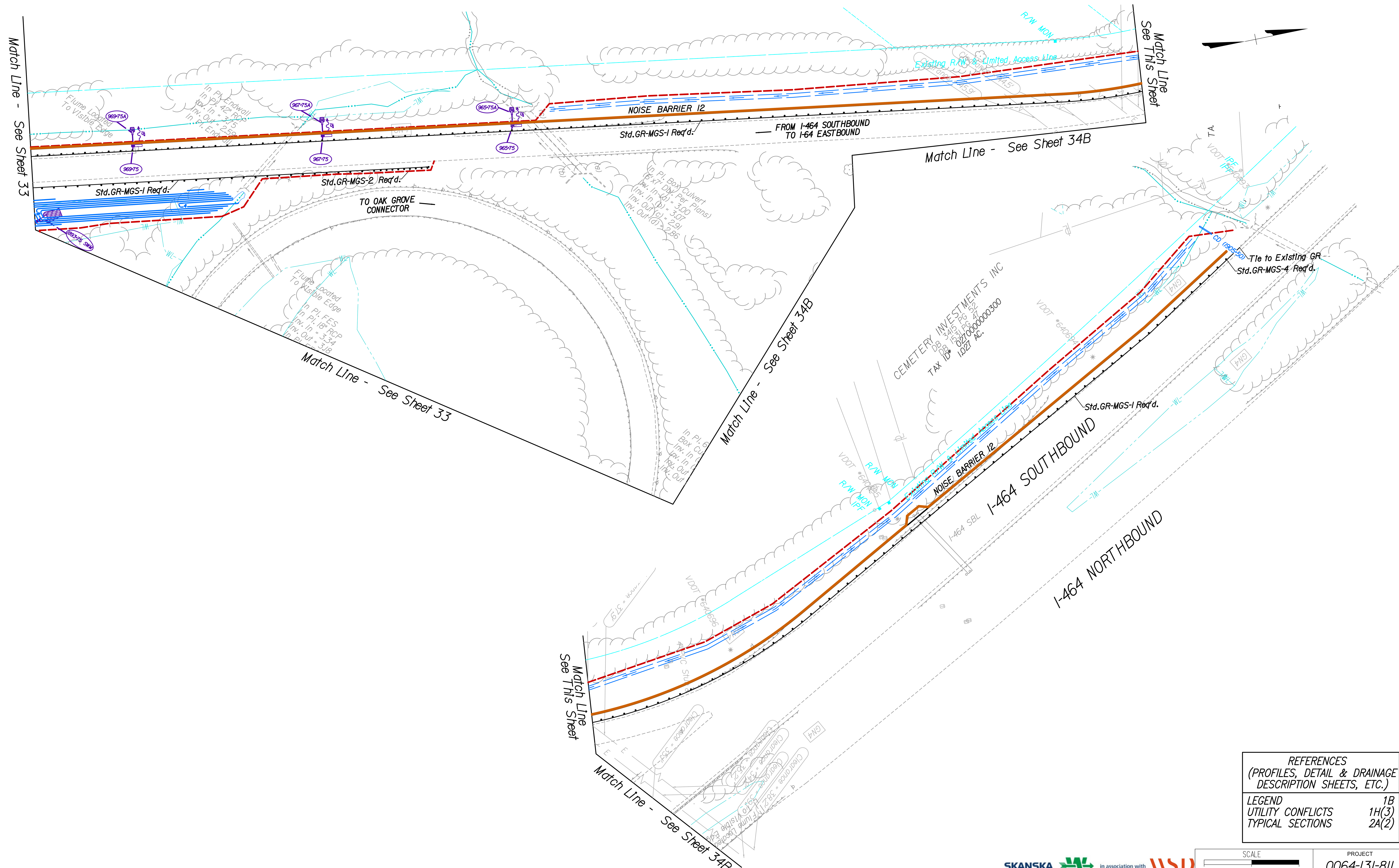

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2A(2)

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	33B

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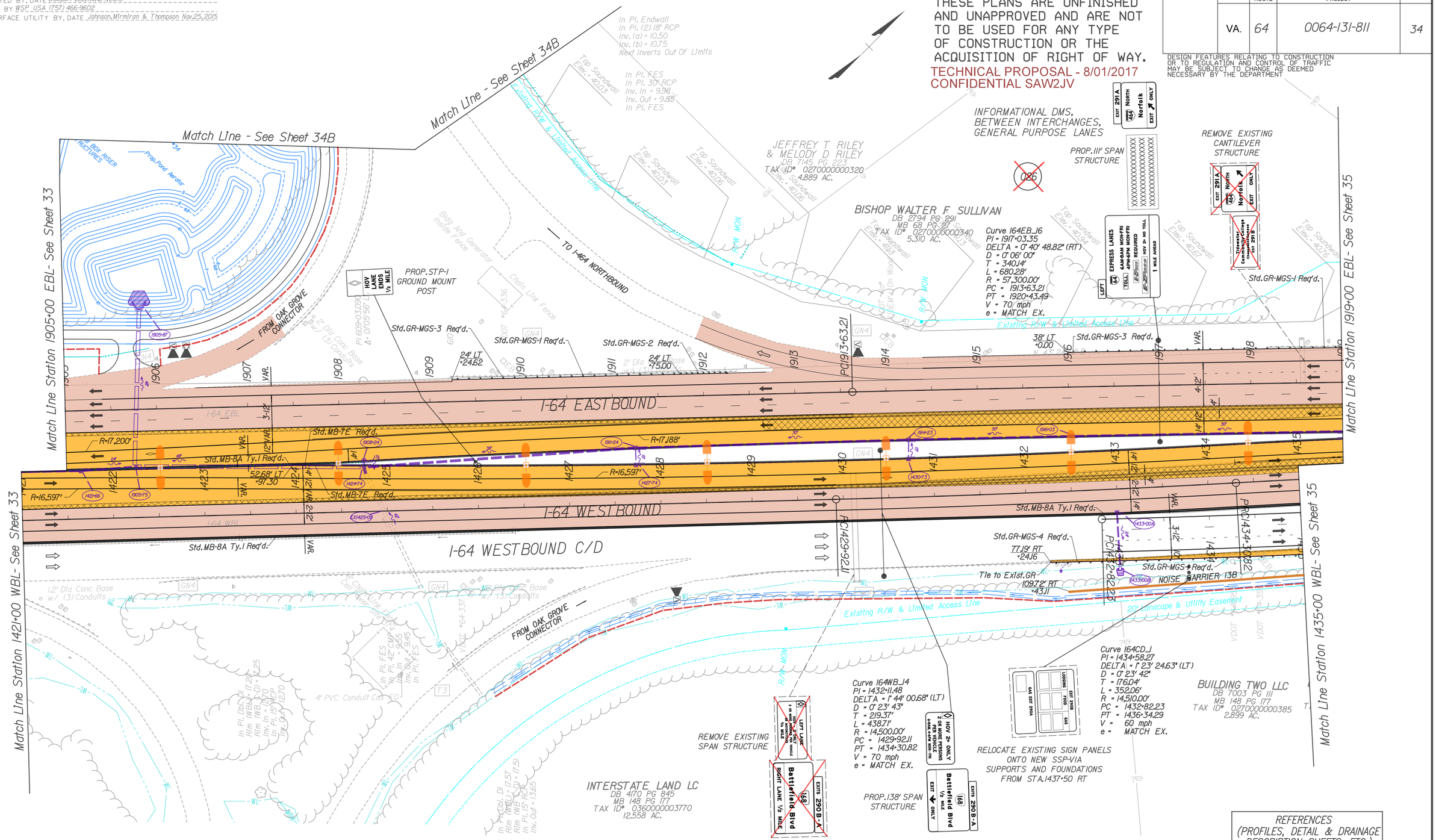
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	34

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



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

LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(2), 2B(3)
PROFILES	34A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	34

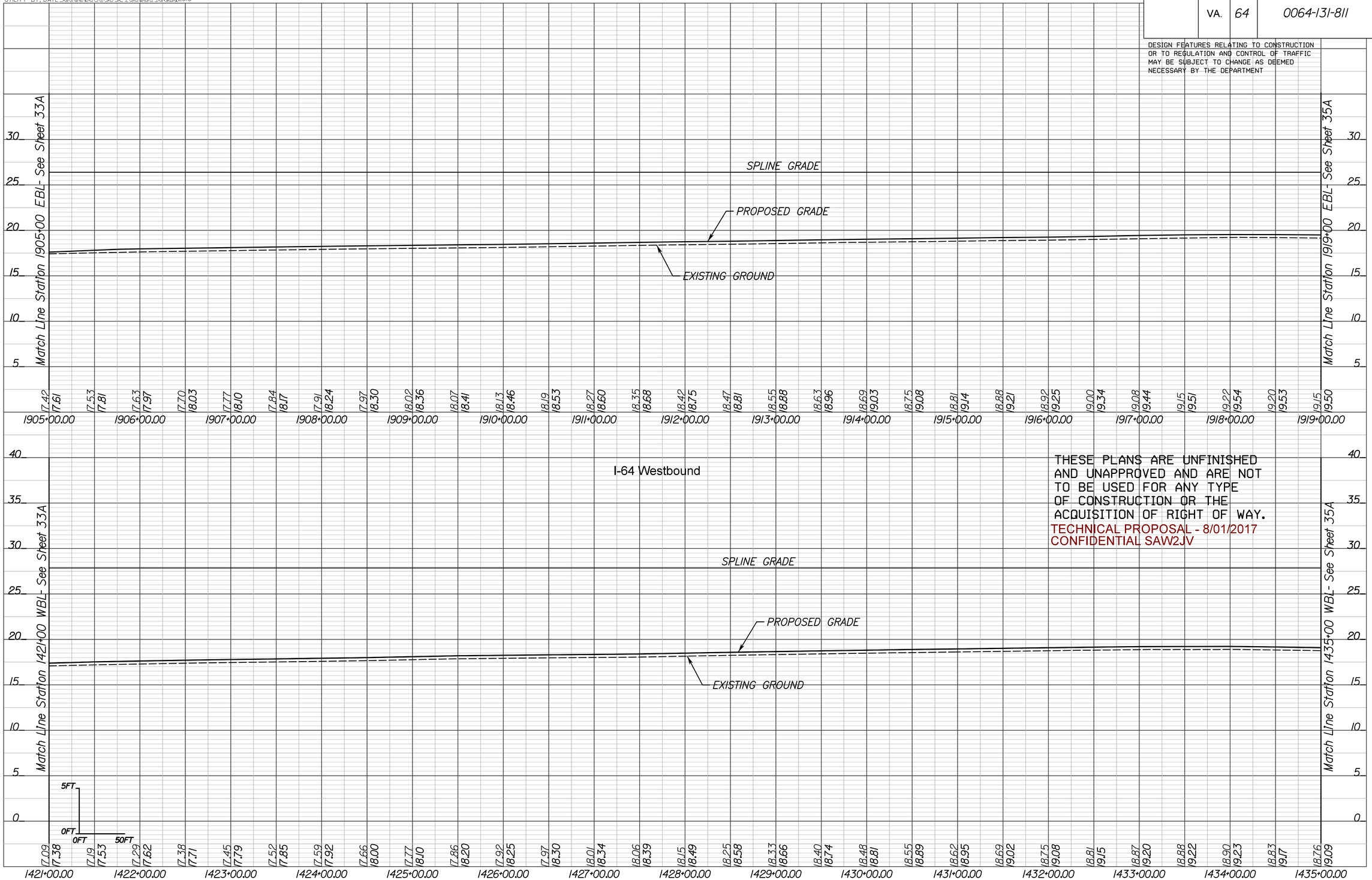
15:57
03-AUG-2017
\\PWICSlics_workingdir\10126\200720_40\D10436634.dgn

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	34A

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

I-64 Eastbound



I-64 Westbound

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

TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	34A

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiron & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	34B

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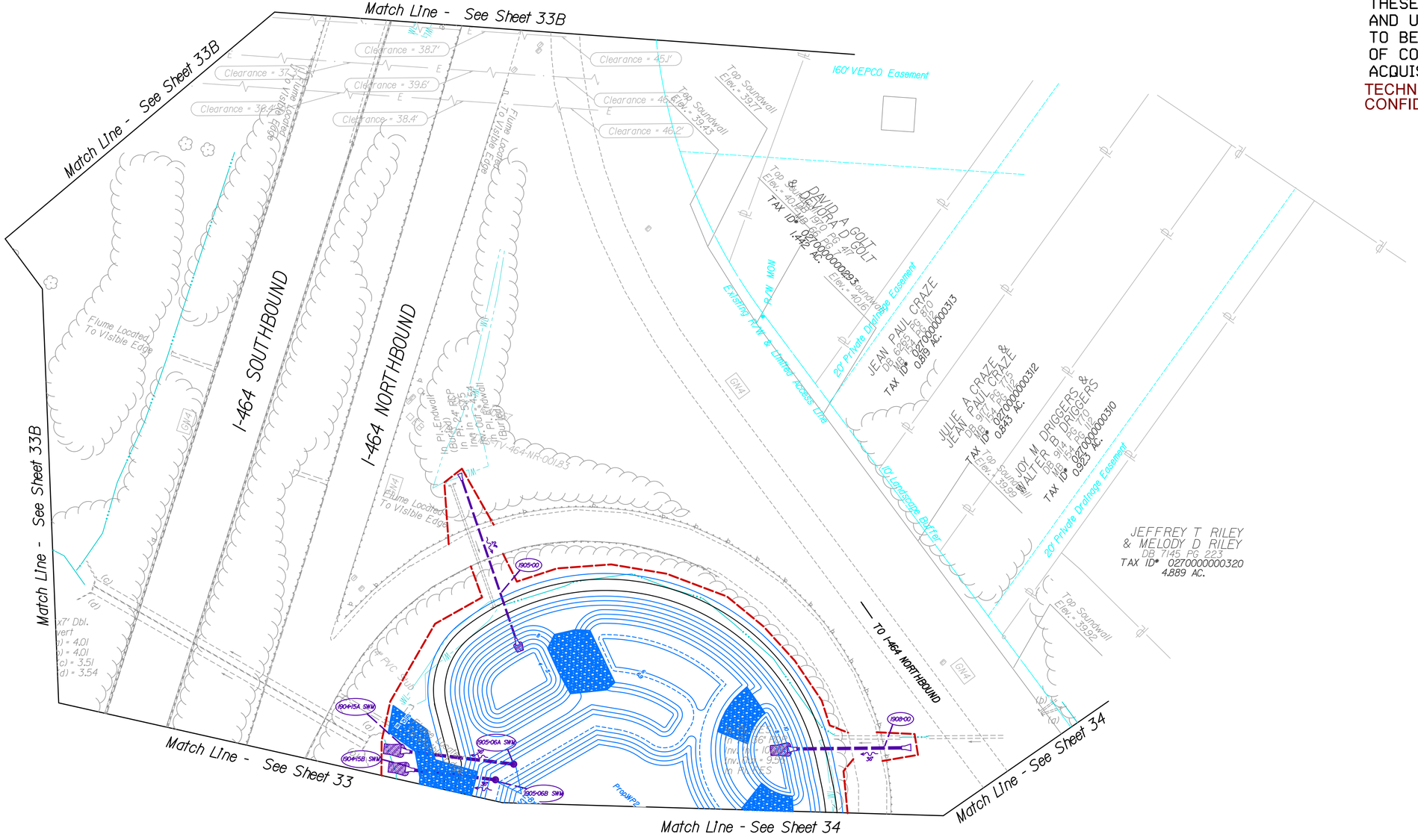
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(3)
PROFILES	34A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	34B

PROJECT MANAGER Ricardo Correa, P.E. (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	35

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

Match Line Station 1919+00 EBL- See Sheet 34

Match Line Station 1933+00 EBL- See Sheet 36

Match Line Station 1435+00 WBL- See Sheet 34

Match Line Station 1449+00 WBL- See Sheet 36

REMOVE EXISTING BUTTERFLY STRUCTURE

MELVIN W FOREHAND & DEBORAH E FOREHAND
DB 1831 PG 262
MB 62 PG 84
TAX ID# 0271016001030
0.320 AC.

MICHAEL WHITE & KAREN WHITE
DB 3[illegible] PG 222
MB [illegible]
TAX ID# 0271018000280
0.255 AC.

BISHOP WALTER F SULLIVAN
DB 2794 PG 291
MB 68 PG 97
TAX ID# 0270000000340
5.310 AC.

GERARD M MCGUIRE & CATHY L MCGUIRE
DB 2601 PG 249
MB 62 PG 84
TAX ID# 0271016001040
0.708 AC.

JEFFERY L KELLER & TAMMY SUE KELLER
DB 3511 PG 820
MB 65 PG 4
TAX ID# 0271018000270
0.357 AC.

LILIYA K HARRIS
DB 9864 PG 28
MB 65 PG 4
TAX ID# 0271018000260
0.348 AC.

KEVIN J KEMPTON & DARLENA L KEMPTON
DB 3583 PG 406
MB 65 PG 4
TAX ID# 0271018000250
0.276 AC.

KRISTEN HILLS & CASEY HILLS
DB 9436 PG 520
MB 65 PG 4
TAX ID# 0271018000240
0.275 AC.

JOHN EDWARD PACE
DB 6903 PG 101
MB 65 PG 4
TAX ID# 0271018000230
0.267 AC.

KEITH E MALLARD
DB 6905 PG 248
MB 65 PG 4
TAX ID# 0271018000220
0.265 AC.

MICHELLE MERO
DB 6356 PG 261
MB 65 PG 4
TAX ID# 0271018000210
0.301 AC.

RICHARD L STEINLICHT & JANE E STEINLICHT
DB 8514 PG 279
MB 65 PG 4
TAX ID# 0271018000200
0.331 AC.

NAVAS
DB 8[illegible] PG 2[illegible]
TAX ID# 0271018000190

FORREST L [illegible] & [illegible]
DB [illegible] PG [illegible]
TAX ID# 0271018000180

LYNN E ROCK
DB 4[illegible] PG 1[illegible]
TAX ID# 0271009000731
0.534 AC.

WILLIAM E WALL JR & JOYCE WALL
DB 5[illegible] PG 76
MB 43 PG 99
TAX ID# 0271009000751
0.379 AC.

CHARLES L ALLEN & WILLIAMS ET AL
DB 2337 PG 697
MB 43 PG 99
TAX ID# 0271009000761
0.447 AC.

JENNY R ELLER
DB 8949 PG 838
MB 43 PG 99
TAX ID# 0271009000771
0.386 AC.

PROP. GROUND MOUNT SSP-VIA

Tidewater Community College Chesapeake Campus cnst 291B

ADVANCED TOLL PRICING DMS (PRIOR TO HOT LANE DECISION POINT)

Existing R/W & Limited Access Line

Std.GR-MGS-2 Req'd. 38' LT +00.00

VAR.

PI 1920+43.49 AHEAD

535' TAPER

462' TAPER

Std.MB-7E Req'd.

Std.MB-8A Ty.I Req'd.

Std.MB-7D Req'd.

PI 1925+78.55 AHEAD

I-64 EASTBOUND

I-64 WESTBOUND

I-64 WESTBOUND C/D

Tie to Exist. Barrier

38.68' LT +28.43

26' RT +28.43

PI 1438+80.85 AHEAD

PRC 1436+34.29

PT 1440+07.55 AHEAD

80.64' RT +70.31

97.73' RT +43.59

NOISE BARRIER 13B

Std.GR-MGS-1 Req'd.

Std.GR-MGS-3 Req'd.

Std.GR-MGS-2 Req'd.

Std.GR-MGS-4 Req'd.

Std.GR-MGS-1 Req'd.

Std.GR-FOA-1.Ty.I Req'd.

80' RT +59.08

80' RT +25.48

80' RT +45.72

Curve 164WB_15
PI = 1436+61.36
DELTA = 1° 49' 18.27" (RT)
D = 0° 23' 43"
T = 230.54'
L = 461.03'
R = 14,500.00'
PC = 1434+30.82
PT = 1438+91.85
V = 70 mph
e = MATCH EX.

Curve 164CD_2
PI = 1438+20.93
DELTA = 1° 28' 42.23" (RT)
D = 0° 23' 46"
T = 186.64'
L = 373.26'
R = 14,466.00'
PC = 1436+34.29
PT = 1440+07.55
V = 60 mph
e = MATCH EX.

638 IP LLC
DB 7003 PG 115
MB 148 PG 177
TAX ID# 0270000000384
3.002 AC.

BUILDING TWO LLC
DB 7003 PG 111
MB 148 PG 177
TAX ID# 0270000000385
2.899 AC.

INTERSTATE CONDOS INC
DB 5920 PG 1
MB 147 PG 60
TAX ID# 0273009000000
2.546 AC.

020

017

MASON DIXON RENTAL LLC
DB 8031 PG 842
MB 61 PG 20
TAX ID# 0270000000361
11.404 AC.

Prop. Perm. Drainage Easement

30' Virginia Natural Gas Easement

Prop. 130' Span Structure

Prop. 111' Span Structure

REMOVE EXISTING SPAN STRUCTURE

REMOVE EXISTING CANTILEVER STRUCTURE

REMOVE EXISTING CANTILEVER STRUCTURE

RELOCATE EXISTING SIGN PANELS ONTO NEW SSP-VIA SUPPORTS AND FOUNDATIONS AT STA.1433+75 RT

INFORMATIONAL DMS, BETWEEN INTERCHANGES, GENERAL PURPOSE LANES

Poindexter St South Norfolk EXIT 291A

Chesapeake Regional Airport EXIT 291B

Greenbrier Pkwy 1 MILE EXITS 289-B-A

Battlefield Blvd EXIT ONLY (168) EXITS 290-B-A

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(3)
PROFILES	35A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	35

03-AUG-2017

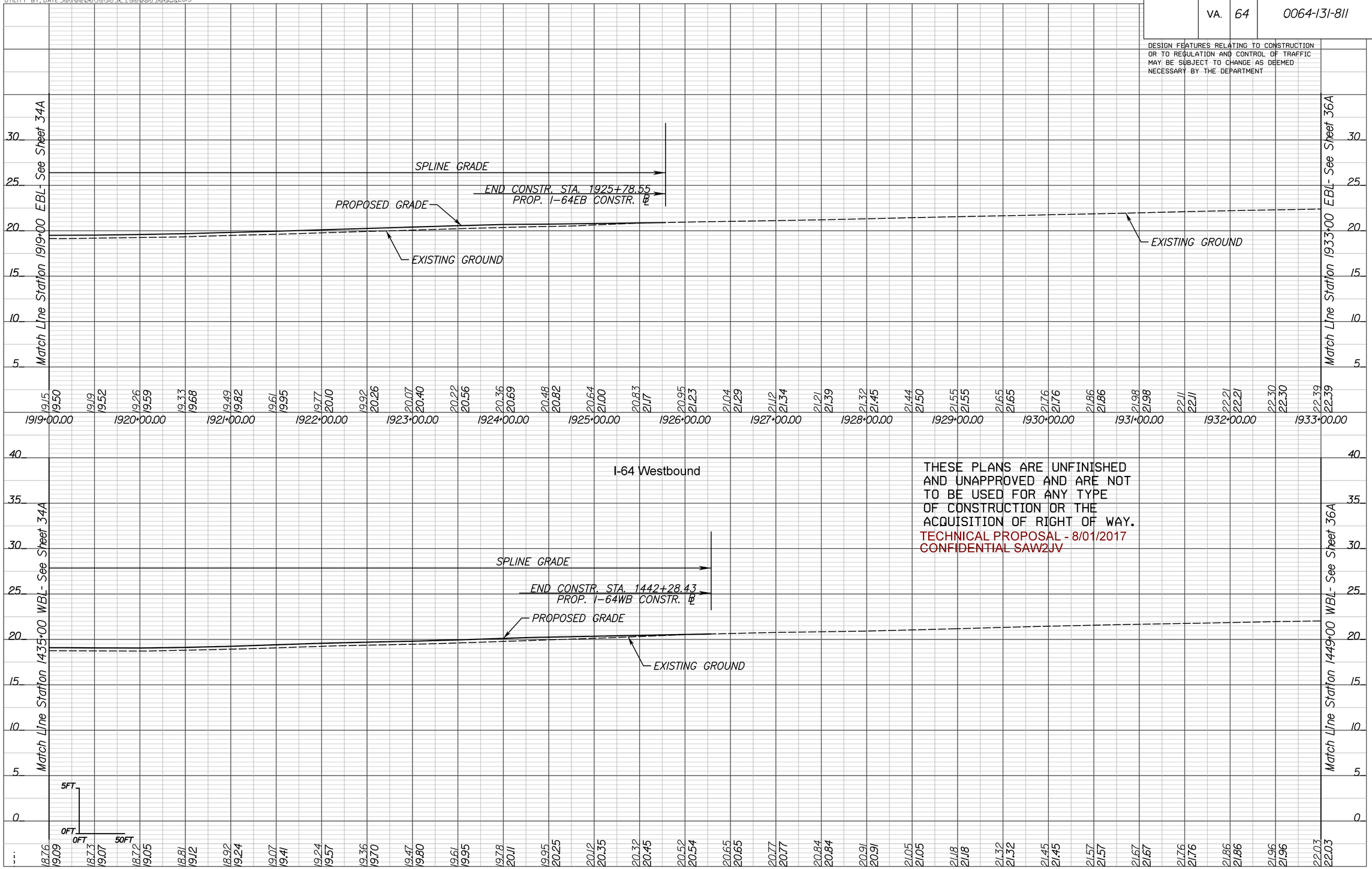
\\PWCSIcs_workingdir\101216\200720_41\D10436635.dgn

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	35A

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

I-64 Eastbound



I-64 Westbound

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	35A

03-AUG-2017
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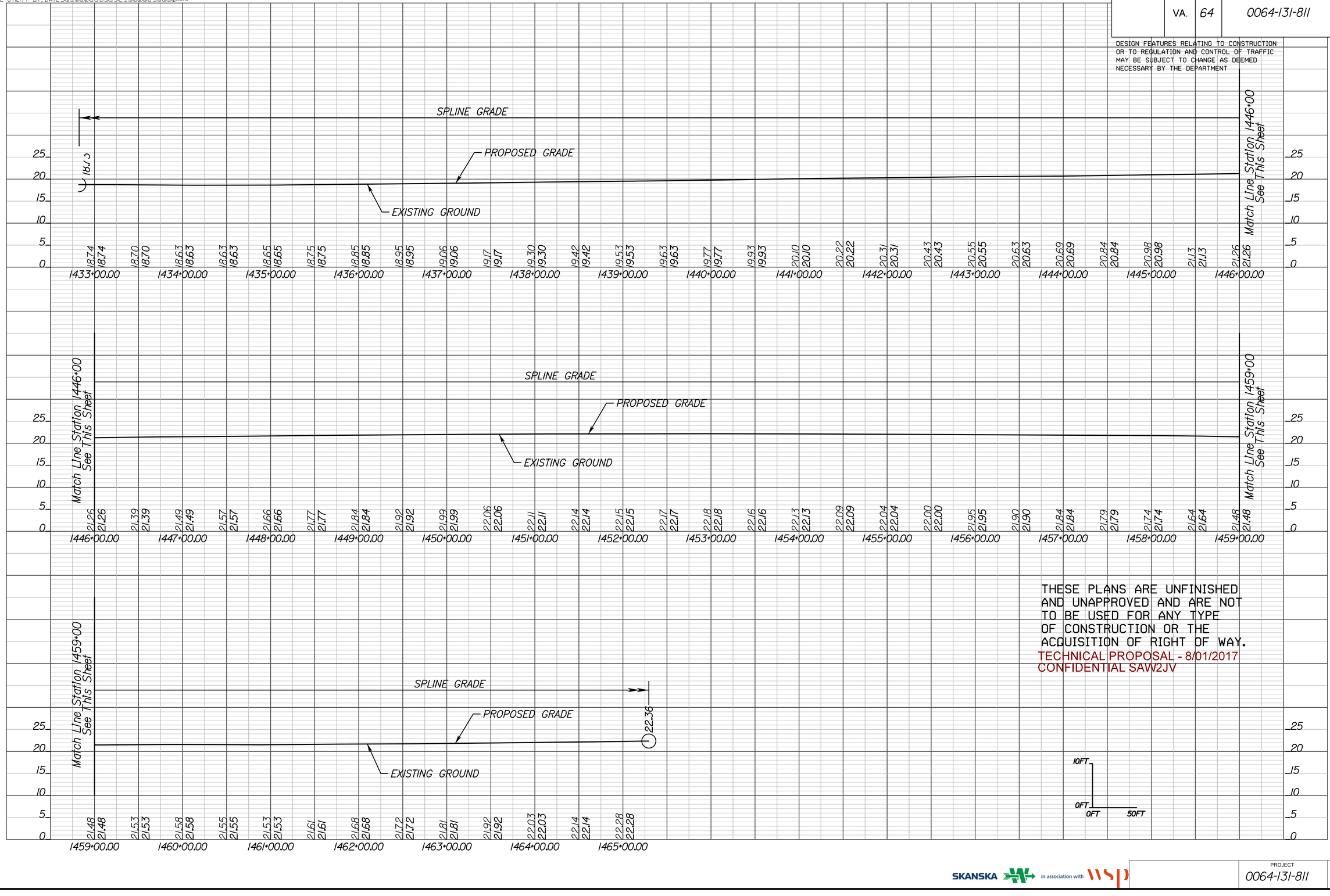
15:57

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

I-64 CD

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	35B

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



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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	35B

03-AUG-2017

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15:58

PROJECT MANAGER Ricardo Correa, P.E.(757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov.25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	36

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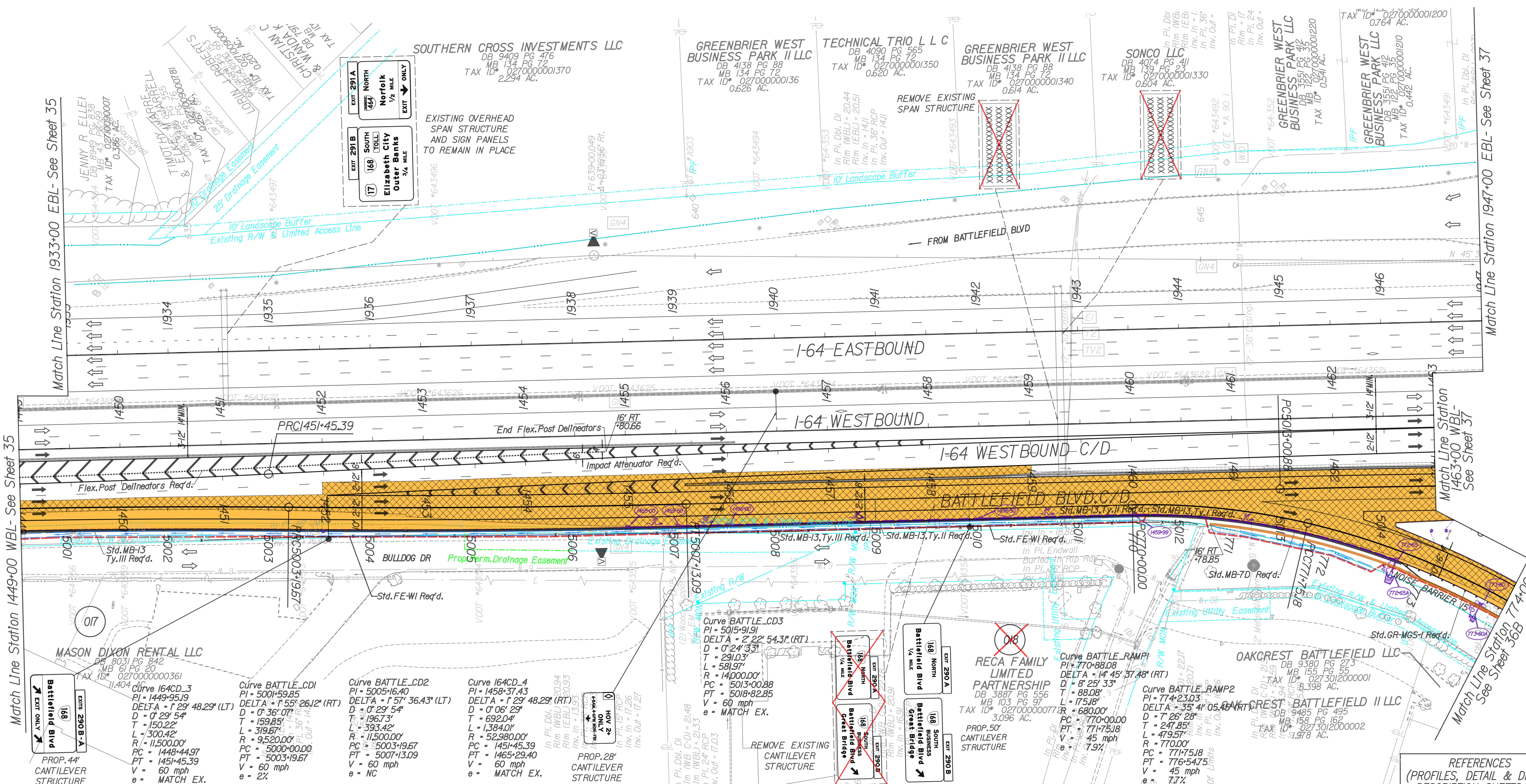
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



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

LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(3)
PROFILES	36A

SKANSKA in association with WSP

SCALE 0 50' 100'

PROJECT	SHEET NO.
0064-131-811	36

03-AUG-2017

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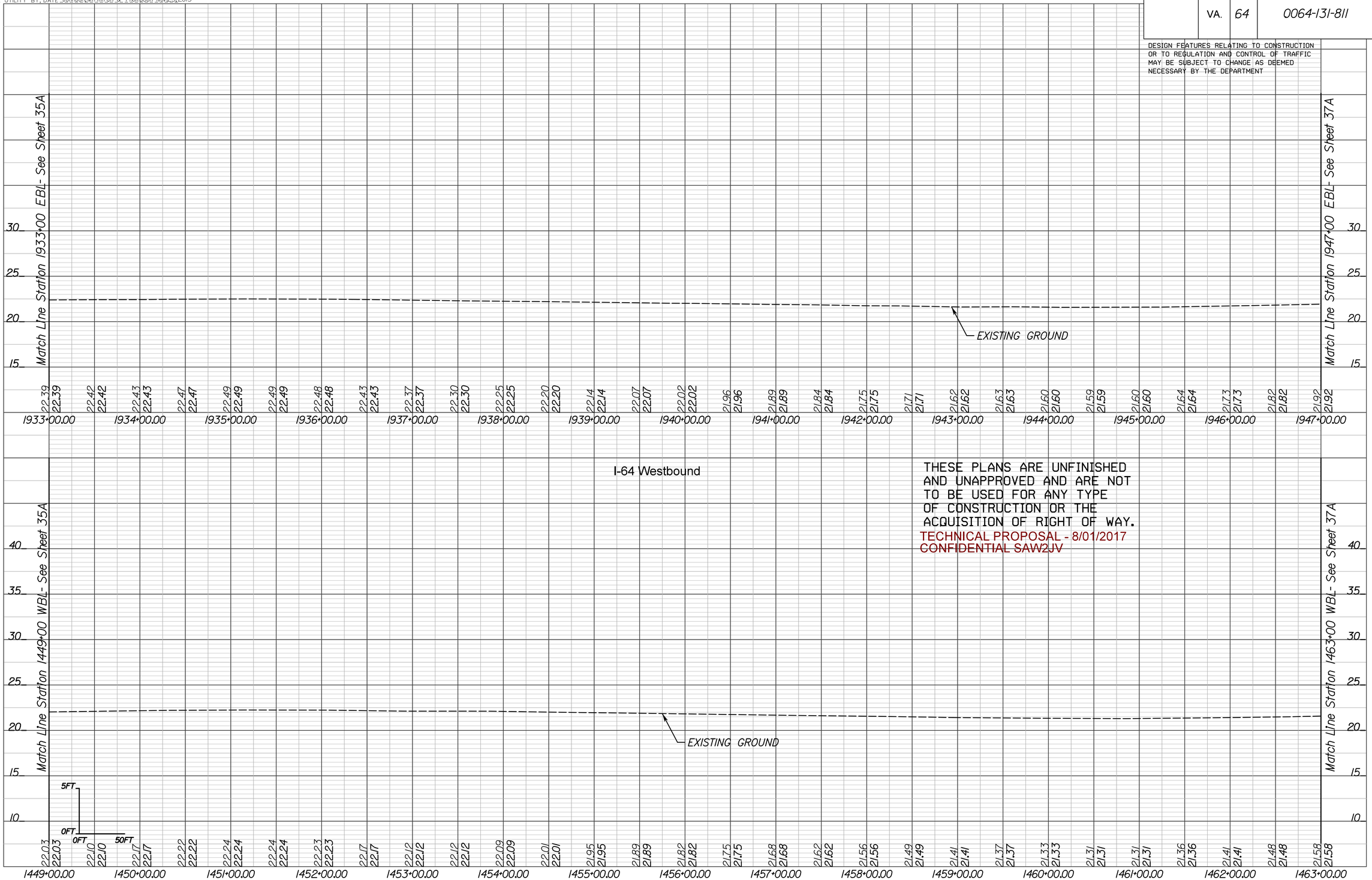
15:58

PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	36A

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

I-64 Eastbound



I-64 Westbound

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	36A

03-AUG-2017

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15:58

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiran & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	36B

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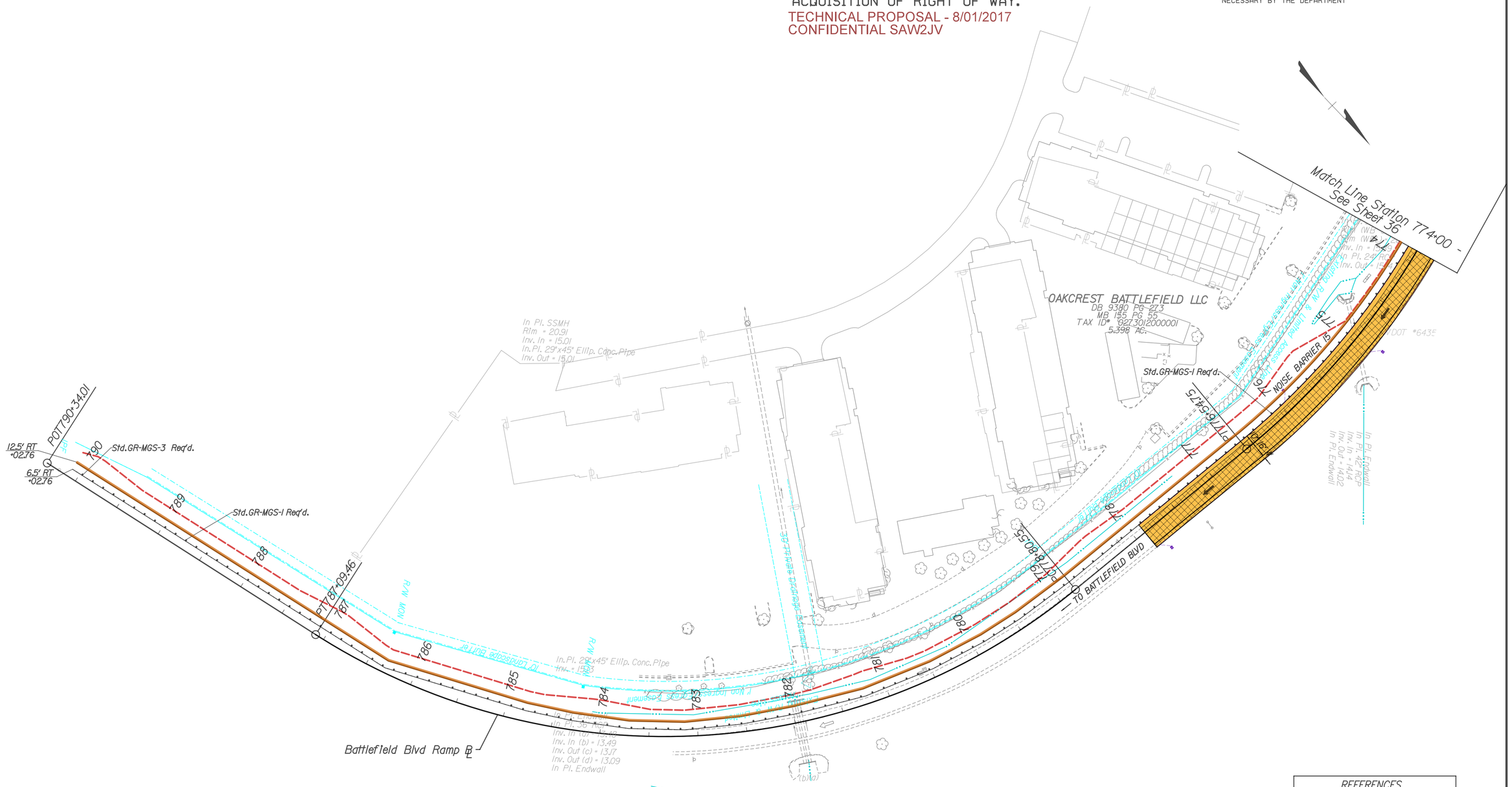
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(5)
PROFILES	36E

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	36B

03-AUG-2017

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PROJECT MANAGER Ricardo Correa, P.E. (757) 494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov. 24, 2015
DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov. 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	36C

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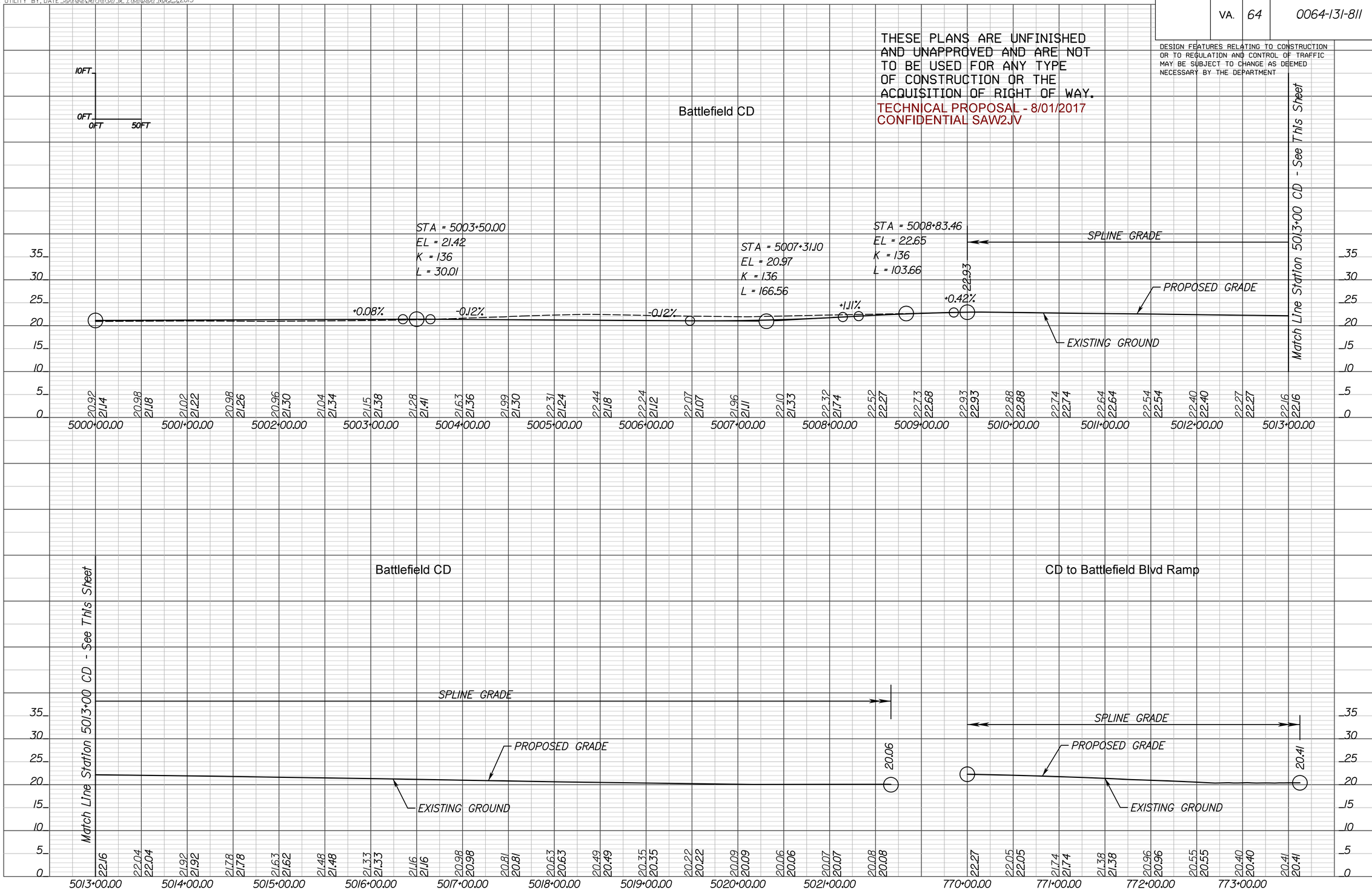
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	36C

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03-AUG-2017
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21:11

PROJECT MANAGER Ricardo Correa, P.E (757)494-2476 (Hampton Roads District)
SURVEYED BY, DATE Woolpert LLC, Nov.24,2015
DESIGN BY WSP_USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson,Mirmiron & Thompson Nov.25,2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	37

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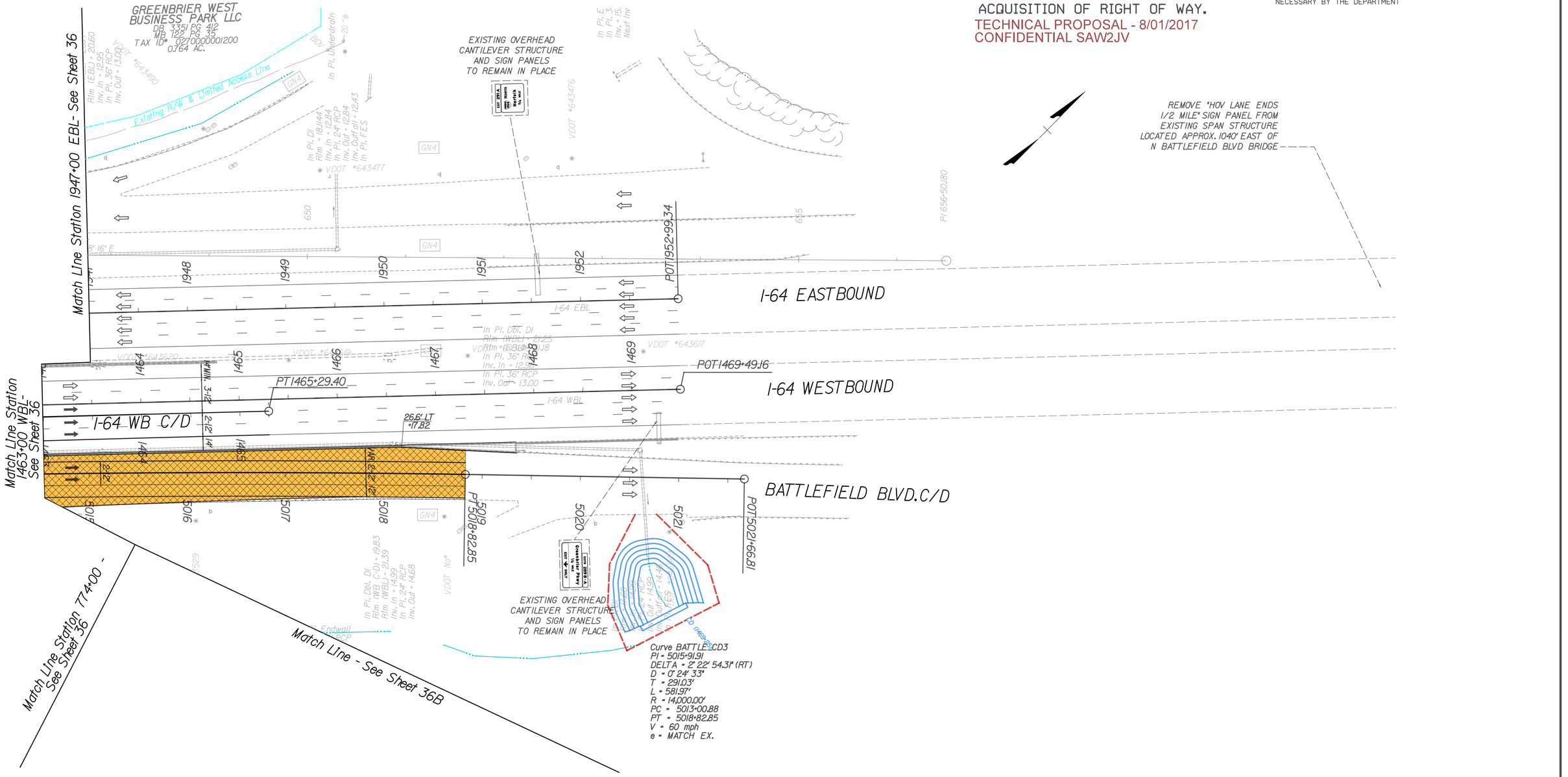
TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
LEGEND	1B
UTILITY CONFLICTS	1H(3)
TYPICAL SECTIONS	2B(3)
PROFILES	37A

SKANSKA in association with WSP

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-131-811	37

03-AUG-2017

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DESIGN BY WSP USA (757) 466-9602
SUBSURFACE UTILITY BY, DATE Johnson, Mirmiran & Thompson Nov 25, 2015

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	64	0064-131-811	37A

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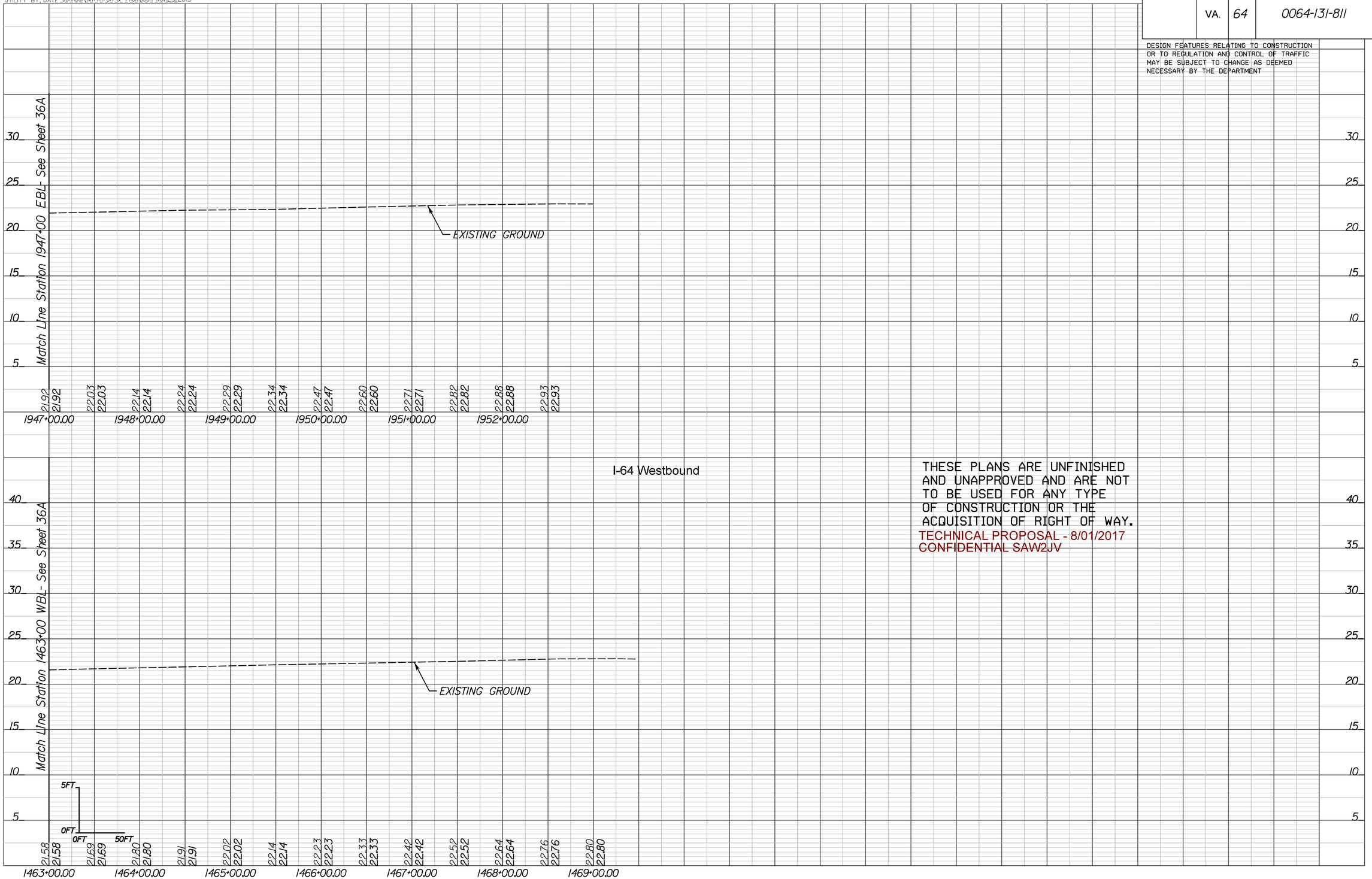
I-64 Eastbound



I-64 Westbound

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TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

SKANSKA in association with WSP

PROJECT	SHEET NO.
0064-131-811	37A

03-AUG-2017
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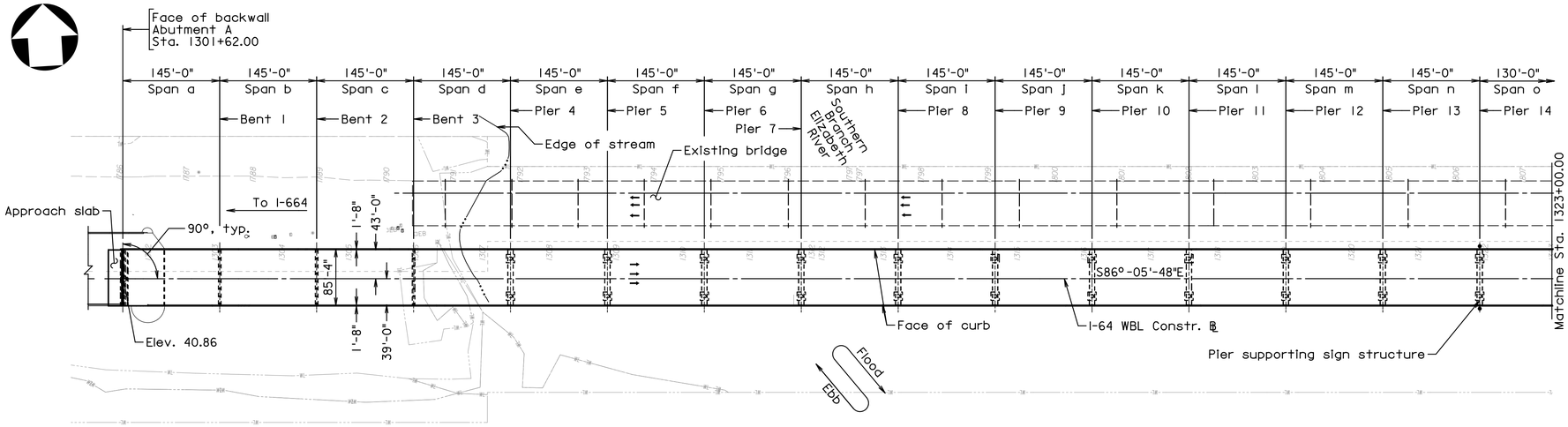
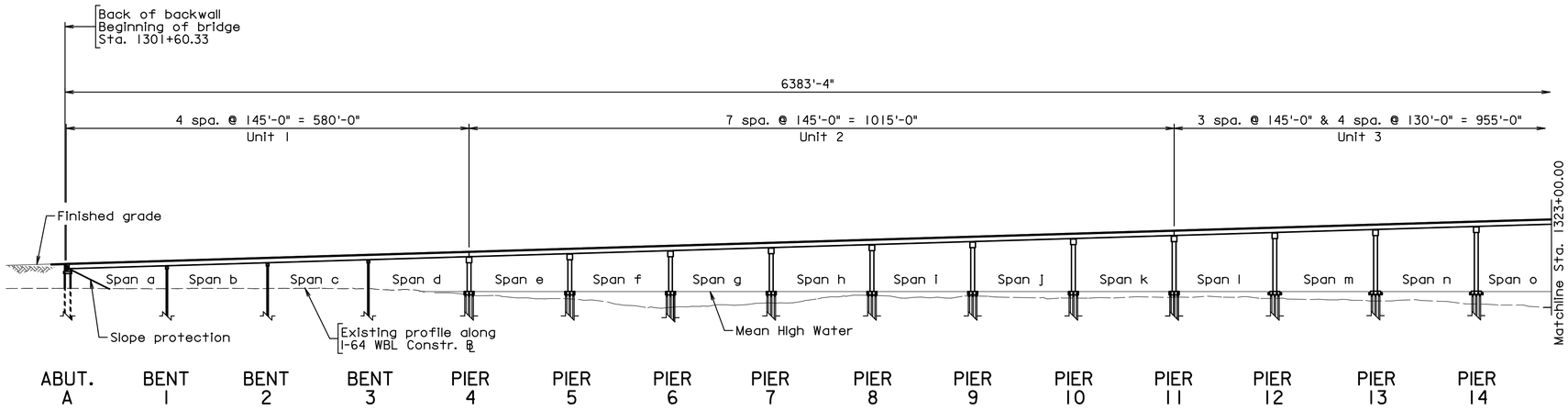
4.3.2

Conceptual Bridge Plans

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—	---	64	0064-131-811, B662	41(1)
NBIS Number:	---		UPC No. 106692		
Federal Oversight Code:	---		FHWA Construction and Scour Code:	---	



PLAN



DEVELOPED SECTION ALONG I-64 WBL CONSTR. ℄

DESIGN EXCEPTION(S):

None.

GENERAL NOTES:

The original approved sheet, including original signatures, is filed in the VDOT Central Office. Any misuse of electronic files, including scanned signatures is illegal. Violators will be prosecuted to the full extent of the applicable laws.

Width: 82'-0" face-to-face of curb.

Span layout: 14 - 145', 4 - 130' Bulb-T spans, 170'-230'-170' Steel plate girder spans, 4 - 130', 5 - 156', 14 - 140' Bulb-T spans

Capacity: HL-93.

Drainage area: Tidal.

Specifications:

Construction: Virginia Department of Transportation Road and Bridge Specifications, 2016.

Design: AASHTO LRFD Bridge Design Specifications, 7th Edition, 2014; and VDOT Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2016.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Concrete Class A4 (Low Shrinkage) shall be used for bridge deck and parapets.

Corrosion resistant steel shall be utilized in accordance with the IIM-S&B-81.7.

All information shown in these plans, including details, quantities, member sizes and member types, is preliminary and subject to change during final design. The information has been provided for reference purposes only and shall not be interpreted as contractual.

b104366-41_001.dgn

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
VDOT PROJECT MANAGER
DISTRICT CONSTRUCTION MANAGER
WSP USA VIRGINIA BEACH, VA STRUCTURAL ENGINEER

PLANS BY:	WSP USA
COORDINATED:	
SUPERVISED:	WSP
DESIGNED:	WSP
DRAWN:	WSP
CHECKED:	WSP

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

Scale 1" - 100'- 0"

No.	Description	Date

REVISIONS

For Table of Revisions, see Sheet 2.

VDOT

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSED BRIDGE ON
I-64 (WB) OVER SOUTHERN BRANCH ELIZABETH RIVER
NPBL RR, AND RTE. 166 (BAINBRIDGE BLVD.)
CITY OF CHESAPEAKE - 1.7 MI. W. OF RTE. I-464
PROJ. 0064-131-811, B662

Recommended for Approval: _____ _____
(Developer's Designee) Date

Approved: _____ _____
Chief Engineer Date

Date: August 1, 2017

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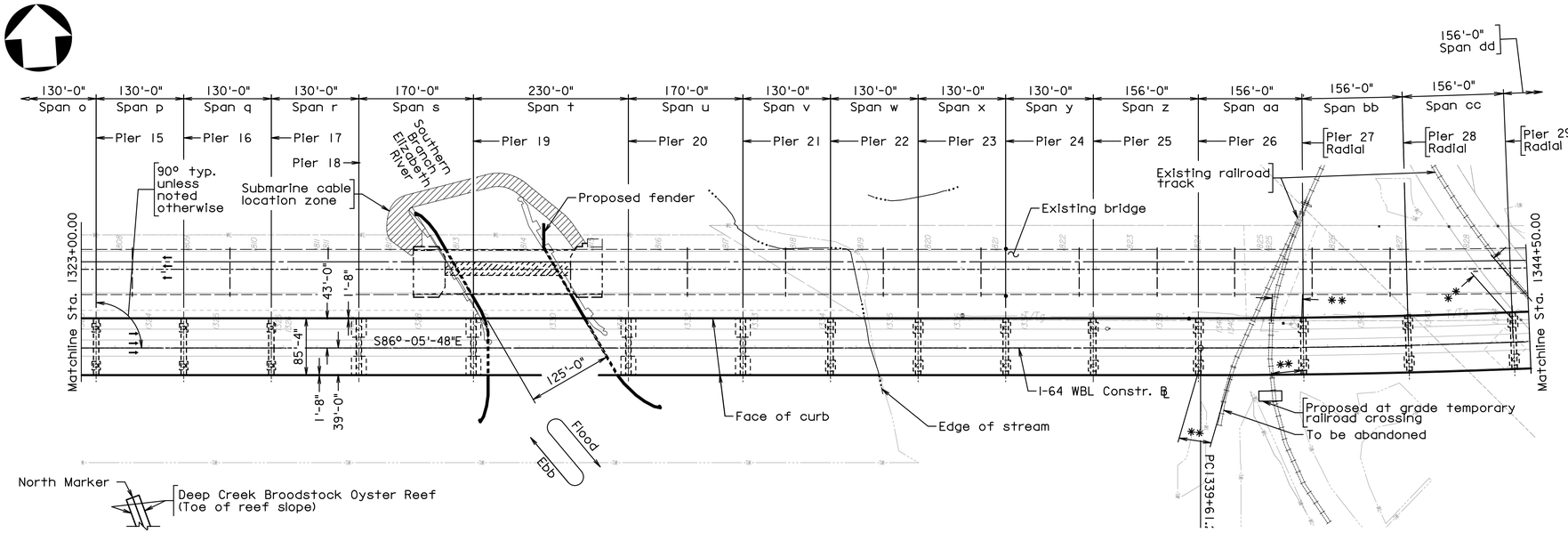
XXX-XX

Sheet 1 of 7

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B662	41(2)

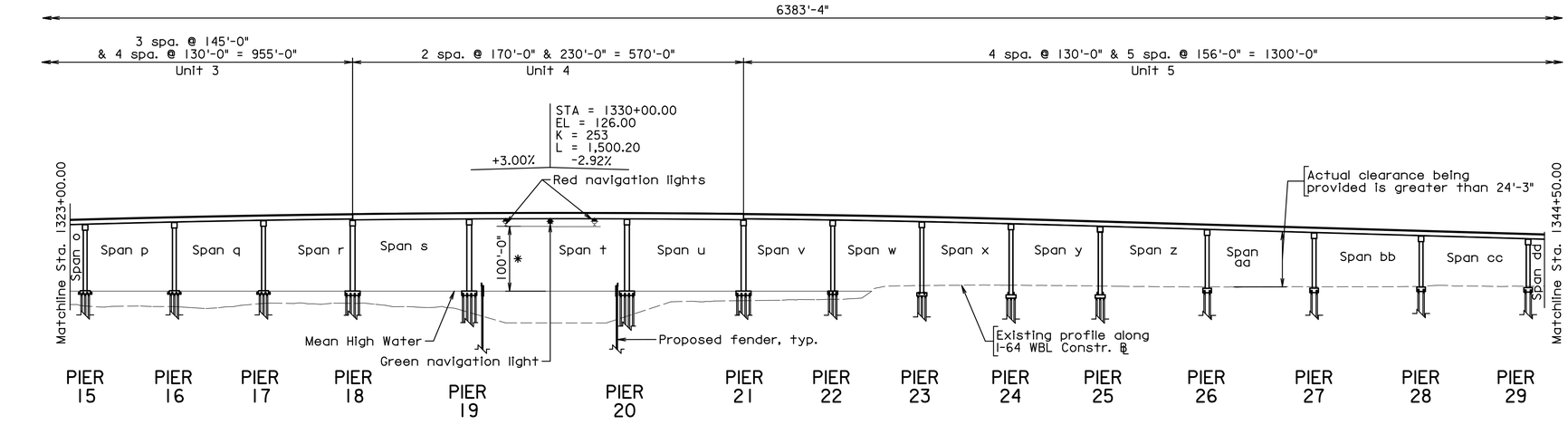


PLAN

Note:

1. For General Plan and Elevation notes, see sheet 1.

** 25'-0" minimum required horizontal clearance



* Minimum vertical clr. between fender system when measured at Mean High Water

DEVELOPED SECTION ALONG I-64 WBL CONSTR. ℄

b104366-41_002.dgn

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

Scale 1" = 100'-0"

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

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No.	Description	Date
	Revisions	

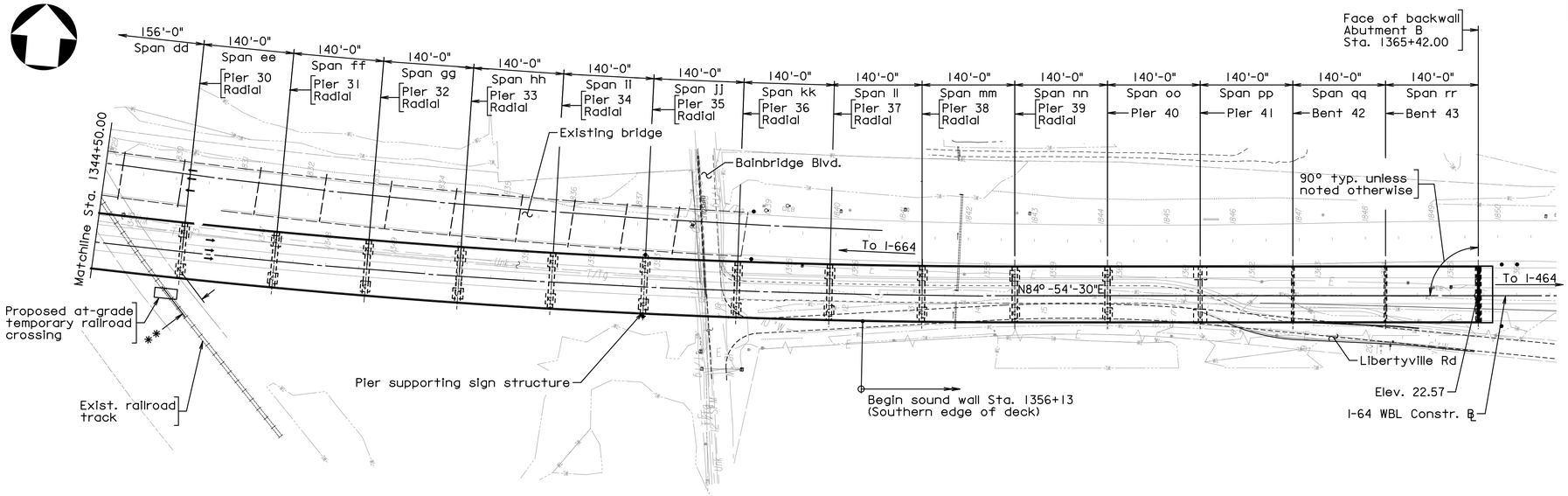
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

GENERAL PLAN AND ELEVATION (2 OF 3)

Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	XXX-XX	2 of 7
Checked: WSP			

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B662	41(3)

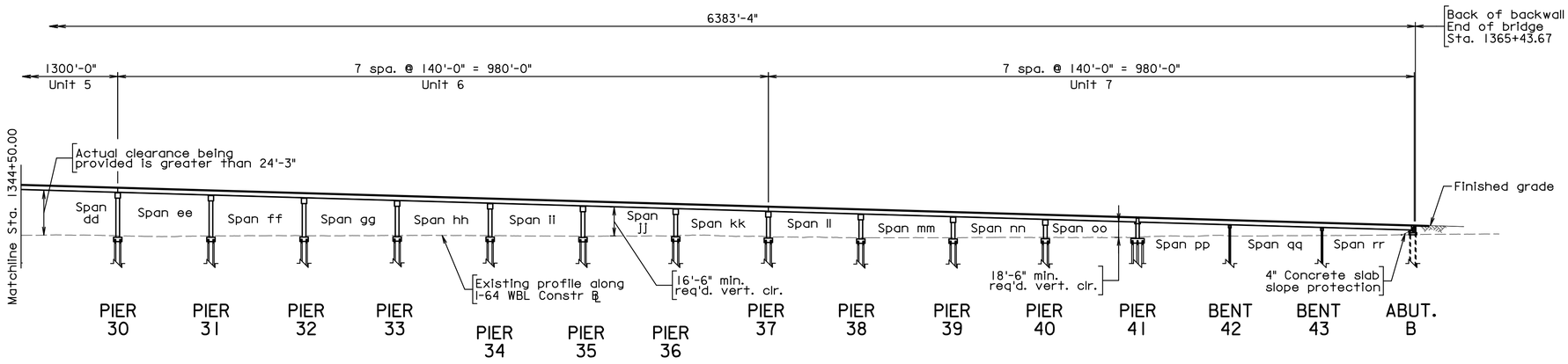


PLAN

Note:

1. For General Plan and Elevation notes, see sheet 1.

** 25'-0" minimum required horizontal clearance



DEVELOPED SECTION ALONG I-64 WBL CONSTR. ℄

b104366-41_003.dgn

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

Scale 1" = 100'-0"

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS
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No.	Description	Date
	Revisions	

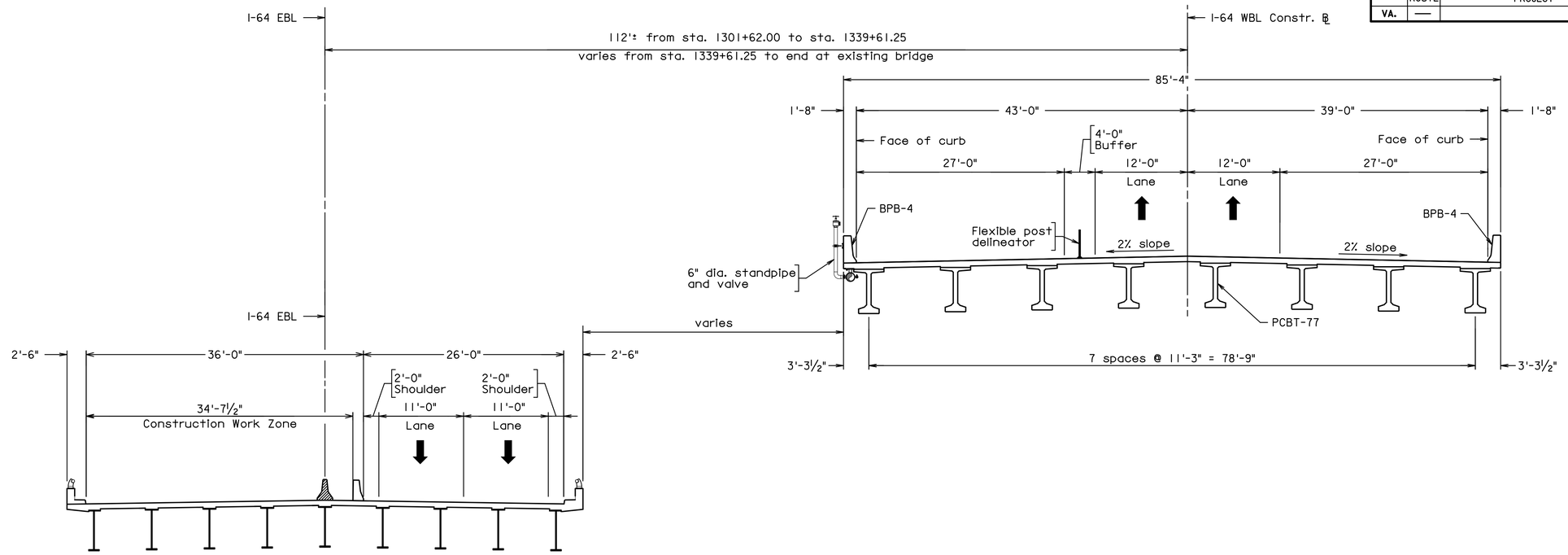
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

GENERAL PLAN AND ELEVATION (3 OF 3)

Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	XXX-XX	3 of 7
Checked: WSP			

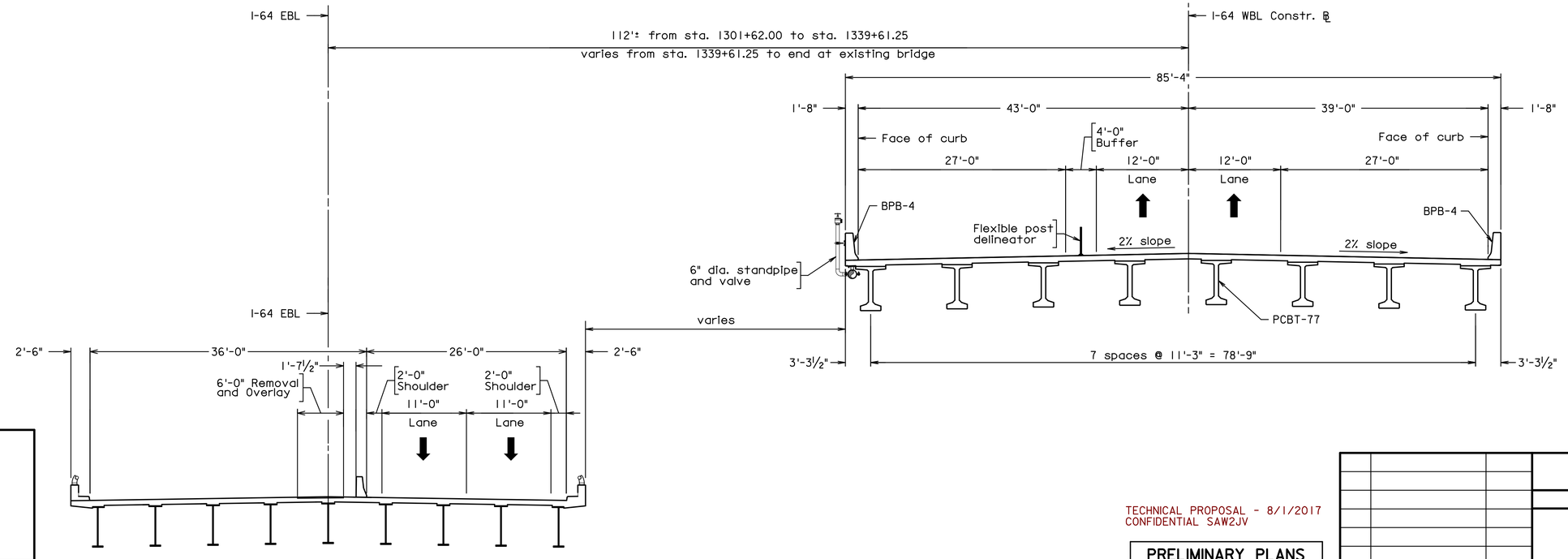
STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B662	41(4)



STAGE 1: EXISTING EB DEMOLITION - TRANSVERSE SECTION
(UNITS 1-3 AND 5-7 SHOWN; UNIT 4 CONSISTS OF STEEL BEAMS AND IS SIMILAR)

Legend:

Existing structure to be removed



STAGE 2: EXISTING EB CONSTUCTION - TRANSVERSE SECTION
(UNITS 1-3 AND 5-7 SHOWN; UNIT 4 CONSISTS OF STEEL BEAMS AND IS SIMILAR)

Scale ⅛" - 1'-0"

b104366-41_004.dgn

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

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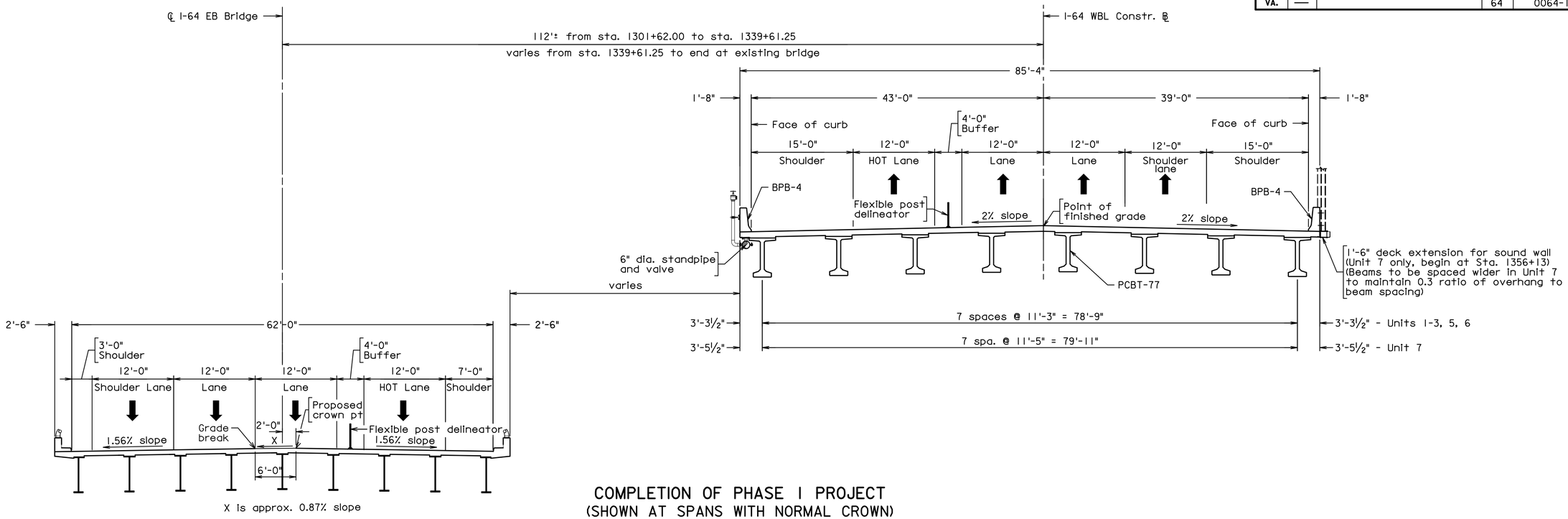
No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
STRUCTURE AND BRIDGE DIVISION

TRANSVERSE SECTION EB BRIDGE MODIFICATIONS (DURING PHASE I PROJECT)

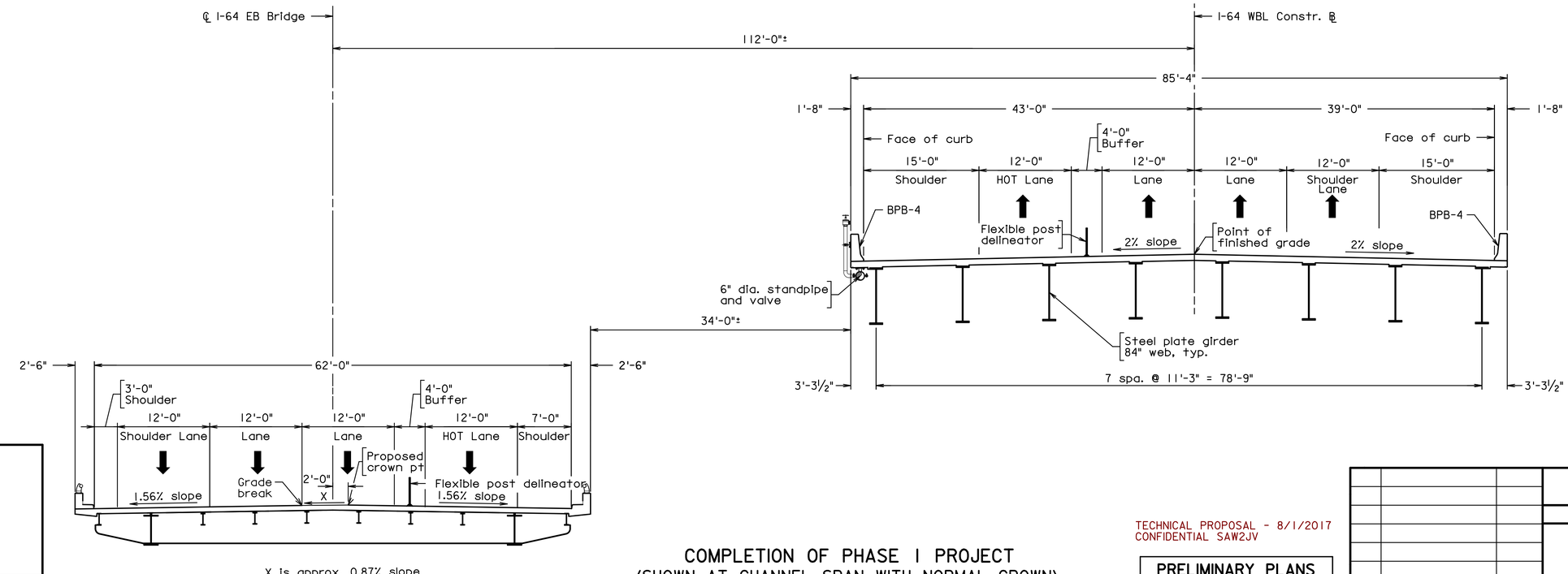
Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	XXX-XX	4 of 7
Checked: WSP			

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B662	41(5)



X is approx. 0.87% slope

COMPLETION OF PHASE I PROJECT
(SHOWN AT SPANS WITH NORMAL CROWN)
(UNITS 1-3 AND 5-7)



X is approx. 0.87% slope

COMPLETION OF PHASE I PROJECT
(SHOWN AT CHANNEL SPAN WITH NORMAL CROWN)
(UNIT 4)

Scale 1/8" = 1'-0"

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

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No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
STRUCTURE AND BRIDGE DIVISION

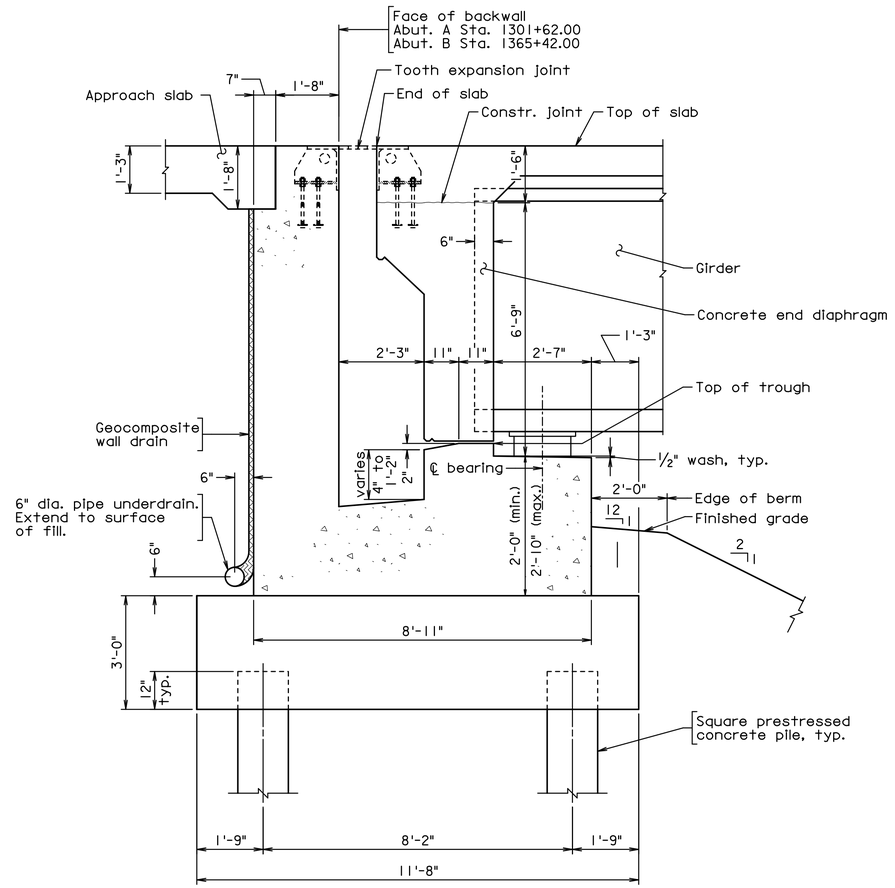
TRANSVERSE SECTION

Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	XXX-XX	5 of 7
Checked: WSP			

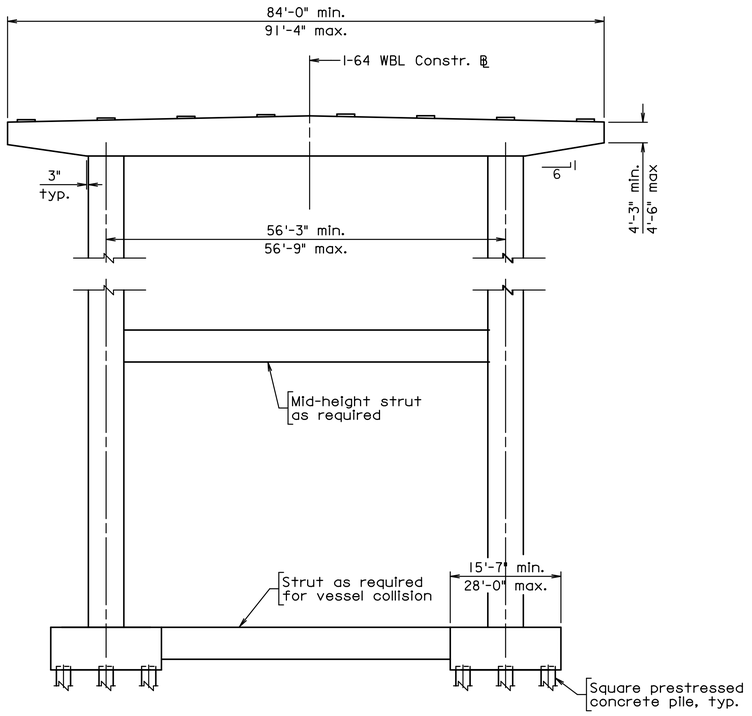
WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

b104366-41_005.dgn

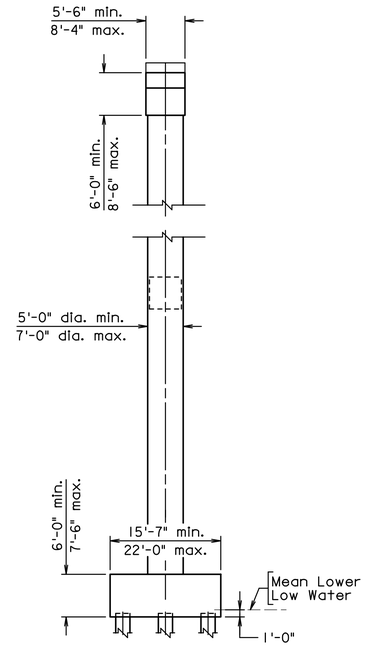
STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B662	41(6)



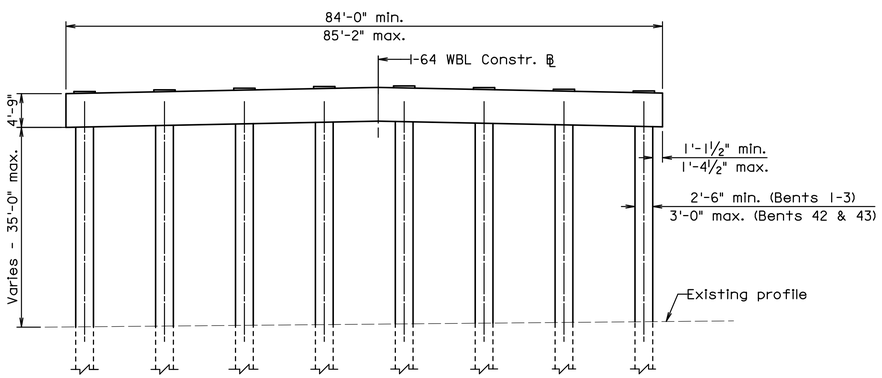
TYPICAL ABUTMENT SECTION
(Abut. A shown; MSE breast wall in front of Abut. B)
Scale ½" - 1'-0"



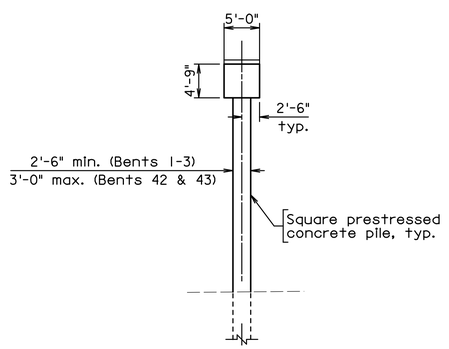
PIER ELEVATION
Scale 3/32 " - 1'-0"
(Shown at typical pier for Units 2 and 3 with normal crown, Units 4-7 similar; Inverted Tee cap at Pier 41)



END VIEW
Scale 3/32 " - 1'-0"



BENT ELEVATION
(Shown at typical bent with normal crown)
Scale 3/32 " - 1'-0"



END VIEW
Scale 3/32 " - 1'-0"

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

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No.	Description	Date
	Revisions	

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

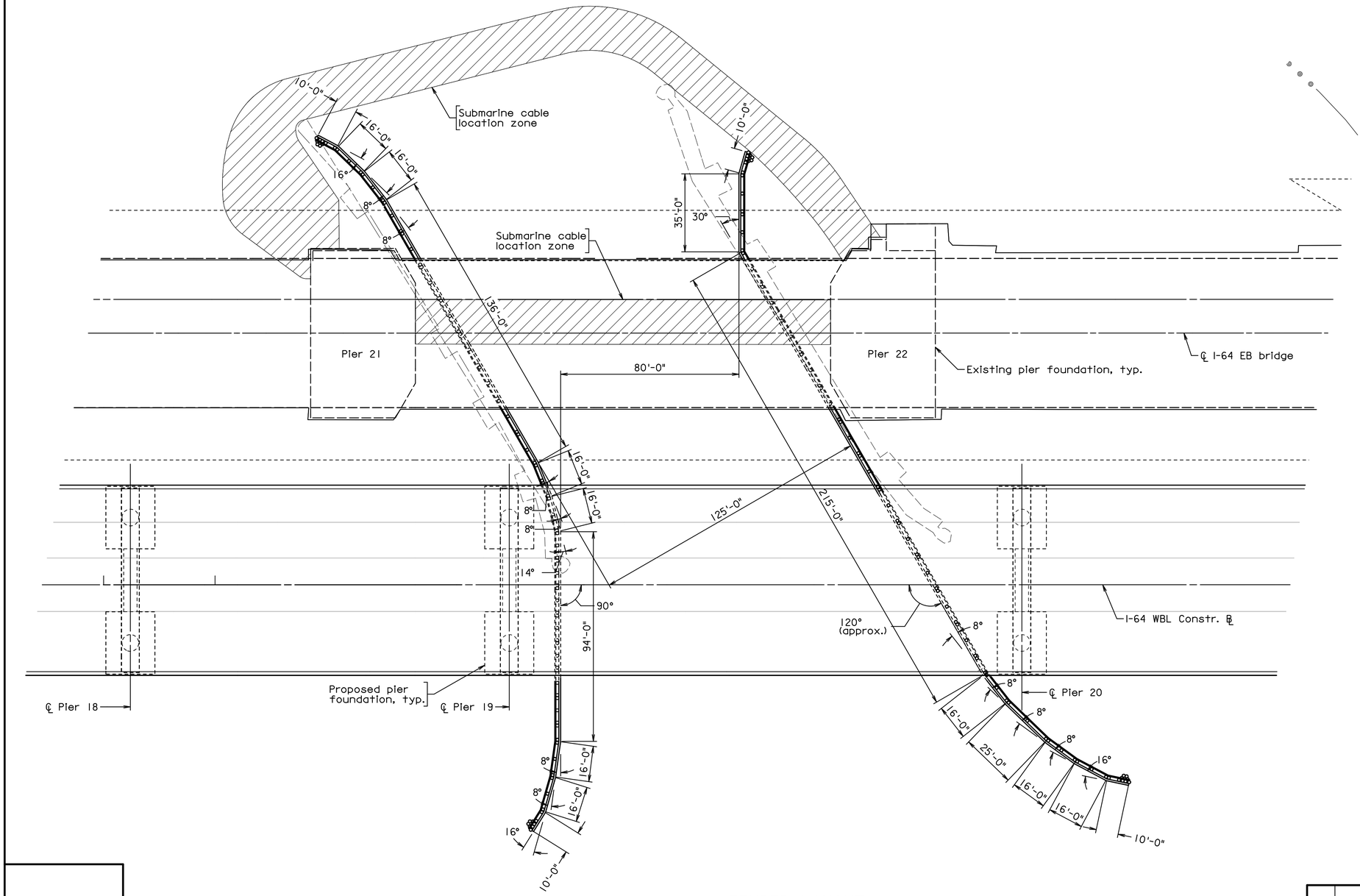
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
STRUCTURE AND BRIDGE DIVISION

PIER AND ABUTMENT DETAILS

Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	XXX-XX	6 of 7
Checked: WSP			

b104366-41_006.dgn

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B662	41(7)



b104366-41_007.dgn

FENDER LAYOUT

Scale 1" = 25'-0"

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS
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WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
STRUCTURE AND BRIDGE DIVISION

FENDER LAYOUT

Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	XXX-XX	7 of 7
Checked: WSP			

4.3.3
Existing Bridge Modification Conceptual Plans

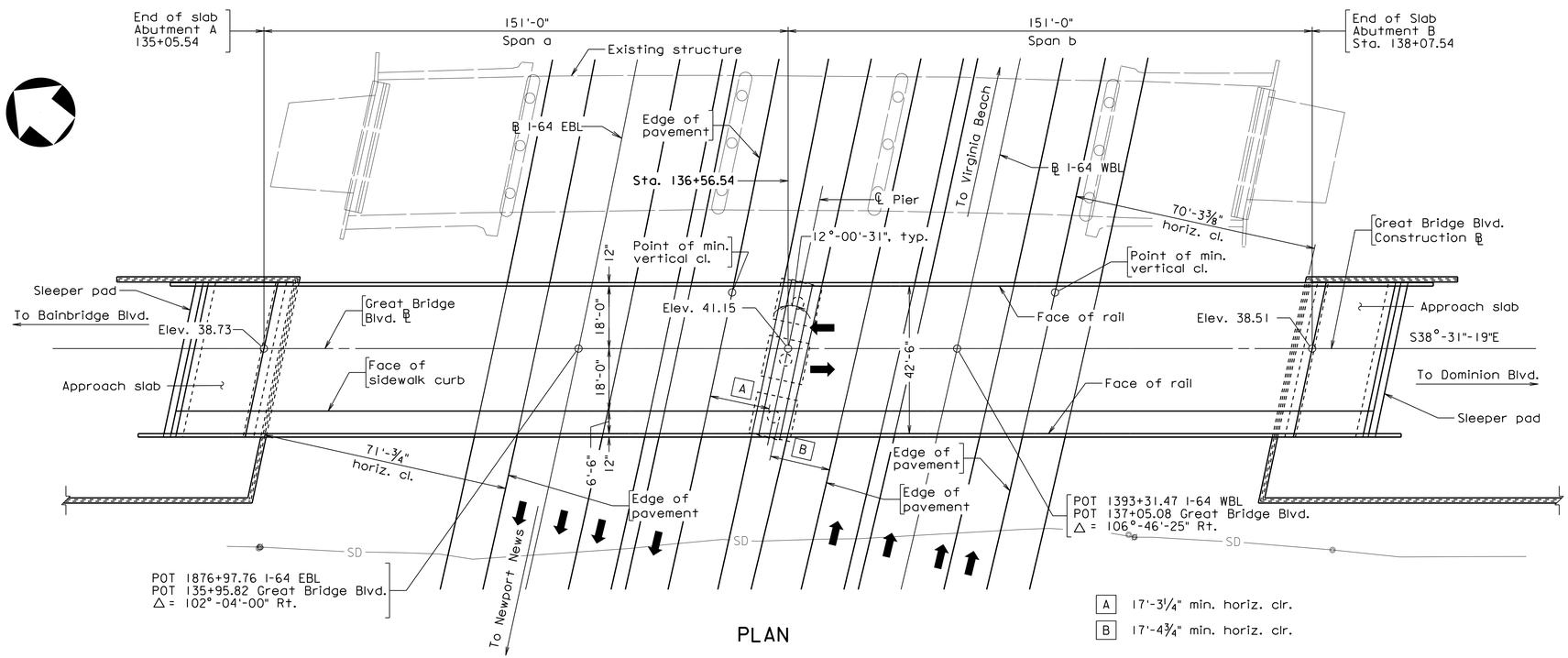
Conceptual Plans for the DBTMS are presented in Section 4.3.1, Sheet Nos. 26, 27, 28 and 29

(Page Nos. 118, 121, 124, 127)

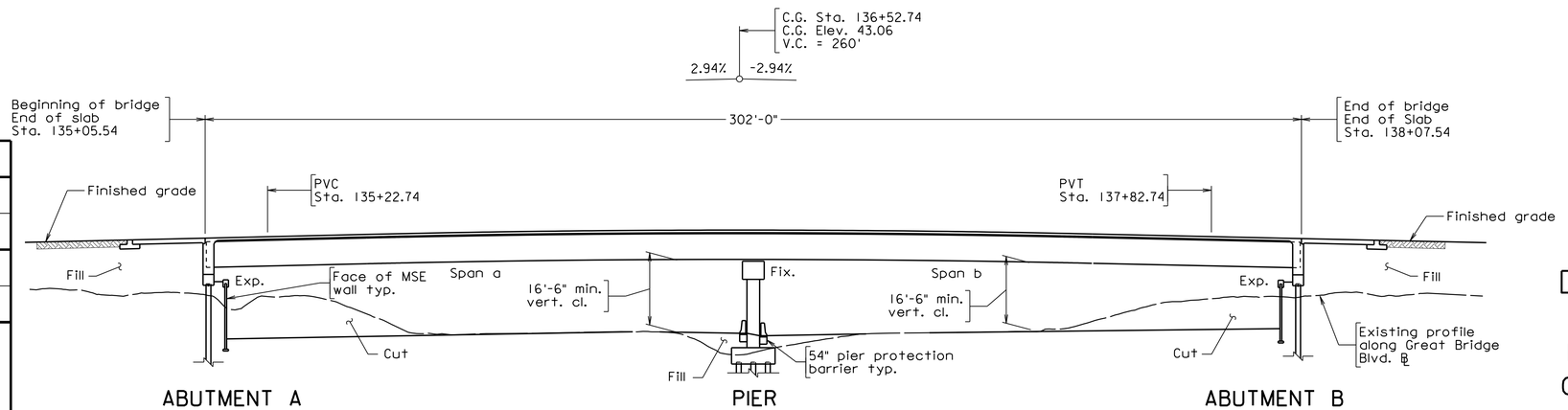
4.3.4

Replacement Bridge Plans

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B662	42(1)
NBIS Number:			UPC No.		
Federal Oversight Code:			FHWA Construction and Scour Code:		



PLAN



ABUTMENT A PIER ABUTMENT B

DEVELOPED SECTION ALONG ℄

Scale: 1" = 20'

DESIGN EXCEPTION(S):

None

GENERAL NOTES:

Width: 6'-0" sidewalk, 36'-0" roadway.
Overall width 42'-6" face-to-face of rails.

Span layout: 151' - 151' prestressed concrete bulb-T beam spans continuous for live load

Capacity: HL-93 loading.

Specifications:

Construction: Virginia Department of Transportation Road and Bridge Specifications, 2016.

Design: AASHTO LRFD Bridge Design Specifications, 7th Edition, 2014; and VDOT Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2016.

Concrete Class A4 (Low Shrinkage) shall be used for bridge deck and parapets.

Corrosion resistant steel shall be utilized in accordance with the IIM-S&B-81.7.

All information shown in these plans, including details, quantities, member sizes and member types, are preliminary and subject to change during final design. The information has been provided for reference purposes only and shall not be interpreted as contractual.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Bridge No. of existing bridge is 2544. Plan No. is 174-08.

$DGNFILENAME$

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
VDOT PROJECT MANAGER
DISTRICT CONSTRUCTION MANAGER
Dewberry Consultants LLC Fairfax, VA STRUCTURAL ENGINEER

PLANS BY:	Dewberry
COORDINATED:	---
SUPERVISED:	Dewberry
DESIGNED:	Dewberry
DRAWN:	Dewberry
CHECKED:	Dewberry

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

No.	Description	Date

REVISIONS

For Table of Revisions, see Sheet 2.

VDOT

COMMONWEALTH OF VIRGINIA

DEPARTMENT OF TRANSPORTATION

PROPOSED BRIDGE WIDENING ON
RTE. 190 (GREAT BRIDGE BLVD.) OVER I-64
CITY OF CHESAPEAKE - 0.5 MI. W. OF I-464
PROJ. 0064-131-811, B663

Recommended for Approval: _____ _____
(Developer's Designee) Date

Approved: _____ _____
Chief Engineer Date

Date: August 1, 2017

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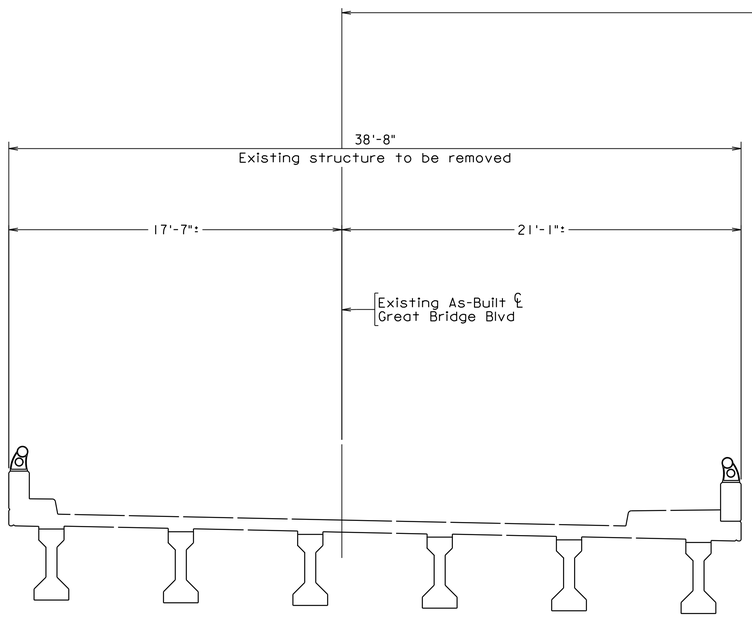
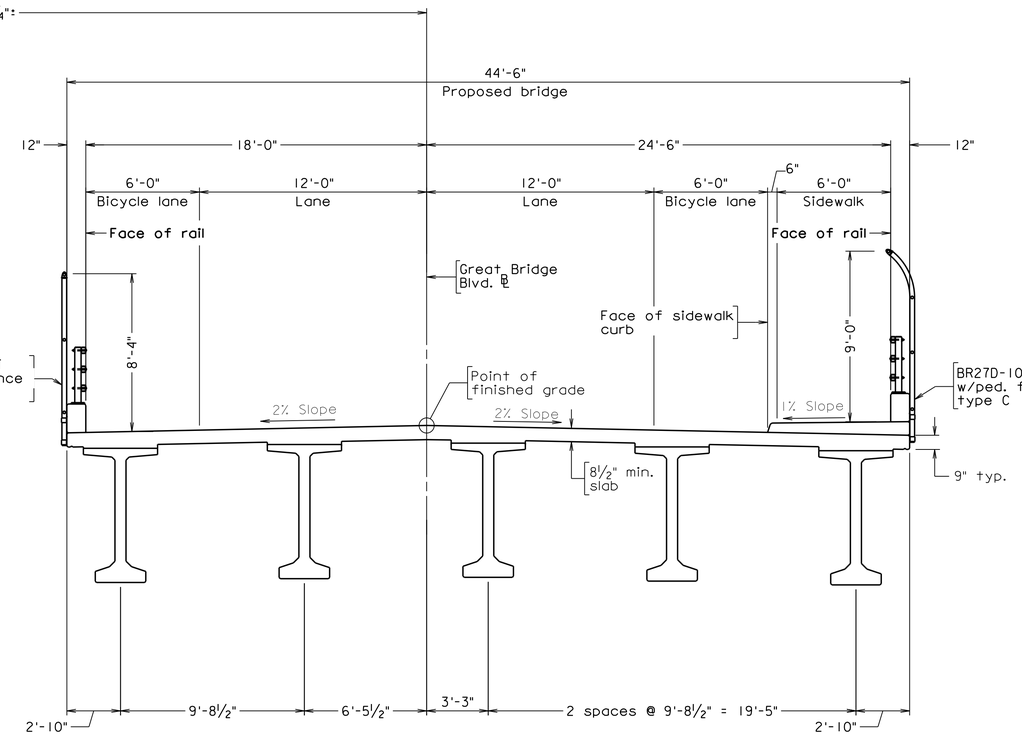
XXX-XX
Sheet 42(1)

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B663	42(2)



EXISTING BRIDGE



PROPOSED BRIDGE

TRANSVERSE SECTION

$DGNFILENAME$

Dewberry Consultants LLC
Fairfax, VA
STRUCTURAL ENGINEER

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

Scale: ¼" = 1'-0"

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No.	Description	Date
	Revisions	

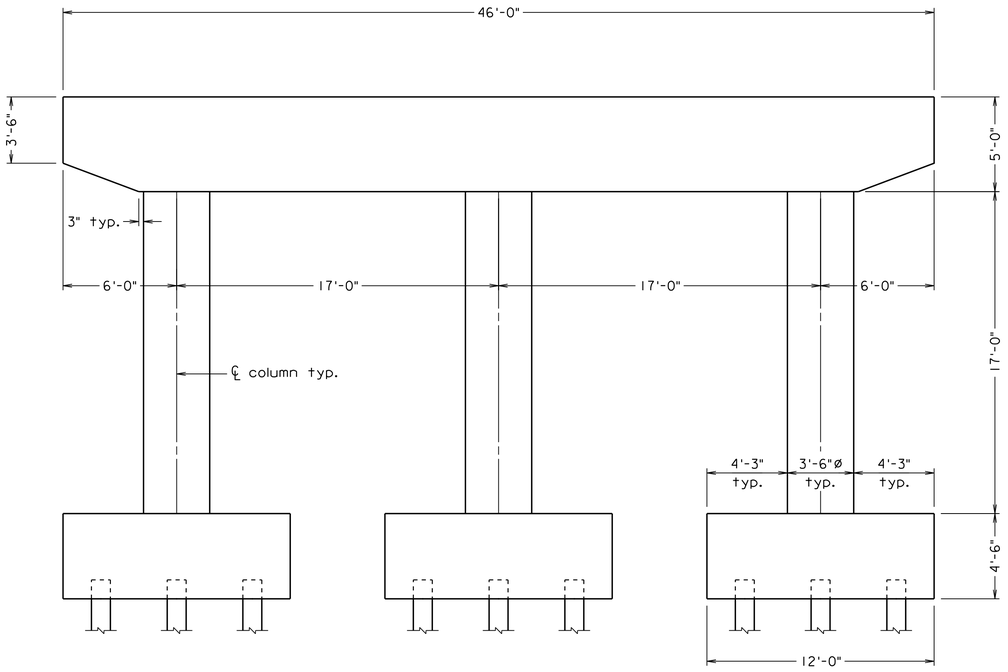
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

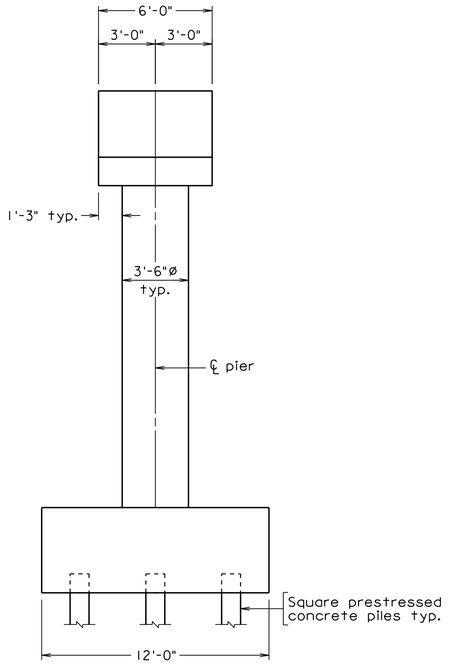
TRANSVERSE SECTION

Designed: DEW	Date	Plan No.	Sheet No.
Drawn: DEW	Aug 2017	XXX-XX	42(2)
Checked: DEW			

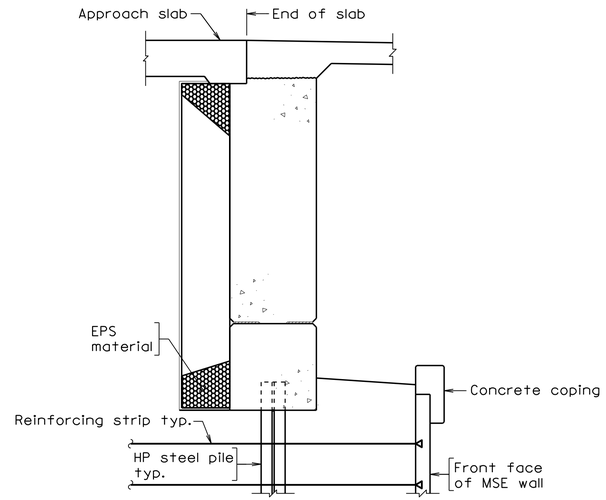
STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B663	42(3)



PIER ELEVATION



PIER END VIEW



ABUTMENT SECTION

Scale: ⅜" = 1'-0"

$DGNFILENAME$

Dewberry Consultants LLC
Fairfax, VA
STRUCTURAL ENGINEER

Scale: ¼" = 1'-0" unless otherwise shown

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

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No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

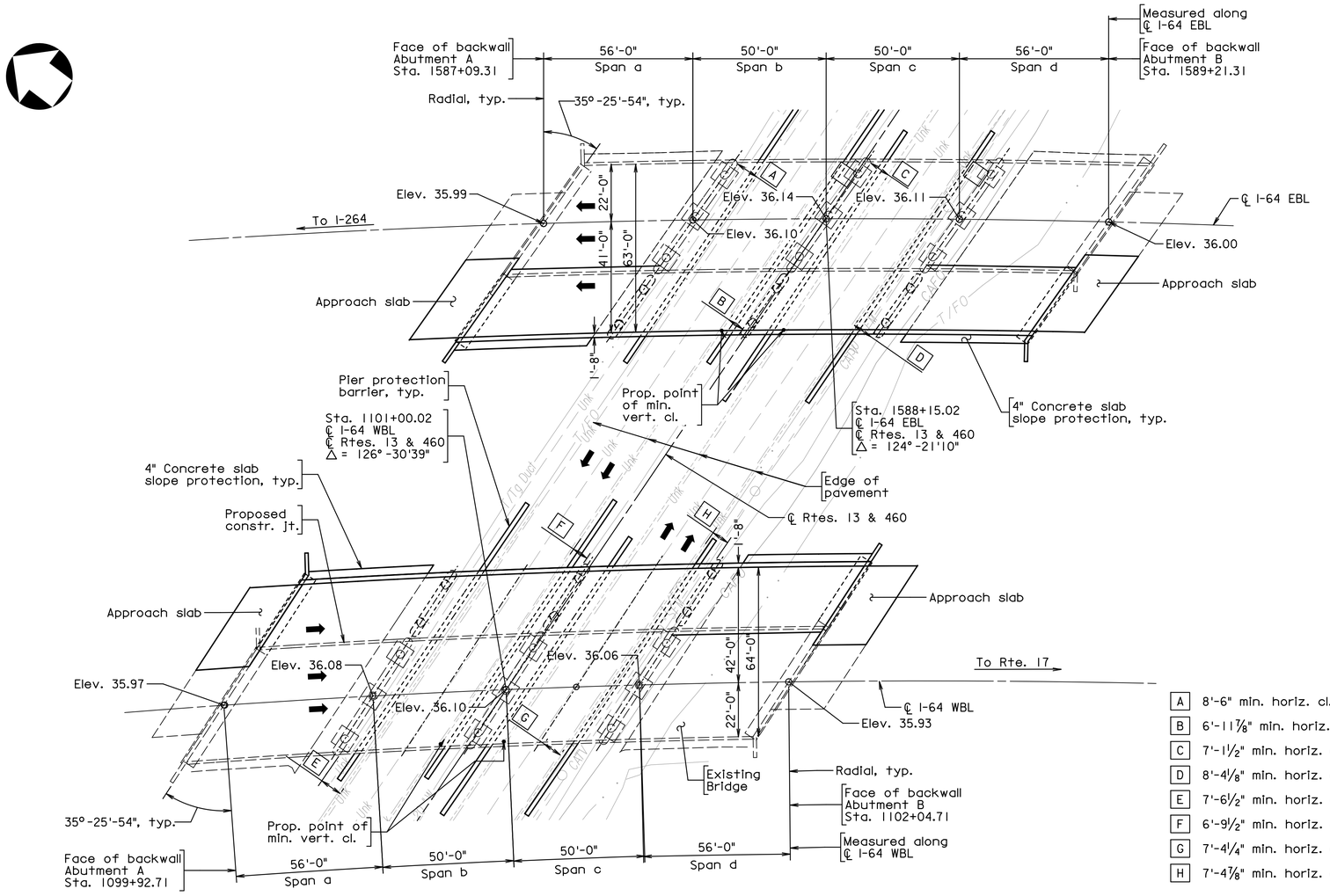
PIER AND ABUTMENT DETAILS

Designed: DEW	Date	Plan No.	Sheet No.
Drawn: DEW			
Checked: DEW	Aug 2017	XXX-XX	42(3)

4.3.5

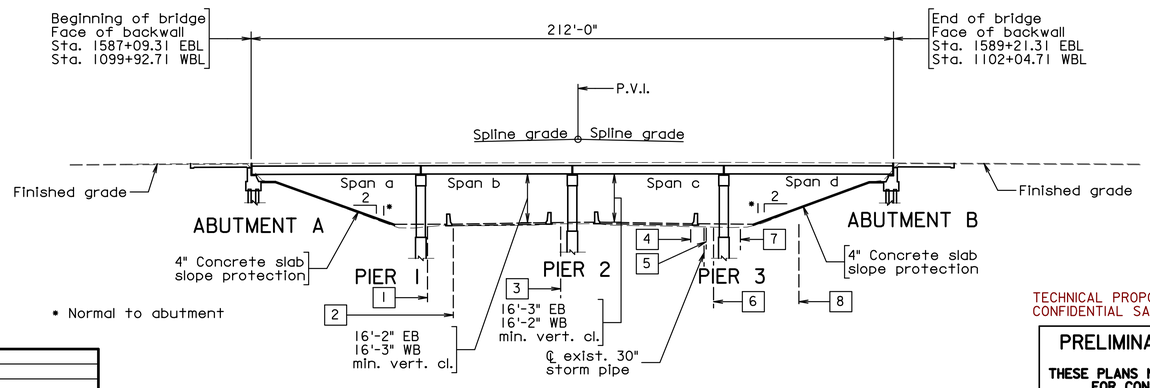
Conceptual Bridge Plans

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B664, B665	38(1)
NBIS Number: 000000000000021862 000000000000021864			UPC No. 106692		
Federal Oversight Code:			FHWA Construction and Scour Code: X271-SN		



PLAN

A	8'-6" min. horiz. cl.
B	6'-11⅞" min. horiz. cl.
C	7'-1½" min. horiz. cl.
D	8'-4⅛" min. horiz. cl.
E	7'-6½" min. horiz. cl.
F	6'-9½" min. horiz. cl.
G	7'-4¼" min. horiz. cl.
H	7'-4⅞" min. horiz. cl.



DEVELOPED SECTION ALONG WIDENING

1	℄ exist. telephone
2	℄ exist. telephone
3	℄ exist. 20" water
4	℄ exist. fiber optic
5	℄ exist. cable tv
6	℄ exist. power line
7	℄ exist. cable tv
8	℄ exist. fiber optic

DESIGN EXCEPTION(S):

16'-2" vertical clearance over Routes 13 & 460.
Design Exception approved by State Structure and Bridge Engineer October 3, 2016.

GENERAL NOTES:

Width: EBL - 63'-0" face-to-face rails.
WBL - 64'-0" face-to-face of rails.

Span layout: 56'-0" - 50'-0" - 50'-0" - 56'-0"

Capacity: HL-93 loading.

Specifications:

Construction: Virginia Department of Transportation Road and Bridge Specifications, 2016.

Design: AASHTO LRFD Bridge Design Specifications, 7th Edition, 2014: and VDOT Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2016.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Bridge Nos. of existing bridges are 2517 (EBL) and 2518 (WBL). Plan No. is 174-13. The span, substructure and directional labels for each bridge shown herein differ from those shown in Plan No. 174-13.

Concrete Class A4 (Low Shrinkage) shall be used for bridge deck and parapets.

Corrosion resistant steel shall be utilized in accordance with the IIM-S&B-81.7.

The existing structure is designated a Type B structure in accordance with Sec. 411.

All information shown in these plans, including details, quantities, member sizes and member types, is preliminary and subject to change during final design. The information has been provided for reference purposes only and shall not be interpreted as contractual.

VDOT

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSED BRIDGE WIDENING ON I-64 OVER RTES. 13 & 460
CITY OF CHESAPEAKE - 1.6 MI. W. OF RTE. 17
PROJ. 0064-131-811, B664, B665

PLANS BY:	WSP USA
COORDINATED:	---
SUPERVISED:	WSP
DESIGNED:	WSP
DRAWN:	WSP
CHECKED:	WSP

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

VDOT PROJECT MANAGER

DISTRICT CONSTRUCTION MANAGER

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

Scale: 1" = 25'

No.	Description	Date
	REVISIONS	
	For Table of Revisions, see Sheet 2.	

Recommended for Approval: _____ (Developer's Designee) Date

Approved: _____ Chief Engineer Date

Date: August 1, 2017

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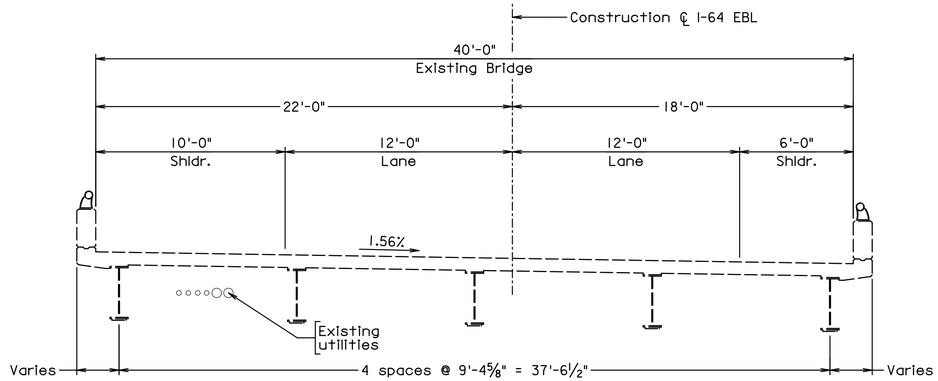
174-13A
Sheet 1 of 3

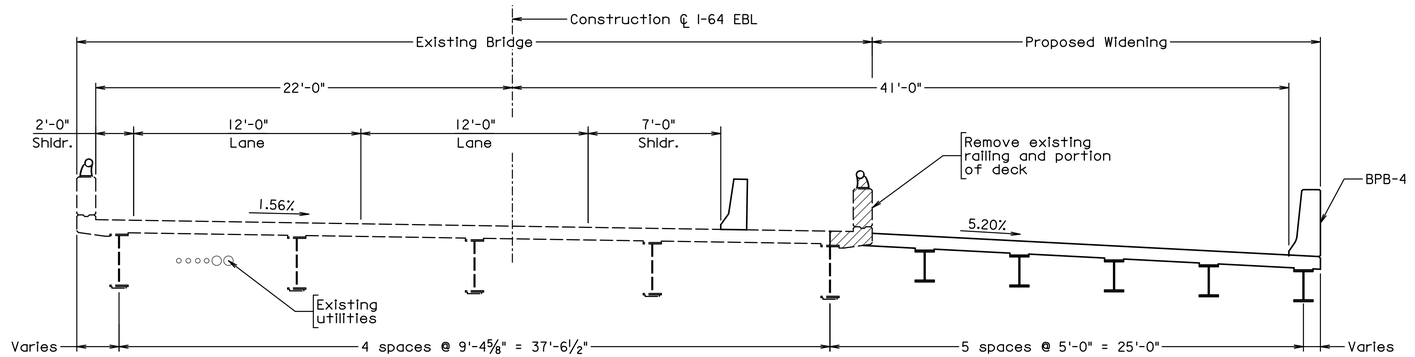
b104366-38_001.dgn

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B664, B665	38(2)



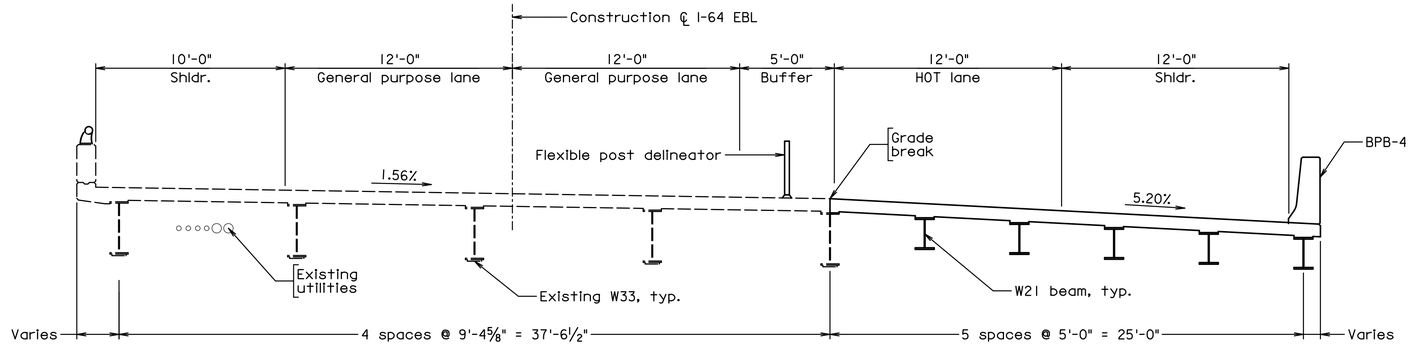
EXISTING BRIDGE - TRANSVERSE SECTION

(Span 2 shown, other spans similar)



DEMOLITION AND CONSTRUCTION - TRANSVERSE SECTION

(Span 2 shown, other spans similar)



FINAL - TRANSVERSE SECTION

(Span 2 shown, other spans similar)

Notes:

1. All sections shown looking station-ahead (to the east).
2. Dimensions shown in Transverse Section are measured radially.

Legend:

Denotes portion of existing structure to be removed

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

© 2017, Commonwealth of Virginia

Scale ¼" = 1'-0"

b104366-38_002.dgn

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

No.	Description	Date
	Revisions	

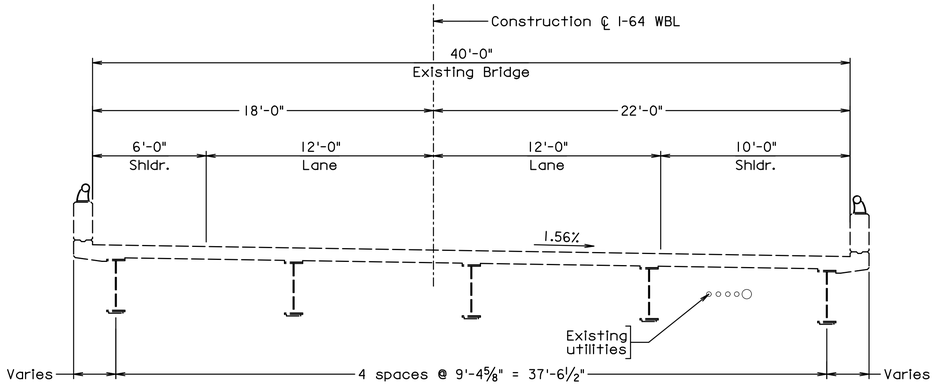
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

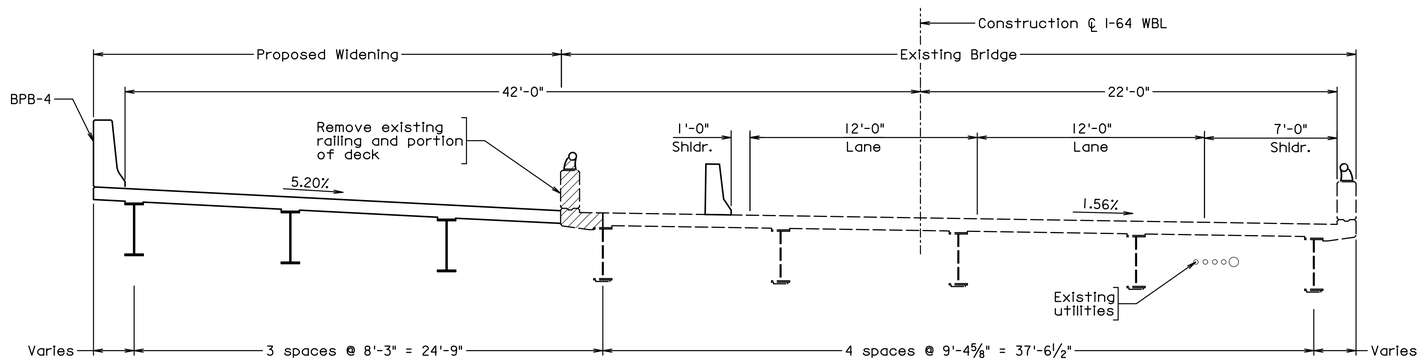
TRANSVERSE SECTION I-64 EB OVER RTES.13 AND 460

Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	174-13A	2 of 3
Checked: WSP			

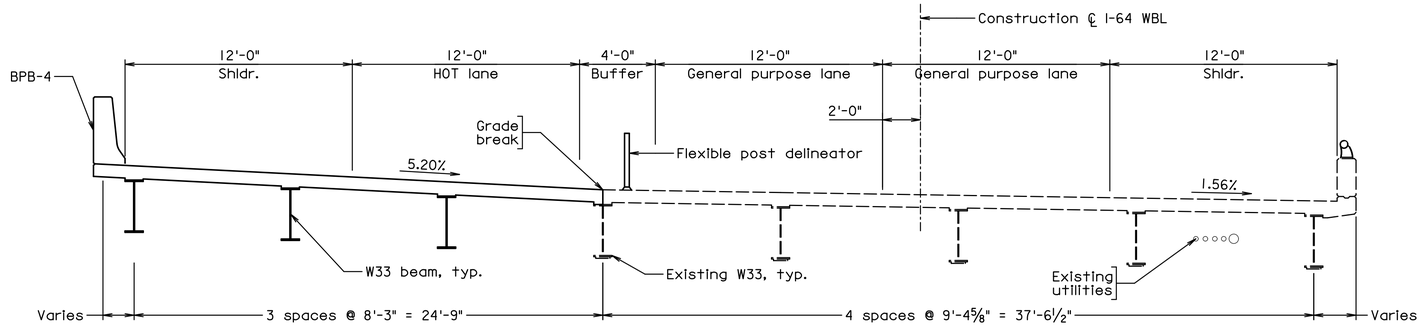
STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B664, B665	38(3)



EXISTING BRIDGE - TRANSVERSE SECTION
(Span 2 shown, other spans similar)



DEMOLITION AND CONSTRUCTION - TRANSVERSE SECTION
(Span 2 shown, other spans similar)



FINAL - TRANSVERSE SECTION
(Span 2 shown, other spans similar)

Notes:

1. All sections shown looking station-ahead (to the east).
2. Dimensions shown in Transverse Section are measured radially.

Legend:

Denotes portion of existing structure to be removed

b104366-38_003.dgn

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

Scale 1/4" = 1'-0"

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

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No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

TRANSVERSE SECTION
I-64 WB OVER RTES. 13 AND 460

Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	174-13A	3 of 3
Checked: WSP			

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—	-	64	0064-131-811, B666, B667	39(1)
NBIS Number: 000000000021858 000000000021860			UPC No. 106692		
Federal Oversight Code:			FHWA Construction and Scour Code: X581-SN		

DESIGN EXCEPTION(S):

3'-0" wide outside (right) shoulder for bridge no. 2516. Design Exception approved by State Structure and Bridge Engineer on October 3, 2016.

GENERAL NOTES:

Width: EBL - 62'-6" face-to-face of rails.
WBL - 55'-0" face-to-face of rails.

Span layout: 62'-1" - 62'-0" - 70'-0" - 70'-1"

Capacity: HL-93 loading.

Specifications:

Construction: Virginia Department of Transportation Road and Bridge Specifications, 2016.

Design: AASHTO LRFD Bridge Design Specifications, 7th Edition, 2014: and VDOT Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2016.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Bridge Nos of existing bridges are 2515 (EBL) and 2516 (WBL). Plan No. is 174-12. The span, substructure and directional labels for each bridge shown herein differ from those shown in Plan No. 174-12.

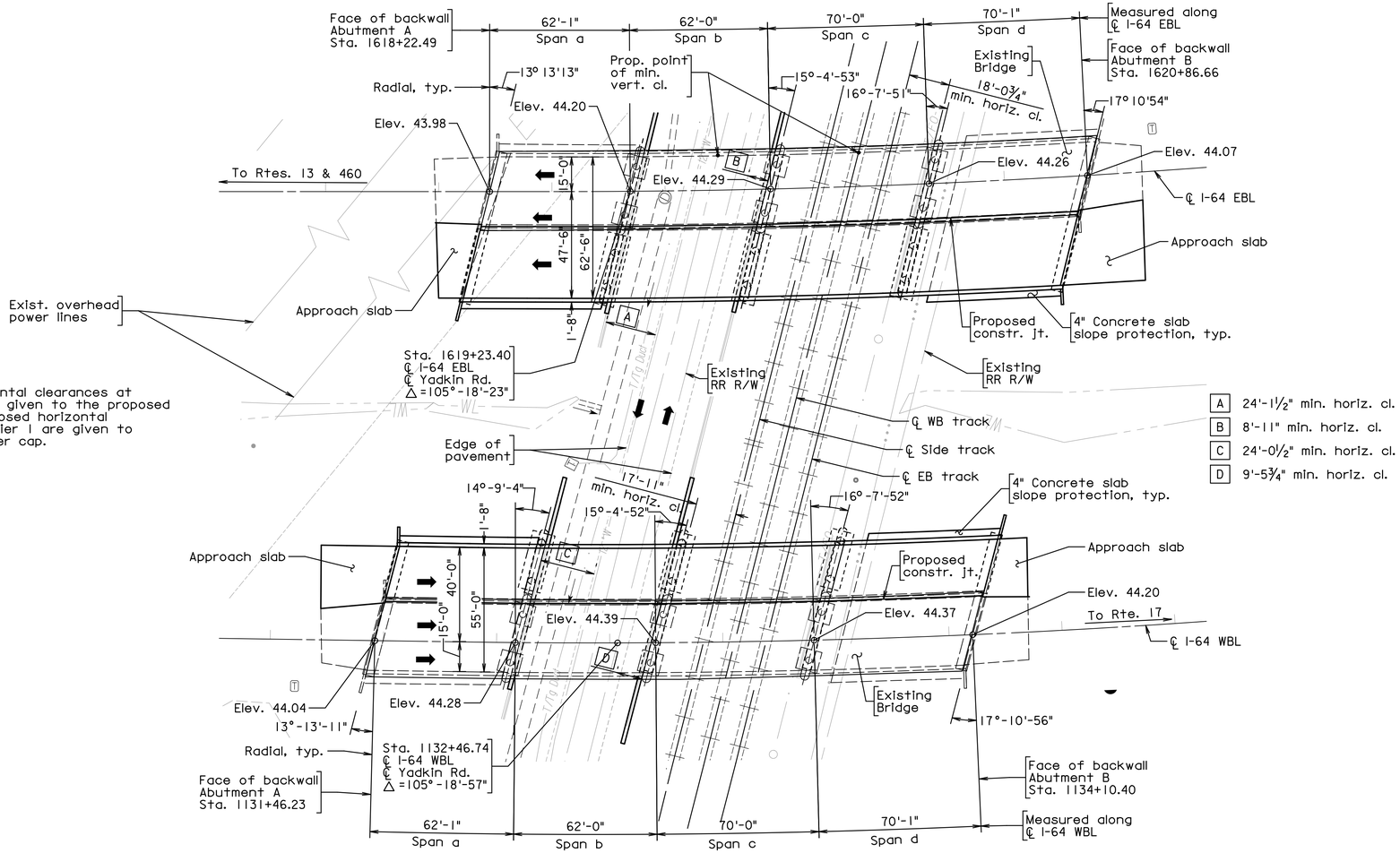
Concrete Class A4 (Low Shrinkage) shall be used for bridge deck and parapets.

Corrosion resistant steel shall be utilized in accordance with IIM-S&B-81.7.

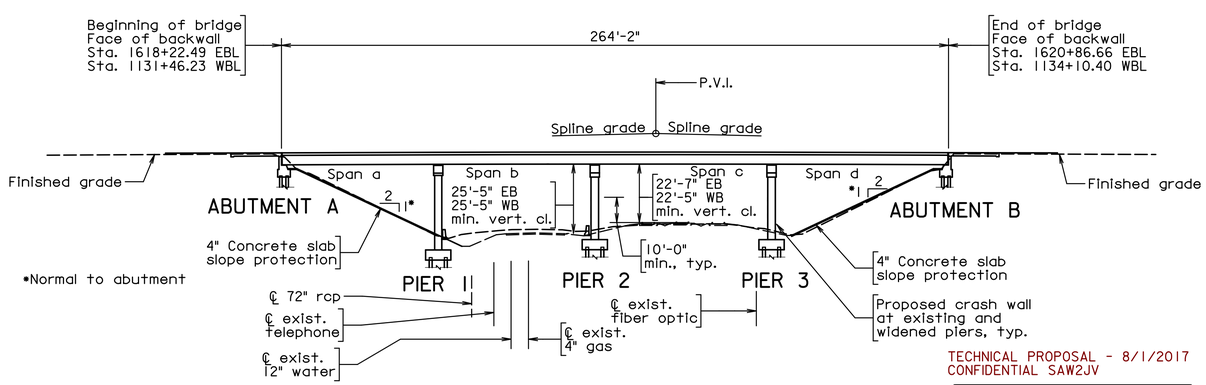
All information shown in these plans, including details, quantities, member sizes, and member types, is preliminary and subject to change during final design. The information has been provided for reference purposes only and shall not be interpreted as contractual.

Note:

Proposed horizontal clearances at Piers 2 & 3 are given to the proposed crash wall. Proposed horizontal clearances at Pier 1 are given to the face of pier cap.



PLAN



DEVELOPED SECTION ALONG WIDENING

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

Scale: 1" = 30'

No.	Description	Date

REVISIONS

For Table of Revisions, see Sheet 2.

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

VDOT PROJECT MANAGER

DISTRICT CONSTRUCTION MANAGER

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

PLANS BY:	WSP USA
COORDINATED:	---
SUPERVISED:	WSP
DESIGNED:	WSP
DRAWN:	WSP
CHECKED:	WSP

b104366-39_001.dgn

VDOT

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSED BRIDGE WIDENING ON
I-64 OVER YADKIN ROAD & NORFOLK SOUTHERN RAILROAD
CITY OF CHESAPEAKE - 1.0 MI. W. OF RTE. 17
PROJ. 0064-131-811, B666, B667

Recommended for Approval: _____ (Developer's Designee) Date

Approved: _____ Chief Engineer Date

Date: August 1, 2017

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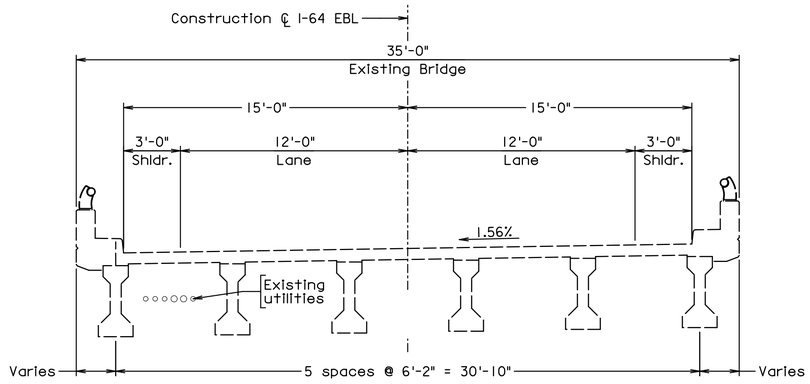
174-12A

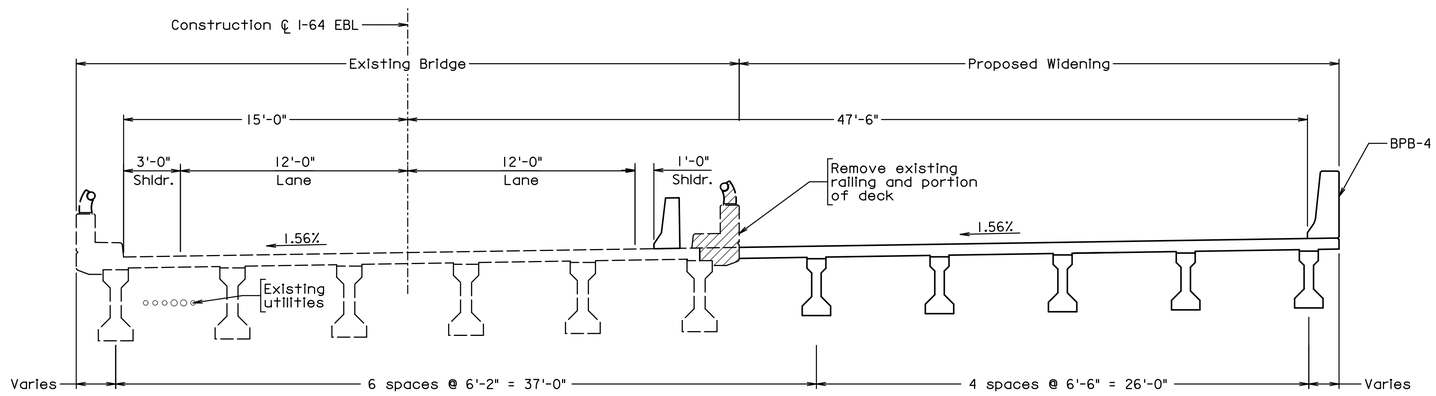
Sheet 1 of 3

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B666, B667	39(2)



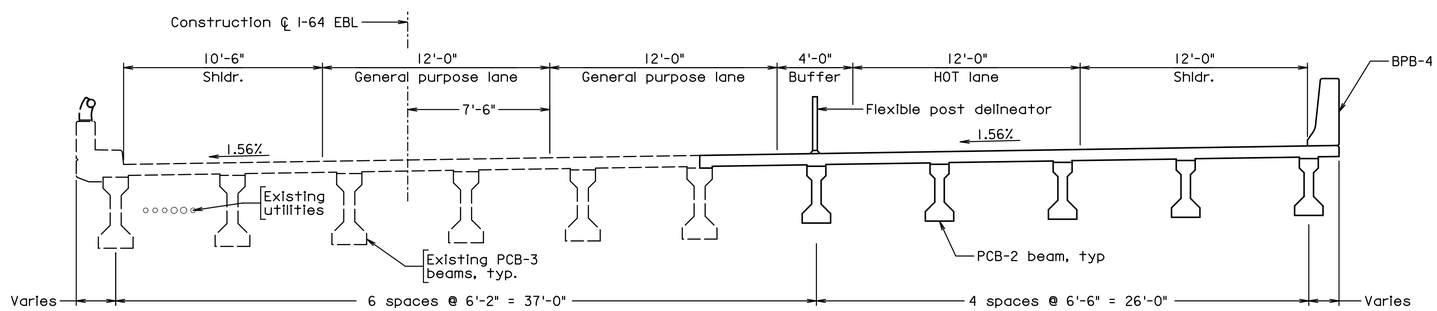
EXISTING BRIDGE - TRANSVERSE SECTION

(Spans 1 & 2 shown, other spans similar)



DEMOLITION AND CONSTRUCTION - TRANSVERSE SECTION

(Spans 1 & 2 shown, other spans similar)



FINAL - TRANSVERSE SECTION

(Spans 1 & 2 shown, other spans similar)

Note:

1. All sections shown looking station-ahead (to the east).

Legend:

Denotes portion of existing structure to be removed

b104366-39_002.dgn

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

Scale 1/4" = 1'-0"

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

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No.	Description	Date
	Revisions	

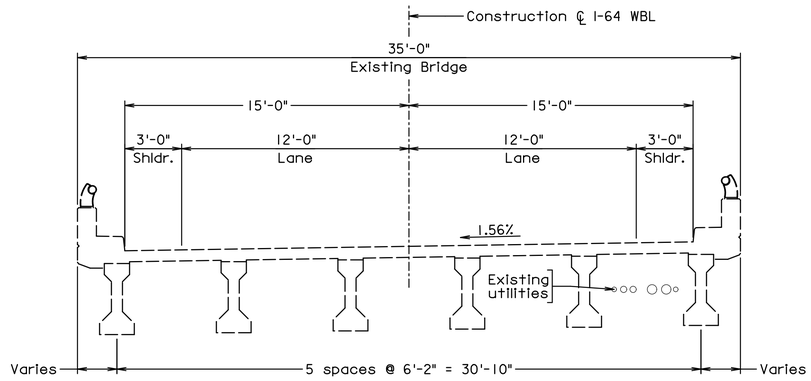
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

TRANSVERSE SECTION I-64 EB OVER YADKIN ROAD AND NORFOLK SOUTHERN RAILROAD

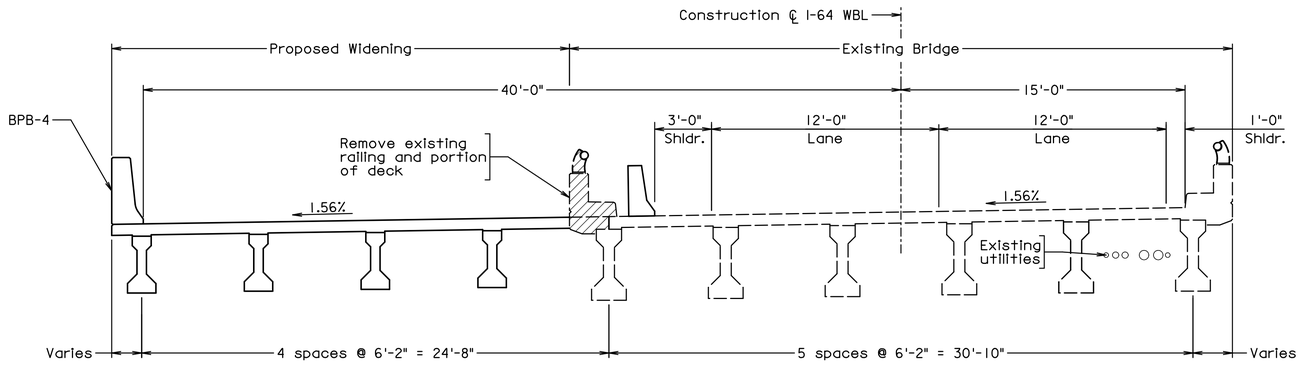
Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	174-12A	2 of 3
Checked: WSP			

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B666, B667	39(3)



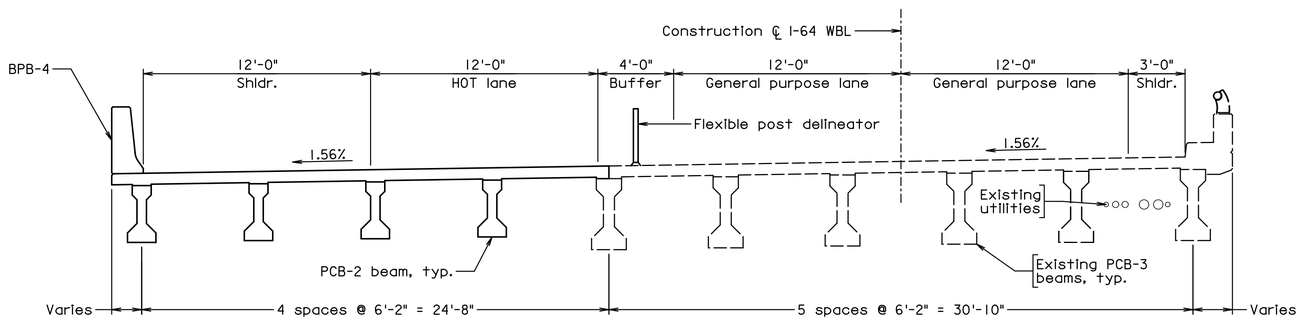
EXISTING BRIDGE - TRANSVERSE SECTION

(Spans 1 & 2 shown, other spans similar)



DEMOLITION AND CONSTRUCTION - TRANSVERSE SECTION

(Spans 1 & 2 shown, other spans similar)



FINAL - TRANSVERSE SECTION

(Spans 1 & 2 shown, other spans similar)

Note:

1. All sections shown looking station-ahead (to the east).

Legend:

Denotes portion of existing structure to be removed

b104366-39_003.dgn

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

Scale 1/4" = 1'-0"

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

© 2017, Commonwealth of Virginia

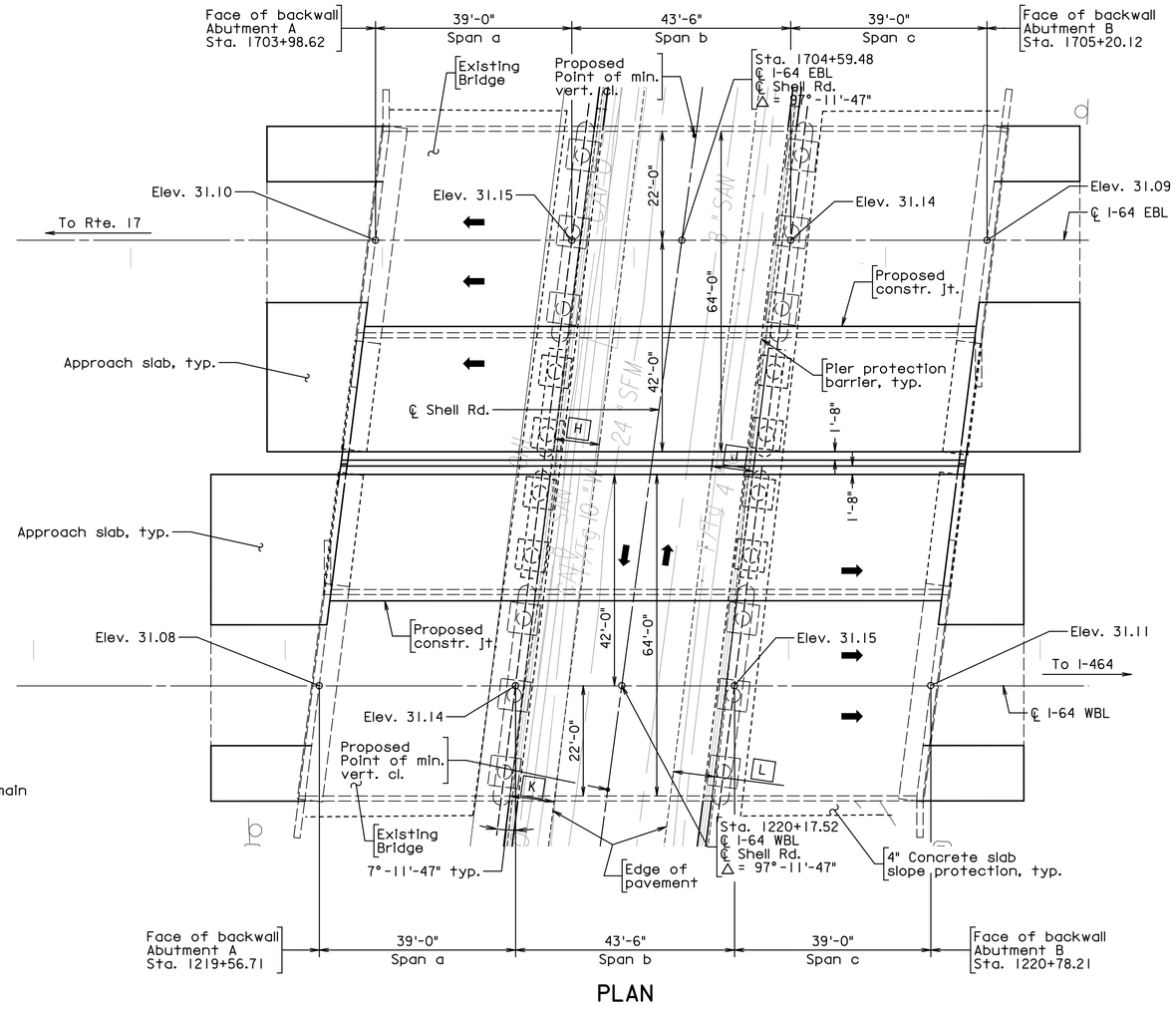
No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

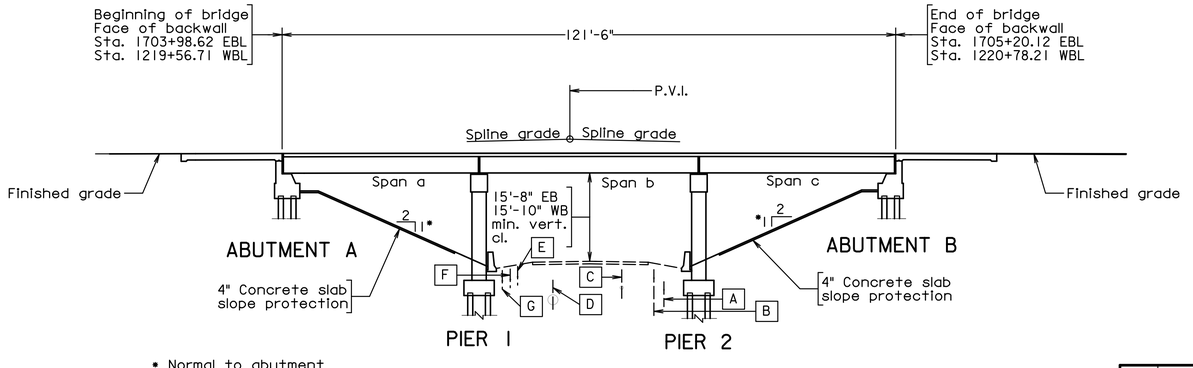
STRUCTURE AND BRIDGE DIVISION

TRANSVERSE SECTION I-64 WB OVER YADKIN ROAD AND NORFOLK SOUTHERN RAILROAD

Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	174-12A	3 of 3
Checked: WSP			



PLAN



• Normal to abutment

DEVELOPED SECTION ALONG WIDENING

Scale: 1" = 15'

A ℄ exist. 4" gas
B ℄ exist. telephone
C ℄ exist. 8" sanitary
D ℄ exist. 24" sanitary force main
E ℄ exist. cable tv
F ℄ exist. power line
G ℄ exist. fiber optic
H 8'-9⅞" min. horiz. cl.
J 8'-3¼" min. horiz. cl.
K 8'-9¾" min. horiz. cl.
L 8'-2⅜" min. horiz. cl.

b104366-40_001.dgn

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
VDOT PROJECT MANAGER	
DISTRICT CONSTRUCTION MANAGER	
WSP USA VIRGINIA BEACH, VA STRUCTURAL ENGINEER	

PLANS BY:	WSP USA
COORDINATED:	---
SUPERVISED:	~~WSP~~
DESIGNED:	WSP
DRAWN:	WSP
CHECKED:	WSP

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

No.	Description	Date

REVISIONS

For Table of Revisions, see Sheet 2.

STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	—		64	0064-131-811, B668, B669	40(1)

NBIS Number: 000000000021854
000000000021856

UPC No. 106692

Federal Oversight Code:

FHWA Construction and Scour Code: X281-SN

DESIGN EXCEPTION(S):

None.

GENERAL NOTES:

Width: 62'-0" face-to-face of rails.

Span layout: 39'-0" - 43'-6" - 39'-0"

Capacity: HL-93 loading.

Specifications:

Construction: Virginia Department of Transportation Road and Bridge Specifications, 2016.

Design: AASHTO LRFD Bridge Design Specifications, 7th Edition, 2014: and VDOT Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2016.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Bridge Nos. of existing bridges are 2514 (EBL) and 2513 (WBL). Plan No. is 174-10. The span, substructure and directional labels for each bridge shown herein differ from those shown in Plan No. 174-10.

Concrete Class A4 (Low Shrinkage) shall be used for bridge deck and parapets.

Corrosion resistant steel shall be utilized in accordance with IIM-S&B-81.7.

All information shown in these plans, including details, quantities, member sizes, member types, is preliminary and subject to change during final design. The information has been provided or reference purposes only and shall not be interpreted as contractual.

VDOT

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSED BRIDGE WIDENING ON
I-64 OVER RTE. 648 (SHELL ROAD)
CITY OF CHESAPEAKE - 0.6 MI. E. OF RTE. 17
PROJ. 0064-131-811, B668, B669

Recommended for Approval: _____ _____
(Developer's Designee) Date

Approved: _____ _____
Chief Engineer Date

Date: August 1, 2017

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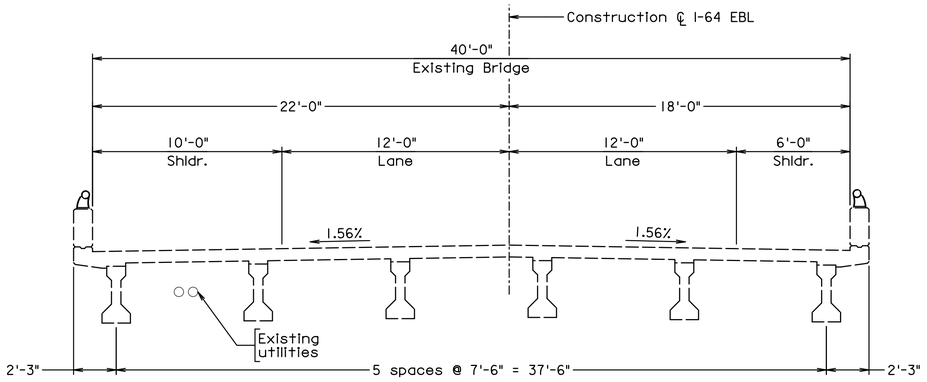
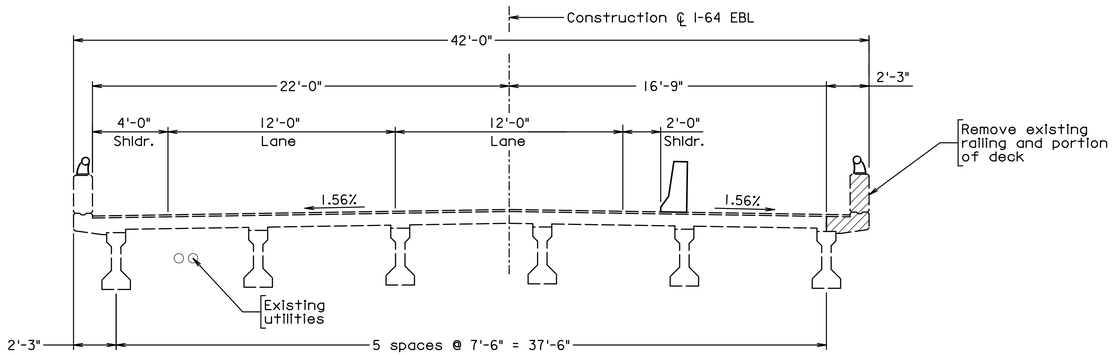
174-10A

Sheet 1 of 3

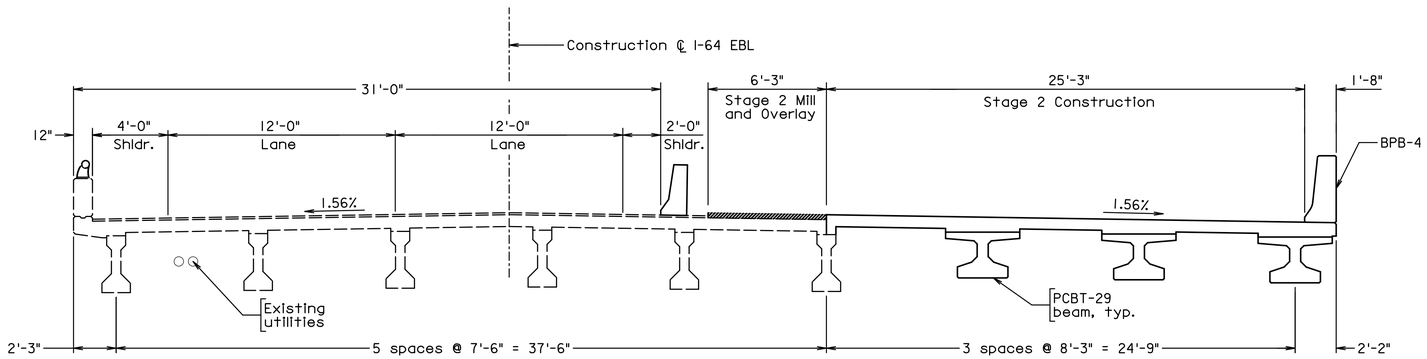
STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-131-811, B668, B669	40(2)



EXISTING BRIDGE - TRANSVERSE SECTION
(Eastbound shown, Westbound opposite hand)



STAGE 1: DEMOLITION - TRANSVERSE SECTION
(Eastbound shown, Westbound similar opposite hand)



STAGE 2: CONSTRUCTION - TRANSVERSE SECTION
(Eastbound shown, Westbound similar opposite hand)

Notes:

1. All sections shown looking station-ahead (to the east).

Legend:

Denotes portion of existing structure to be removed

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

Scale 1/4" = 1'-0"

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WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

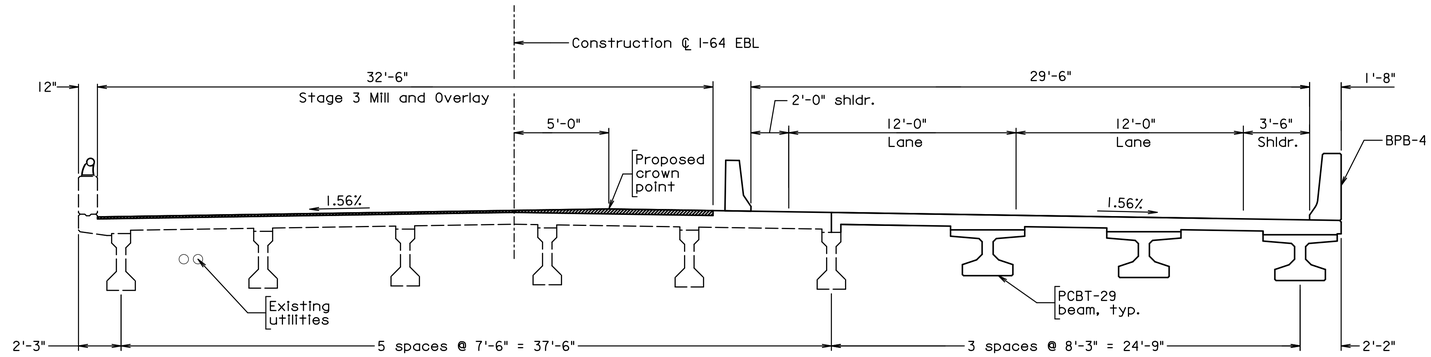
TRANSVERSE SECTION I-64 OVER RTE. 648 (SHELL RD) (1 OF 2)

Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	174-10A	2 of 3
Checked: WSP			

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	——		64	0064-131-811, B668, B669	40(3)

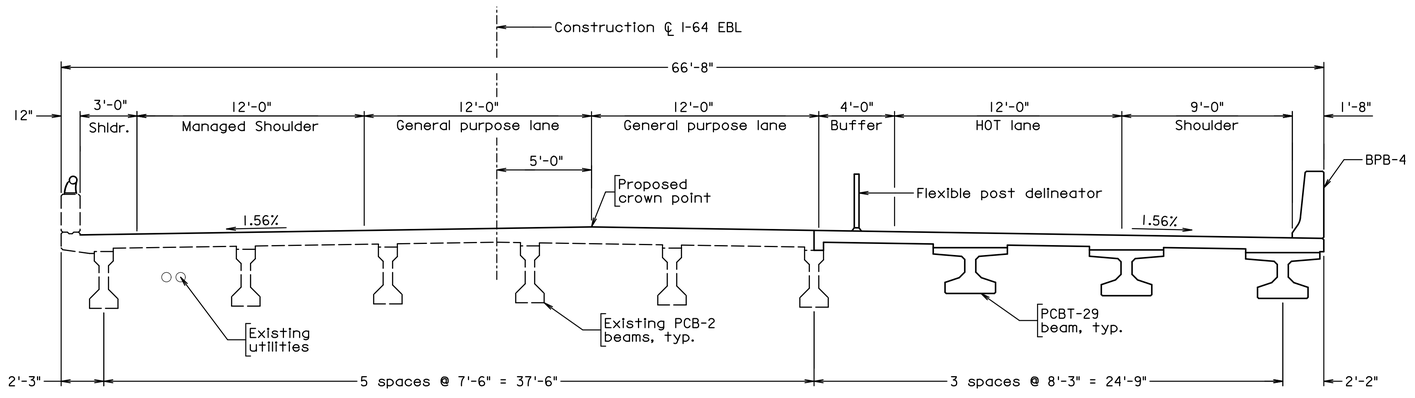
Notes:

1. All sections shown looking station-ahead (to the east).



STAGE 3 OVERLAY: TRANSVERSE SECTION

(Eastbound shown, Westbound similar opposite hand)



FINAL - TRANSVERSE SECTION

(Eastbound shown, Westbound similar opposite hand)

Legend:

Denotes portion of existing structure to be removed

b104366-40_003.dgn

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

Scale 1/4" = 1'-0"

TECHNICAL PROPOSAL - 8/1/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

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No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

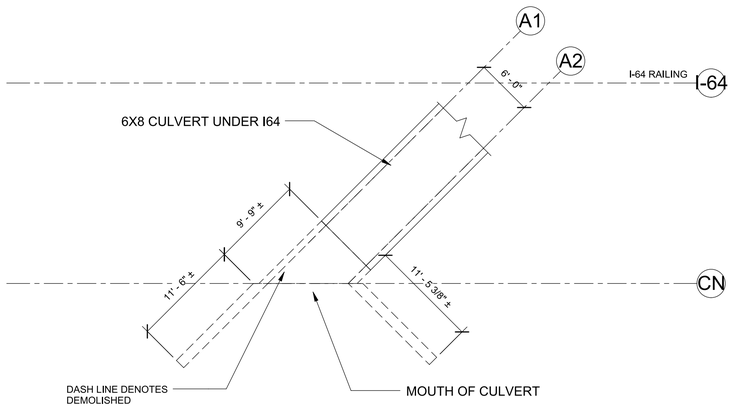
TRANSVERSE SECTION I-64 OVER RTE. 648 (SHELL RD) (2 OF 2)

Designed: WSP	Date	Plan No.	Sheet No.
Drawn: WSP	Aug. 2017	174-10A	3 of 3
Checked: WSP			

4.3.6

Conceptual Plans

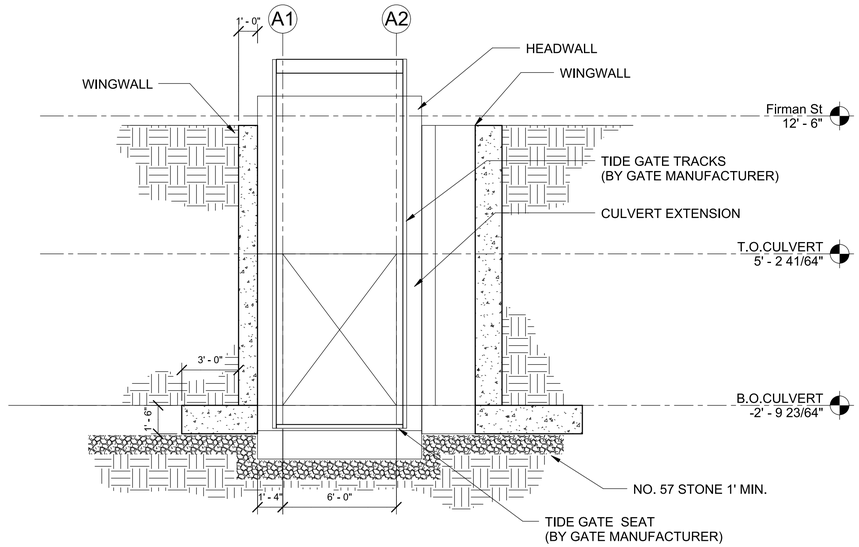
STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	——	-	64	0064-131-811	43(1)



DEMOLITION PLAN

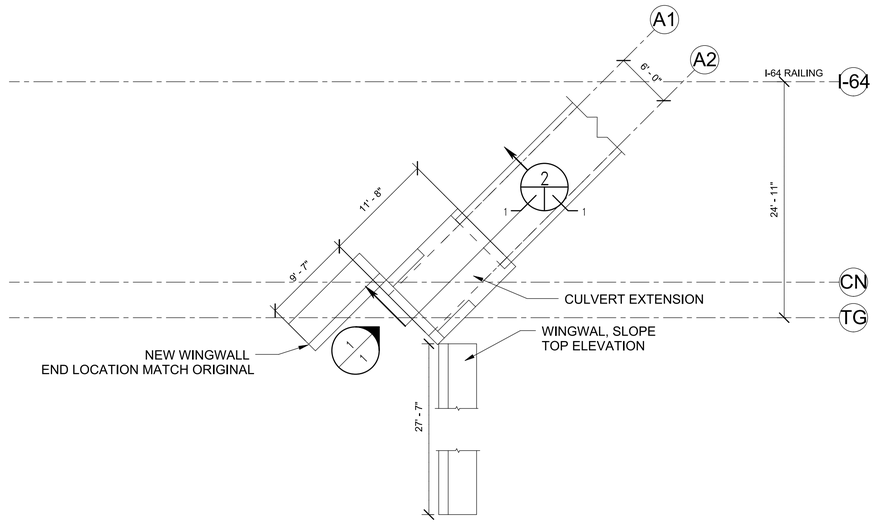
8 6 4 2 0 8 16

SCALE: 1/8"=1'-0"



NORTH HEADWALL ELEVATION

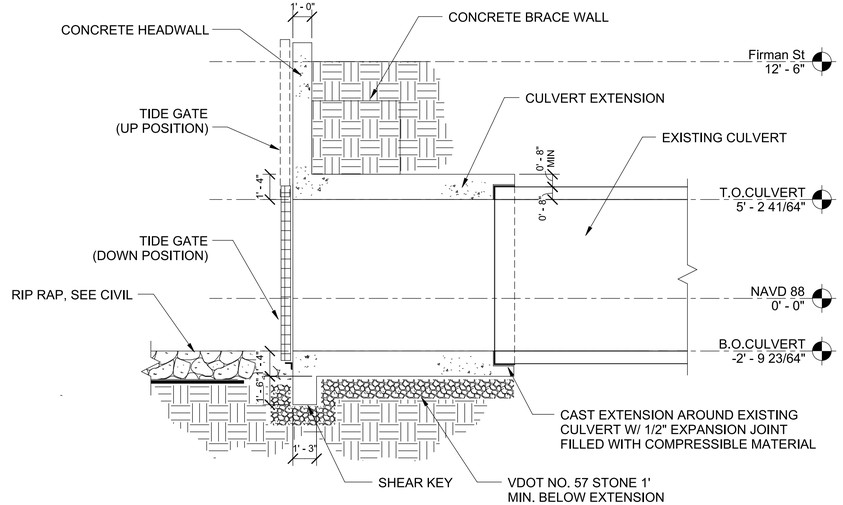
1/4" = 1'-0"



STRUCTURAL PLAN

8 6 4 2 0 8 16

SCALE: 1/8"=1'-0"



TIDE GATE HEAD WALL SECTION

1/4" = 1'-0"

WSP USA
VIRGINIA BEACH, VA
STRUCTURAL ENGINEER

TECHNICAL PROPOSAL - 8/01/2017
CONFIDENTIAL SAW2JV

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

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No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

TIDE GATE DETAILS

Designed: WSP Drawn: WSP Checked:	Date	Plan No.	Sheet No.
	June 2017	XXX-XX	1

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Skanska-Archer Western 2 Joint Venture
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