INVITATION TO BID:	**2023-15**
TITLE:	**Train Station Canopy Rehabilitation**
ISSUING AGENCY:	**CITY OF WILSON (Attn: Purchasing)** **P.O. BOX 10** **WILSON, NC 27894-0010**
ISSUE DATE:	**3/28/2023**
BID SUBMITTAL DEADLINE:	**4/18/2023 at 2:00pm**

INTRODUCTION/SCOPE: Pursuant to N.C.G.S. 143-129, the City of Wilson is accepting sealed bids to provide labor, equipment, and materials for (Amtrak) train station canopy rehabilitation per the information, scope, and requirements herein. It is the contractor's responsibility to submit all documentation required herein with their bid proposal. Project location is Wilson Amtrak Station (WLN) 401 Nash St, Wilson, NC 27893.

Instructions to Bidders: Indicate FIRM NAME, TITLE (above), and ITB number (above) on the front of each sealed proposal envelope or package. Ensure Bid Bond is in separate sealed envelope.

Sealed proposals, subject to the terms and conditions made a part hereof will be received until 2:00 p.m. on the opening date (above) in the office of the Purchasing Division, Operations Center, Purchasing Division / Warehouse, 1800 Herring Ave., Wilson, NC (Building 200).

SEND ALL PROPOSALS DIRECTLY TO THE ISSUING AGENCY ADDRESS SHOWN ABOVE.

Direct all inquiries concerning this ITB to: W. T. Bass IV
bbass@wilsonnc.org

SUBMISSION OF A BID IN RESPONSE TO THE REQUEST CONSTITUTES ACCEPTANCE OF ALL TERMS AND CONDITIONS IN THE REQUEST

Bidders may hand deliver Bids to the Purchasing Office, or if preferred, UPS and FedEx make daily deliveries to our office. If using any other delivery method allow ample time for delivery.

Bid Schedule:

Issuance of Advertisement for Invitation to Bid	3/28/2023
Pre-Bid Meeting (On Site)	4/05/2023 @ 10:00 am 4/12/2023 @ 11:00 am
Deadline to submit questions	4/13/2023 @ 5:00 pm
Bids Due	4/18/2023 @ 2:00 pm
Construction Start	TBD

Pre-Bid meeting attendance is highly encouraged but not mandatory.

Bid documents:

The bid document and or advertisement and updates/addenda will be posted to the City of Wilson's website via Vendor Registry at: https://vrapp.vendorregistry.com/Bids/View/BidsList?BuyerId=6cb6feea-36f1-43a9-ae1b-61fdecb8b52b

The bid will also be posted electronically for advertisement to the NCIPS and NCHUB websites.

CITY OF WILSON, NORTH CAROLINA

AMTRAK STATION CANOPY REHABILITATION

PROJECT MANUAL

DESIGNED BY: WSP of North Carolina, P.C.
434 Fayetteville Street
15TH Floor
Raleigh, North Carolina 27604

DATE ISSUED: November 11, 2022

PROJECT NO.: WSP: 30902091.001

SECTION 000102 - TABLE OF CONTENTS

PART 1 - LIST OF SECTIONS

DOCUMENT 003119 - EXISTING CONDITION INFORMATION

1.1 EXISTING CONDITION INFORMATION

A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of the Bidders' own investigations. They are made available for Bidders' convenience and information but are not a warranty of existing conditions. This Document and its attachments are not part of the Contract Documents.

B. Existing drawings that include information on existing conditions including previous construction at Project site are available for viewing as appended to this document.

C. Photographic documentation on existing conditions, prepared by WSP USA is available as appended to this Document.

D. Related Requirements:

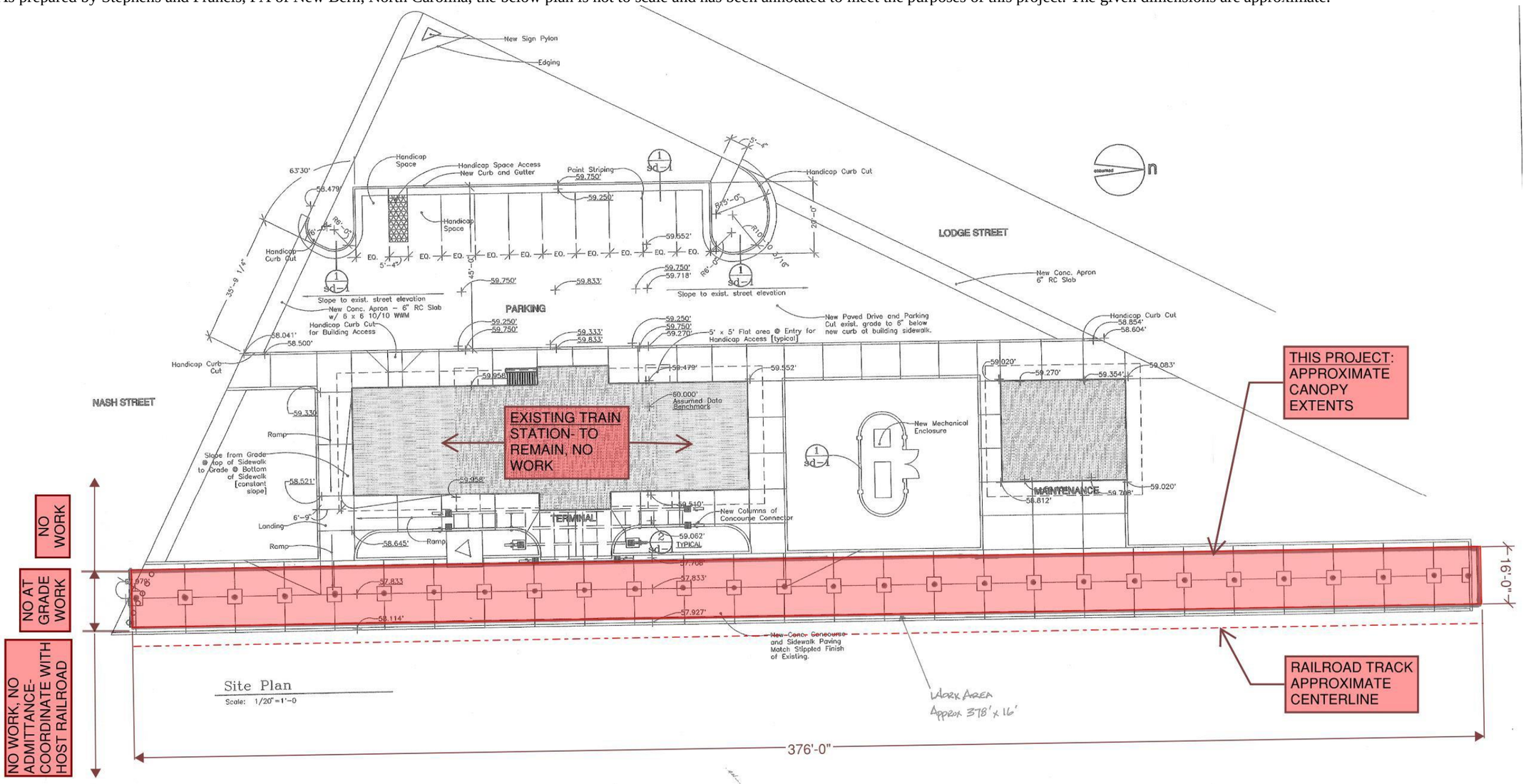
1. Document 002113 "Instructions to Bidders" for the Bidder's responsibilities for examination of Project site and existing conditions.
2. Document 003126 "Existing Hazardous Material Information" for hazardous materials reports that are made available to bidders.

END OF DOCUMENT 003119

DOCUMENT 003119.A1 - EXISTING CONDITION INFORMATION

1.1 SITE PLAN

A. As prepared by Stephens and Francis, PA of New Bern, North Carolina, the below plan is not to scale and has been annotated to meet the purposes of this project. The given dimensions are approximate.

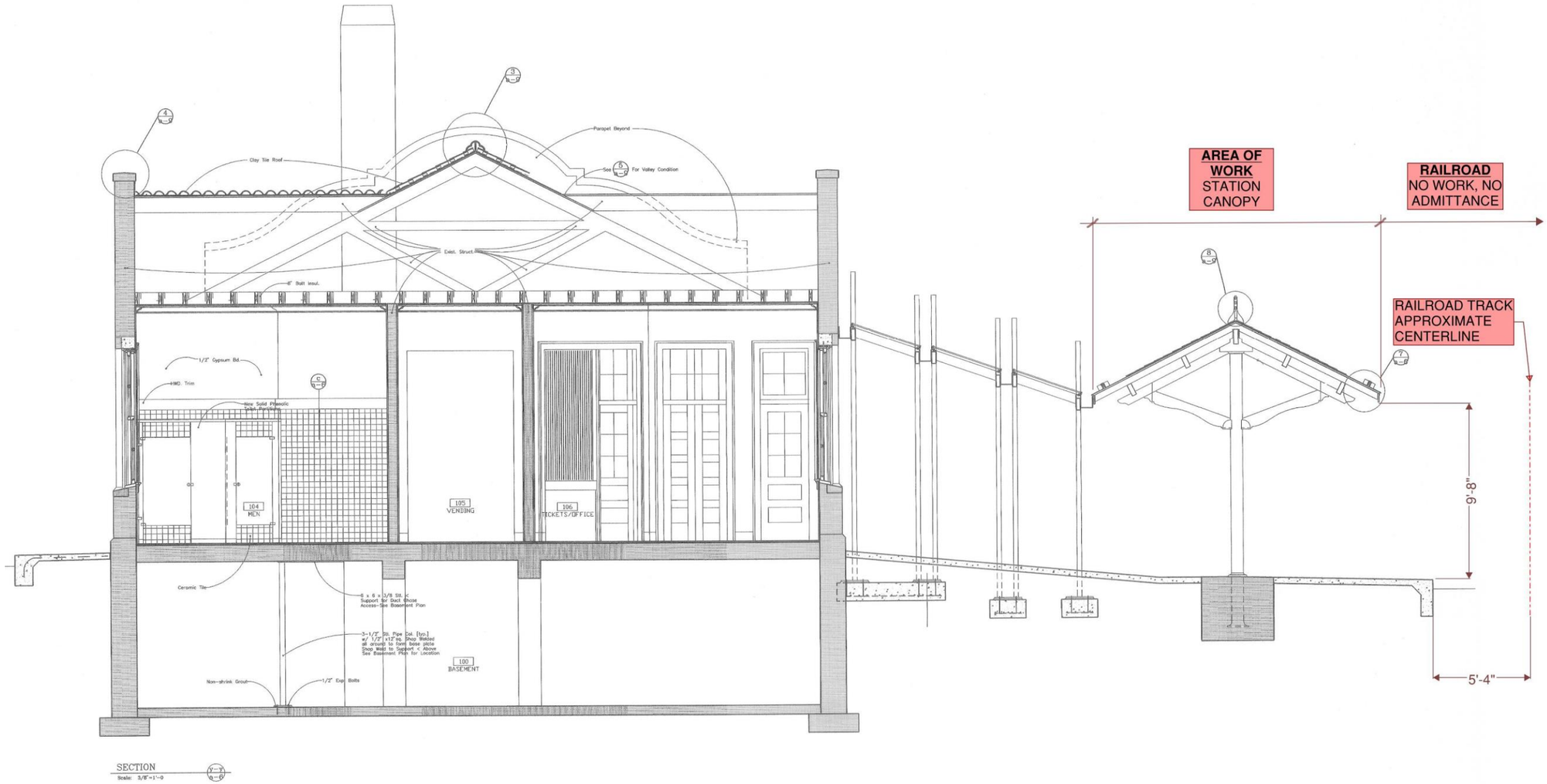


END OF DOCUMENT 003119.A1

DOCUMENT 003119.A2 - EXISTING CONDITION INFORMATION

1.1 BUILDING SECTION

A. As prepared by Stephens and Francis, PA of New Bern, North Carolina, the below section is not to scale and has been annotated to meet the purposes of this project. The given dimensions are approximate.



END OF DOCUMENT 003119.A2

Vicinity Map

Looking North From Nash St

Water Damage At Roof Drain

Peeling Paint and Worn Conditions

Peeling Paint and Roof Damage

Looking South Toward Nash Street

DOCUMENT 003126 - EXISTING HAZARDOUS MATERIAL INFORMATION

1.1 EXISTING HAZARDOUS MATERIAL INFORMATION

A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of Bidders' own investigations. They are made available for Bidders' convenience and information but are not a warranty of existing conditions. This Document and its attachments are not part of the Contract Documents.

B. An existing lead report for this Project, prepared by Dunklee and Dunham, PC, dated March 29, 2017, is available for viewing at the office of Owner.

C. Related Requirements:

1. Document 002113 "Instructions to Bidders" for the Bidder's responsibilities for examination of Project site and existing conditions.
2. Document 003119 "Existing Condition Information" for information about existing conditions that is made available to bidders.
3. Section 024119 "Selective Structure Demolition" for notification requirements if materials suspected of containing hazardous materials are encountered.

END OF DOCUMENT 003126

DOCUMENT 004321 - ALLOWANCE FORM

1.1 BID INFORMATION

A. Bidder:_____.

B. Project Name: Amtrak Canopy Rehabilitation.

C. Project Location: City of Wilson, North Carolina.

D. Owner: City of Wilson.

E. Owner Project Number: 2023-15

F. Architect: WSP North Carolina, P.C.

G. Architect Project Number: 30902091.001.

1.2 BID FORM SUPPLEMENT

A. This form is required to be attached to the Bid Form.

B. The undersigned Bidder certifies that Base Bid submission to which this Bid Supplement is attached includes those allowances described in the Contract Documents and scheduled in Section 012100 "Allowances."

1.3 SUBMISSION OF BID SUPPLEMENT

A. Respectfully submitted this_____day of_____, 2023.

B. Submitted By:_____(Insert name of bidding firm or corporation).

C. Authorized Signature:_____(Handwritten signature).

D. Signed By:_____(Type or print name).

E. Title:_____(Owner/Partner/President/Vice President).

END OF DOCUMENT 004321

DOCUMENT 004322 - UNIT PRICES FORM

1.1 BID INFORMATION

A. Bidder:_____.

B. Project Name: Amtrak Canopy Rehabilitation.

C. Project Location: City of Wilson, North Carolina.

D. Owner: City of Wilson.

E. Owner Project Number: 2013-15

F. Architect: WSP of North Carolina, P.C.

G. Architect Project Number: 30902091.001.

1.2 BID FORM SUPPLEMENT

A. This form is required to be attached to the Bid Form.

B. The undersigned Bidder proposes the amounts below be added to or deducted from the Contract Sum on performance and measurement of the individual items of Work and for adjustment of the quantity given in the Unit-Price Allowance for the actual measurement of individual items of the Work.

C. If the unit price does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."

1.3 UNIT PRICES

A. Unit-Price No. 1: Removal of unsatisfactory wood roof decking and replacement with new, like-kind decking.

1. _____dollars ($_____) per unit.

B. Unit-Price No. 2: Removal of unsatisfactory wood fascia board trim and replacement with new, like-kind boards.

1. _____dollars ($_____) per unit.

C. Unit-Price No. 3: Replacement of unsatisfactory slate roof shingles and replacement with new, like-kind shingles.

1. _____dollars ($_____) per unit.

1.4 SUBMISSION OF BID SUPPLEMENT

A. Respectfully submitted this_____day of_____, 2023.

B. Submitted By:_____(Insert name of bidding firm or corporation).

C. Authorized Signature:_____(Handwritten signature).

D. Signed By:_____(Type or print name).

E. Title:_____(Owner/Partner/President/Vice President).

END OF DOCUMENT 004322

DOCUMENT 004373 - PROPOSED SCHEDULE OF VALUES FORM

1.1 BID FORM SUPPLEMENT

A. A completed Proposed Schedule of Values form is required to be attached to the Bid Form.

1.2 PROPOSED SCHEDULE OF VALUES FORM

A. Proposed Schedule of Values Form: Provide a breakdown of the bid amount, including alternates, in enough detail to facilitate continued evaluation of bid. Coordinate with the Project Manual table of contents. Provide multiple line items for principal material and subcontract amounts in excess of five percent of the Contract Sum.

B. Arrange schedule of values using AIA Document G703-1992.

1. Copies of AIA standard forms may be obtained from the American Institute of Architects; https://www.aiacontracts.org/ library; (800) 942-7732.

END OF DOCUMENT 004373

CITY OF WILSON GENERAL TERMS AND CONDITIONS

1. **DEFAULT**: In case of default by the contractor, the City of Wilson may procure the articles or services from other sources and hold the contractor responsible for any excess cost occasioned thereby.

2. **BID BOND/DEPOSIT:** No proposal shall be considered or accepted by the City of Wilson unless, at the time of its filing, the proposal shall be accompanied by a deposit with the City of Wilson of cash, a cashier's check or a certified check on a bank or trust company insured by the Federal Deposit Insurance Corporation in an amount equal to but not less than five percent (5%) of the proposal. In lieu of making the cash deposit, as provided above, bidders may file a Bid Bond executed by a corporate surety licensed under the laws of North Carolina to execute the contract in accordance with the bid bond. This deposit shall be retained by the City of Wilson if the successful bidder fails to execute the contract within ten (10) days after the award or fails to give satisfactory surety as required. Bid bond shall be enclosed in a separate sealed envelope with "Bid Bond" printed on the envelope.

3. **PERFORMANCE AND PAYMENT BONDS:** Performance and Payment Bonds, issued in accordance with Article 3 of Chapter 44A of the General Statutes, each having a penal sum in the full amount of the contract sum, will be required on such contract(s) as may be awarded. This will be required of contractor after award is made.

4. **GOVERNMENTAL RESTRICTIONS**: In the event any Governmental restrictions are imposed which necessitate alternation of the material, quality, workmanship or performance of the items prior to delivery, it shall be the responsibility of the contractor to notify, in writing, the issuing purchasing office at once, indicating the specific regulation, which required such alternations. The City of Wilson reserves the right to accept any such alternations, including any price adjustments occasioned thereby, or to cancel the contract.

5. **AVAILABILITY OF FUNDS:** Any and all payments to the contractor are dependent upon and subject to the availability of funds to the City for the purpose set forth in this agreement.

6. **TAXES**: Any applicable taxes shall be invoiced as a separate item. The Contractor shall report sales tax according to the City(s)procedure for reporting of North Carolina Sales Tax. The City is not exempt from local or North Carolina sales tax.

7. **SITUS AND GOVERNING LAWS:** This Contract is made under and shall be governed and construed in accordance with the laws of the State of North Carolina, without regard to its conflict of laws rules, and within which state all matters, whether sounding in Contract or tort or otherwise, relating to its validity, construction, interpretation and enforcement shall be determined.

8. **PAYMENT TERMS:** Payment terms are Net not later than 30 days after receipt of a correct invoice or acceptance of goods, whichever is later. Invoices are preferred by the City to be sent by e-mail to cowaccts@wilsonnc.org

9. **NON-DISCRIMINATION:** The Vendor will take necessary action to comply with all Federal and State requirements concerning fair employment and employment of people with disabilities, and concerning the treatment of all employees without regard to discrimination on the basis of any prohibited grounds as defined by Federal and State law.

10. **CONDITION AND PACKAGING:** Unless otherwise provided by special terms and conditions or specifications, it is understood and agreed that any item offered or shipped has not been sold or used for any purpose and shall be in first class condition. All containers/packaging shall be suitable for handling, storage or shipment.

11. **INTELLECTUAL PROPERTY WARRANTY AND INDEMNITY**: Vendor shall hold and save the City, its officers, agents and employees, harmless from liability of any kind, including costs and expenses, resulting from infringement of the rights of any third party in any copyrighted material, patented or patent-pending invention, article, device or appliance delivered in connection with The Contract.

12. **TERMINATION FOR CONVENIENCE:** If this contract contemplates deliveries or performance over a period of time, the City may terminate this contract at any time by providing 60 days' notice in writing from the City to the Vendor. In that event, any or all finished or unfinished deliverables prepared by the Vendor under this contract shall, at the option of the City, become its property. If the contract is terminated by the City as provided in this section, the City shall pay for those items for which such option is exercised, less any payment or compensation previously made.

13. **ADVERTISING:** Vendor agrees not to use the existence of The Contract or the name of the City as part of any commercial advertising or marketing of products or Services. A Vendor may inquire whether the City is willing to act as a reference by providing factual information directly to other prospective customers.

14. **ACCESS TO PERSONS AND RECORDS**: An independent auditor shall have access to persons and records as a result of all contracts or grants entered into by the City of Wilson in accordance with General Statute 147-64.7.

15. **ASSIGNMENT:** No assignment of the Vendor's obligations nor the Vendor's right to receive payment hereunder shall be permitted. However, upon written request approved by the issuing purchasing authority and solely as a convenience to the Vendor, the City may:

    a) Forward the Contractor's payment check directly to any person or entity designated by the Contractor, and

    b) Include any person or entity designated by Vendor as a joint payee on the Contractor's payment check. In no event shall such approval and action obligate the City to anyone other than the contractor and the contractor shall remain responsible for fulfillment of all Contract obligations.

16. **INSURANCE: ***A copy of Contractors Insurance Certificate is required to be submitted upon award.*

    COVERAGE - During the term of the Contract, the Vendor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the Contract. As a minimum, the Vendor shall provide and maintain the following coverage and limits:

    a) **Worker's Compensation** - The Vendor shall provide and maintain Worker's Compensation Insurance, as required by the laws of North Carolina, as well as employer's liability coverage with minimum limits of $500,000.00, covering all of Vendor's employees who are engaged in any work under the Contract in North Carolina. If any work is sub-contracted, the Vendor shall require the sub-Contractor to provide the same coverage for any of his employees engaged in any work under the Contract within the State.

    b) **Commercial General Liability** - General Liability Coverage on a Comprehensive Broad Form on an occurrence basis in the minimum amount of $1,000,000.00 Combined Single Limit. Defense cost shall be in excess of the limit of liability.

    c) **Automobile** - Automobile Liability Insurance, to include liability coverage, covering all owned, hired and non-owned vehicles, used within North Carolina in connection with the Contract. The minimum combined single limit shall be $250,000.00 bodily injury and property damage; $250,000.00 uninsured/under insured motorist; and $2,500.00 medical payment.

    REQUIREMENTS - Providing and maintaining adequate insurance coverage is a material obligation of the Vendor and is of the essence of The Contract. All such insurance shall meet all laws of the State of North Carolina. Such insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized by the Commissioner of Insurance to do business in North Carolina. The Vendor shall at all times comply with the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing North Carolina laws or The Contract. The limits of coverage under each insurance policy maintained by

the Vendor shall not be interpreted as limiting the Vendor's liability and obligations under the Contract.

17. **GENERAL INDEMNITY:** The Vendor shall hold and save the City, its officers, agents, and employees, harmless from liability of any kind, including all claims and losses accruing or resulting to any other person, firm, or corporation furnishing or supplying work, Services, materials, or supplies in connection with the performance of The Contract, and from any and all claims and losses accruing or resulting to any person, firm, or corporation that may be injured or damaged by the Vendor in the performance of The Contract and that are attributable to the negligence or intentionally tortious acts of the Vendor provided that the Vendor is notified in writing within 30 days from the date that the City has knowledge of such claims. The Vendor represents and warrants that it shall make no claim of any kind or nature against the City's agents who are involved in the delivery or processing of Vendor deliverables or Services to the City. The representation and warranty in the preceding sentence shall survive the termination or expiration of The Contract.

18. **CONFIDENTIALITY:** Any City information, data, instruments, documents, studies or reports given to or prepared or assembled by or provided to the Vendor under The Contract shall be kept as confidential, used only for the purpose(s) required to perform The Contract and not divulged or made available to any individual or organization without the prior written approval of the City.

19. **COMPLIANCE WITH LAWS:** Vendor shall comply with all laws, ordinances, codes, rules, regulations, and licensing requirements that are applicable to the conduct of its business and its performance in accordance with The Contract, including those of federal, state, and local agencies having jurisdiction and/or authority.

20. **ENTIRE AGREEMENT:** This document and any others incorporated specifically by reference represent the entire agreement between the parties and supersede all prior oral or written statements or agreements. This document, any addenda hereto, and the Vendor's proposal are incorporated herein by reference as though set forth verbatim. All promises, requirements, terms, conditions, provisions, representations, guarantees, and warranties contained herein shall survive the contract expiration or termination date unless specifically provided otherwise herein, or unless superseded by applicable Federal or State statutes of limitation.

21. **AMENDMENTS:** This Contract may be amended only by a written amendment duly executed by the City and the Vendor.

22. **FORCE MAJEURE:** Neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations as a result of events beyond its reasonable control, including without limitation, fire, power failures, any act of war, hostile foreign action, nuclear explosion, riot, strikes or failures or refusals to perform under subcontracts, civil insurrection, earthquake, hurricane, tornado, or other catastrophic natural event or act of God.

23. **SOVEREIGN IMMUNITY:** Notwithstanding any other term or provision in The Contract, nothing herein is intended nor shall be interpreted as waiving any claim or defense based on the principle of sovereign immunity or other state or federal constitutional provision or principle that otherwise would be available to the City under applicable law.

24. **E-VERIFY**: Contractor understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work of authorization of newly hired employees pursuant to federal law in accordance with NCGS 64-25 et seq. Contractor is aware of and in compliance with the requirements of E-Verify and Article 2 of Chapter 64 of the North Carolina General Statutes. To the best of Contractor's knowledge, any subcontractors employed by it as a part of this contract are in compliance with the

requirements of E-Verify and Article 2 of Chapter 64 of the North Carolina General Statue.

25. **IRAN DIVESTMENT ACT CERTIFICATION**: Contractor certifies that, as of the date listed (2017), it is not on the Final Divestment List as created by the State Treasurer pursuant to N.C.G.S. Chapter 147 Article 6E. In compliance with the requirements of the Iran Divestment Act and N.C.G.S. Chapter 147 Article 6E, Contractor shall not utilize in the performance of the contract any subcontractor that is identified on the Final Divestment List.

26. **EVALUATION OF BID:** All qualified proposals/bids will be evaluated and award made to the firm(s) whose proposal/bid is deemed to be in the best interest of the City of Wilson, all factors considered. The City of Wilson reserves the right to reject any and all offers if determined in its best interest.

27. **BID/PROPOSAL PUBLIC RECORD:** All proposals/bids received become the property of the City of Wilson and information included therein or attached thereto shall become public record upon their delivery to the city. Submission of a bid/proposal in response to a request constitutes acceptance of all terms and conditions and requirements contained in the request.

28. **RECOMMENDATION OF AWARD:** The recommendation of award by city council represents a preliminary determination and not a legally binding acceptance of the bid or proposal until the city has executed a written agreement in a form agreeable by an authorized city official.

29. **COST FOR PROPOSAL PREPARATION:** Any costs incurred by Vendor in preparing or submitting offers are the Vendor's sole responsibility; the City will not reimburse any Vendor for any costs incurred or associated with the preparation of proposals.

30. **INSPECTION AT VENDOR'S SITE:** The City reserves the right to inspect, at a reasonable time, the equipment, item, plant or other facilities of a prospective Vendor prior to Contract award, and during the Contract term as necessary for the City's determination that such equipment, item, plant or other facilities conform with the specifications/requirements and are adequate and suitable for the proper and effective performance of the Contract.

31. **PRICE ADJUSTMENTS:** A requested price increase may only become effective after approval of the Purchasing Manager in writing. Price increases will need to have sufficient justification as to the reason why the increase is being requested. The City will need 30 days written notice before price increases can become effective, failure to notify the City of a price increase will result in payment of invoice at prior written contracted/agreed upon pricing until the conditions are met. A price decrease will only need to be communicated to the Purchasing Manager for documentation purposes.

32. **LIQUIDATED DAMAGES:** Liquidated damages, if stated in the Contract Documents, is an amount reasonably estimated in advance to cover the losses incurred by the Owner by reason of failure on the Contractor to complete the work within the specified time of completion.

33. **VENDOR REGISTRATION:** All vendors (new, current or potential) must register with our Vendor Registration system through Vendor Registry at the following link.
https://vrapp.vendorregistry.com/Vendor/Register/Index/city-of-wilson-nc-vendor-registration

CONTRACT TIME & LIQUIDATED DAMAGE

The date of availability for this contract is upon notification by the Public Works Director. A notice to proceed will be issued after all required documentation is received. The completion date of this contract will be 180 days after the notice to proceed is issued.

Liquidated damages for this contract are Five Hundred Dollars ($500.00) per calendar day.

PROSECUTION OF WORK

The Contractor will be required to prosecute the work in a continuous and uninterrupted manner from the time he begins the work until completion and final acceptance of the project.

The Contractor will not be permitted to suspend his operation except of reasons beyond his control or except where the Engineer has authorized a suspension of the Contractor's operation in writing.

In the event that the Contractor's operations are suspended in violation of the above provisions, the sum of Five Hundred Dollars ($500.00) will be charged the Contractor for each and every calendar day that such suspension takes place. The said amount is hereby agreed upon as liquidated damages due to extra engineering and maintenance costs and due to increased public hazard resulting from a suspension of work.

Liquidated damages chargeable due to suspension of the work will be additional to any liquidated damages that may become chargeable due to complete the work on time.

RETAINAGE

For the term of the initial agreement and any contract extension the contractor agrees to invoice the contracting agency (City of Wilson) in the amount of ten (10) percent less than the agreed amount of the contract. This amount will not be deducted for extra work in the contract and will be refunded without interest, pending the project site review, by the City of Wilson after completion of work. In case of default this amount will be used to obtain these services from another source.

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Contractor's use of site and premises.
4. Coordination with occupants.
5. Work restrictions.
6. Specification and Drawing conventions.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
2. Section 013513.23 “Special Procedures for RR Facilities” for limitation and procedures governing Work adjacent to railroad tracks and properties.

1.2 PROJECT INFORMATION

A. Project Identification: Amtrak Canopy Rehabilitation.

1. Project Location: 401 Nash St East, Wilson, North Carolina 27893.

B. Owner: City of Wilson.

1. Owner's Representative: W.T. Bass IV, Director of Public Works; p: 252-399-2467, e: bbass@wilsonnc.org.

C. Architect: WSP of North Carolina, P.C.

1. Architect's Representative: Morven MacLean, Project Manager.

D. Third Party Stakeholders: Entities with interests in this project include, but are not limited to the following:

1. Host Railroad: CSX.

a. Railroad representative: Michael Liebelt; p: 804-226-7718; e: Michael_Liebelt@csx.com.

2. Amtrak Corporation:

a. Host Railroad Coordinator: Joe Bova; p: 267-702-1924; e: joseph.bova@amtrak.com.

3. North Carolina Department of Natural and Cultural Resources, State Historic Preservation Office (SHPO).

E. Web-Based Project Software: Project software will be used for purposes of managing communication and documents during the construction stage.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. The Work of included in this project includes the rehabilitation of the historic City of Wilson train station canopy and other incidental Work indicated directly or indirectly in the Contract Documents. The approximately 376 foot long by 16-foot-deep canopy consists of a wood- framed, slate-shingle covered, gable roof that is supported via steel pipe columns; it is elevated to approximately ten feet above the train boarding platform surface (as measured to the underside of the eave). All Work shall be in accordance with the State Construction Office (SCO) standards and State Historic Preservation Office (SHPO) standards as applicable. Required activities include, but are not limited to the following.

a. Temporary security/ safety fencing and or barriers: Provide means to protect pedestrians and or vehicular traffic and the adjacent railroad tracks from any and all debris, construction materials, or any such item related to the Work.

b. Selective Demolition: Recycle and or dispose of all materials in accordance with Section 024119 “Selective Demolition.” Refer to Sections 012100 “Allowances” and 012200 “Unit Prices” for items of unknown quantities.

1) Lead Based Paint Abatement: Remove and dispose of all paint from all painted to remain construction including, but not limited to wood roof decking, structural wood and steel framing, and trim surfaces.

a) Prior to commencing abatement activities, obtain two (2) minimum, 2” x 2” color samples of the paint color in the areas or items called out to be removed or as required to enable color matching for the final paint application or each.
b) One sample is to be kept on site, the other sample is to be shipped to the Project Manager, and both samples are to be used for reference in ‘matching’ the existing colors.

2) Roof Shingles: Remove all existing slate shingles- salvaging all non-broken, reusable units for reinstallation as part of this project.
3) Roof underlayments: Remove all underlayment materials and dispose off-site.
4) Gutter Removal: Remove and recycle or otherwise dispose off-site all extents.
5) Downspout Removal: Remove and recycle or otherwise dispose off-site all extents.

6) Wood Fascia Trim: Remove and dispose off-site all rotten or otherwise damaged wood fascia trim board extents.
7) Wood Roof Decking: Remove and dispose off-site all rotten or otherwise damaged tongue and groove wood roof decking.

c. New Construction- matching existing materials to the fullest extent practical. Refer to the applicable sections included with this project for detailed requirements.

1) Wood Roof Decking: Install new tongue and groove roof decking matching the thickness and profile of the existing members as required to replace all removed extents.
2) Roof underlayments: Install new roof underlayment to cover the entire extents of the wood roof decking; include ice and water shield and any required slip sheet for the entire length of each eave.
3) Roof Shingles: Reinstall all salvaged shingles replacing any broken or otherwise unusable units with new, like-kind, units matching in size, surface texture, and color.
4) Wood Fascia Trim: Install new fasciae as required to replace all removed extents and provide a smooth, continuous resultant surface.
5) Metal Flashing and Trim: Install new gutters, flashing, and trim of profiles and materials matching that of the existing. Include eave and rake flashing with integral drip edge as required to direct water away from the canopy. Install new downspouts matching the profile, location, routing and extents of the existing units. Retain the existing copper ridge ornament or and reinstall if removal is required by selective demolition activities.
6) Painting: Paint all exposed steel and wood structural members, wood roof decking, and fasciae in colors and patterns matching those existing.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.4 CONTRACTOR'S USE OF SITE AND PREMISES

A. Restricted Use of Site: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

B. Limits on Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Limits on Use of Site: Confine construction operations to the subject canopy and the immediately adjacent areas below while minimizing disturbance to train passenger and Amtrak personnel activities and the adjacent roadway vehicular and pedestrian traffic to the greatest extent possible.

a. To the greatest extent possible, retain full use of the adjacent platform for train boarding and deboarding activities.

b. Coordinate with the Owner and any and all applicable City agency as required for any required street closure and traffic disruption; contractor is responsible to obtain all required approvals and permits.

2. Driveways, Walkways, and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

3. Railroad Property: Do not enter any railroad host property or track. Coordinate with the Railroad for any required intrusions or disruptions; contractor is responsible to obtain all necessary approvals and permits. Refer to Section 013513.23, "Special Procedures for RR Facilities" and the attached CSX Railroad Public Project Information for additional clarifications and requirements.

C. Condition of Existing, adjacent Station Building: No Work for the enclosed train station is included with this project. Maintain full access to the station building for the owner and the public to the greatest extent possible. Repair any damage caused by construction operations.

D. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.5 COORDINATION WITH OCCUPANTS

A. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as so as to allow partial use of the platform for train boarding and deboarding activities. Maintain existing exits unless otherwise indicated.

1.6 WORK RESTRICTIONS

A. Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, unless otherwise approved by the owner.

C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:

1. Notify Owner not less than two days in advance of proposed utility interruptions.
2. Obtain Owner's written permission before proceeding with utility interruptions.

D. Smoking and Controlled Substance Restrictions: Use of tobacco products , alcoholic beverages, and other controlled substances on Project site is not permitted.

1.7 SPECIFICATION AND DRAWING CONVENTIONS

A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
2. Text Color: Text used in the Specifications, including units of measure, manufacturer and product names, and other text may appear in multiple colors or underlined as part of a hyperlink; no emphasis is implied by text with these characteristics.
3. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.
4. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

B. Division 00 Contracting Requirements: General provisions of the Contract, including General and Supplementary Conditions, apply to all Sections of the Specifications.

C. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

B. Types of allowances include the following:

1. Quantity allowances.
2. Weather Allowances.

C. Related Requirements:

1. Section 012200 "Unit Prices" for procedures for using unit prices, including adjustment of quantity allowances when applicable.

1.2 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.

B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Architect from the designated supplier.

1.3 ACTION SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

1.4 INFORMATIONAL SUBMITTALS

A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 QUANTITY ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes**,** freight**,** and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.

1.6 WEATHER ALLOWANCES

A. Included within the completion period for this project are a specified number of “bad weather” days (see schedule of allowances).

B. The Contractor’s progress schedule shall clearly indicate the bad weather day allowance as an “activity” or “activities”. In the event weather conditions preclude performance of critical work activities for 50% or more of the Contractor’s scheduled workday, that day shall be declared unavailable for work due to weather (a “bad weather” day) and charged against the above allowance. Critical work activities will be determined by review of the Contractor’s current progress schedule.

C. The Contractor’s Representative and the Owner’s Construction Representative shall agree monthly on the number of “bad weather” days to be charged against the allowance. This determination will be documented in writing and be signed by the Contractor and the Construction Representatives. If there is a failure to agree on all or part of the “bad weather” days for a particular month, that disagreement shall be noted on this written document and signed by each party’s representative. Failure of the Contractor’s representative to sign the “bad weather” day documentation after it is presented, with or without the notes of disagreement, shall constitute agreement with the “bad weather” day determination contained in that document.

D. There will be no modification to the time of contract performance due solely to the failure to deplete the “bad weather” day allowance.

E. Once this allowance is depleted, a no cost Contract Change time extension will be executed for “bad weather” days, as defined above, encountered during the remainder of the Project.

1.7 ADJUSTMENT OF ALLOWANCES

A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.

1. Include installation costs in purchase amount only where indicated as part of the allowance.

2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
3. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.

1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

A. Allowance No. 1: Quantity Allowance: Include 1000 sq. Ft. (92.9 sq.m.) of unsatisfactory wood decking removal and disposal off-site and replacement with new material, as specified in Section 061516 “Wood Roof Decking."

1. Coordinate quantity allowance adjustment with unit-price requirements in Section 012200 "Unit Prices."

B. Allowance No. 2: Quantity Allowance: Include 180 lineal feet (54.9 m) of unsatisfactory wood fascia trim board removal and disposal off-site and replacement with new material, as specified in Section 064013“Exterior Architectural Woodwork.”

1. Coordinate quantity allowance adjustment with unit-price requirements in Section 012200 "Unit Prices."

C. Allowance No. 3: Quantity Allowance: Include 676 sq. ft. (62.9 sq. m.) of unsatisfactory slate roof shingle removal and disposal off-site and replacement with new material, including related amount of wood blocking and fasteners, as specified in Section 073126 "Slate Shingles."

1. Coordinate quantity allowance adjustment with unit-price requirements in Section 012200 "Unit Prices."

D. Allowance No. 4: Weather Allowance: Include the sum of five (5) “bad weather days. within the completion period for this project”.

END OF SECTION 012100

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for unit prices.

B. Related Requirements:

1. Section 012100 "Allowances" for procedures for using unit prices to adjust quantity allowances.

1.2 DEFINITIONS

A. Unit price is an amount incorporated into the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price No. 1: Removal and replacement of wood roof decking that is rotten or otherwise unfit for continued use .

1. Description: Unsatisfactory wood decking removal, disposal off-site and replacement with new wood decking, as required, in accordance with Sections 061516 “Wood Roof Decking" and 070150.19 “Preparation for Reroofing.”
2. Measurement: square feet (square meter).
3. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in Section 012100 "Allowances."

B. Unit Price No. 2: Removal and replacement of wood fascia board trim that is rotten or otherwise unfit for continued use.

1. Description: Unsatisfactory wood fascia board trim removal, disposal off-site, and replacement, as required, in accordance with Section 064013“Exterior Architectural Woodwork.”
2. Measurement: Lineal Feet (lineal meter).
3. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in Section 012100 "Allowances."

C. Unit Price No. 3: Replacement of slate shingles that are cracked, broken, or otherwise unfit for continued use.

1. Description: Unsatisfactory slate shingle replacement with new as required, in accordance with Section 073126 “Slate Shingles.”
2. Unit of Measure: square feet (square meter).
3. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in Section 012100 "Allowances."

END OF SECTION 012200

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for substitutions.

B. Related Requirements:

1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.2 DEFINITIONS

A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.3 ACTION SUBMITTALS

A. Substitution Requests: Submit a copy of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
e. Cost information, including a proposal of change, if any, in the Contract Sum.
f. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
g. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.

a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.4 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.5 PROCEDURES

A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

1.6 SUBSTITUTIONS

A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
b. Substitution request is fully documented and properly submitted.
c. Requested substitution will not adversely affect Contractor's construction schedule.
d. Requested substitution is compatible with other portions of the Work.

e. Requested substitution has been coordinated with other portions of the Work.
f. Requested substitution provides specified warranty.
g. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

B. Substitutions for Convenience: Architect will consider requests for substitution if received within 60 days after the Notice of Award. Requests received after that time may be considered or rejected at discretion of Architect.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
b. Requested substitution does not require extensive revisions to the Contract Documents.
c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
d. Substitution request is fully documented and properly submitted.
e. Requested substitution will not adversely affect Contractor's construction schedule.
f. Requested substitution has received necessary approvals of authorities having jurisdiction.
g. Requested substitution is compatible with other portions of the Work.
h. Requested substitution has been coordinated with other portions of the Work.
i. Requested substitution provides specified warranty.
j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.2 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on web-based Project management software.

1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.

1.3 PROPOSAL REQUESTS

A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
2. Within 14 days, when not otherwise specified after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.

    a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    c. Include costs of labor and supervision directly attributable to the change.
    d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.

1.4 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Work Change Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on form provided as part of web-based Project management software.

1.5 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Architect may issue a Construction Change Directive on form provided as part of web-based Project management software. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

1.6 WORK CHANGE DIRECTIVE

A. Work Change Directive: Architect may issue a Work Change Directive on form provided as part of web-based Project management software. Work Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Work Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Work Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Preconstruction photographs.
2. Final completion construction photographs.

B. Related Requirements:

1. Section 017700 "Closeout Procedures" for submitting photographic documentation as Project Record Documents at Project closeout.
2. Section 024119 "Selective Demolition" for photographic documentation before selective demolition operations commence.

1.2 INFORMATIONAL SUBMITTALS

A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.

B. Digital Photographs: Submit image files within three days of taking photographs.

1. Submit photos by uploading to web-based Project management software site. Include copy of key plan indicating each photograph's location and direction.
2. Identification: Provide the following information with each image description in web-based Project management software site:

a. Name of Project.
b. Name and contact information for photographer.
c. Name of Contractor.
d. Date photograph was taken.
e. Description of location, vantage point, and direction.
f. Unique sequential identifier keyed to accompanying key plan.

1.3 QUALITY ASSURANCE

A. Photographer Qualifications: An individual who has been regularly engaged as a professional photographer of construction projects for not less than three years.

1.4 FORMATS AND MEDIA

A. Digital Photographs: Provide color images in JPG format, produced by a digital camera with minimum sensor size of 50 megapixels, and at an image resolution of not less than 4000 by 3000 pixels. Use flash in low light levels or backlit conditions.

B. Digital Images: Submit digital media as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

C. Metadata: Record accurate date and time from camera.

D. File Names: Name media files with date and sequential numbering suffix.

1.5 CONSTRUCTION PHOTOGRAPHS

A. Photographer: Engage a qualified photographer to take construction photographs.

B. General: Take photographs with maximum depth of field and in focus.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.

C. Preconstruction Photographs: Before commencement of the Work, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points.

1. Take a minimum of 20 photographs to show existing conditions adjacent to property before starting the Work.
2. Take a minimum of 20 photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
3. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.

D. Final Completion Construction Photographs: Take a minimum of 20 photographs after date of Substantial Completion for submission as Project Record Documents. will inform photographer of desired vantage points.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Submittal schedule requirements.
2. Administrative and procedural requirements for submittals.

1.2 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."

B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

1.3 SUBMITTAL SCHEDULE

A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1.4 SUBMITTAL FORMATS

A. Submittal Information: Include the following information in each submittal:

1. Project name.
2. Date.
3. Name of Architect.
4. Name of Contractor.
5. Name of firm or entity that prepared submittal.
6. Names of subcontractor, manufacturer, and supplier.
7. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier; and alphanumeric suffix for resubmittals.
8. Category and type of submittal.
9. Submittal purpose and description.

10. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
11. Drawing number and detail references, as appropriate.
12. Indication of full or partial submittal.
13. Location(s) where product is to be installed, as appropriate.
14. Other necessary identification.
15. Remarks.
16. Signature of transmitter.

B. Options: Identify options requiring selection by Architect.

C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

D. Electronic Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

E. Submittals for Utilizing Web-Based Project Management Software: Prepare submittals as PDF files, or other format indicated by Project management software.

1.5 SUBMITTAL PROCEDURES

A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.

C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow 7 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.

2. Resubmittal Review: Allow 5 days for review of each resubmittal.

D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

1.6 SUBMITTAL REQUIREMENTS

A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

    a. Manufacturer's catalog cuts.
    b. Manufacturer's product specifications.
    c. Standard color charts.
    d. Statement of compliance with specified referenced standards.
    e. Testing by recognized testing agency.
    f. Application of testing agency labels and seals.
    g. Notation of coordination requirements.
    h. Availability and delivery time information.

4. For equipment, include the following in addition to the above, as applicable:

    a. Wiring diagrams that show factory-installed wiring.
    b. Printed performance curves.
    c. Operational range diagrams.
    d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.

5. Submit Product Data before Shop Drawings, and before or concurrent with Samples.

B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:

    a. Identification of products.
    b. Schedules.
    c. Compliance with specified standards.
    d. Notation of coordination requirements.

e. Notation of dimensions established by field measurement.
f. Relationship and attachment to adjoining construction clearly indicated.
g. Seal and signature of professional engineer if specified.

C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other materials.

1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
2. Identification: Permanently attach label on unexposed side of Samples that includes the following:

a. Project name and submittal number.
b. Generic description of Sample.
c. Product name and name of manufacturer.
d. Sample source.
e. Number and title of applicable Specification Section.
f. Specification paragraph number and generic name of each item.

3. Web-Based Project Management Software: Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal. Include digital image file illustrating Sample characteristics for record.
4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

a. Number of Samples: Submit one full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.

D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.

F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of

assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.

G. Certificates:

1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
2. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
4. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
5. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

H. Test and Research Reports:

1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for substrate preparation and primers required.
2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

1.7 CONTRACTOR'S REVIEW

A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.

B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp or indication in web-based Project management software. Include name of

reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

1.8 ARCHITECT'S REVIEW

A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required, and return it.

1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action.

B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.

C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.

D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.

E. Architect will return without review submittals received from sources other than Contractor.

F. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300

SECTION 013513.23 - SPECIAL PROCEDURES FOR RAILROAD FACILITIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Work on or near Railroad property.
2. Work on or near existing Railroad tracks.
3. Equipment near or adjacent Railroad tracks.
4. Railroad safety.
5. Construction monitoring.
6. Railroad flagging protection.
7. Repair of damage to Railroad facilities.
8. Storage of building construction materials.
9. Flagging protection for warranty or repair work.

B. Related Sections:

1. Section 011000, “Summary of Work.”
2. Section 015000, "Temporary Facilities and Controls" for the design and construction of temporary protection shields for demolition and construction of bridges and structures overhead and near to tracks.
3. Host Railroad standards per Attachment: “CSX Public Project Information for Construction and Improvement Projects That May Involve the Railroad.”

1.2 DEFINITIONS

A. AREMA: American Railway Engineering and Maintenance-of-Way Association – the North American railroad industry standards group.

B. Controlled Demolition: Removal of an existing structure or subcomponents in a manner that positively prevents any debris or material from falling, impacting, or otherwise affecting CSX employees, equipment or property.

C. Railroad: Controller of Railroad and third-party tracks, facilities, or property referenced in this Section. Railroad may or may not be the Owner. However, General Contractor shall contact the Owner for RFIs, requests, and coordination with Railroad.

D. ROW: Right of Way; Refers to CSX Right-of-Way as well as all CSX property and facilities. This includes all aerial space within the property limits, and any underground facilities.

E. Flagging Occasion: One Flagging Occasion is the use of Flagging or other qualified form of protection for any single shift (and is equivalent to a Flagging Occasion as defined in paragraph 3.7) or portion thereof and on the railroad will include time for a Flagman to travel to and from Flagman’s crew quarters.

F. Flagging Account (or Flagging Allocation): The total number of Flagging Occasions to be furnished without cost to the General Contractor.

G. Requested Flagman: A flagman provided on a short-term, day-to-day basis as needed.

H. Advertised Flagman: A flagman provided on a long-term basis. A position advertised and awarded by the Railroad that is dedicated to a single location for as long as necessary within the total occasions of the Flagging Account. An Advertised Flagman is also known as a Bulletin Flagman.

I. Railroad Coordinator: An individual that works with the General Contractor and the Railroad to coordinate work, outages, and other types of interface.

1.3 SUBMITTALS

A. Request for Construction Right of Entry (CROE): General Contractor must obtain a CROE from the Railroad by providing a request 21 calendar days in advance of General Contractor's intent to commence Work and enter upon Railroad property. This request shall be submitted to the Host RR through Owner's Railroad Coordinator with a copy to Program Manager. Requests for CROEs must be properly supported by complete Site-Specific Work Plans (SSWP), including without limitation a Safety Action Plan, as described further below.

B. Site-Specific Work Plan (SSWP): Submit site-specific work plans including computations and a detailed description of proposed methods for accomplishing the Work, including methods for protecting Railroad traffic, and Safety Action Plan. Multiple SSWPs may be required for each Station as directed by the Project Engineer, dependent upon the work tasks and durations of each work task.

1. Approval of Site-Specific Work Plan shall not relieve General Contractor of complete responsibility for the adequacy and safety of operations.
2. The purpose of the SSWP is to relay general intent of the field work at each station and identify various parameters, including access, ownership, interested parties, schedule, emergency contacts, and safety measures. The approved SSWP is to be on-site at all times during field work.
3. The SSWP shall provide for the safe operation of trains and road traffic, as well as the safety of all personnel including the public at all times. The plan shall provide a description of work and Contractor's plans and means for its accomplishment. This shall include, but not be limited to, breakdown of labor force, type of equipment that will be utilized, material and equipment access to the site, required flagging/ protection personnel, construction methods, arrangements for emergency clearing and restoration of service, safety procedures to be followed, lighting plan for work area, crane/ hoisting safety plan of action if applicable, and sketches defining the configuration of facilities at the end of the Contractor's activities.
4. The SSWP must be updated and resubmitted for approval as necessary, to reflect any changes that may have occurred.

C. Crane/ Hoisting Critical Lift Work Plan: Submit a site-specific work plan for accomplishing hoisting operations, for all lifts as set forth in section 3.2. All Critical Lift Plans must be sealed by a Professional Engineer registered in the state where the hoisting is being performed.

D. Request for Track Occupancy: Request for Track Occupancy must be submitted as set forth in Paragraph 3.1(H).

E. Storage of Building Construction Materials: Storage of building construction materials will be in accordance with section 3.9

F. Flagging Occasion Request: General Contractor shall provide a site specific projection of flagmen requirements in writing at least 28 days in advance of General Contractor's intent to commence Work to allow for sufficient flagmen to be available when required which shall be updated weekly. General Contractor shall maintain and submit a 28-day projection of Flagging Occasions and notify Owner's Railroad Coordinator of changes in requirements or cancellations of flagmen requirements due to changing conditions such as weather or other reasons as early as possible, however such notice shall in no event be provided later than 2 days prior to the scheduled flagger occasion. The General Contractor shall be charged for the Flagger Occasion if such notice is not within the notice period set forth in Paragraph 3.7.

G. Flagging Cancellation Notification shall be provided by the General Contractor in writing at least 2 calendar days in advance of the time the General Contractor intended to use such services. In the event that an Advertised Flagman is being used then cancellation notification shall be provided by the General Contractor in writing at least 10 working days in advance to cancel an Advertised Flagman position.

H. Right of Entry. Obtain construction right of entry (CROE) onto the property, where necessary, and from all necessary parties, where multiple interests are involved. General Contractor shall work with Owner's Host Railroad coordinator for CROEs. Submit Daily executed copies of CROE's. Keep copies of access granted with field crews at time of work.

I. Qualified Drivers: General Contractor will provide a list of qualified drivers as defined herein.

J. On Track Vehicles: General contractor will provide cut-sheets on all high rail vehicles as required herein.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 WORK ON OR NEAR RAILROAD PROPERTY

A. Access and Entry: The General Contractor shall request Railroad entry privileges to property that is under the Railroad control by ownership or easement..

B. Railroad Traffic: During the Work, Railroad traffic shall be maintained at all times with safety and without interruption, except when interruption is approved in advance by an approved Request for Track Occupancy. The date, time, and duration of all such interruptions shall be coordinated through the Owner and or its Host Railroad coordinator. Conduct operations in compliance with all rules, regulations, and requirements of the Railroad (including these Specifications) with respect to any work performed on, over, under, within or adjacent to the Railroad's property. General Contractors shall be responsible for acquainting themselves with

such rules, regulations and requirements. Any violation of Railroads safety rules, regulations, or requirements shall be grounds for the immediate suspension of the Work, and the re-training of all personnel, at the General Contractor's sole expense.

C. Coordination: For all work that will be performed on, above or beneath Railroad property, the coordination and communication between the General Contractor and the Railroad necessary to accomplish the Work will be established and maintained only through the Project Engineer.

D. Protection: The Railroad will furnish or train such qualified Flagmen as may be required to ensure complete protection of train operations and Railroad facilities. The need for this type of service will be determined by the Project Engineer on the basis of Railroad regulations and the General Contractor's requirements. No work shall proceed without proper protection on the site. All expenses incurred in connection with such protection, will occur without cost to the contractor except for those costs associated with delays attributable to the General Contractor, up to the number of occasions identified in the Flagging Account.

E. Maintenance of Safe Conditions: If Railroad tracks or other property of the Railroad are endangered during the work, General Contractor shall immediately take such steps as may be directed by the Railroad to restore safe conditions, and upon failure of General Contractor to immediately carry out such direction, the Railroad may take whatever steps are deemed necessary to restore safe conditions. All costs and expenses of restoring safe conditions, and of repairing any damage to Railroad's trains, tracks, right-of-way or other property caused by the operations of General Contractor, shall be paid by the General Contractor.

F. Work near Electrified Track or Wire: Whenever work is performed in the vicinity of electrified tracks and/ or high voltage wires, particular care must be exercised. Railroad's requirements regarding clearance to be maintained between equipment and tracks and/or energized wires and otherwise regarding work in the vicinity of electrified tracks, must be strictly observed. No workers or equipment will be permitted to work within 15 feet of any power transmission or electrified catenary system without a Class "A" employee of the Railroad being present and prior approval of a work plan. All equipment must be grounded and bonded when it or workers within come within 15 feet of any wire (energized or deenergized). The General Contractor shall furnish all of the necessary material for this bonding and grounding and must supply adequate lengths of grounding cable (4/0 copper with approved clamps). Ground each piece of equipment in the manner as directed by the Class "A" employee of the Railroad. If, in the opinion of the Project Engineer, any hazard is involved, General Contractor must request the protection of a Class "A" employee.

G. Utilities: In addition to the Utility One Call mark out, the General Contractor shall notify the Railroad for a separate dig mark out prior to any excavation. The following points of contact shall be notified for each Railroad and for each Project:

a. Amtrak: Joe Bova (267) 702-1924
b. CSX: Larry Skipper (904) 607-6698

H. Track Fouling:

1. Track fouling is defined as the temporary placement of any material or equipment closer than fifty (50) feet, horizontally from the centerline of the nearest track. The General Contractor shall schedule all work to be performed in such a manner as not to interfere with or delay Railroad operations. Track fouling will be permitted with the specific case-

by-case permission of the Railroad when it will not cause interference with train operations, and proper protection has been provided by the railroad..

2. Track Occupancy is defined as the exclusive use, by the General Contractor, of a track within specified distance and time limits. When occupying a track, the General Contractor's equipment will be allowed within the clearance envelope as shown on Clearance Limitations of Roadway Work Equipment Travel & Working Dimensions on the side adjacent to active tracks. Work that requires a catenary power outage shall be considered track occupancy.
3. The General Contractor's request for Track Occupancy must be presented to the Railroad weekly, at least 28 calendar days in advance of the expected occupancy. The General Contractor shall be permitted a Track Occupancy on only one track at a time. The time includes the time it takes to obtain the use of track and the time it takes to return the track to active service. For safety reasons, each of these two actions takes Railroad personnel a minimum of 30 minutes to perform. No General Contractor work on or near the track is permitted during these beginning and end of shift periods.
4. The General Contractor is advised that the hours and days stated for the track occupancy availability do not apply during the following times of the year:

    a. From November 20th through January 2nd.

3.2 OPERATIONS OVER RAILROAD RIGHT-OF-WAY

A. Crane/Hoisting Work Plan: Prepare a plan for bridge erection; demolition and other crane/hoisting operations over, or within Railroad right-of-way and Limits of Work.. Work Plan shall include the following:

1. Plan view showing location(s) of cranes, operating radii, with delivery and/or disposal locations shown. Provide all necessary dimensions for locating the elements of the plan.
2. Plans and computations showing the weight of the pick, sealed by a Professional Engineer registered in the State where Work is performed.
3. Crane rating sheets, demonstrating that cranes are adequate for 150% of the calculated pick weight (the cranes shall be capable of picking 150% of the load, while maintaining normal, recommended factors of safety). The adequacy of the crane for the proposed pick shall be determined by using the manufacturer's published crane rating chart and not the maximum crane capacity. Crane and boom nomenclature is to be indicated.
4. Calculations demonstrating that slings, shackles, lifting beams, etc. are adequate for 150% of the calculated pick weight.
5. Location plan showing both horizontal and vertical obstructions, indicating that the proposed swing is possible. "Walking" of load using two cranes will not be permitted. Rather, multiple picks and repositioning of the crane may be permitted to get the load to the needed location for the final pick, if necessary.
6. Data sheet listing types and sizes of slings and other connecting equipment. Include copies of catalog cuts for specialized equipment. Detail attachment methods on the plans.
7. A complete procedure, indicating the order of lifts and any repositioning or re-hitching of the crane or cranes.
8. Temporary support of any components or intermediate stages, as may be required.
9. A time schedule of the various stages, as well as a schedule for the entire lifting process.
10. Certification of crane operator(s).
11. Seal of a Professional Engineer registered in the state where hoisting will be performed.

B. Preparation, review and approval of the Crane/ Hoisting Work Plan does not relieve the General Contractor from meeting other Owner requirements for adequate planning and documentation of proposed work procedures within the right-of-way of the Railroad.

C. Current safety rules concerning lift safety shall be adhered to in every respect.

D. Any safety requirements set forth by the Railroad that are more restrictive the safety requirements set forth by the Program Manager govern

3.3 WORK ON OR NEAR EXISTING RAILROAD TRACKS

A. Temporary track crossings are prohibited except where approved by the Railroad.

B. Protection of Train Traffic:

1. Conduct the Work in such a manner as to safeguard train operations, tracks, facilities and property of Owner.
2. Treat all wires and attachments as live unless notified by Authorities with jurisdiction that same have been grounded and de-energized. Give particular attention to the use of hand lines containing metal strands which cannot be permitted when working near or above exposed live wires. Do not use metal ladders or ladders reinforced by metal in a longitudinal direction near exposed wires. When working over wires, tools and materials not in use will be stored in a manner to prevent them from falling. Do not throw tools or materials to or from men working over the wires and men on the ground. Locate and protect all underground facilities.

3.4 EQUIPMENT NEAR OR ADJACENT TO RAILROAD TRACKS

A. All equipment and tools used in the performance of the work shall be in a safe operating condition, certified first-class condition and shall be suitable for the intended use. Select equipment to minimize noise and air pollution. All mobile equipment shall be prominently marked with the Owner's or General Contractor's name and a unique unit or vehicle number.

B. No material or equipment shall be stored or placed in operation that fouls the track except where expressly permitted by the SSWP. Any such storage will be on the condition that Railroad and or Program Manager will not be liable for loss of or damage to such materials or equipment from any cause.

1. Under no circumstances shall any materials be placed or stored within fifty feet (50 feet) from the centerline of an adjacent track, except as approved by the site-specific work plan. To ensure compliance with this requirement, General Contractor must establish a or fifty foot (50 foot) prior to the start of work by either driving stakes, taping off or erecting a temporary fence, or providing an alternate method as approved by the Project Engineer

C. The General Contractor shall provide his own self-propelled equipment for accessing the work site. The equipment must adhere to Railroad’s requirements, such as clearances, exhaust emissions, safety features, and hitch connections. In particular, all such vehicles must satisfy, as a minimum, the clearances as shown at the end of this Section in Clearance Limitations of Roadway Work Equipment Travel & Working Dimensions. All General Contractor-furnished

vehicles shall be subject to inspection, and approval, by Railroad, at the beginning of the Work, and at six (6) month intervals, thereafter. Any trailer connected to a self-propelled vehicle is also subject to Railroad inspection, and approval.

D. The General Contractor shall provide a qualified driver for each piece of self-propelled equipment. The driver must be licensed for the type and weight of vehicle according to state and federal Department of Transportation requirements. The driver must also be proficient, at the Project Engineer's determination, in the operation of the specific vehicle and be safety trained on the specific Railroad. The driver must remain with the vehicle at all times while the vehicle is in operation. General Contractor shall provide a list of the proposed employees who will act as the qualified drivers. General Contractor shall demonstrate in writing that each proposed driver's qualifications meet the aforementioned requirements.

E. Inspections of equipment shall be pre-arranged through the Project Engineer. The equipment shall remain on Railroad property or a suitable compound for the duration of the contract, except for such times it is fueled, maintained, or repaired. If the General Contractor removes the equipment from Railroad property and uses it on work other than described herein, it must be re- inspected before being allowed to resume work on Railroad. If the Project Engineer reasonably believes that the equipment has been involved in any incident (accidental or intentional) that has or possibly has affected the high-rail gear, the Project Engineer will require the equipment to be re-inspected by a qualified mechanic and a written report submitted before the equipment is allowed to resume work on Railroad property.

F. No equipment shall be stored on the Railroad's property without first having obtained permission from the Project Engineer. Any such storage will be on the condition that Railroad will not be liable for loss of or damage to such equipment from any cause.

G. Responsibility for Damages: The Owner, Railroad and or Program Manager assumes no responsibility for any damages sustained or caused by the General Contractor's equipment to public, private, or Railroad property, and approval of any portion of the work shall not act as a waiver of liability for any damage that may result from the General Contractor's operations.

3.5 RAILROAD SAFETY

A. The General Contractor, Sub-General Contractors, and respective employees, who will come within the limits of the Railroad's right-of-way, may be required to attend operating Railroad safety training have relevant personnel obtain and have in their possession project identification and proof of safety training- Coordinate with host railroad coordinator for site specific requirements.

3.6 CONSTRUCTION MONITORING

A. The host railroad may determine on-site presence of the Railroad or its designated consultant necessary. Upon such inclusion into the project, the general contractor shall provide the Railroad with copies of all plan changes and required contractor submissions during the construction phase of the project for its review.

3.7 RAILROAD FLAGGING PROTECTION

A. Flagging Protection may be required in accordance with Amtrak or Railroad's Regulations and Safety Requirements. The Railroad will determine whether flag protection is required and how many flagmen are to be utilized. Coordinate with the host railroad coordinator and provide written documentation as to the agreed upon requirements.

B.

B. Reconciliation of Supplied Services

1. The General Contractor shall meet with the Program Manager's Project Engineer on a monthly basis, or more frequently if deemed necessary by the Program Manager's Project Engineer, to reconcile the usage of Flagmen. The purpose of this meeting shall be to review usage of each type of service and obtain concurrence on the Flagmen used during the previous month and to date as well as to discuss any other Flagmen/Inspector issues. While the General Contractor is free to maintain contemporaneous records on usage of supplied services, in case of a conflict the records of the Program Manager in this regard will control. In the event the General Contractor and the Project Engineer cannot agree on such usage, the determination of the Resident Engineer will prevail.

3.8 REPAIR OF DAMAGE TO RAILROAD FACILITIES

A. Immediately report to the Owner or its Agent any damage to Railroad tracks, electric traction facilities, catenary towers, signal and communications facilities, and existing structures caused by the General Contractor. Owner reserves the right to repair at the expense of the General Contractor.

3.9 STORAGE OF BUILDING CONSTRUCTION MATERIALS

A. The General Contractor shall submit a plan and procedure to allow work and material storage that does not have the potential to foul the track to the Railroad for review and approval. Noncompliance with an approved plan by the General Contractor may result in additional Flagging Occasions be required which will be paid for by the General Contractor.

3.10 FLAGGING PROTECTION FOR WARRANTY OR REPAIR WORK

A. When performing warranty work, General Contractor will meet, at no expense to the Project Manager or Owner, all of the requirements for performing work on the site, including without limitation, obtaining required insurance coverage, permits if required, rights of entry agreements with the Railroad, and current safety training for General Contractor's and Subcontractor's employees performing the warranty work.

END OF SECTION 013513.23

PUBLIC PROJECT INFORMATION

For Construction and Improvement
Projects That May Involve the Railroad

Prepared by the Public Projects Group
CSX Transportation Inc. Jacksonville, FL

Last revised April 2022

To the Communities,

Businesses and Government

Agencies We Serve:

CSX Corporation and its business units provide rail and intermodal service in 23 states, the District of Columbia and two Canadian provinces. CSX operates more than 1,200 trains daily, over 21,000 miles of track, helping North America maintain the strongest and most productive transportation system in the world.

In addition to CSX's vitally important customer service responsibilities, the company wants to be a good neighbor in the communities where we operate. That is why we have prepared this information. We want to make it easier for communities and other project sponsors to work with us when they have construction and improvement projects that may involve CSX rail property.

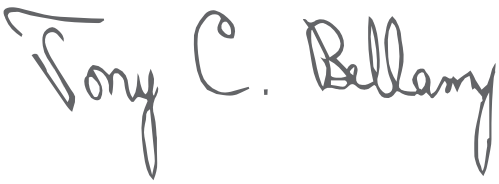
CSX's Public Projects team is involved in a wide variety of projects initiated by government agencies, local businesses and others. Accurate and timely communication of information between CSX and these parties improves planning, relationships and successful completion of projects. The tools in this manual explain important steps project sponsors must follow, including information required in connection with any public project proposal.

CSX places the highest priority on safety – for its employees and for the public. Because CSX is a business and its shareholders ultimately own its rail system, the company must also give careful consideration to anything that could adversely affect customer service, compensation for use of railroad property, and risk to railroad operation.

The Project Managers –

Public Projects Managers are the initial contact for CSX and are assigned territories by state. Please contact them directly about public projects using the information provided. General Engineering Consultants (GEC) provide additional engineering services to assist CSX in managing public projects.

CSX hopes the information and procedures provided here will make it easier for us to work together.



Tony Bellamy

Director Project Management
Public Projects

CSX

PUBLIC PROJECT INFORMATION

For Construction and Improvement Projects That May Involve the Railroad

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Appendix

Additional information can be obtained by contacting the following:

American Railway Engineering and Maintenance of Way Association, (301) 459-3200, or www.arema.org

U.S. Department of Transportation, Manual of Uniform Traffic Control Devices, http://mutcd.fhwa.dot.gov/

INFORMATION COVERED IN THIS MANUAL

This information is intended to assist communities and other project sponsors to plan and implement construction and improvement projects that may involve the CSX rail property.

Examples of such projects include:

Highway-Rail Grade Crossings:

Closure, removal, installation and alterations of public highway-rail grade crossings. CSX Real Estate department manages private crossings.

Bridges Over CSX:

Construction, reconstruction, rehabilitation, repair, removal, and maintenance of bridges over the railroad by outside parties.

Bridges Carrying CSX:

Construction, reconstruction, rehabilitation, repair, removal, and maintenance of bridges carrying CSX over highways and other public properties initiated by outside parties.

Parallel Roads/Facilities:

Construction, reconstruction, modification, removal, and maintenance of parallel roads or other public facilities affecting CSX property or operations.

U.S. Army Corps of Engineers Projects:

Any project undertaken by the Corps of Engineers that involves CSX property or operations.

Entry Onto CSX Property:

Temporary rights of entry onto CSX property, easements, utility installation and bridge inspections.

Other Projects Involving CSX Rail Corridors:

Publicly sponsored projects involving or altering CSX facilities or its property. These projects may be on, above, adjacent to, or otherwise have the potential to impact CSX property.

Important notes:

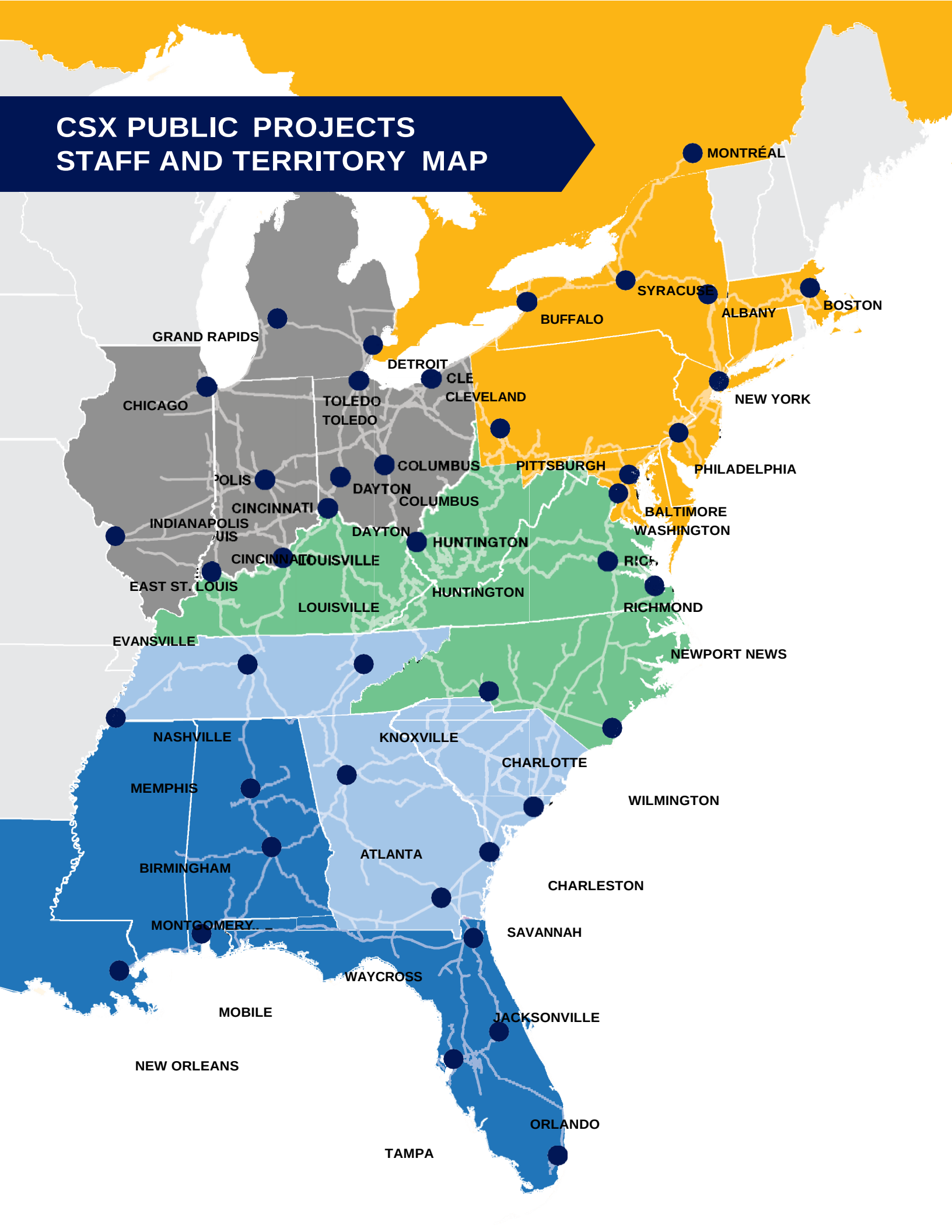
The information herein is intended to be a tool only and all statements in this manual are intended to be for broad use. This manual cannot be taken as authority to construct. Specific projects will be subject to analysis of all factors leading to formal agreements between all parties. The purpose of review by CSX is solely to ensure compliance with the minimum standards of CSX, and not for any other purpose.

The guidelines and requirements herein are provided for reference only and are subject to revision without notice. All new projects shall be designed in accordance with the most current policies, requirements, and standards of CSX.

Any items affecting railroad property not covered in this manual shall be subject to CSX's prior review and approval.

The safety of CSX employees and the general public is of paramount importance to CSX.

CSX PUBLIC PROJECTS STAFF AND TERRITORY MAP



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CSX

ADDITIONAL CSX RESOURCES AND CONTACTS

Many areas of community interest are outside the scope of this manual. The following is a list of contacts within CSX that may be helpful on other community matters:

- **Emergencies:** Emergencies and suspicious situations should be reported immediately to the CSX Public Safety Coordination Center (800) 232-0144.

- **Corporate Communications and Public Affairs:** News media information, public affairs, state and community relations. Contact: (904) 366-2949.

- **Industrial Development:** New industry site locations, track proposals. Contact: Director Technical Programs, Regional Development (904) 359-1617.

- **CSX Real Estate:** Non-Construction and Environmental right-of-entry, wire line and pipeline crossings, private crossings, compliance with codes relating to right-of-way conditions. Contact: https://www.csx.com/index.cfm/customers/value-added-services/property-real-estate/permitting-utility-wireless-infrastructure-installations-and-rights-of-entry/

- **Quiet Zones**:
  Contact: crossingrequests@csx.com

- **Railroad Track and Signal Maintenance:** Non-emergency track maintenance, drainage maintenance, maintenance of highway-rail grade crossings surfaces and warning systems. Contact: TellCSX@csx.com

- **Real Estate Lease or Purchase:** Contact: https://www.csx.com/index.cfm/customers/value-added-services/ property-real-estate/

- **CSX Real Estate Easements for Public Improvement Projects:** If no property rights are in place for the affected CSX property, those rights will need to be established thru CSX Real Estate prior to letting of the public project into construction.
  Contact: Public_ProjectsRPI@csx.com

- **Structures and Bridges:** Maintenance of bridges that are CSXT's responsibility. Contact: Assistant Chief Engineer - Structures (904) 359-1104.

- **Passenger Operations:** Amtrak, passenger train proposals, commuter train proposals, light rail corridors. Contact: Director Passenger Services Strategy (904) 359-1099.

- **Rails to Trails:** Conversion of unused rail lines to trails. Contact: https://www.csx.com/index.cfm/customers/value-added-services/property-real-estate/

- **Non Emergency Issues:**
  Contact: tellcsx@csx.com

I. Definitions

1. Agency – The project sponsor (i.e., State DOT, Local Agencies, Private Developer, etc.)

2. AREMA – American Railway Engineering and Maintenance-of-Way Association – the North American railroad industry standards group. The use of this term shall be in specific reference to the AREMA Manual for Railway Engineering.

3. Construction Submission – The Agency or it's representative shall submit 1 hard copy set and 1 electronic set of plans, supporting calculations, and detailed means and methods procedures for the specific proposed activity. All plans, specifications, and supporting calculations shall be signed/sealed by a Professional Engineer as defined below.

4. Controlled Demolition – Removal of an existing structure or subcomponents in a manner that positively prevents any debris or material from falling, impacting, or otherwise affecting CSX employees, equipment or property. Provisions shall be made to ensure that there is no impairment of railroad operations or CSX's ability to access its property at all times.

5. Contractor – The Agency's representative retained to perform the project work.

6. Engineer – CSX Engineering Representative or a GEC authorized to act on the behalf of CSX.

7. Field Construction Inspector (FCI): CSX may elect to use a contracted construction inspector in lieu of, or in addition to, a CSX employee flagman.

8. Flagman – A qualified CSX employee with the sole responsibility to direct or restrict movement of trains, at or through a specific location, to provide protection for workers.

9. GEC – General Engineering Consultant who has been authorized to act on the behalf of CSX. GECs perform preliminary engineering, construction inspection, and monitoring under the direction of the CSX Engineering personnel. GEC personnel also perform day-to-day administration of certain types of projects.

10. Horizontal Clearance – Distance measured perpendicularly from centerline of any track to the nearest obstruction at any elevation between TOR and the maximum vertical clearance of the track.

11. Professional Engineer – An engineer who is licensed in State or Commonwealth in which the project is to occur. All plans, specifications, and supporting calculations shall be prepared by the Professional Engineer and shall bear their seal and signature.

12. Potential to Encroach – Work having the possibility of impacting CSX property or operations; defined as one or more of the following:

    a. Any activity where access onto CSX property is required.

    b. Any activity where work is being performed on CSX ROW.

    c. Any excavation work adjacent to CSX tracks or facilities, within the Theoretical Railroad Live Load Influence Zone, or where the active earth pressure zone extends within the CSX property limits.

    d. The use of any equipment where, if tipped and laid flat in any direction (360 degrees) about its center pin, can encroach within twenty five feet (25'-0") of the nearest track centerline. This is based upon the proposed location of the equipment during use, and may be a function of the equipment boom length. Note that hoisting equipment with the potential to foul must satisfy the 150% factor of safety requirement for lifting capacities.

    e. Any work where the scatter of debris or other materials has the potential to encroach within twenty five feet (25'-0") of the nearest track centerline.

    f. Any work where significant vibration forces may be induced upon the track structure or existing structures located under, over, or adjacent to the track structure.

    g. Any other work which poses the potential to disrupt rail operations, threaten the safety of railroad employees, or otherwise negatively impact railroad property, as determined by CSX.

13. ROW – Right of Way; Refers to CSX Right-of-Way as well as all CSX property and facilities. This includes all aerial space within the property limits, and any underground facilities.

14. Submission Review Period – A minimum of 30 days will be required for the initial review response. Up to an additional 30 days may be required to review any/all subsequent submissions or resubmission.

15. Theoretical Railroad Live Load Influence Zone – A 1 horizontal to 1 vertical theoretical slope line starting at bottom corner of tie.

16. TOR – Top of Rail. This is the base point for clearance measurements. It refers to the crown (top) of the steel rail; the point where train wheels bear on the steel rails. Use the higher of the two rails when track is superelevated.

17. Track Structure – All load bearing elements which support the train. This includes, but is not limited to, the rail, ties, appurtenances, ballast, sub-ballast, embankment, retaining walls, and bridge structures.

18. Vertical Clearance – Distance measured from TOR to the lowest obstruction, within six feet (6'-0") of the track centerline, in either direction.

REQUIREMENTS FOR PRELIMINARY ENGINEERING REVIEW

Overview

Any project proposals that may affect or be near the CSX right-of-way must be evaluated by CSX. To initiate a construction or improvement project, a PE agreement is required to identify the project sponsor, the scope, define the tasks to be accomplished, and specify the payment required. Once the plans for the project are approved by CSX, a construction agreement will be developed.

Purpose

The purpose of PE is to identify issues related to safety, engineering, customer service, operations, legal and regulatory matters, expense, risk and other considerations specific to any proposed project. CSX review of plans is only to determine that the plans, and improvements constructed in accordance with the plans, satisfy CSX's requirements and do not adversely impact or damage CSXT property interests. Plans should be submitted early in project development to ensure that CSX requirements can be incorporated.

Key Points

- Starting CSX Preliminary Engineering (PE) early by providing conceptual plans lowers project costs and shortens the time required for CSX review and approval.
- Using standard agreements lowers costs and saves time.
- If the proposal requires an encroachment within CSXT Right-of-Way, the project sponsor should contact the CSX Real Estate Department when beginning PE.
- If the proposal requires a utility encroachment, the project sponsor should contact CSX Real Estate Department when beginning PE.
- CSX PE Review will not begin until the PE Agreement is fully executed and PE funds are received.

Process Steps To Be Taken

- Notify CSX Public Projects Group of the project by providing location information and conceptual plans.
- Complete and Submit New Project Initiation Form.
- Provide CSX authorization to incur preliminary engineering costs.
- Review and complete a standard PE agreement and provide payment for expenses as specified in the agreement.
- Provide project information; attend meetings (as needed), review site with CSX or GEC personnel.
- Submit initial plans to CSX or designated GEC for review.
- Respond to CSX or designated GEC comments and adjust design if necessary.
- Coordinate with CSX Real Estate as required
- Submit final design for CSX or designated GEC review.
- CSX will perform final review to ensure compliance with railroad requirements.
- CSX will estimate the cost of the work to be done by CSX, including flagging.
- If CSX takes no exceptions to the design plans (or once all CSX concerns have been addressed), CSX will prepare a standard construction agreement for execution.

Costs and Expenses

These matters are covered in more detail in the section that follows (“Payment of CSX’s Costs and Expenses”). For the reasons described in that section, CSX requires advance payment for its costs and expenses of reviewing and handling the PE. All expenses of the party seeking the review will be borne by that party, including expenses for CSX employees or GEC personnel attending meetings, reviewing plans, preparing correspondence and other activities to support the review of the project.

Timing

It is in the interest of all parties to complete the PE review before commitments are made or construction steps begin. CSX will work to be responsive, with timing depending upon the complexity of the project. CSX and its GEC will work with the project sponsor to schedule PE and construction to meet project schedule objectives whenever possible, considering available resources.

Property Rights

Construction and improvement projects involving CSX property will require a conveyance of property rights,
FOR EXAMPLE:

- Highway-Rail Grade Crossings
- Bridges Over CSX
- Parallel Roads/Facilities
- Road/Bridge Widening Projects

Before CSXT will issue a Notice to Proceed for construction within their property, formal property rights will need to be verified through the CSXT Real Estate Department. CSXT Real Estate will confirm the real estate requirements for each project.

If an easement is necessary, the below listed information* will be required for review and processing:

- Cover letter – identifies the type(s) of easement(s) and why each easement area is needed. This information will assist in ensuring the correct easement(s) is/are referenced in the deed. The Construction Easement request, if temporary, includes the length of time this type of easement will be needed. The letter also includes contact information for the project contact. An email address for the project contact is to be included.
- Offer (Good Faith Offer or Fair Market Value (FMV)
- Metes and bounds description for each easement area is required to identify the easement boundaries to be included within the deed. CSXT will not be able to commence review without the metes and bounds description.
- Right-of-Way Detail Sheet calling out the easement area(s)

**Any missing information will result in a delay in processing*

Standard Documents and Estimates

CSX executes hundreds of agreements each year for preliminary engineering and construction of projects. CSX has developed standard agreements which can be executed by CSX without additional legal review. Non-standard agreements or modifications to the CSX standard agreement terms will require additional legal review and may increase project duration and/or cost. Sample standard agreement documents are available in the Appendix. CSX will begin each project with a PE estimate and PE agreement. After execution of the PE agreement and receipt of the PE deposit, CSX will complete the PE phase of the project. At the end of the PE phase, CSX will provide the project sponsor a construction estimate for all required CSX costs during the construction phase of the project. CSX provided estimates are valid for one year from date of approval noted on the estimate form.

PAYMENT OF CSX'S COSTS AND EXPENSES

Overview

The types of projects being addressed in this manual usually do not directly benefit and, in some cases, create risk to, and hurdles for, CSX's core business of providing transportation service vital to its customers and the North American economy. For these reasons, CSX seeks payment for its costs and expenses incurred in connection with project review or construction.

Examples of Costs and Expenses

Agency shall reimburse CSX for all costs and expenses incurred by CSX in connection with the Project, including, without limitation:

- All out of pocket expenses
- Travel and lodging expenses
- Telephone, facsimile, and mailing expenses
- Costs for equipment, tools, materials and supplies
- Sums paid to CSX's consultants and subcontractors
- CSX labor in connection with the Project (included but not limited to flagging), together with CSX labor overhead percentages established by CSX pursuant to applicable law
- For estimating purposes only, typical flagging costs are $1,300 per day

Key Points

- Preliminary Engineering (PE) costs are paid in advance.
- CSX construction expenses will be estimated during PE and the estimate will be incorporated into the construction agreement. Advance payment is required to cover these expenses prior to the start of project construction.
- If CSX anticipates that actual expenses will exceed the advance payment, additional payment will be required. Project work may be stopped until additional payment is received.
- If CSX's actual expenses are less than the sum of any deposits the difference will be refunded after final cost accounting.
- All funding sources must be identified up front, and any time funding sources change, CSX must be immediately informed. CSX requires the completion of a "New Project Initiation Form" at the beginning of each project. By completion of this form, the project sponsor agrees to reimburse CSX for project related costs. Each time project funding changes, a new "New Project Initiation Form" must be completed.
- All costs associated with any real estate or utility transaction will be handled separately with the CSX Real Estate Department.

INSURANCE REQUIREMENTS FOR PUBLIC PROJECTS

I. Insurance Policies:

Agency and Contractor, if and to the extent that either is performing work on or about CSX's property, shall procure and maintain the following insurance policies:

1. Commercial General Liability coverage at their sole cost and expense with limits of not less than $5,000,000 in combined single limits for bodily injury and/or property damage per occurrence, and such policies shall name CSX as an additional named insured. The policy shall include endorsement ISO CG 24 17 evidencing that coverage is provided for work within 50 feet of a railroad. If such endorsement is not included, railroad protective liability insurance must be provided as described in item 4 below.

2. Statutory Worker's Compensation and Employers Liability Insurance with limits of not less than $1,000,000, which insurance must contain a waiver of subrogation against CSX and its affiliates (if permitted by state law).

3. Commercial automobile liability insurance with limits of not less than $1,000,000 combined single limit for bodily injury and/or property damage per occurrence, and such policies shall name CSX as an additional named insured. The policy shall include endorsement ISO CA 20 70 evidencing that coverage is provided for work within 50 feet of a railroad. If such endorsement is not included, railroad protective liability insurance must be provided as described in item 4 below.

4. Railroad protective liability insurance with limits of not less than $5,000,000 combined single limit for bodily injury and/or property damage per occurrence and an aggregate annual limit of $10,000,000, which insurance shall satisfy the following additional requirements:

   a. The Railroad Protective Insurance Policy must be on the ISO/RIMA Form of Railroad Protective Insurance - Insurance Services Office (ISO) Form CG 00 35.

   b. CSX Transportation must be the named insured on the Railroad Protective Insurance Policy.

   c. Name and Address of Contractor and Agency must appear on the Declarations page.

   d. Description of operations must appear on the Declarations page and must match the Project description.

   e. Authorized endorsements must include the Pollution Exclusion Amendment - CG 28 31, unless using form CG 00 35 version 96 and later.

   f. Authorized endorsements may include:

      (i). Broad Form Nuclear Exclusion - IL 00 21

      (ii). 30-day Advance Notice of Non-renewal or cancellation

      (iii). Required State Cancellation Endorsement

      (iv). Quick Reference or Index - CL/IL 240

g. Authorized endorsements may not include:

(i). A Pollution Exclusion Endorsement except CG 28 31

(ii). A Punitive or Exemplary Damages Exclusion

(iii). A "Common Policy Conditions" Endorsement

(iv). Any endorsement that is not named in Section 4 (e) or (f) above.

(v). Policies that contain any type of deductible

5. All insurance companies must be A. M. Best rated A- and Class VII or better.

6. The CSX OP number or CSX contract number, as applicable, must appear on each Declarations page and/or certificates of insurance.

7. Such additional or different insurance as CSX may require.

II. Additional Terms:

1. Contractor must submit the original Railroad Protective Liability policy, Certificates of Insurance and all notices and correspondence regarding the insurance policies to:

   Insurance Department
   CSX Transportation, Inc.
   500 Water Street, C-907
   Jacksonville, FL 32202

   insurancedocuments@csx.com

2. Neither Agency nor Contractor may begin work on the Project until it has received CSX's written approval of the required insurance.

ENTRY ONTO CSX PROPERTY

Overview

To maintain efficient customer service and to ensure the safety of CSX employees and of those parties requesting access to CSX property, CSX requires all parties accessing its right-of-way for investigative activities or for the performance of construction work to have a written agreement with CSX fully detailing each party's responsibilities. Activities by others with the potential to affect CSX's property, operations, and or personnel without actually entering CSX property must also be reviewed with CSX and appropriate arrangements and agreements completed.

The process by which an appropriate agreement covering entry and/or the other necessary conditions or requirements can be developed and implemented is typically dependent upon the scope of the activities proposed by an outside party or agency. Although the type of agreement may vary, most agreements include insurance and liability provisions, work procedures and conditions and reimbursement provisions relating to payment to CSX for costs it may incur in relation to the entry or work. The following summarizes the various types of CSX agreements and contracts most frequently utilized to accommodate the requested entry and the proposed work activities.

Key Points

Written permission is required for all parties entering CSX property.

- Construction Agreements authorize entry onto CSX property.
- Temporary right-of-entry agreements can also be used for limited purposes.
- CSX Real Estate handles temporary rights of entry for non-construction activities.
- CSX Public Projects handles temporary rights of entry for construction activities.
- All parties must adhere to CSX Safety procedures.
- Appropriate insurance is required.

Entry for Construction Work

Entry for construction work (not exclusively associated with utility work) will require a Construction Agreement or a Temporary Right-of-Entry Agreement, as determined by the magnitude of potential impacts to CSX.

A Construction Agreement will be required for construction work that could impact CSX facilities or operation, such as construction or rehabilitation of a bridge over CSX, roadway construction or other highway improvements, or grading and/or drainage work. Additional agreements may be required for any permanent improvements/encroachments within CSX corridors or property.

Construction work that will not impact CSX facilities or operation may be handled by a Temporary Right-of-Entry Agreement, as determined by CSX Public Projects.

Entry for Non-Construction Work

A Temporary Right-of-Entry agreement is utilized by CSX primarily in situations where outside parties or agencies desire to undertake investigative work such as performing survey work, taking borings, performing bridge inspections or undertaking other activities requiring only access to CSX property and not construction work activities. Different agreements are used for temporary private crossings.

Applications for Temporary Right-of-Entry agreements for investigative and non-construction work activities (including movement of off-highway or oversized loads at grade crossings) within CSX's right-of-way can be obtained by contacting CSX Real Estate at https://www.csx.com/index.cfm/customers/value-added-services/property-real-estate/permitting-utility-wireless-infrastructure-installations-and-rights-of-entry/

Entry For Other Purposes

CSX may use other forms of agreements covering entry by outside parties or agencies depending on work scope or other factors. The process to obtain right of entry for these purposes as listed below may also be initiated through CSX Real Estate at https://www.csx.com/index.cfm/customers/value-added-services/property-real-estate/

- Environmental Right-of-Entry
- Utility Permit/License Agreement for pipeline and wire line construction – both for specifications and applications
- Land Lease applications
- Movement of oversized loads across CSX tracks at private or public highway-rail grade crossings
- Movement of off highway construction equipment across CSX tracks at private or public highway-rail grade crossings.

CONSTRUCTION MONITORING REQUIREMENTS

Overview

To ensure the safety of the public and CSX employees, maintain quality rail service to CSX customers and to protect CSX assets, CSX may require construction monitoring (in addition to flagging protection) of the project. The construction monitoring will be conducted by CSX and its consultants at project expense.

Key Points

- Construction work affecting CSX will be monitored by CSX and its consultants at the project sponsor's expense.
- Construction monitoring is in addition to flagging and other protective services.

General Guidelines

Construction monitoring includes intermittent or continuous on-site presence of CSX or its consultants during construction activities.

- The construction project sponsor, owner, or agency in charge will pay for the cost of construction monitoring. Construction monitoring will be specified, and the estimated cost will be included in the construction agreement for the project.

- Construction monitoring is in addition to railroad-approved flagging.

- Construction monitoring includes CSX review and approval of all plan changes and required contractor submissions during the construction phase of the project.

- The project sponsor is responsible for its safety and the safety of its property, contractors, and employees. CSX, as part of its construction monitoring, will review the work site for activities that could interfere with safe operation of the railroad.

- CSX and its consultants are not responsible for monitoring the general work activities under the direction of the project sponsor for compliance with safety regulation. Any observed unsafe acts or conditions will be reported immediately to the project sponsor or contractor representative.

RAILROAD FLAGGING FOR ACTIVITIES ON OR NEAR CSX PROPERTY AND TRACKS

Overview

In the interest of public safety and the safety of employees and property, CSX will work cooperatively with agencies, consultants, contractors and others who need to access railroad property when work brings them in close proximity to active railroad tracks to determine the appropriate flagging services needed and to make arrangements for those services.

Conditions When CSX Flagging Services Are Required:

- When any entity is working on, near or adjacent to active railroad tracks.
- When an outside party is using railroad property or performing operations that may affect railroad property or facilities. This includes occasions when a party has been given express permission from CSX to enter railroad property or perform such operations under the terms of a Construction agreement, Temporary Right-of-Entry agreement or other appropriate documentation.
- When work off of railroad property has the potential to impact CSX property or operations.
- When off-highway construction equipment is crossing the railroad at a private or public crossing.
- When oversized equipment or highway vehicles are to cross the railroad at a private or public crossing.
- In other instances as determined by CSX.

Key Points

Flagging services are required when projects are within close proximity to active rail lines, as required by federal law.

- Flagging services can only be performed by personnel qualified by CSX.
- Arrangements for flagging services may take up to 90 days to schedule.
- It should be understood that occasions may arise during the life of the project when CSX must temporarily reassign the project Flagman to meet the changing demands of operating its railroad. This can occur without advance warning. CSX will make every effort to coordinate events to minimize scheduling conflicts, but there may be circumstances that will cause temporary inconvenience to the project.

Construction activities shall be planned in such a manner as to minimize the amount of time flagging services are needed.

Qualified Flagging Personnel

CSX flagging services may only be performed by personnel qualified by CSX who are trained in the proper procedures related to rail operations and safety requirements, familiar with rail operations and procedures in a project area and able to communicate directly with CSX dispatching personnel and train crews.

Arrangements for CSX Flagging Services

- CSX will make arrangements for flagging services related to planned work by an outside party under the terms of a temporary right-of-entry agreement, construction agreement, environmental license agreement or other mutually acceptable arrangements.
- Advance notice must be provided to secure CSX flagging services. The level of advance notice may vary from site to site or project to project or if CSX determines, under the provisions of its labor agreements with its union forces, that flagging services can only be provided as a result of the flagging position being bid and awarded to qualified CSX personnel.
- Advance notice must be provided to cancel CSX flagging services. If advance notice to cancel is not provided, the project sponsor will be responsible for paying for the flagging until CSX is notified. Requests to cancel or end flagging should be given at least 3 days in advance.

Responsibility for Costs and Expenses

- All costs and expenses associated with CSX flagging services are the sole responsibility of the agency, consultant or contractor.
- CSX will provide its estimated costs prior to the start of the project work or its assignment of flagging personnel.
- Once flagging personnel are formally assigned by CSX to a specific work location, the period of assignment can only be changed with appropriate advanced arrangements.
- Charges for providing flagging services beyond a normal eight-hour weekday are calculated and billed at an overtime rate.
- For initial planning purposes, typical flagging cost is $1,300 per day.

Examples of Flagging Costs and Expenses

Charges billed by CSX to the agency, consultant or contractor may include, but are not limited to:

- Employee Salary
  - Hourly employee charges are based on the time an employee departs and returns to his or her headquarters location. As such, the charges can be expected to exceed the level actually incurred during the assigned coverage period or while the flagman is present at the specific work location.
  - This period also includes the time required for flagging personnel to perform the required preparations and termination procedures associated with flagging services at a location.
- Overhead Costs
  - These charges are assessed against the hourly employee charges and determined in accordance with standard accounting procedures or as mandated by governmental regulations.
- Employee Expenses or Per Diem Rate
  - This amount is calculated based on an employee's actual expenses or on a per diem rate according to the terms of applicable collective bargaining agreements between CSX and its assigned union flagging employees.
  - The amount includes travel and lodging expenses and the cost for a leased, rented, CSX, or personal vehicle to be used for transportation.
- Administrative, Accounting, and Billing Services
  - This amount is related to the time associated with setting up the agreement, arranging for and supervising the employee, billing and collection of costs, and other expenses associated with CSX providing flagging services.
- Field Construction Inspector (FCI)
  - CSX may elect to use a contracted construction inspector in lieu of, or in addition to, a CSX employee flagman.

HIGHWAY-RAIL GRADE CROSSING SURFACE MAINTENANCE AND REPLACEMENT

Overview

The crossing surface provides a path for highway vehicles to cross railroad tracks. The objective is to provide a safe, smooth, and cost effective crossing for highway and railroad traffic. Highway and railroad maintenance work in the vicinity of highway-rail grade crossings must consider safety concerns for both highway and railroad traffic before, during, and after the time the work is implemented.

Identification of the crossing and location

Each crossing has a unique DOT inventory identification number posted at the crossing. There is often more than one crossing on the same road. The crossing number (such as 123456A) must be used to identify the specific crossing in all communications with the railroad to reduce possible confusion about the specific location.

Key Points

- Report issues with crossing surfaces to TellCSX (TellCSX@csx.com)
- Coordination is required for work near crossings.
- Highways must be closed to vehicular traffic for crossing replacement or maintenance work.
- Agreements with CSX are required for crossing work and work near crossings.
- Crossing surface maintenance and replacement must be performed by CSX.
- Crossing surfaces must meet criteria set by CSX's Engineering Standards.
- For identification purposes, each crossing has a distinct DOT inventory number (such as 123456A) posted at the crossing and the railroad milepost.

When track maintenance necessitates the repair of the crossing, the cost of said repair will be the responsibility of the Agency, per applicable agreements.

Crossing Construction

Railroad track is continuous through the crossing and includes railroad ties, rail and fasteners below the surface of the crossing. The crossing surface for highway traffic can be made of several different materials. Drainage is required for all four quadrants at a crossing.

Crossing Surface Types and Selection

Crossing surface material and construction methods are selected for each crossing based on the type of highway and railroad traffic, past experience and funding available from highway agencies for individual projects.

Standard types of CSX approved crossing surfaces are Concrete or Timber/Asphalt. Projects funded by outside parties may be constructed with other materials if specified by the outside party and approved by CSX. Modular Platform “Tub” type crossings may be considered for use at locations with slow rail operations of 15 MPH or less and high road vehicle count and/or heavy vehicles.

Crossing Maintenance and Replacement

Crossing maintenance and replacement of the track and crossing surface are performed by CSX and may be billable to an outside party or highway authority as specified in an agreement. The responsibility for the maintenance of public crossing approach pavement varies by state and is specified in some individual crossing agreements or orders.

Crossing work requires closing the entire highway-rail grade crossing. Replacement of track components through a crossing requires removal of the crossing surface, replacement of track ballast, and surfacing the track through the crossing prior to replacement of the crossing surface. If the subgrade needs to be improved, the application of a hot mixed asphalt underlayment should be considered. Drainage will be reestablished for all four quadrants. After the crossing surface is replaced, the highway approach paving is completed and then the road is opened to highway traffic. Replacement of the track and crossing surface usually requires that the highway be closed for several days.

Crossing surfaces are also removed and replaced when track maintenance work is performed through a crossing such as rail replacement, tie replacement, and track surfacing (smoothing). Each crossing has the surface removed and replaced after the work has been completed. Crossings are usually closed for several days during this maintenance work.

Requesting Crossing Surface Replacement or Upgrades

Highway agencies seeking replacement of crossing surfaces should contact CSX Public Projects. The request for the work and the recommended surface must be reviewed and approved by CSX. If approved, Public Projects will prepare a standard agreement and include the cost estimate for the project.

ALTERATIONS TO HIGHWAY-RAIL GRADE CROSSING WARNING DEVICES

Overview

The Public Projects Group will process all projects proposing alterations to public highway-rail grade crossing warning systems. Included will be projects for opening new crossings, closing existing crossings, modifying or widening of existing crossings, installing new warning systems, removing and/or relocating existing warning systems and modifying/upgrading existing warning systems.

Identification of the crossing and location

Each crossing has a unique DOT inventory identification number posted at the crossing. There is often more than one crossing on the same road. The number (such as 123456A) must be used to identify the specific crossing in all communications with the railroad to reduce possible confusion about the specific location.

Key Points

- Any alterations to highway-rail grade crossing warning systems must adhere to all applicable laws, regulations and national standards.
- Requests to CSX for new or modified public at-grade crossing warning devices must be initiated by the highway agency.
- Preliminary Engineering agreements are used to define the project scope and prepare design and estimate information for each project.
- The requesting project sponsor will be responsible for advance payment for engineering, design and installation of warning devices.
- The coordination of traffic intersection signals with warning devices will be determined by the highway agency or regulatory agency.
- Construction agreements are used to implement the projects.
- Advanced Preemption timing will be limited to 50 seconds.

Design Considerations

Highway-rail grade crossing warning systems must adhere to all applicable Federal and State standards and regulations, and local policies, laws and ordinances, as well as CSX standards. The highway agency, not CSX, is responsible for determining the level and configuration of warning devices for a public highway-rail grade crossing. In addition, the highway agency or other governmental agency responsible for making warning system and equipment determinations is responsible for selecting appropriate vehicular traffic control signs and/or devices for a specific public highway. Loop Detection Circuitry will not be designed, installed, owned, or maintained by CSX.

Recommended practices and additional information are available in American Railway Engineering and Maintenance of Way Association (AREMA) manuals and the Manual on Uniform Traffic Control Devices (MUTCD)

Engineering, Cost Estimation, Installation

CSX will provide engineering, design, and cost estimates for the installation of highway-rail grade crossing warning devices at the expense of the project sponsor as part of the Preliminary Engineering for a project. Changes to highway-rail grade crossing surfaces may also require engineering and estimating by CSX. Because of labor agreements with CSX's union forces, CSX will install the highway-rail grade crossing warning devices.

Operation of Highway-Rail Grade Crossing Warning Devices

Highway-rail grade crossing warning systems are designed to activate in advance of a train entering the crossing. Train speed changes while approaching the crossing may cause the warning system to activate longer than expected. Trains stopping or making forward and reverse movements near the crossing may cause the warning system to activate and then clear after an appropriate time without a train entering the crossing.

Traffic Light Preemption Interconnection

The highway agency will determine if preemption is required. Preemption of the cycle of traffic signals at highway intersections near highway-rail grade crossings requires careful review by highway traffic engineers to determine the appropriate timing and sequence for both the traffic signal and the highway-rail grade crossing warning system. Preemption for the traffic signal may be simultaneous with, or in advance of, the warning system activation. The appropriate sequence and timing shall be provided by the highway agency and distributed to CSX to facilitate CSX's signal design. CSX will furnish one preemption interconnection circuit of a normally closed contact that is designed to open upon the approach or presence of a train and will terminate the closed preemption interconnection circuit in a common cable junction box to be used for the interconnection of the traffic signals and the grade crossing warning devices.

Advanced Preemption Timing

For grade crossing warning systems interconnected with highway traffic signals, the 2018 AREMA C&S Manual limits advanced preemption timing to 50 seconds (plus equipment response time), and CSX will abide by this standard. For more information refer to 2018 AREMA C&S Manual Part 3.1.10, section C.1

OVERHEAD AND UNDERGRADE BRIDGE PROJECTS

Overview

Given the efficiencies and environmental benefits of moving goods by rail, CSX continues to see strong demand for rail services across its network. It is critical that CSX maintain the ability to expand its network in the future.

CSX requires that new overhead bridges (including existing bridge replacements) span CSX's right-of-way and have a minimum 23' vertical clearance above top of rail. CSX requires that new undergrade bridges provide accommodations for future operating needs, as determined by CSX.

During project construction, rail operations must not be impeded. Temporary run-around track(s) and/or phased construction may be necessary as determined by CSX.

Key Points

- Overhead and undergrade bridge projects must comply with CSX's policies and standards, which are available in the appendices of this manual.
- All work on overhead and undergrade bridges must be reviewed and approved by CSX.
- CSX should be involved early in the project development phases to allow required bridge standards to be incorporated into the design of the project.
- A preliminary engineering agreement and construction agreement will be required.
- CSX property and operations (including train speeds) shall not be negatively impacted by the project.
- No temporary reduced clearances will be permitted.
- CSX requires that new overhead bridges (including existing bridge replacements) clear span CSX's right-of-way and have a minimum 23' vertical clearance above top of rail.
- All new undergrade bridges must have a ballast deck.
- MSE walls are prohibited on or adjacent to CSX property.
- Vehicular Clearance signage for clearance under CSX bridges is the responsibility of the road authority, not CSX.

General Guidelines

- All bridge projects over or under CSX shall be governed by the appropriate criteria found in the appendices. This includes but is not limited to replacements, new construction, substructure modifications and/or repairs, superstructure replacement or repair, and deck replacement or overlay.

- Temporary and final drainage plans must be approved by CSX.

- No drainage will be directed to CSX right of way.

- CSX's access to its property must be maintained.

- Plans must show all tracks and horizontal and vertical track clearances for both the existing conditions and the proposed project property or right-of-way lines.

- Bridge demolition criteria are found in the Overhead Bridge Criteria in the appendices of this manual.

- Upon completion of construction, a full set of electronic as-built drawings, showing actual measured vertical and horizontal clearances, shall be furnished to CSX.

PARALLEL ROAD CONSTRUCTION

Overview

In the interest of public safety, parallel public roads shall be located off CSX property. Parallel roads involving intersections with existing or proposed highways where public or private crossings are present should be aligned to provide sufficient distance from the crossing for the largest vehicle (design vehicle) permitted to use the road to stop between the railroad and the parallel road traffic control signs, markings, and warning devices without interfering with railroad operations, obstructing or preventing the operation of traffic control devices or obstructing the crossing in any manner.

Key Points

- Proposed parallel public roads shall be located off CSX property.
- Safety at existing highway-rail grade crossings must be considered and not adversely impacted.
- No additional drainage may be directed onto railroad property.
- CSX's access to its property must not be impeded.
- Construction may result in the need for alterations to crossing warning systems or facilities.

General Guidelines

The design of highways, highway intersection, and configuration of highway-rail grade crossings is the responsibility of the highway agency. Drainage for highway runoff, the railroad corridor, and adjacent property must be designed to reduce or maintain existing railroad drainage and to prevent standing water and potential erosion. Access for CSX equipment to the railroad property, structures, and track cannot be restricted or prevented.

Federal and State design manuals, the Manual of Uniform Traffic Control Devices (MUTCD) and additional recommended practices available in American Railway Engineering and Maintenance of Way Association manuals (AREMA) provide design information to be considered by the highway agency responsible for the project engineering. The table of contents of this document has additional information on the MUTCD and AREMA manuals and information

- Plans should include a typical section to show the relationship of the proposed work with respect to CSX property.

- Adjacent roadway projects shall comply with all aspects of the CSX Transportation Drainage Criteria.

- A railroad flagman or contracted construction inspector may be required at the project expense.

PAINTING AND CLEANING CSX BRIDGES TO IMPROVE APPEARANCE

Overview

Requests are occasionally made by outside parties for various beautification projects, including painting of overhead and undergrade bridges. These requests are considered on a case-by-case basis by CSX. The cost of painting and future aesthetic maintenance will be the responsibility of the project sponsor proposing to paint the CSX bridge. CSX will make every effort to cooperate, consistent with maintaining the safety of the public and the safe operation of the railroad.

Key Points

- CSX understands the desire of communities to improve the appearance of bridges and other structures. Safety of CSX employees, the general public and neighbors restrict some alternatives for bridge appearance improvement.
- CSX may permit others to paint CSX bridges if labor agreement, technical and responsibility requirements are resolved.
- Any surface preparation methods must follow all applicable environmental guidelines and must be approved in advance by CSX.
- CSX will not accept proposals to attach signage to CSX bridges.
- A written request should be submitted to CSX's Public Projects Group to initiate consideration of such projects.
- CSX must approve all proposed paint schemes and messaging.

Consideration of Bridge Painting Projects

Bridge painting proposals must be reviewed and approved by CSX to ensure compliance with safety and environmental regulations, CSX specifications, and to ensure that the proposal will not impact CSX's property or operations.

- CSX will require an agreement for all bridge painting proposals.
- A public agency must be a party to the agreement.
- CSX will incur no costs or liabilities as a result of the project.
- The public agency or its designee will be responsible for maintenance of the painted surfaces, including aesthetic damage caused by highway vehicles and vandalism.
- A railroad flagman will be required at the project expense.

Submission of Project Requests

A written request by the party wishing to undertake such projects should be forwarded to CSX's Public Projects Group for handling. The request should include information about the situation and the project objectives to assist CSX with completion of the review. The following information should be included:

- The project sponsor and public agency that will execute appropriate agreements for implementation as well as future maintenance of the painted surfaces.
- Paint specifications that meet CSX standards and methods for surface preparation, cleanup, and paint application.
- Qualifications and experience of the painting contractor. CSX will accept state qualified bridge painting contractors working for the responsible agency or company.
- The materials removed during the surface preparation must not impact the surrounding area including ground, water, or air. Materials must not be stored on CSX property.
- Control of paint overspray and vapors during application. The work must be done complying with appropriate regulations and over spray controlled to prevent damage to adjacent property and vehicles in the area.
- Containment system, clean up and disposal of all paint and other material removed from the bridge. The clean-up and disposal of material from the surface preparation for painting and actual painting must comply with all appropriate regulations.
- Pictures and conceptual drawing should be submitted with the initial request from the community to simplify the initial review and comment by CSX.
- Work site safety plan including keeping all personnel away from the tracks and fall protection measures where required.

Additional specifications are available upon request. Important environmental information is included in the Appendix titled "Soil and Water Management Policy."

CLEANING AND PAINTING OF BRIDGES OVER CSX

Overview

All work over CSX has the potential to impact CSX property and rail operations. CSX will review bridge painting and cleaning projects to ensure environmental and engineering standards are met. This review, flagging protection and construction monitoring costs will be paid by the project sponsor.

Key Points

- CSX understands that maintenance of bridges over CSX may include cleaning and painting. The safety of CSX employees, the general public, and the project sponsor's contractors is of paramount importance to CSX.
- A written request should be submitted to CSX's Public Projects Group to initiate this type of project. The request will be reviewed for safety considerations and compliance with CSX engineering and environmental standards.
- An agreement is required to accommodate engineering, review of plans, flagging, right-of-entry, and payment of CSX incurred costs.
- Any damage or required repair from painting operations shall be at the outside party's expense.

Requirements for Initiating and Implementing Bridge Cleaning and Painting

A Preliminary Engineering agreement is required to cover CSX's review of the project and preparation of a cost estimate and construction agreement.

To ensure safety, a railroad employee flagman must be present to control railroad operations in the area during the planned work.

A written request by the party wishing to undertake such projects should be forwarded to CSX's Public Projects Group for handling. The request should include information about the location and the project objectives to assist CSX with completion of the review. The following information should be included:

- The project sponsor and appropriate public agency that will execute appropriate agreements for implementation as well as future maintenance of the painted surfaces.
- Qualifications and experience of the painting contractor. CSX will accept state qualified bridge painting contractors working for the responsible agency or company.
- Containment system, clean up and disposal of all paint and other material removed from the bridge. The clean-up and disposal of material from the surface preparation for painting and actual painting must comply with all appropriate regulations.
- The materials removed during the surface preparation must not impact the surrounding area including ground, water, or air. Materials must not be stored on CSX property.
- Control of paint overspray and vapors during application. The work must be done complying with appropriate regulations and over spray controlled to prevent damage to adjacent property and vehicles in the area.
- Work site safety plan including keeping all personnel away from the tracks and fall protection measures where required.

Important environmental information is included in the Appendix titled "Soil and Water Management Policy."

PUBLIC ROAD CROSSING OPENINGS AND CLOSURES

Overview

CSX understands the importance of highway-rail grade crossings and their relevance to such priorities as economic development, emergency vehicle access and other growth opportunities in the communities through which we operate. Because of the safety concerns associated with highway-rail grade crossings, however, every effort must be made to obtain alternative access or additional capacity using grade separations, or by other roads leading to existing crossings.

Key Points

- Both federal and state government policies discourage the creation of new highway-rail grade crossings. To enhance highway-rail grade crossing safety, CSX endorses the United States Department of Transportation's goal of reducing the number of at-grade crossings through consolidation, elimination, grade separation and restriction of the number of new crossings installed.
- Grade separated structures are the best alternative to add new roads or additional highway capacity.
- CSX and state and federal agencies have worked with many communities to develop and implement projects that improve highway traffic flow without the creation of new highway-rail grade crossings.
- CSX, the Federal Railroad Administration (FRA), and state agencies encourage communities to consider all alternatives before planning to create new grade crossings and encourage closure of existing grade crossings where possible.
- CSX may provide incentive payments for crossing closures.
- To comply with and in support of the federal initiative to reduce crossings, CSX requires the community to identify three comparable active grade crossings to be closed for each new grade crossing.
- New crossings, if approved, shall be maintained at the appropriate agency's expense.

Crossing Closure Incentive Program

Eliminating crossings is a goal of CSX, states and the Federal Railroad Administration (FRA). Likewise, the Federal Highway Administration (FHWA) Railroad-Highway Grade Crossing Handbook acknowledges that the first alternative that should always be considered for a highway-rail at-grade crossing is elimination. Elimination of a crossing provides the highest level of crossing safety because the point of intersection between highway and railroad is removed. Closing adjacent crossings simplifies the design, installation and operation of highway-rail grade crossing warning systems. To help ensure the success of this effort, CSX may provide incentive payments for the closure of public crossings.

Considerations for Crossing Openings and Closures

The addition of any grade crossing brings the potential for incidents involving trains and motor vehicles. For this reason, both federal and state government policies discourage the creation of new grade crossings. CSX, other railroads, the United States Department of Transportation and most states encourage communities to carefully consider all alternatives, including grade separations (crossings that go over or under railroad tracks), as opposed to the creation of new at-grade crossings. The cost of a grade separation should not outweigh the enhanced safety it would provide for motorists.

CSX, the FRA and other railroads actively participate in programs such as Operation Lifesaver, an initiative dedicated to educating the public on the importance of practicing safe driving procedures at grade crossings. For more information about crossing safety, visit: http://www.beyondourrails.org/safety

Before agreeing to the establishment of a new crossing, CSX expects communities to engage in a study with the purpose of identifying existing redundant public crossings for closure. To comply with and in support of the federal initiative to reduce grade crossings, CSX requires that the community identify the closure of three or more comparable active public at-grade crossings.

As discussed above, the appropriate public authority will be expected to reimburse CSX for its cost of design, installation and future maintenance of the crossing.

Policies and Procedures to Guide New Crossing Requests:

The project sponsor requesting a new crossing or seeking to convert a private crossing to a public crossing will be asked to prepare a written request, presenting the following information:

1. A description of the proposed highway project, including proposed passive or active traffic control devices, and the need for preemption and/or interconnection with traffic signals, together with a scale drawing or sketch of the proposed highway and vicinity.

2. Expected Annual Average Daily Traffic (AADT) and proposed vehicular speed limit, photographs, aerial map.

3. A detailed explanation of the necessity of the crossing.

4. Identify at-grade crossings to be closed. Include their vehicular speed limit, AADT, and traffic type.

5. The determination by the highway or regulatory authority of the need for passive or active traffic control devices and other safety treatments (i.e., signage, roadway medians, etc.), as selected by the highway authority consistent with applicable federal and state MUTCD guidelines and requirements.

6. A plan to satisfy any appropriate regulatory authority's requirements, procedures and approval. The project sponsor should coordinate with all applicable agencies (state, county, city, etc.) to ensure proper procedures are followed.

7. Provide CSX authorization to incur costs for its Preliminary Engineering to review the crossing request (whether or not it is approved), design and construction expenses, and for the ongoing maintenance of the crossing surface and related grade crossing warning devices.

CSX will review the request for a new crossing and inform the project sponsor whether or not the new crossing is approved. CSX may deny a new crossing request due to safety or operational concerns.

BICYCLE/PEDESTRIAN PATHWAYS AND MULTI-USE TRAILS

Overview

CSX recognizes that communities often wish to establish recreational pathways and trails in the proximity of active railroad lines. While CSX will work with communities to accommodate such requests, it is critical for project sponsors to recognize that CSX requirements must be met and safety precautions taken to protect the public and CSX employees. In addition, certain requests, such as pathway crossings at grade outside of existing highway easements, will not be permitted.

Key Points

- Private or public bicycle/pedestrian pathways and trails parallel to the tracks are not permitted on CSX property.
- CSX prefers grade-separated bicycle/pedestrian pathways and multi-use trails.
- Bicycle/pedestrian pathways and trails cannot cross tracks at grade outside of existing highway easements.
- Pedestrian safety is enhanced when pathways and sidewalks are designed such that they cross the tracks at as close to a right angle as practical.
- The highway agency's design must include safety measures for at-grade pathways and trails within existing highway easements. These measures should include, at a minimum, detectable warnings. Pathways and trails should not be wider than 5'. All pathways and trails that exceed 5' in width must include additional safety measures beyond detectable warnings.
- CSX will oppose condemnation proceedings aimed at recreational use of trackside property.
- New crossings, if approved, and alterations to existing crossings, shall be maintained at the appropriate agency's expense.

CSX objects to publicly accessible parks, pathways and trails constructed within fifty (50) feet of its existing and proposed tracks. The location of publicly accessible recreational areas at such proximity to CSX poses major safety concerns and places undue liability to CSX. Agency shall be solely liable for any damages which could be mitigated or avoided by adherence to this safety standard.

Agency shall also install, own, maintain and repair, at its sole cost and expense, permanent protective fencing where its property is opposite CSX's property. Fencing shall be in accordance with CSX's standards.

CSX Policy on Pathways and Trails Parallel to CSX Property

At CSX safety is paramount. CSX's policy is not to permit private or public parallel bicycle/pedestrian paths that come within the railroad's right-of-way. CSX will insist upon safety measures such as fencing and signage where such pathways or parks are established parallel to the railroad's right-of-way. The cost of installing, inspection and future maintenance are the responsibility of the trail sponsor or agency. CSX will oppose any attempt to establish recreational usage of CSX property through condemnation. Regardless of construction of pathways and trails, CSX reserves the right to use CSX right of way for operational necessities.

Pathways and Trails Crossing CSX Tracks and Right-of-Way

Bicycle/pedestrian pathways and trails cannot cross tracks at grade outside of existing highway easements. Grade separated pathway and trail crossings are preferred in all cases, and required when outside of an existing highway easement. Pathways and trails under existing railroad structures are discouraged and will only be allowed under special circumstances. Pathways and trails under existing railroad structures will require a canopy. The canopy shall allow CSX to inspect, maintain, or repair its structure and shall not be attached to the CSX structure. Please refer to the Trail Construction Under CSX Bridges, for additional information (located in appendices to this document). Pathways and trails over and under the railroad track shall have protective fencing.

Bicycle/pedestrian pathways and trails crossing at-grade within a highway easement must have appropriate signs and warning systems as determined by the responsible highway and/or regulatory agency. When designing new sidewalk grade crossings, placing the sidewalk outside of the area occupied by grade crossing traffic control devices for vehicular traffic is important. This includes making sure that the counterweights and support arms for the automatic gates for vehicular traffic do not obstruct the sidewalk when the gate is fully lowered.

All expenses associated with the design, installation and maintenance of the pathway/trail, including the costs of signs, crossing surfaces and warning systems associated with an at-grade crossing, will be paid by the project sponsor.

Chapter 8 Section D of the Manual of Uniform Traffic Control Devices (MUTCD) provides design information to be considered by the highway agency responsible for the project engineering. The table of contents of this document has additional information on the MUTCD manual.

CSX prosecutes trespassers and every precaution must be taken to ensure that the public remains clear of CSX's property.

QUIET ZONE PROPOSALS

Overview

CSX will fully comply with the 49 CFR 222, FRA Train Horn Rule (Rule), which provides requirements for the sounding of locomotive horns when approaching public highway-rail grade crossings. The Rule also provides guidance for conditions under which a public authority with jurisdiction over the roadway crossing CSX tracks may apply for and establish Quiet Zones. A Quiet Zone is a section of a rail line that contains one or more consecutive public crossings at which locomotive horns are not routinely sounded. (For full details on the rules, CSX recommends that communities either visit the FRA web site at www.fra.dot.gov or contact the FRA's Office of Safety at 202-493-6299).

Policy on Quiet Zones

The Rule clearly defines requirements that must be satisfied by the public authority requesting that a Quiet Zone be established or continued. CSX will expect the public authority to strictly comply with these requirements.

Key Points

- This section was developed as a guideline for communities that approach CSX in regards to the implementation of a Quiet Zone under the Federal Railroad Administration's (FRA) final rule on the use of locomotive horns at public highway-rail grade crossings (49 CFR Part 222, the "Rule"), and to ensure CSX's full compliance and cooperation with respect to the Rule.

- According to the FRA, the implementation of Quiet Zones – without appropriate safeguards and equipment – increases the risk of accidents at highway-rail grade crossings. In this context, CSX encourages communities considering whether to pursue the implementation of a Quiet Zone to take into account the installation of appropriate Supplemental Safety Measures ("SSMs"), as defined in the Rule, as well as the consolidation and/or closing of adjacent crossings, all of which will act as a safeguard to potentially reduce the risk of accidents at each crossing below the risk level that existed prior to the implementation of the Quiet Zone.

- Communities that wish to implement Quiet Zones will be required to strictly comply with the Rule.

- Pursuant to the Rule, notifications and/or applications to implement or continue Quiet Zones are to be made to the FRA and must involve all relevant state and local agencies, CSX, and any other rail carriers operating in the area.

- CSX requires prepayment for all work performed to design, implement, and maintain railroad facilities within Quiet Zones.

- CSX desires to be a good corporate citizen. CSX also places importance on the quality and timeliness of service to its customers and the communities it serves. As such, consistent with the Rule, CSX will seek to encourage communities requesting Quiet Zones to implement solutions and SSMs that optimally achieve safety while minimizing the impact on railroad operations.

Should SSMs or ASMs fall out of compliance, CSX will resume train horn until repairs are made.

Plans for proposed Quiet Zones shall conform to current MUTCD standards.

CSX has published a Quiet Zone Manual, located here: https://www.csx.com/index.cfm/library/files/about-us/property/quiet-zones/

Identification of the crossing and location

Each crossing has a unique DOT inventory identification number posted at the crossing. There is often more than one crossing on the same road. The crossing number (such as 123456A) must be used to identify the specific crossing in all communications with the railroad to reduce possible confusion about the specific location.

Preliminary Planning for Quiet Zones

Preliminary work by CSX personnel and/or its consultants is likely to be required in connection with the proposed new or continued Quiet Zone, including, but not limited to: updating crossing inventory information; attending meetings; participating, to the extent feasible, in diagnostic reviews of the public, private and pedestrian crossings in a proposed Quiet Zone; preparing and processing estimates covering the cost of work to be performed by CSX, if applicable; and processing necessary agreements. CSX will coordinate preliminary planning activities with each public authority pursuant to an initial agreement that will also provide for payment to CSX for services provided during development of Quiet Zones.

Getting Started: Process for Pursuing a Quiet Zone

1. Groups or individuals interested in Quiet Zones should first contact the public authority responsible for the highway where the Quiet Zone would be located. Public authorities should then contact the FRA for additional information on Quiet Zone requirements and procedures.

2. The public authority shall initiate contact with CSX to: crossingrequests@csx.com. Those making this contact will be furnished with the Quiet Zone policy and advised of the appropriate contact within the CSX Public Projects Group for the initial planning activities with CSX.

3. If the public authority decides to proceed with preliminary planning for a Quiet Zone, the public authority shall deposit funds with CSX for CSX's Quiet Zone related expenses. After this deposit is received, CSX will assist by providing, when required, DOT inventory information and attending diagnostic review meetings, to the extent schedules permit. CSX resources to attend these meetings are limited and thus CSX will seek flexibility in establishing meeting dates and times in order to permit CSX representatives to attend.

4. The preliminary planning for a Quiet Zone project should include a review of the following principles:

    a. CSX will cooperate and work in good faith with local communities and the appropriate public authority to provide all possible assistance in a manner that protects the safety of local citizens and their communities as well as CSX's employees.

    b. In accordance with the Rule, CSX's support of a Quiet Zone proposal will require the plan to meet very specific FRA measures and requirements, which in some cases, may be subject to FRA review, approval and on-going oversight. Accordingly, CSX retains the right to review and comment on the requests.

    c. CSX expects the involvement of the state DOT, FRA, and/or state regulatory authority in any diagnostic review of a public, private and pedestrian crossing in the Quiet Zone corridor being proposed.

    d. As discussed above, the appropriate public authority will be expected to reimburse CSX for its cost of design, installation and future maintenance of safety enhancements, including, but not limited to, its installation of Supplemental Safety Measures (SSMs) and Alternative Safety Measures (ASMs). As an example, CSX installs and maintains active warning systems at highway-rail grade crossings that may be modified or expanded for a Quiet Zone. Curbs, medians, pavement markings and other traffic control signs such as advance warning signs are installed and maintained by Public Authorities. The specific responsibilities are expected to be resolved during the preliminary planning for a Quiet Zone.

    e. If one or more SSMs or ASMs selected to be installed require work by CSX, a separate standard Preliminary Engineering Agreement will be required to cover CSX's engineering, review, handling, and estimate preparation connected with the proposed work. A separate Construction Agreement will be used for implementation of the projects. The cost of this work will be the responsibility of the requesting public authority.

    f. SSMs or ASMs installed and maintained by the public authority as described above are important parts of traffic control at each crossing. The public authority is responsible for periodic inspection and repair of these items.

5. Standard CSX Public Projects Group design and estimating procedures will be used for projects related to Quiet Zones.

6. Vehicle Loop Detection Circuitry will not be designed, installed, owned, or maintained by CSX.

7. Wayside Horn Systems are not authorized for use on CSX.

APPENDIX

CSX TRANSPORTATION

PRELIMINARY ENGINEERING AGREEMENT

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

PRELIMINARY ENGINEERING AGREEMENT

This Preliminary Engineering Agreement (this "Agreement") is made as of, 201, by and between CSX TRANSPORTATION, INC., a Virginia corporation with its principal place of business in Jacksonville, Florida ("CSX"), and [INSERT AGENCY NAME], a body corporate and political subdivision of the [INSERT STATE] ("Agency").

EXPLANATORY STATEMENT

1. Agency wishes to facilitate the development of the proposed [INSERT Project Description; eg: rehabilitation / repair of the Ridgeview Middle School Pedestrian Bridge Structure passing over CSX (DOT# 228 637B) in the vicinity of CSX milepost CD-6.15 on the Great Lakes Division, Columbus Subdivision, located in Columbus, Franklin County, Ohio] (the "Project").

2. Agency has requested that CSX proceed with certain necessary engineering and/or design services for the Project to facilitate the parties' consideration of the Project.

3. Subject to the approval of CSX, which approval may be withheld for any reason directly or indirectly related to safety or CSX operations, property, or facilities, the Project is to be constructed, if at all, at no cost to CSX, under a separate construction agreement to be executed by the parties at a future date.

NOW, THEREFORE, for and in consideration of the foregoing Explanatory Statement and other good and valuable consideration, the receipt and sufficiency of which are acknowledged by the parties, the parties agree as follows:

1. Scope of Work

1.1. Generally. The work to be done by CSX under this Agreement shall consist of: (i) the preparation or review and approval of preliminary and final engineering and design plans, specifications, drawings, agreements and other documents pertaining to the Project, (ii) the preparation of cost estimates for CSX's work in connection with the Project, and (iii) the review of construction cost estimates, site surveys, plats, legal descriptions, assessments, studies, easements, agreements and related construction documents submitted to CSXT by Agency for the Project (collectively, the "Engineering Work"). Engineering Work may also include office reviews, field reviews, attending hearings and meetings, and preparing correspondence, reports, and other documentation in connection with the Project. Nothing contained in this Agreement shall oblige CSX to perform work which, in CSX's opinion, is not relevant to CSX's participation in the Project.

1.2. Effect of CSX Approval or Preparation of Documents. By its review, approval or preparation of plans, specifications, drawings or other documents pursuant to this Agreement (collectively, the "Plans"), CSX signifies only that the Plans and the Project proposed to be constructed in accordance with the Plans satisfy CSX's requirements. CSX expressly disclaims all other representations and warranties in connection with the Plans, including, but not limited to, the integrity, suitability or fitness for the purposes of Agency or any other persons of such Plans or the Project constructed in accordance with the Plans.

2. Project Construction. Nothing contained in this Agreement shall be deemed to constitute CSX's approval of or consent to the construction of the Project, which approval or consent may be withheld for any reason directly or indirectly related to safety or CSX operations, property, or facilities. The Project if constructed is to be constructed, if at all, under a separate construction agreement to be executed by the parties at a future date.

3. Reimbursement of CSX Expenses.

3.1. Reimbursable Expenses. Agency shall reimburse CSX for all costs and expenses incurred by CSX in connection with the Engineering Work, including, without limitation: (i) all out of pocket expenses, (ii) travel and lodging expenses, (iii) telephone, facsimile, and mailing expenses, (iv) costs for equipment, tools, materials and supplies, (v) sums paid to consultants and subcontractors, and (vi) labor, together with labor overhead percentages established by CSX pursuant to applicable law (collectively, the "Reimbursable Expenses").

3.2. Estimate. CSX has estimated the total Reimbursable Expenses for the Project to be approximately $ [INSERT DOLLAR AMOUNT] (the "Estimate" as amended or revised). In the event CSX anticipates that actual Reimbursable Expenses may exceed such Estimate, it shall provide Agency with the revised Estimate of total Reimbursable Expenses for Agency's approval and confirmation that sufficient funds have been appropriated to cover the total Reimbursable Expenses as reflected in the revised Estimate. CSX may elect, by delivery of notice to Agency, to immediately cease all further Engineering Work, unless and until Agency provides such approval and confirmation.

3.3. Payment Terms.

3.3.1. Advance Payment in Full. Upon execution and delivery of this Agreement by Agency, Agency will deposit with CSX a sum equal to the Reimbursable Expenses, as shown by the Estimate. Agency shall pay CSX for Reimbursable Expenses in the amount set forth in CSX Schedule PA attached hereto, a copy of which shall accompany the advance payment. If CSX anticipates that it may incur Reimbursable Expenses in excess of the deposited amount, CSX will request an additional deposit equal to the then remaining Reimbursable Expenses which CSX estimates that it will incur. CSX shall request such additional deposit by delivery of invoices to Agency. Agency shall make such additional deposit within thirty (30) days following delivery of such invoice to Agency.

3.3.2. Following completion of all Engineering Work, CSX shall reconcile the total Reimbursable Expenses incurred by CSX against the total payments received from Agency and shall submit to Agency a final invoice if required. Agency shall pay to CSX the amount by which actual Reimbursable Expenses exceed total payments, as shown by the final invoice, within thirty (30) days following delivery to Agency of the final invoice. CSX will provide a refund of any unused deposits if the deposit exceeds the incurred Reimbursable Expenses for the Project.

3.3.3. In the event that Agency fails to pay CSX any sums due CSX under this Agreement: (i) Agency shall pay CSX interest at the lesser of 1.0% per month or the maximum rate of interest permitted by applicable law on the delinquent amount until paid in full; and (ii) CSX may elect, by delivery of notice to Agency: (A) to immediately cease all further work on the Project, unless and until Agency pays the entire delinquent sum, together with accrued interest; and/or (B) to terminate this Agreement.

3.4. Effect of Termination. Agency's obligation to pay CSX Reimbursable Expenses in accordance with this Section shall survive termination of this Agreement for any reason.

4. Appropriations. Agency represents to CSX that: (i) Agency has obtained appropriations sufficient to reimburse CSX for the Reimbursable Expenses encompassed by the initial Estimate; (ii) Agency shall use its best efforts to obtain appropriations necessary to cover Reimbursable Expenses encompassed by subsequent Estimates approved by Agency; and (iii) Agency shall promptly notify CSX in the event that Agency is unable to obtain such additional appropriations.

5. Termination.

5.1. By Agency. Agency may terminate this Agreement, for any reason, by delivery of notice to CSX. Such termination shall become effective upon the expiration of fifteen (15) calendar days following delivery of notice to CSX or such later date designated by the notice.

5.2. By CSX. CSX may terminate this Agreement (i) as provided pursuant to Section 3.3.3., or (ii) upon Agency's breach of any of the terms of, or its obligations under, this Agreement and such breach continues without cure for a period of ninety (90) days after written notification from CSX to Agency of such breach.

5.3. Consequences of Termination. If the Agreement is terminated by either party pursuant to this Section or any other provision of this Agreement, the parties understand that it may be impractical to immediately stop the Engineering Work. Accordingly, both parties agree that, in such instance a party may continue to perform Engineering Work until it has reached a point where it may reasonably and/or safely suspend the Engineering Work. Agency shall reimburse CSX pursuant to this Agreement for the Engineering Work performed, plus all costs reasonably incurred by CSX to discontinue the Engineering Work and all other costs of CSX incurred as a result of the Project up to the time of full suspension of the Engineering Work. Termination of this Agreement or Engineering Work on the Project, for any reason, shall not diminish or reduce Agency's obligation to pay CSX for Reimbursable Expenses incurred in accordance with this Agreement. In the event of the termination of this Agreement or the Engineering Work for any reason, CSX's only remaining obligation to Agency shall be to refund to Agency payments made to CSX in excess of Reimbursable Expenses in accordance with Section 2.

6. Subcontracts. CSX shall be permitted to engage outside consultants, counsel and subcontractors to perform all or any portion of the Engineering Work.

7. Notices. All notices, consents and approvals required or permitted by this Agreement shall be in writing and shall be deemed delivered (i) on the expiration of three (3) days following mailing by first class U.S. mail, (ii) on the next business day following mailing by a nationally recognized overnight carrier, or (iii) on the date of transmission, as evidenced by written confirmation of successful transmission, if by facsimile or other electronic transmission if sent on a business day (or if not sent on a business day, then on the next business day after the date sent), to the parties at the addresses set forth below, or such other addresses as either party may designate by delivery of prior notice to the other party:

If to CSX: CSX Transportation, Inc.
500 Water Street, J301 Jacksonville, Florida 32202
Attention: Director Project Management – Public Projects

If to Agency: _____
_____
_____
_____

8. Entire Agreement. This Agreement embodies the entire understanding of the parties, may not be waived or modified except in a writing signed by authorized representatives of both parties, and supersedes all prior or contemporaneous written or oral understandings, agreements or negotiations regarding its subject matter. In the event of any inconsistency between this Agreement and the Exhibits, the more specific terms of the Exhibits shall be deemed controlling.

9. Waiver. If either party fails to enforce its respective rights under this Agreement, or fails to insist upon the performance of the other party's obligations hereunder, such failure shall not be construed as a permanent waiver of any rights or obligations in this Agreement.

10. Assignment. CSX may assign this Agreement and all rights and obligations herein to a successor in interest, parent company, affiliate, or future affiliate. Upon assignment of this Agreement by CSX and the assumption by CSX's assignee of CSX's obligations under this Agreement, CSX shall have no further obligations under this Agreement. Agency shall not assign its rights or obligations under this Agreement without CSX's prior written consent, which consent may be withheld for any reason.

11. Applicable Law. This Agreement shall be governed by the laws of the [INSERT STATE], exclusive of its choice of law rules. The parties further agree that the venue of all legal and equitable proceedings related to disputes under this Agreement shall be situated in Duval County, Florida, and the parties agree to submit to the personal jurisdiction of any State or Federal court situated in Duval County, Florida.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed in duplicate, each by its duly authorized officers, as of the date of this Agreement.

[INSERT AGENCY NAME]

By: _____

Print Name: _____

Title: _____

CSX TRANSPORTATION, INC.

By: _____
Tony C. Bellamy, P.E.
Director Project Management – Public Projects

CSX SCHEDULE PA
(Advance Payment – Preliminary Engineering Agreement)

PAYMENT SUBMISSION FORM

****

Payment is hereby provided in accordance with the terms of Section 3.3 of the Agreement dated _____, 201___, between Agency and CSX.

****

1) A copy of this Payment Submission Form shall accompany all payments delivered by Agency to CSX which shall be forwarded to the following address:

CSX Transportation, Inc.
PO BOX 530192
ATLANTA GA 30353-0192

2) Email copies of check and this form to Nicole_Henning@csx.com and LShaw@Benesch.com

****

Upon execution and delivery of this Agreement by Agency, Agency will remit payment in accordance with Section 3.3.1. of this Agreement.

****

(All information below to be completed by Agency providing Payment)

Check No	Payment Amount	Payment Date
_____	_____	_____

****

Date: _____ By:_____

Name: _____

Title: _____

Phone: _____

Email: _____

APPENDIX

CSX TRANSPORTATION

CONSTRUCTION AGREEMENT

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

CONSTRUCTION AGREEMENT

This Construction Agreement ("Agreement") is made as of_____, 201____, by and between CSX TRANSPORTATION, INC., a Virginia corporation with its principal place of business in Jacksonville, Florida ("CSX"), and [INSERT Name of Public Agency], a body corporate and political subdivision of the State of (INSERT Name of State] ("Agency").

EXPLANATORY STATEMENT

1. Agency has proposed to construct, or to cause to be constructed, [INSERT Project Description; eg: rehabilitation / repair of the Ridgeview Middle School Pedestrian Bridge Structure passing over CSX (DOT# 228 637B) in the vicinity of CSX milepost CD-6.15 on the Great Lakes Division, Columbus Subdivision, located in Columbus, Franklin County, Ohio] (the "Project").

2. Agency has obtained, or will obtain, all authorizations, permits and approvals from all local, state and federal agencies (including Agency), and their respective governing bodies and regulatory agencies, necessary to proceed with the Project and to appropriate all funds necessary to construct the Project.

3. Agency acknowledges that: (i) by entering into this Agreement, CSX will provide services and accommodations to promote public interest in this Project, without profit or other economic inducement typical of other Agency contractors;
(ii) neither CSX nor its affiliates (including their respective directors, officers, employees or agents) will incur any costs, expenses, losses or liabilities in excess of payments made to CSX, by or on behalf of Agency or its contractors, pursuant to this Agreement; and
(iii) CSX retains the paramount right to regulate all activities affecting its property and operations.

4. It is the purpose of this Agreement to provide for the terms and conditions upon which the Project may proceed.

NOW, THEREFORE, in consideration of the foregoing Explanatory Statement and other good and valuable consideration, the receipt and sufficiency of which are acknowledged by the parties, the parties agree as follows:

1. Project Plans and Specifications

1.1 Preparation and Approval. Pursuant to Exhibit A of this Agreement, all plans, specifications, drawings and other documents necessary or appropriate to the design and construction of the Project shall be prepared, at Agency's sole cost and expense, by Agency or CSX or their respective contractors. Project plans, specifications and drawings prepared by or on behalf of Agency shall be subject, at CSX's election, to the review and approval of CSX. Such plans, specifications and drawings, as prepared or approved by CSX, are referred to as the "Plans", and shall be incorporated and deemed a part of this Agreement. Plans prepared or submitted to and approved by CSX as of the date of this Agreement are set forth in Exhibit B to this Agreement.

1.2 Effect of CSX Approval or Preparation of Plans. By its review, approval or preparation of Plans pursuant to this Agreement, CSX signifies only that such Plans and improvements constructed in accordance with such Plans satisfy CSX's requirements. CSX expressly disclaims all other representations and warranties in connection with the Plans, including, but not limited to, the integrity, suitability or fitness for the purposes of Agency or any other persons of the Plans or improvements constructed in accordance with the Plans.

1.3 Compliance with Plans. The Project shall be constructed in accordance with the Plans.

2. Allocation and Conduct Of Work

Work in connection with the Project shall be allocated and conducted as follows:

2.1 CSX Work. Subject to timely payment of Reimbursable Expenses as provided by Section 4, CSX shall provide, or cause to be provided, the services as set forth by Exhibit A to this Agreement. Agency agrees that CSX shall provide all services that CSX deems necessary or appropriate (whether or not specified by Exhibit A) to preserve and maintain its property and operations, without impairment or exposure to liability of any kind and in compliance with all applicable federal, state and local regulations and CSX's contractual obligations, including, but not limited to, CSX's existing or proposed third party agreements and collective bargaining agreements.

2.2 Agency Work. Agency shall perform, or cause to be performed, all work as set forth by Exhibit A, at Agency's sole cost and expense.

2.3 Conduct of Work. CSX shall commence its work under this Agreement following: (i) delivery to CSX of a notice to proceed from Agency; (ii) payment of Reimbursable Expenses (as provided by Section 4.1) as required by CSX prior to the commencement of work by CSX; (iii) issuance of all permits, approvals and authorizations necessary or appropriate for such work; and (iv) delivery of proof of insurance acceptable to CSX, as required by Section 9. The initiation of any services by CSX pursuant to this Agreement, including, but not limited to, the issuance of purchase orders or bids for materials or services, shall constitute commencement of work for the purposes of this Section. The parties intend that all work by CSX or on CSX property shall conclude no later than [INSERT DATE], unless the parties mutually agree to extend such date.

3. Special Provisions Agency shall observe and abide by, and shall require its contractors ("Contractors") to observe and abide by the terms, conditions and provisions set forth in Exhibit C to this Agreement (the "Special Provisions"). To the extent that Agency performs Project work itself, Agency shall be deemed a Contractor for purposes of this Agreement. Agency further agrees that, prior to the commencement of Project work by any third party Contractor, such Contractor shall execute and deliver to CSX Schedule I to this Agreement to acknowledge Contractor's agreement to observe and abide by the terms and conditions of this Agreement.

4. Cost Of Project and Reimbursement Procedures

4.1 Reimbursable Expenses. Agency shall reimburse CSX for all costs and expenses incurred by CSX in connection with the Project, including, without limitation: (1) all out of pocket expenses, (2) travel and lodging expenses, (3) telephone, facsimile, and mailing expenses, (4) costs for equipment, tools, materials and supplies, (5) sums paid to CSX's consultants and subcontractors, and (6) CSX labor in connection with the Project, together with CSX labor overhead percentages established by CSX pursuant to applicable law (collectively, "Reimbursable Expenses"). Reimbursable Expenses shall also include expenses incurred by CSX prior to the date of this Agreement to the extent identified by the Estimate provided pursuant to Section 4.2.

4.2 Estimate. CSX has estimated the total Reimbursable Expenses for the Project as shown on Exhibit D (the "Estimate", as amended or revised). In the event CSX anticipates that actual Reimbursable Expenses for the Project may exceed such Estimate, it shall provide Agency with the revised Estimate of the total Reimbursable Expenses, together with a revised Payment Schedule (as defined by Section 4.3.1), for Agency's approval and confirmation that sufficient funds have been appropriated to cover the total Reimbursable Expenses of such revised Estimate. CSX may elect, by delivery of notice to Agency, to immediately cease all further work on the Project, unless and until Agency provides such approval and confirmation.

4.3 Payment Terms.

4.3.1 Agency shall pay CSX for Reimbursable Expenses in the amounts and on the dates set forth in the Payment Schedule as shown on Exhibit E (the "Payment Schedule", as revised pursuant to Section 4.2). CSX agrees to submit invoices to Agency for such amounts and Agency shall remit payment to CSX at the later of thirty (30) days following delivery of each such invoice to Agency or, the payment date (if any) set forth in the Payment Schedule.

4.3.2 Following completion of the Project, CSX shall submit to Agency a final invoice that reconciles the total Reimbursable Expenses incurred by CSX against the total payments received from Agency. Agency shall pay to CSX the amount by which Reimbursable Expenses exceed total payments as shown by the final invoice, within thirty (30) days following delivery of such invoice to Agency. In the event that the payments received by CSX from Agency exceed the Reimbursable Expenses, CSX shall remit such excess to Agency.

4.3.3 In the event that Agency fails to pay CSX any sums due CSX under this Agreement: (i) Agency shall pay CSX interest at the lesser of 1.0% per month or the maximum rate of interest permitted by applicable law on the delinquent amount until paid in full; and (ii) CSX may elect, by delivery of notice to Agency: (A) to immediately cease all further work on the Project, unless and until Agency pays the entire delinquent sum, together with accrued interest; and/or (B) to terminate this Agreement.

4.3.4 All invoices from CSX shall be delivered to Agency in accordance with Section 16 of this Agreement. All payments by Agency to CSX shall be made by certified check and mailed to the following address or such other address as designated by CSX's notice to Agency:

CSX Transportation, Inc.
P.O. Box 530192
Atlanta, GA 30353-0192

4.4 Effect of Termination. Agency's obligation to pay to CSX Reimbursable Expenses in accordance with Section 4 shall survive termination of this Agreement for any reason.

5. Appropriations Agency represents to CSX that: (i) Agency has appropriated funds sufficient to reimburse CSX for the Reimbursable Expenses encompassed by the Estimate attached as Exhibit D; (ii) Agency shall use its best efforts to obtain appropriations necessary to cover Reimbursable Expenses encompassed by subsequent Estimates approved by Agency; and (iii) Agency shall promptly notify CSX in the event that Agency is unable to obtain such appropriations.

6. Easements and Licenses

6.1 Agency Obligation. Agency shall acquire all necessary licenses, permits and easements required for the Project.

6.2 Temporary Construction Licenses. Insofar as it has the right to do so, CSX hereby grants Agency a nonexclusive license to access and cross CSX's property, to the extent necessary for the construction of the Project (excluding ingress or egress over public grade crossings), along such routes and upon such terms as may be defined and imposed by CSX and such temporary construction easements as may be designated on the Plans approved by CSX.

6.3 Temporary Construction Easements. CSXT may grant without warranty to Agency, if required, a temporary non-exclusive easement for access to the extent necessary for the project on terms and conditions and at a price acceptable to the parties.

6.4 Maintenance Agreement. Contemporaneous with the execution of this Agreement, CSXT and Agency have executed that certain Maintenance Agreement providing for Agency's ongoing use maintenance, repair, renewal and removal of the Project.

6.5 Permanent Easements. Insofar as it has the right to do so, CSXT shall grant, without warranty to Agency, easements for the use and maintenance (in accordance with the provisions of the Maintenance Agreement described in 6.4) of the Project wholly or partly on CSXT property as shown on the Plans approved by CSXT, if any, on terms and conditions and at a price acceptable to both parties. Upon request by CSXT, Agency shall furnish to CSXT descriptions and plat plans for the easements.

7. Permits At its sole cost and expense, Agency shall procure all permits and approvals required by any federal, state, or local governments or governmental agencies for the construction, maintenance and use of the Project, copies of which shall be provided to CSX.

8. Termination

8.1 By Agency. For any reason, Agency may, as its sole remedy, terminate this Agreement by delivery of notice to CSX. Agency shall not be entitled to otherwise pursue claims for consequential, direct, indirect or incidental damages or lost profits as a consequence of CSX's default or termination of this Agreement or Work on the Project by either party.

8.2 By CSX. In addition to the other rights and remedies available to CSX under this Agreement, CSX may terminate this Agreement by delivery of notice to Agency in the event Agency or its Contractors fail to observe the terms or conditions of this Agreement and such failure continues more than ten (10) business days following delivery of notice of such failure by CSX to Agency.

8.3 Consequences of Termination. If the Agreement is terminated by either party pursuant to this Section or any other provision of this Agreement, the parties understand that it may be impractical for them to immediately stop the Work. Accordingly, they agree that, in such instance a party may continue to perform Work until it has reached a point where it may reasonably and safely suspend the Work. Agency shall reimburse CSX pursuant to this Agreement for the Work performed, plus all costs reasonably incurred by CSX to discontinue the Work and protect the Work upon full suspension of the same, the cost of returning CSX's property to its former condition, and all other costs of CSX incurred as a result of the Project up to the time of full suspension of the Work. Termination of this Agreement or Work on the Project, for any reason, shall not diminish or reduce Agency's obligation to pay CSX for Reimbursable Expenses incurred in accordance with this Agreement. In the event of the termination of this Agreement or the Work for any reason, CSX's only remaining obligation to Agency shall be to refund to Agency payments made to CSX in excess of Reimbursable Expenses in accordance with Section 4.

9. Insurance In addition to the insurance that Agency requires of its Contractor, Agency shall acquire or require its Contractor to purchase and maintain insurance in compliance with CSX's insurance requirements attached to this Agreement as Exhibit F. Neither Agency nor Contractor shall commence work on the Project until such policy or policies have been submitted to and approved by CSX's Risk Management Department.

10. Ownership and Maintenance

[SELECT ONE OF THE FOLLOWING ALTERNATE PROVISIONS:]

- Railroad Bridge

10.1 By Agency. Agency shall own and, without cost to CSX, shall maintain, repair, replace and renew, or cause same to be done, in good condition and repair to CSX's satisfaction, the railroad bridge structure (excluding only those components which CSX owns and has agreed to maintain, repair and replace pursuant to this Section), the highway underpass structure, the roadway surfacing, the roadway slopes, the retaining walls, the roadway drainage facilities, sidewalks and lighting. In the event that Agency fails to properly maintain such structures and improvements, and such failure, in the opinion of CSX, jeopardizes the safe and efficient operation of its property, CSX shall be entitled to remedy such failure and recover from Agency the costs incurred by CSX in doing so.

10.2 By CSX. CSX shall own and, at its sole cost and expense, maintain, repair, replace and renew its tracks, ballast and approach embankments, and railroad signal and communication systems, and CSX shall be permitted to install, maintain, repair and replace other utilities, facilities and cable, or cause same to be done, as CSX authorizes from time to time on or within the railroad bridge structure.

10.3 Alterations. Agency shall not undertake any alteration, modification or expansion of the Project, without the prior approval of CSX, which may be withheld for any reason, and the execution of such agreements as CSX may require. CSX may effectuate any improvements to that portion of the Project on which CSX operates its rail line, without securing the prior approval of the Agency so long as such improvements will not have a negative impact on highway traffic using the highway underpass.

- Highway Bridge

10.1 By Agency. Agency shall own and, without cost to CSX, maintain, repair, replace and renew, or cause same to be done, in good condition and repair to CSX's satisfaction, the highway overpass structure, the roadway surfacing, the roadway slopes, the retaining walls, and the highway drainage facilities. In the event that Agency fails to properly maintain such structures and improvements and such failure, in the opinion of CSX, jeopardizes the safe and efficient operation of its property, CSX shall be entitled to remedy such failure and recover from Agency the costs incurred by CSX in doing so. Upon the cessation of use of the Project by Agency, Agency shall remove the bridge structure and restore CSX's property to its original condition, at Agency's sole cost and expense, to CSX's satisfaction.

10.2 Alterations. Agency shall not undertake any alteration, modification or expansion of the Project, without the prior approval of CSX, which may be withheld for any reason, and the execution of such agreements as CSX may require.

- At Grade Crossings

10.1 By Agency. Agency shall maintain and repair, at its sole cost and expense, all parts comprising the permanent aspects of the Project, as shown by the Plans, consisting of roadway pavement up to the outer ends of the railroad cross ties, sidewalks, guardrails, and curbs, in good and safe condition to CSX's satisfaction. In the event Agency fails to do so after reasonable notice from CSX (unless an emergency condition exists or is imminent in the opinion of CSX that requires immediate action), CSX may perform such maintenance and repair, at Agency's sole cost and expense.

10.2 By CSX. CSX shall maintain and repair the crossing surface between the ends of its cross ties and its signal facilities at the crossing, at Agency's sole cost and expense.

10.3 Alterations. Agency shall not undertake any alteration, modification or expansion of the Project, without the prior written approval of CSX, which may be withheld for any reason, and the execution of such agreements as CSX may require. CSX may undertake alterations of its property, track or facilities and shall be reimbursed by Agency for the expenses incurred by CSX with respect to the removal and restoration of the crossing in connections with such alteration.

- Other Improvements

10.1 By Agency. Agency shall own, maintain and repair, at its sole cost and expense, all parts comprising the permanent aspects of the Project, as shown by the Plans. In the event Agency fails to do so after reasonable notice from CSX (no more than thirty (30) days, unless an emergency condition exists or is imminent in the opinion of CSX, that requires immediate action), CSX may perform such maintenance and repair, at Agency's sole cost and expense. Upon the cessation of use of the Project by Agency, Agency shall remove the structure and restore CSX's property to its original condition, at Agency's sole cost and expense, to CSX's satisfaction.

10.2 Alterations. Agency shall not undertake any alteration, modification or expansion of the Project, without the prior approval of CSX, which may be withheld for any reason, and the execution of such agreements as CSX may require.

11. Indemnification

11.1 Generally. To the maximum extent permitted by applicable law, Agency and its Contractors shall indemnify, defend, and hold CSX and its affiliates harmless from and against all claims, demands, payments, suits, actions, judgments, settlements, and damages of every nature, degree, and kind (including direct, indirect, consequential, incidental, and punitive damages), for any injury to or death to any person(s) (including, but not limited to the employees of CSX, its affiliates, Agency or its Contractors), for the loss of or damage to any property whatsoever (including but not limited to property owned by or in the care, custody, or control of CSX, its affiliates, Agency or its Contractors, and environmental damages and any related remediation brought or recovered against CSX and its affiliates), arising directly or indirectly from the negligence, recklessness or intentional wrongful misconduct of the Contractors, Agency, and their respective agents, employees, invitees, contractors, or its contractors' agents, employees or invitees in the performance of work in connection with the Project or activities incidental thereto, or from their presence on or about CSX's property. The foregoing indemnification obligation shall not be limited to the insurance coverage required by this Agreement, except to the extent required by law or otherwise expressly provided by this Agreement.

11.2 Compliance with Laws. Agency shall comply, and shall require its Contractors to comply, with any federal, state, or local laws, statutes, codes, ordinances, rules, and regulations applicable to its construction and maintenance of the Project. Agency's Contractors shall indemnify, defend, and hold CSX and its affiliates harmless with respect to any fines, penalties, liabilities, or other consequences arising from breaches of this Section.

11.3 "CSX Affiliates". For the purpose of this Section 11, CSX's affiliates include CSX Corporation and all entities, directly or indirectly, owned or controlled by or under common control of CSX or CSX Corporation and their respective officers, directors, employees and agents.

11.4 Notice of Incidents. Agency and its Contractor shall notify CSX promptly of any loss, damage, injury or death arising out of or in connection with the Project work.

11.5 Survival. The provisions of this Section 11 shall survive the termination or expiration of this Agreement.

12. Independent Contractor The parties agree that neither Agency nor its Contractors shall be deemed either agents or independent contractors of CSX. Except as otherwise provided by this Agreement, CSX shall exercise no control whatsoever over the employment, discharge, compensation of, or services rendered by Agency or Agency's Contractors, or the construction practices, procedures, and professional judgment employed by Agency or its Contractor to complete the Project. Notwithstanding the foregoing, this Section 12 shall in no way affect the absolute authority of CSX to prohibit Agency or its Contractors or anyone from entering CSX's property, or to require the removal of any person from its property, if it determines,

in its sole discretion, that such person is not acting in a safe manner or that actual or potential hazards in, on or about the Project exist.

13. "Entire Agreement" This Agreement embodies the entire understanding of the parties, may not be waived or modified except in a writing signed by authorized representatives of both parties, and supersedes all prior or contemporaneous written or oral understandings, agreements or negotiations regarding its subject matter. In the event of any inconsistency between this Agreement and the Exhibits, the more specific terms of the Exhibits shall be deemed controlling.

14. Waiver If either party fails to enforce its respective rights under this Agreement, or fails to insist upon the performance of the other party's obligations hereunder, such failure shall not be construed as a permanent waiver of any rights or obligations in this Agreement.

15. Assignment CSX may assign this Agreement and all rights and obligations herein to a successor in interest, parent company, affiliate, or future affiliate. Upon assignment of this Agreement by CSX and the assumption of CSX's assignee of CSX's obligations under this Agreement, CSX shall have no further obligation under this Agreement. Agency shall not assign its rights or obligations under this Agreement without CSX's prior consent, which consent may be withheld for any reason.

16. Notices All notices, consents and approvals required or permitted by this Agreement shall be in writing and shall be deemed delivered upon personal delivery, upon the expiration of three (3) days following mailing by first class U.S. mail, or upon the next business day following mailing by a nationally recognized overnight carrier, to the parties at the addresses set forth below, or such other addresses as either party may designate by delivery of prior notice to the other party:

If to CSX: CSX Transportation, Inc.
500 Water Street, J301 Jacksonville, Florida 32202
Attention: Director Project Management – Public Projects

If to Agency: _____
_____
_____
_____

17. Severability The parties agree that if any part, term or provision of this Agreement is held to be illegal, unenforceable or in conflict with any applicable federal, state, or local law or regulation, such part, term or provision shall be severable, with the remainder of the Agreement remaining valid and enforceable.

18. Applicable Law This Agreement shall be governed by the laws of the State of [INSERT STATE OF PROJECT LOCATION], exclusive of its choice of law rules. The parties further agree that the venue of all legal and equitable proceedings related to disputes under this Agreement shall be situated in Duval County, Florida, and the parties agree to submit to the personal jurisdiction of any State or Federal court situated in Duval County, Florida.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed in duplicate, each by its duly authorized officers, as of the date of this Agreement.

[INSERT NAME OF AGENCY]
By:_____
Print Name: _____
Title: _____

CSX TRANSPORTATION, INC.
By:_____
Tony C. Bellamy, P.E.
Director Project Management-Public Projects

EXHIBIT A

ALLOCATION OF WORK

Subject to Section 2.1, work to be performed in connection with the Project is allocated as follows:

A. Agency shall let by contract to its Contractors:

1. [INSERT DESCRIPTION OF WORK]

B. CSX shall perform or cause to be performed:

1. Preliminary engineering services.
2. Changes in communication and signal lines.
3. Flagging services and other protective services and devices as may be necessary.
4. Construction engineering and inspection to protect the interests of CSX.

EXHIBIT B

PLANS AND SPECIFICATIONS

Plans, Specifications and Drawings:

As of the date of this Agreement, the following plans, specifications and drawings have been submitted by Agency to CSX for its review and approval:

[IDENTIFY PLANS AND SPECIFICATIONS BY DATE, PREPARER, TITLE, PROJECT NUMBER, ETC.]

SHEET	DESCRIPTION	PREPARER	DATE
1 of			

EXHIBIT C

CSX SPECIAL PROVISIONS

DEFINITIONS:

As used in these Special Provisions, all capitalized terms shall have the meanings ascribed to them by the Agreement, and the following terms shall have the meanings ascribed to them below:

"CSX" shall mean CSX Transportation, Inc., its successors and assigns.

"CSX Representative" shall mean the authorized representative of CSX Transportation, Inc.

"Agreement" shall mean the Agreement between CSX and Agency, as amended from time to time.

"Agency" shall mean the [INSERT NAME OF AGENCY].

"Agency Representative" shall mean the authorized representative of [INSERT NAME OF AGENCY].

"Contractor" shall have the meaning ascribed to such term by the Agreement.

"Work" shall mean the Project as described in the Agreement.

I. AUTHORITY OF CSX ENGINEER

The CSX Representative shall have final authority in all matters affecting the safe maintenance of CSX operations and CSX property, and his or her approval shall be obtained by the Agency or its Contractor for methods of construction to avoid interference with CSX operations and CSX property and all other matters contemplated by the Agreement and these Special Provisions.

II. INTERFERENCE WITH CSX OPERATIONS

A. Agency or its Contractor shall arrange and conduct its work so that there will be no interference with CSX operations, including train, signal, telephone and telegraphic services, or damage to CSX's property, or to poles, wires, and other facilities of tenants on CSX's Property or right-of-way. Agency or its Contractor shall store materials so as to prevent trespassers from causing damage to trains, or CSX Property. Whenever Work is likely to affect the operations or safety of trains, the method of doing such Work shall first be submitted to the CSX Representative for approval, but such approval shall not relieve Agency or its Contractor from liability in connection with such Work.

B. If conditions arising from or in connection with the Project require that immediate and unusual provisions be made to protect train operation or CSX's property, Agency or its Contractor shall make such provision. If the CSX Representative determines that such provision is insufficient, CSX may, at the expense of Agency or its Contractor, require or provide such provision as may be deemed necessary, or cause the Work to cease immediately.

III. NOTICE OF STARTING WORK. Agency or its Contractor shall not commence any work on CSX Property or rights-of- way until it has complied with the following conditions:

A. Notify CSX in writing of the date that it intends to commence Work on the Project. Such notice must be received by CSX at least ten business days in advance of the date Agency or its Contractor proposes to begin Work on CSX property. The notice must refer to this Agreement by date. If flagging service is required, such notice shall be submitted at least thirty (30) business days in advance of the date scheduled to commence the Work.

B. Obtain authorization from the CSX Representative to begin Work on CSX property, such authorization to include an outline of specific conditions with which it must comply.

C. Obtain from CSX the names, addresses and telephone numbers of CSX's personnel who must receive notice under provisions in the Agreement. Where more than one individual is designated, the area of responsibility of each shall be specified.

IV. WORK FOR THE BENEFIT OF THE CONTRACTOR

A. No temporary or permanent changes to wire lines or other facilities (other than third party fiber optic cable transmission systems) on CSX property that are considered necessary to the Work are anticipated or shown on the Plans. If any such changes are, or become, necessary in the opinion of CSX or Agency, such changes will be covered by appropriate revisions to the Plans and by preparation of a force account estimate. Such force account estimate may be initiated by either CSX or Agency, but must be approved by both CSX and Agency. Agency or Contractor shall be responsible for arranging for the relocation of the third party fiber optic cable transmission systems, at no cost or expense to CSX.

B. Should Agency or Contractor desire any changes in addition to the above, then it shall make separate arrangements with CSX for such changes to be accomplished at the Agency or Contractor's expense.

V. HAUL ACROSS RAILROAD

A. If Agency or Contractor desires access across CSX property or tracks at other than an existing and open public road crossing in or incident to construction of the Project, the Agency or Contractor must first obtain the permission of CSX and shall execute a license agreement or right of entry satisfactory to CSX, wherein Agency or Contractor agrees to bear all costs and liabilities related to such access.

B. Agency and Contractor shall not cross CSX's property and tracks with vehicles or equipment of any kind or character, except at such crossing or crossings as may be permitted pursuant to this section.

VI. COOPERATION AND DELAYS

A. Agency or Contractor shall arrange a schedule with CSX for accomplishing stage construction involving work by CSX. In arranging its schedule, Agency or Contractor shall ascertain, from CSX, the lead time required for assembling crews and materials and shall make due allowance therefore.

C-2

B. Agency or Contractor may not charge any costs or submit any claims against CSX for hindrance or delay caused by railroad traffic; work done by CSX or other delay incident to or necessary for safe maintenance of railroad traffic; or for any delays due to compliance with these Special Provisions.

C. Agency and Contractor shall cooperate with others participating in the construction of the Project to the end that all work may be carried on to the best advantage.

D. Agency and Contractor understand and agree that CSX does not assume any responsibility for work performed by others in connection the Project. Agency and Contractor further understand and agree that they shall have no claim whatsoever against CSX for any inconvenience, delay or additional cost incurred by Agency or Contractor on account of operations by others.

VII. STORAGE OF MATERIALS AND EQUIPMENT

Agency and Contractor shall not store their materials or equipment on CSX's property or where they may potentially interfere with CSX's operations, unless Agency or Contractor has received CSX Representative's prior written permission. Agency and Contractor understand and agree that CSX will not be liable for any damage to such materials and equipment from any cause and that CSX may move, or require Agency or Contractor to move, such material and equipment at Agency's or Contractor's sole expense. To minimize the possibility of damage to the railroad tracks resulting from the unauthorized use of equipment, all grading or other construction equipment that is left parked near the tracks unattended by watchmen shall be immobilized to the extent feasible so that it cannot be moved by unauthorized persons.

VIII. CONSTRUCTION PROCEDURES

A. General

1. Construction work on CSX property shall be subject to CSX's inspection and approval.

2. Construction work on CSX property shall be in accord with CSX's written outline of specific conditions and with these Special Provisions.

3. Contractor shall observe the terms and rules of the CSX Safe Way manual, which Agency and Contractor shall be required to obtain from CSX, and in accord with any other instructions furnished by CSX or CSX's Representative.

B. Blasting

1. Agency or Contractor shall obtain CSX Representative's and Agency Representative's prior written approval for use of explosives on or adjacent to CSX property. If permission for use of explosives is granted, Agency or Contractor must comply with the following:

a. Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of Agency or Contractor.

b. Electric detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.

c. No blasting shall be done without the presence of an authorized representative of CSX. At least 30 days' advance notice to CSX Representative is required to arrange for the presence of an authorized CSX representative and any flagging that CSX may require.

d. Agency or Contractor must have at the Project site adequate equipment, labor and materials, and allow sufficient time, to (i) clean up (at Agency's expense) debris resulting from the blasting without any delay to trains; and (ii) correct (at Agency's expense) any track misalignment or other damage to CSX's property resulting from the blasting, as directed by CSX Representative, without delay to trains. If Agency's or Contractor's actions result in delay of any trains, including Amtrak passenger trains, Agency shall bear the entire cost thereof.

e. Agency and Contractor shall not store explosives on CSX property.

2. CSX Representative will:

a. Determine the approximate location of trains and advise Agency or Contractor of the approximate amount of time available for the blasting operation and clean-up.

b. Have the authority to order discontinuance of blasting if, in his or her opinion, blasting is too hazardous or is not in accord with these Special Provisions.

IX. MAINTENANCE OF DITCHES ADJACENT TO CSX TRACKS

Agency or Contractor shall maintain all ditches and drainage structures free of silt or other obstructions that may result from their operations. Agency or Contractor shall provide erosion control measures during construction and use methods that accord with applicable state standard specifications for road and bridge construction, including either

(1) silt fence; (2) hay or straw barrier; (3) berm or temporary ditches; (4) sediment basin; (5) aggregate checks; and (6) channel lining. All such maintenance and repair of damages due to Agency's or Contractor's operations shall be performed at Agency's expense.

X. FLAGGING / INSPECTION SERVICE

A. CSX has sole authority to determine the need for flagging required to protect its operations and property. In general, flagging protection will be required whenever Agency or Contractor or their equipment are, or are likely to be, working within fifty (50) feet of live track or other track clearances specified by CSX, or over tracks.

B. Agency shall reimburse CSX directly for all costs of flagging that is required on account of construction within CSX property shown in the Plans, or that is covered by an approved plan revision, supplemental agreement or change order.

C. Agency or Contractor shall give a minimum of 10 days' advance notice to CSX Representative for anticipated need for flagging service. No work shall be undertaken until the flag person(s) is/are at the job site. If it is necessary for CSX to advertise a flagging job for bid, it may take up to 90-days to obtain this service, and CSX shall not be liable for the cost of delays attributable to obtaining such service.

D. CSX shall have the right to assign an individual to the site of the Project to perform inspection service whenever, in the opinion of CSX Representative, such inspection may be necessary. Agency shall reimburse CSX for the costs incurred by CSX for such inspection service. Inspection service shall not relieve Agency or Contractor from liability for its Work.

E. CSX shall render invoices for, and Agency shall pay for, the actual pay rate of the flagpersons and inspectors used, plus standard additives, whether that amount is above or below the rate provided in the Estimate. If the rate of pay that is to be used for inspector or flagging service is changed before the work is started or during the progress of the work, whether by law or agreement between CSX and its employees, or if the tax rates on labor are changed, bills will be rendered by CSX and paid by Agency using the new rates. Agency and Contractor shall perform their operations that require flagging protection or inspection service in such a manner and sequence that the cost of such will be as economical as possible.

XI. UTILITY FACILITIES ON CSX PROPERTY

Agency shall arrange, upon approval from CSX, to have any utility facilities on or over CSX Property changed as may be necessary to provide clearances for the proposed trackage.

XII. CLEAN-UP

Agency or Contractor, upon completion of the Project, shall remove from CSX's Property any temporary grade crossings, any temporary erosion control measures used to control drainage, all machinery, equipment, surplus materials, falsework, rubbish, or temporary buildings belonging to Agency or Contractor. Agency or Contractor, upon completion of the Project, shall leave CSX Property in neat condition, satisfactory to CSX Representative.

XIII. FAILURE TO COMPLY

If Agency or Contractor violate or fail to comply with any of the requirements of these Special Provisions, (a) CSX may require Agency and/or Contractor to vacate CSX Property; and (b) CSX may withhold monies due Agency and/or Contractor; (c) CSX may require Agency to withhold monies due Contractor; and (d) CSX may cure such failure and the Agency shall reimburse CSX for the cost of curing such failure.

EXHIBIT D

INITIAL ESTIMATE ATTACHED

D-1

EXHIBIT E

PAYMENT SCHEDULE

[SELECT ONE OF FOLLOWING ALTERNATE PROVISIONS:]

Advance Payment in Full

Upon execution and delivery of notice to proceed with the Project, Agency will deposit with CSX a sum equal to the Reimbursable Expenses, as shown by the Estimate. If CSX anticipates that it may incur Reimbursable Expenses in excess of the deposited amount, CSX will request an additional deposit equal to the then remaining Reimbursable Expenses which CSX estimates that it will incur. CSX shall request such additional deposit by delivery of invoices to Agency. Agency shall make such additional deposit within 30 days following delivery of such invoice to Agency.

50/50 Payment in Advance

Upon delivery of notice to proceed with the Project, Agency will deposit with CSX a sum equal to fifty percent (50%) of the Reimbursable Expenses as shown by the Estimate. Prior to the incurrence of Reimbursable Expenses in excess of such deposit, CSX will request an additional deposit equal to the Reimbursable Expenses which CSX expects to incur. CSX shall request such additional deposit by delivery of invoices to Agency. Agency shall make such additional deposits within 30 days following delivery of such invoice to Agency.

Scheduled Payments

Agency shall deposit with CSX the following sums on or before the dates set forth below, which sums and dates shall be subject to adjustment in the event of revisions to the Estimate:

Payment Date:	Payment:
_____	_____
	Total:
	_____

Progress Payments In Arrears

Notwithstanding anything to the contrary set forth in this Agreement, Agency shall pay CSX in arrears for its Reimbursable Expenses, rather than in advance, with only such exceptions, such as purchasing materials and equipment, as the parties mutually agree. Accordingly, Agency shall remit payment to CSX for its Reimbursable Expenses within thirty (30) days following delivery to Agency of an invoice.

EXHIBIT F

INSURANCE REQUIREMENTS

I. Insurance Policies

Agency and Contractor, if and to the extent that either is performing work on or about CSX's property, shall procure and maintain the following insurance policies:

1. Commercial General Liability coverage at their sole cost and expense with limits of not less than $5,000,000 in combined single limits for bodily injury and/or property damage per occurrence, and such policies shall name CSX as an additional named insured.

2. Statutory Worker's Compensation and Employers Liability Insurance with limits of not less than $1,000,000, which insurance must contain a waiver of subrogation against CSX and its affiliates (if permitted by state law).

3. Commercial automobile liability insurance with limits of not less than $1,000,000 combined single limit for bodily injury and/or property damage per occurrence, and such policies shall name CSX as an additional named insured.

4. Railroad protective liability insurance with limits of not less than $5,000,000 combined single limit for bodily injury and/or property damage per occurrence and an aggregate annual limit of $10,000,000, which insurance shall satisfy the following additional requirements:

a. The Railroad Protective Insurance Policy must be on the ISO/RIMA Form of Railroad Protective Insurance - Insurance Services Office (ISO) Form CG 00 35.

b. CSX Transportation must be the named insured on the Railroad Protective Insurance Policy.

c. Name and Address of Contractor and Agency must appear on the Declarations page.

d. Description of operations must appear on the Declarations page and must match the Project description.

e. Authorized endorsements must include the Pollution Exclusion Amendment - CG 28 31, unless using form CG 00 35 version 96 and later.

f. Authorized endorsements may include:

(i). Broad Form Nuclear Exclusion - IL 00 21
(ii) 30-day Advance Notice of Non-renewal or cancellation
(iii) Required State Cancellation Endorsement
(iv) Quick Reference or Index - CL/IL 240

g. Authorized endorsements may not include:

(i) A Pollution Exclusion Endorsement except CG 28 31
(ii) A Punitive or Exemplary Damages Exclusion
(iii) A "Common Policy Conditions" Endorsement
(iv) Any endorsement that is not named in Section 4 (e) or (f) above.
(v) Policies that contain any type of deductible

5. All insurance companies must be A. M. Best rated A- and Class VII or better.

6. The CSX OP number or CSX contract number, as applicable, must appear on each Declarations page and/or certificates of insurance.

7. Such additional or different insurance as CSX may require.

II. Additional Terms

1. Contractor must submit the complete Railroad Protective Liability policy, Certificates of Insurance and all notices and correspondence regarding the insurance policies in an electronic format to:

Insurance Department
CSX Transportation, Inc.
500 Water Street, C-907
Jacksonville, FL 32202

OR

insurancedocuments@csx.com

2. Neither Agency nor its Designee may begin work on or about CSX property until written approval of the required insurance has been received from CSX or CSX's Insurance Compliance vendor, Ebix.

SCHEDULE I

CONTRACTOR'S ACCEPTANCE

To and for the benefit of CSX Transportation, Inc. ("CSX") and to induce CSX to permit Contractor on or about CSX's property for the purposes of performing work in accordance with the Agreement dated _____, 201____, between [INSERT NAME OF AGENCY] and CSX, Contractor hereby agrees to abide by and perform all applicable terms of the Agreement, including, but not limited to Exhibits C and F to the Agreement, and Sections 3, 9 and 11 of the Agreement.

Contractor: _____

By: _____

Name _____

Title: _____

Date: _____

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APPENDIX

CSX TRANSPORTATION

TEMPORARY RIGHT OF ENTRY AGREEMENT

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

THIS AGREEMENT, made as of _____, 20___, by and between CSX TRANSPORTATION, INC., a Virginia corporation, whose mailing address is 500 Water Street, Jacksonville, Florida 32202, hereinafter called "CSX," and (**********), whose mailing address is (**********), (**********), hereinafter called "Licensee," WITNESSETH:

WHEREAS, Licensee has submitted a written application to CSX requesting permission to enter CSX's property located within the (*****) Division, (*****) Subdivision, at DOT#: (****) MP (****). (**Street**) in (**City**), (***) County, (**State**) (the "Property"), (description of scope of work), beginning (**) feet from the (****) and (***) right of way, (the "Project").

WHEREAS, CSX is willing to grant to Licensee the limited right and permission to enter upon the Property for the limited purpose of performing the Project.

NOW THEREFORE, CSX hereby grants to Licensee the right and permission to enter upon the Property for the purpose of performing said Project, subject to the terms and conditions set forth below:

1. PROJECT: The Project shall be performed at the entire cost and expense of Licensee, in accordance with good and sound engineering practices, to the satisfaction of CSX's Division Engineer or his or her duly authorized representative ("Division Engineer") and in a manner to avoid accidents, damages, unnecessary delays to or interference with train traffic of CSX. Prior to entry, Licensee shall notify the Division Engineer's representative and arrange for flagging protection in accordance to Sections 5 and 6 of this Agreement. Licensee shall not dig in the ballast line or within the tracks loading influence area, or otherwise disturb the track structure. Licensee and Licensee's employees, agents, contractors and other representatives (collectively, "Agents") shall maintain in their possession a copy of this Agreement at all times during their occupation of the Property.

2. INDEMNITY:

2.1 Licensee hereby assumes risk of and agrees to indemnify, defend, protect and save CSX and CSX's Affiliates harmless with respect to any and all attorneys' fees, liability, claims, demands, payments, suits, actions, recoveries, penalties, costs, legal expenses, judgments, settlements, and damages of every nature, degree, and kind (including direct, indirect, consequential, incidental, and punitive damages) for:

2.1.1 Personal injury, including, but not limited to bodily injury to or death of any person or persons whomsoever, including the agents, servants, Affiliates or employees of the parties;

2.1.2 The loss or damage to any property whatsoever, including property owned or in the care, custody or control of the parties hereto or their respective Affiliates;

2.1.3 Any environmental damage and any related remediation brought or recovered against CSX or any of its Affiliates; and

2.1.4 Any and all other losses or damages; arising directly or indirectly from the presence of Licensee or its Agents on or about the Property, whether or not attributable in whole or part to the negligence, gross negligence, or intentional misconduct of CSX or its Affiliates.

2.2 The parties waive any and all right or opportunity to contest the enforceability of this Section and agree that, in the event this Section, or any part of this Section, is found unenforceable by the final, unappealable judgment of a court of competent jurisdiction, this Section shall be construed so as to be enforceable to the maximum extent permitted by applicable law. In the event that such court of competent jurisdiction finds that Florida statutory construction contract indemnity monetary limits apply to this Agreement with respect to Licensee's indemnification of CSX and its Affiliates for liability caused in whole or in part by any act, omission or default by CSX or its Affiliates, the parties hereto agree that such limit shall be equal to the limits (exclusive of deductibles) of the applicable insurance required by Sections 3 and 4 of this Agreement. The parties acknowledge and agree that this monetary limit,

if required, bears a commercially reasonable relationship to this Agreement, in so far as, among other factors, the parties have taken into account the availability and cost of insurance and other risk transference devices, the scope of the Project, the risks associated with the Project, and the compensation and any other benefits exchanged between the parties in connection with this Agreement.

2.2.1 Licensee shall comply with any federal, state, or local laws, statutes, codes, ordinances, rules, and regulations applicable to its presence or performance of any activity on the Property and agrees to indemnify, defend, and hold CSX and its Affiliates harmless with respect to any fines, penalties, liabilities, or other consequences for its failure to so comply.

2.2.2 For the purpose of this Agreement, the term "Affiliates" includes all entities, directly or indirectly owned or controlled by, or under common control of a party or its respective officers, directors, employees and agents, and in the case of CSX, includes CSX Corporation, CSX and their Affiliates and their respective officers, directors, employees and agents.

2.2.3 The provisions of this Section shall survive the termination or expiration of this Agreement.

3. GENERAL LIABILITY INSURANCE: Licensee shall procure and maintain, at its expense: (i) statutory Worker's Compensation and Employers Liability Insurance with available limits of not less than $1,000,000.00, which insurance must contain a waiver of subrogation against CSX and its Affiliates; (ii) Commercial General Liability coverage (inclusive of contractual liability) with available limits of not less than $5,000,000.00 in combined single limits for bodily injury and property damage and covering the contractual liabilities assumed under this Agreement; (iii) business automobile liability insurance with available limits of not less than $1,000,000.00 combined single limit for bodily injury and/or property damage per occurrence; and (iv) such other insurance as CSX may reasonably require. Upon request, Licensee shall provide CSX with a copy of Licensee's applicable insurance policies. A policy endorsement naming CSX as an additional insured and specifying such coverage shall be furnished to CSX prior to the execution of this Agreement, and the required coverage will be kept in force until all of Licensee's obligations under this Agreement have been fully discharged and fulfilled, or until Licensee shall have been specifically released by a written instrument signed by an authorized officer of CSX. Licensee shall also provide CSX with a copy of the insurance policies. The insurance policies shall provide that the insurance carrier must give CSX notice at least thirty (30) days in advance of cancellation of coverage, of any change in coverage, or of cancellation of the policy. Notwithstanding any provisions of this Section, the liability assumed by Licensee shall not be limited to the required insurance coverage.

4. RAILROAD PROTECTIVE LIABILITY INSURANCE: Licensee agrees to purchase Railroad Protective Liability Insurance in accordance with CSX's requirements (attached as Exhibit A and incorporated into this Agreement) for the benefit of CSX for Licensee's operations under this Agreement. Licensee shall furnish an appropriate Insurance policy (and required endorsements), as the case may be, with the return of this executed Agreement.

5. PRIOR NOTIFICATION: Licensee or Licensee's Agents shall notify CSX's Roadmaster at least 10 days prior to requiring entry on the Property and shall abide by the instructions of the Division Engineer, or his or her authorized representative. The Roadmaster, (*****), can be contacted at: (*******), to schedule flagging services.

6. CLEARANCES: Neither Licensee nor Agents shall perform any Project or place or operate any equipment of Licensee or Agents at a distance closer than fifty (50) feet from the center of any track, without the prior approval of the Division Engineer. The Division Engineer may require protective services or such other services as deemed necessary or appropriate. Equipment shall be moved across CSX's track(s) only at a public crossing unless prior arrangements have been made with the Division Engineer and a Private Crossing Agreement is fully executed and in place. Licensee and Agents shall take all precautions

necessary to avoid interference with or damage to CSX's property and signal and communication facilities during their performance of the Project.

7. PROTECTIVE SERVICES: If protective services, such as flagging protection, are required by CSX, Licensee shall make arrangements with the Roadmaster to furnish such personnel, flagman or watchman, that in the Roadmaster's opinion may be necessary to protect the facilities and traffic of CSX during the performance of the Project. Licensee shall pay for the cost of such services, including all applicable surcharges and additives. These services are estimated to be $_____, as supported by the attached estimate.

8. PAYMENT FOR PROTECTIVE SERVICES: Payment shall be made by Licensee in accordance with the following designated option:

( ) Option 1: Licensee shall make an advance deposit of funds based on an estimate of the cost of protective or other services as determined by CSX. The cost for CSX's services shall then be assessed by CSX against this advance deposit. Upon completion of the Project, any unused funding will be returned to Licensee. Notwithstanding the foregoing, in the event Licensee performs any Project work without permission or without protective services (such as flagging protection) as may be required by CSX, no portion of Licensee's advance deposit will be refunded. If CSX's costs exceed the advance deposit(s), a request will be made to Licensee for additional funds or an invoice will be issued to Licensee for final payment. Licensee shall remit payment to CSX within thirty (30) days of receipt of either a request for additional funds or an invoice.

( ) Option 2: Licensee shall promptly reimburse CSX for the cost of protective or other services on an as-incurred basis, including all applicable surcharges, upon receipt of bill(s) therefor.

9. ENVIRONMENTAL: This Agreement does not include and expressly excludes the performance of any site investigation activities designed to determine environmental conditions on, about or beneath the Property. Precluded activities include performing soil borings for purposes other than geotechnical investigation, obtaining soil, sediment, groundwater and surface water samples, and conducting field or laboratory analyses of any soil, sediment, groundwater or surface water samples obtained from CSX property to identify chemical composition or environmental condition. If any type of environmental investigation is desired, a separate right of entry agreement issued through CSX's Environmental Department must be secured.

10. CLAIMS: Licensee shall, or shall require Agents, to promptly notify the Division Engineer of any loss, damage, injury or death arising out of or in connection with the Project.

11. REMEDIATION: It is understood and agreed that, upon completion of the Project, the Property shall be left in a condition satisfactory to Division Engineer or his or her duly authorized representative.

12. SAFETY:

12.1 All personnel entering the Property must comply with CSX safety rules and requirements to include, without exception, the wearing of hard hats and approved safety shoes and safety glasses with side shields. Anyone not in compliance with these rules and regulations will be asked to leave the Property.

12.2 Before performing any work authorized by this Agreement, Licensee, at its sole cost and expense, shall obtain all necessary permit(s) (including but not limited to zoning, building, construction, health, safety or environmental matters), letter(s) or certificate(s) of approval. Licensee expressly agrees and warrants that it shall conform and limit its activities to the terms of such permit(s), approval(s) and authorization(s), and shall comply with all applicable ordinances, rules, regulations, requirements and laws of any governmental authority (state, federal or local) having jurisdiction over Licensee's activities, including the location, contact, excavation and protection regulations of the Occupational Safety and Health Act (OSHA) (29 CFR 1926.651(b), et al.), and State "One Call" -"Call Before You Dig" requirements.

13. TERM: This Right-of-Entry Agreement and the permission conferred and the license granted by it does not constitute a grant of permanent easement and shall terminate upon completion of the Project or at midnight, , whichever occurs first, unless extended in writing by CSX. In the event Licensee fails to comply with terms and provisions of this Agreement, Licensee agrees to pay and agrees that CSX shall be entitled to recover costs and expenses incurred by CSX, including legal fees and expenses, to enforce the terms of this Agreement.

14. SEVERABILITY: The parties agree that if any part, term or provision of the Agreement is held to be illegal, unenforceable or in conflict with any applicable federal, state, or local law or regulation, such part, term or provision shall be severable, with the remainder of the Agreement remaining valid and enforceable. If any provision or any part of a provision of the Agreement shall be finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to any applicable law, ordinance, rule or regulation, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Agreement, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

15. ENTIRE AGREEMENT: This Agreement embodies the entire understanding of the parties, may not be waived or modified except in a writing signed by authorized representatives of both parties, and supersedes all prior or contemporaneous written or oral understandings, agreements or negotiations regarding its subject matter.

16. NOTICES: All notices, consents and approvals required or permitted by this agreement shall be in writing and shall be deemed delivered; upon personal delivery, upon the expiration of three (3) business days following mailing by U.S. first class mail, or upon the next business day following mailing by a nationally recognized overnight carrier, to the Licensee at the address above, and to Licensor at the address shown on Page 1, or at such other addresses as either party may designate by delivery of prior notice to the other party .

17. TERMINATION: CSX shall have the right at any time and at its sole discretion to terminate this Agreement upon notice to Licensee.

18. WAIVER: If either party fails to enforce its respective rights under this Agreement, or fails to insist upon the performance of the other party's obligations hereunder, such failure shall not be construed as a permanent waiver of any rights or obligations in this Agreement.

19. GOVERNING LAW; VENUE: This Agreement shall be governed by and construed under the laws of the State of Florida, without regard to the choice of law provisions thereof. Venue for any action arising from, or brought to enforce, this Agreement, shall vest exclusively in the state or federal courts located in Duval County, Florida, and the parties agree to submit to the personal jurisdiction of any state or federal court located in Duval County, Florida.

20. NO ASSIGNMENT: Notwithstanding anything to the contrary contained in this Agreement, Licensee shall not permit Agents to enter the Property without first requiring Agents to agree in writing to comply with all of the terms of this Agreement. Notwithstanding the foregoing, Licensee shall continue to be responsible for insuring that Agents comply with all of the terms and conditions of this Agreement and shall indemnify and hold CSX harmless for any damages described in Section 2 above caused in whole or in part by such subcontractor. Assignment of this Agreement to any party other than Agents in accordance with this Section shall not be permitted except upon the prior written consent of CSX, which consent may be granted or withheld at CSX's sole discretion. This Agreement shall be binding upon the parties and their respective successors and assigns.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

Witness for CSX Transportation:

_____

CSX TRANSPORTATION, INC.

By:_____

Name:

Title:

Witness for: ( )

_____

( ):

By: _____

Print/Type Name:

Print/Type Title:

Who, by the execution hereof, affirms that he/she has the authority to do so and to bind the [*] to the terms and conditions of this Agreement.

ATTACHMENT "A"

INSURANCE REQUIREMENTS

I. Insurance Policies:

Agency and its Designee, if and to the extent that either is performing work on or about CSX's property, shall procure and maintain the following insurance policies:

1. Commercial General Liability coverage at their sole cost and expense with limits of not less than $5,000,000 in combined single limits for bodily injury and/or property damage per occurrence, and such policies shall name CSX as an additional named insured. The policy shall include endorsement ISO CG 24 17 evidencing that coverage is provided for work within 50 feet of a railroad. If such endorsement is not included, railroad protective liability insurance must be provided as described in item 4 below.

2. Statutory Worker's Compensation and Employers Liability Insurance with limits of not less than $1,000,000, which insurance must contain a waiver of subrogation against CSX and its affiliates (if permitted by state law).

3. Commercial automobile liability insurance with limits of not less than $1,000,000 combined single limit for bodily injury and/or property damage per occurrence, and such policies shall name CSX as an additional named insured. The policy shall include endorsement ISO CA 20 70 evidencing that coverage is provided for work within 50 feet of a railroad. If such endorsement is not included, railroad protective liability insurance must be provided as described in item 4 below.

4. Railroad protective liability insurance with limits of not less than $5,000,000 combined single limit for bodily injury and/or property damage per occurrence and an aggregate annual limit of $10,000,000, which insurance shall satisfy the following additional requirements:

a. The Railroad Protective Insurance Policy must be on the ISO/RIMA Form of Railroad Protective Insurance - Insurance Services Office (ISO) Form CG 00 35.

b. CSX Transportation must be the named insured on the Railroad Protective Insurance Policy.

c. Name and Address of Contractor and Agency must appear on the Declarations page.

d. Description of operations must appear on the Declarations page and must match the Project description.

e. Authorized endorsements must include the Pollution Exclusion Amendment - CG 28 31, unless using form CG 00 35 version 96 and later.

f. Authorized endorsements may include:

(i). Broad Form Nuclear Exclusion - IL 00 21
(ii) 30-day Advance Notice of Non-renewal or cancellation
(iii) Required State Cancellation Endorsement
(iv) Quick Reference or Index - CL/IL 240

g. Authorized endorsements may not include:
(i) A Pollution Exclusion Endorsement except CG 28 31
(ii) A Punitive or Exemplary Damages Exclusion
(iii) A "Common Policy Conditions" Endorsement
(iv) Any endorsement that is not named in Section 4 (e) or (f) above.
(v) Policies that contain any type of deductible

5. All insurance companies must be A. M. Best rated A- and Class VII or better.

6. The CSX OP number or CSX contract number, as applicable, must appear on each Declarations page and/or certificates of insurance.

7. Such additional or different insurance as CSX may require.

II. Additional Terms

1. Contractor must submit the complete Railroad Protective Liability policy, Certificates of Insurance and all notices and correspondence regarding the insurance policies in an electronic format to:

Insurance Department
CSX Transportation, Inc.
500 Water Street, C-907
Jacksonville, FL 32202

OR

insurancedocuments@csx.com

2. Neither Agency nor its Designee may begin work on or about CSX property until written approval of the required insurance has been received from CSX or CSX's Insurance Compliance vendor, Ebix.

APPENDIX

CSX TRANSPORTATION

RIGHT of ENTRY AND INDEMNITY AGREEMENT FOR BRIDGE PAINTING (AESTHETIC)

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

RIGHT OF ENTRY AND INDEMNITY AGREEMENT
FOR BRIDGE PAINTING (AESTHETIC)

This Agreement is made and effective as of _____, by and between CSX TRANSPORTATION, INC., a Virginia corporation, with a mailing address of 500 Water Street, Jacksonville, Florida 32202, hereinafter called "CSX," and the Name of Agency, a public corporation, under the laws of the State of State, with a mailing address of Street Address, PO Box, City State and ZIP, hereinafter called "AGENCY".

WHEREAS, CSX controls and operates a right of way and bridge located within the ****** Division, ***** Subdivision, at DOT#: 123456A MP XXX-123.45. Street Name in City, County County, State ("the Property");

WHEREAS, AGENCY has submitted a written request to enter the Property and to clean and paint the facing of the bridge (the "Project") as described in Exhibit A, attached and incorporated by reference; and

WHEREAS, CSX is willing to grant AGENCY the limited right and permission to enter upon the Property for the limited purpose of performing the Project;

NOW, THEREFORE, CSX hereby grants to AGENCY the right and permission to enter upon the Property for the purpose of performing the Project, subject to the terms and conditions set forth below:

1. TERM AND SCOPE

From the period starting from the date of execution of this Agreement, through the date that is one year from such date unless further extended by mutual agreement of the parties (the "Term"), AGENCY, through its employees, agents, contractors, subcontractors, and/or other representatives (each, a "Designee" and collectively, "Designees"), may, only once (meaning not on a repetitive basis) enter the Property and perform the Project (the "Work"). Notwithstanding the foregoing, provided that CSX shall first have approved the specifications therefore, as set forth in Section 2 hereof, AGENCY may also engage in periodic spot painting to remove graffiti (the "Spot Painting").

2. PROJECT

A. All plans, specifications, drawings and other documents necessary or appropriate to the design and performance of the Project, including but not limited to paint color and temporary attachment specifications (if any), shall be prepared, at AGENCY's sole cost and expense, by AGENCY or its Designees. Such plans shall be submitted to CSX for review and approval of CSX at least thirty (30) days prior to starting the Work or Spot Painting. The specifications for Spot Painting must include the paint color (which must be compatible with the most recent paint applied), application method (e.g. spray, brush, etc.), and structure access/reach equipment type (e.g. ladders, man lifts, etc.). CSX may require paint removal prior to Spot Painting for safety reasons; if so, AGENCY must also submit a paint removal method (e.g. sand-blasting, chemical removal, etc.). No Work or Spot Painting may begin until CSX has approved the plans and specifications. By its review or approval of plans pursuant to this Agreement, CSX signifies only that such plans and performance of the Work and Spot Painting in accordance with such plans satisfy CSX's requirements.

B. Upon receipt of the specifications, CSX's authorized representative will determine and inform AGENCY whether a flagman need be present and whether AGENCY need implement any special protective or safety measures. If a flagman is required, AGENCY shall notify CSX's authorized representative and arrange for safety protection in accordance with this Agreement.

C. The Work and Spot Painting shall be performed in accordance with good and sound practices, to the satisfaction of CSX's authorized representative in a manner to avoid accidents, damages, unnecessary delays to or interference with the continuous and uninterrupted use of CSX tracks or other operations, including train, signal, telephone and communication services, or damage to CSX's property, or to poles, wires, and other facilities of tenants on CSX's property or right-of-way. Under no circumstances shall Work or Spot Painting affect the operations or safety of trains. If conditions arising from or in connection with the Project require that immediate and unusual provisions be made to protect train operation or CSX's property, AGENCY shall make such provision.

D. The Project shall be designed and the Work and Spot painting performed at no cost, expense or liability to CSX.

3. COMMENCEMENT OF WORK; AUTHORITY OF CSX REPRESENTATIVE

A. AGENCY shall not commence any Work on CSX Property until AGENCY has:

1. Notified CSX in writing of the date that it expects Work or Spot Painting to commence on the Project. Such notice must be received by CSX at least ten (10) business days in advance of the date AGENCY proposes to begin Work or Spot Painting on the Property. The notice must refer to this Agreement by date.

2. Obtain authorization from CSX's authorized representative to begin Work on CSX property, such authorization to include an outline of specific conditions with which AGENCY must comply.

B. CSX retains the paramount right to regulate all activities affecting its property and operations. CSX's authorized representative shall have final authority in all matters affecting the safe maintenance of CSX operations and CSX property, and his or her approval shall be obtained by AGENCY for methods of construction to avoid interference with CSX operations and CSX property and all other matters contemplated by the Agreement.

4. FLAGGING / INSPECTION SERVICE

A. CSX has sole authority to determine the need for flagging required to protect its operations and property.

B. CSX shall have the right to assign an individual to the site of the Project to perform inspection service whenever, in the opinion of CSX's authorized representative, such inspection may be necessary.

C. Any CSX expenses associated with flagging and inspection service shall be calculated, estimated, and reimbursed by AGENCY in the manner described in Section 10.

D. Should CSX's authorized representative determine that flagging is necessary, AGENCY may attempt to coordinate the timing of the Work or Spot Painting with CSX's authorized representative so that the Project may be performed during times that flagging is already ongoing at the Property.

5. SAFETY

A. CSX will provide AGENCY with a copy of its safety rules and requirements prior to the commencement of the Work or Spot Painting. Any AGENCY personnel or Designee entering the Property must comply with CSX's safety rules and requirements. Anyone not in compliance with these rules and regulations will be asked to leave the Property.

B. Before performing any Work authorized by this Agreement, AGENCY, at no expense to CSX, will obtain all necessary permit(s) (including, but not limited to, zoning, building, construction, health, safety or environmental matters), letter(s) or certificate(s) of approval. AGENCY expressly agrees and warrants that it shall conform and limit activities to the terms of such permit(s), approval(s) and authorization(s), and shall comply with all applicable ordinances, rules, regulations, requirements and laws of any governmental authority (state, federal or local) having jurisdiction over the activities in the Project, including applicable provisions of the Occupational Safety and Health Act (OSHA) (29 CFR 1926.651(b), et al.).

6. ACCESS LIMITATIONS; STORAGE OF MATERIALS

A. This Agreement does not give AGENCY the right to cross CSX property or tracks with vehicles, equipment or in any other matter other than at an existing and open public crossing. At no time will anyone performing the Work or Spot Painting be allowed beyond the bridge abutments on CSX's property or be allowed on top of the bridge unless accompanied by CSX personnel.

B. AGENCY shall not store materials or equipment on CSX's property or where they may potentially interfere with CSX's operations, unless AGENCY has received prior written permission from CSX's authorized representative.

7. ENVIRONMENTAL

A. This Agreement does not include and expressly excludes the performance of any site investigation activities designed to determine environmental conditions on, about or beneath the Property.

B. AGENCY shall comply with all federal, state and local environmental laws and regulations in its work at the Property and shall perform the Work or Spot Painting in an environmentally protective manner, and shall prevent releases and spills of any materials that could harm human health or the environment, including but not limited to, hydrocarbon products, anti-freeze, spent mechanical draining, solvents, hazardous substances and hazardous wastes as defined in the Comprehensive Environmental Response, Compensation and Liability Act and the Resource Conservation and Recovery Act, respectively ("Environmental Substances"). AGENCY, at its expense, shall assume all responsibility for the investigation and cleanup of any release or discharge of any Environmental Substance at the Property that arises from the performance of any work, presence or other activity at the Property by AGENCY or its Designees. In addition to other liability terms contained in this Agreement, AGENCY agrees to indemnify, defend and hold harmless CSX and CSX's Affiliates from and against all environmental costs and expenses, including without limitation, all environmental analysis and cleanup expenses, fines and claims, or penalties arising from any work, presence or activity of the AGENCY or its Designees at the Property.

8. REMEDIATION AND CLEAN-UP

AGENCY, upon completion of the Work or Spot Painting, shall (i) remove from the Property any equipment, surplus materials, or rubbish belonging to AGENCY or AGENCY's Designee; and (ii) leave CSX Property to its original condition, satisfactory to CSX's authorized representative.

9. INSURANCE AND WAIVERS

AGENCY shall (i) acquire or require AGENCY's Designee to purchase and maintain insurance in compliance with CSX's insurance requirements attached to this Agreement as Exhibit B; (ii) require any individual not employed by AGENCY to execute the Waiver and Release Form attached hereto as Exhibit C; and (iii) require any Designee to execute the Acceptance by AGENCY Designee Form attached hereto as Exhibit D prior to entering CSX property and/ or commencing any Work or Spot Painting. Neither AGENCY nor AGENCY's Designee shall commence the Work or Spot Painting until such insurance policy or policies and forms have been submitted to and approved by CSX's Risk Management Department.

10. CSX'S COSTS AND EXPENSES; REIMBURSEMENT PROCEDURES

A. Reimbursable Expenses. AGENCY shall reimburse CSX or shall cause AGENCY's Designee to reimburse CSX for all costs and expenses incurred by CSX in connection with the Project, Work or Spot Painting (the "Reimbursable Expenses").

B. Estimate. CSX has estimated the total Reimbursable Expenses as shown on Exhibit E (the "Estimate", as amended or revised). In the event CSX anticipates that actual Reimbursable Expenses may exceed such Estimate, it shall provide AGENCY with the revised Estimate of the total Reimbursable Expenses.

C. Payment Terms. Upon execution and delivery of this Agreement by AGENCY, AGENCY will deposit with CSX a sum equal to the estimated Reimbursable Expenses, as shown by the Estimate. Following completion of the Project, CSX shall submit to AGENCY a final invoice that reconciles the total costs incurred by CSX against the total payments received from AGENCY. AGENCY shall pay to CSX the amount by which expenses exceed total payments as shown by the final invoice, within thirty (30) days following delivery of such invoice to AGENCY. In the event that the payments received by CSX from AGENCY exceed the estimated expenses, CSX shall remit such excess to AGENCY.

11. INDEMNIFICATION.

A. As a material inducement for entering into this Agreement, and without which CSX would not enter into the same, AGENCY covenants and agrees that to the extent permitted by law, AGENCY shall indemnify, defend, and hold CSX and its affiliates harmless from and against all claims, demands, payments, suits, actions, judgments, settlements, and damages of every nature, degree, and kind (including direct, indirect, consequential, incidental, and punitive damages), for any injury to or death to any person(s) (including, but not limited to the employees of CSX, its affiliates, AGENCY or its Designees), for the loss of or damage to any property whatsoever (including but not limited to property owned by or in the care, custody, or control of CSX, its affiliates, AGENCY or its Designees), arising or resulting from the performance of this Agreement by AGENCY or any other person performing any work or service on the AGENCY's behalf on or about the Property. The foregoing indemnification obligation shall not be limited to the insurance coverage required by this Agreement, except to the extent required by law or otherwise expressly provided by this Agreement.

B. Compliance with Laws. AGENCY shall comply, and shall require its Designees to comply, with any federal, state, or local laws, statutes, codes, ordinances, rules, and regulations applicable to its construction and maintenance of the Project. AGENCY's Designees shall indemnify, defend, and hold CSX and its affiliates harmless with respect to any fines, penalties, liabilities, or other consequences arising from breaches of this Section.

C. “CSX Affiliates”. For the purpose of this Agreement, CSX’s affiliates include CSX Corporation and all entities, directly or indirectly, owned or controlled by or under common control of CSX or CSX Corporation and their respective officers, directors, employees and agents.

D. Survival. The provisions of this Section shall survive the termination or expiration of this Agreement.

12. CLAIMS

AGENCY shall promptly notify the CSX’s authorized representative of any loss, damage, or injury arising out of or in connection with the Work or Spot Painting. AGENCY shall not create, permit or suffer any mechanic’s or materialmen’s liens of any kind or nature to be created or enforced against any property of CSX for any such Work or Spot Painting performed.

13. MAINTENANCE

A. By AGENCY. Upon completion of the Project, AGENCY, or its Designee, shall be solely responsible for maintaining the aesthetic appearance of the Project, including taking any actions deemed necessary by CSX, in its sole discretion, to address any damage or disfiguration due to vandalism or graffiti by Spot Painting, in accordance with Section 1. In the event AGENCY or its Designee fails to maintain the aesthetic appearance of the Project in a reasonable condition, as determined by CSX in its sole discretion, CSX, after due notice to AGENCY, may [(i) require AGENCY to remove or paint over the mural, (ii) at AGENCY Designee’s sole cost and expense arrange for the mural to be removed or painted over, or (iii)] take such action as it deems appropriate to restore the railroad bridge to a condition acceptable to CSX. For purposes of this Section, “due notice” shall mean thirty (30) days’ notice unless CSX, in its sole discretion, determines that an emergency condition exists, in which case, AGENCY or its Designee shall take immediate action.

B. By CSX. CSX shall not in any manner be restricted from (i) maintaining, repairing, replacing or renewing its tracks, all parts of the railroad bridge supports, signal and communication systems or any other rail facilities or its property as it deems appropriate or (ii) performing any actions required to reasonably support rail operations. Neither shall CSX in any manner be responsible for any damage or disfiguration caused to the Project due to such work, actions, or railroad operations, nor shall CSX be responsible for the aesthetic appearance of the mural or the area of the railroad bridge supports upon which the Project is painted, so long as AGENCY remains responsible for the maintenance of the Project.

C. Alterations. AGENCY shall not undertake any alteration, modification or expansion of the Project, without the prior approval of CSX, which may be withheld for any reason, and the execution of such agreements as CSX may require.

14. INDEPENDENT CONTRACTOR

The parties agree that neither AGENCY nor the AGENCY Designee shall be deemed either agents or independent contractors of CSX. Except as otherwise provided by this Agreement, CSX shall exercise no control whatsoever over the employment, discharge, compensation of, or services rendered by AGENCY or AGENCY’s Representative, or the construction practices, procedures, and professional judgment employed by AGENCY or AGENCY’s Representative to complete the Project. Notwithstanding the foregoing, this Section shall in no way affect the absolute authority of CSX to prohibit AGENCY or AGENCY’s Representative or anyone from entering CSX’s property, or to require the removal of any person from its property, if it determines, in its sole discretion, that such person is not acting in a safe manner or that actual or potential hazards in, on or about the Property exist.

15. INTERPRETATION

AGENCY and CSX each acknowledge that the terms, covenants, conditions, and provisions of this Agreement have been negotiated between and jointly authored by the parties hereto, and in consequence of this joint authorship, the parties agree that no term, covenant, condition or provision hereunder shall be construed more strictly against one party or the other hereto.

16. SEVERABILITY

The parties agree that if any part, term or provision of the Agreement is held to be illegal, unenforceable or in conflict with any applicable federal, state, or local law or regulation, such part, term or provision shall be severable, with the remainder of the Agreement remaining valid and enforceable. If any provision or any part of a provision of the Agreement shall be finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to any applicable law, ordinance, rule or regulation, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Agreement, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

17. ENTIRE AGREEMENT

This Agreement embodies the entire understanding of the parties, may not be waived or modified except in a writing signed by authorized representatives of all parties, and supersedes all prior or contemporaneous written or oral understandings, agreements or negotiations regarding its subject matter. No modification or alteration of the terms hereof shall be binding unless such modification or alteration is in writing and executed by the parties.

18. NOTICES

All notices, consents and approvals required or permitted by this agreement shall be in writing and shall be deemed delivered; upon personal delivery, upon the expiration of three (3) business days following mailing by U.S. first class mail, or upon the next business day following mailing by a nationally recognized overnight carrier, to the parties at the addresses set forth below, or such other addresses as either party may designate by delivery of prior notice to the other party.

TO CSX: CSX Transportation, Inc.
500 Water Street, J301
Jacksonville, Florida 32202
Attention – Director Project Management, Public Projects

TO AGENCY: Name_____
Title Agency_____
Street Address City, State ZIP_____

19. TERMINATION

CSX and AGENCY shall have the right to terminate this Agreement upon notice for any reason.

Termination of this Agreement or Work on the Project, for any reason, shall not diminish or reduce AGENCY's obligation to pay CSX for Reimbursable Expenses incurred in accordance with this Agreement. In the event of the termination of this Agreement or the Work for any reason, CSX's only remaining obligation to AGENCY shall be to refund to AGENCY payments made to CSX in excess of Reimbursable Expenses in accordance with Section 10.

20. WAIVER

If any party fails to enforce its respective rights under this Agreement, or fails to insist upon the performance of the other party's obligations hereunder, such failure shall in no way be construed as a permanent waiver of any rights or obligations in this Agreement, nor in any way to affect the validity of this Agreement or any part hereof or the right of either party to thereafter enforce each and every such provision and to exercise any such right or option. No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach.

21. GOVERNING LAW; VENUE

This Agreement shall be governed by and construed under the laws of the State of Florida, without regard to the choice of law provisions thereof. Venue for any action arising from, or brought to enforce, this Agreement, shall vest exclusively in the state or federal courts located in Duval County, Florida, and the parties agree to submit to the personal jurisdiction of any state or federal court located in Duval County, Florida.

22. ASSIGNMENT

This Agreement shall be binding upon the parties hereto and upon all persons successor in interest to said parties. This Agreement shall not be assignable by AGENCY without the express written consent of CSX.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the day and year first above written.

Agency

_____

Name / Title

Date: _____

CSX TRANSPORTATION, INC.

_____

Name: Dale W. Ophardt
Title: Assistant Vice President – Engineering
Date: _____

APPROVED AS TO FORM AND LEGALITY:

_____

AGENCY Attorney

Date: _____

EXHIBIT A

PROJECT PLANS AND SPECIFICATIONS

EXHIBIT B

INSURANCE REQUIREMENTS

I. Insurance Policies:

Agency and Contractor, if and to the extent that either is performing work on or about CSX's property, shall procure and maintain the following insurance policies:

1. Commercial General Liability coverage at their sole cost and expense with limits of not less than $5,000,000 in combined single limits for bodily injury and/or property damage per occurrence, and such policies shall name CSX as an additional named insured. The policy shall include endorsement ISO CG 24 17 evidencing that coverage is provided for work within 50 feet of a railroad. If such endorsement is not included, railroad protective liability insurance must be provided as described in item 4 below.

2. Statutory Worker's Compensation and Employers Liability Insurance with limits of not less than $1,000,000, which insurance must contain a waiver of subrogation against CSX and its affiliates (if permitted by state law).

3. Commercial automobile liability insurance with limits of not less than $1,000,000 combined single limit for bodily injury and/or property damage per occurrence, and such policies shall name CSX as an additional named insured. The policy shall include endorsement ISO CA 20 70 evidencing that coverage is provided for work within 50 feet of a railroad. If such endorsement is not included, railroad protective liability insurance must be provided as described in item 4 below.

4. Railroad protective liability insurance with limits of not less than $5,000,000 combined single limit for bodily injury and/or property damage per occurrence and an aggregate annual limit of $10,000,000, which insurance shall satisfy the following additional requirements:

a. The Railroad Protective Insurance Policy must be on the ISO/RIMA Form of Railroad Protective Insurance - Insurance Services Office (ISO) Form CG 00 35.

b. CSX Transportation must be the named insured on the Railroad Protective Insurance Policy.

c. Name and Address of Contractor and Agency must appear on the Declarations page.

d. Description of operations must appear on the Declarations page and must match the Project description.

e. Authorized endorsements must include the Pollution Exclusion Amendment - CG 28 31, unless using form CG 00 35 version 96 and later.

f. Authorized endorsements may include:

(i). Broad Form Nuclear Exclusion - IL 00 21
(ii) 30-day Advance Notice of Non-renewal or cancellation
(iii) Required State Cancellation Endorsement
(iv) Quick Reference or Index - CL/IL 240

g. Authorized endorsements may not include:

(i) A Pollution Exclusion Endorsement except CG 28 31
(ii) A Punitive or Exemplary Damages Exclusion
(iii) A "Common Policy Conditions" Endorsement
(iv) Any endorsement that is not named in Section 4 (e) or (f) above.
(v) Policies that contain any type of deductible

5. All insurance companies must be A. M. Best rated A- and Class VII or better.

6. The CSX OP number or CSX contract number, as applicable, must appear on each Declarations page and/or certificates of insurance.

7. Such additional or different insurance as CSX may require.

II. Additional Terms

1. Contractor must submit the original Railroad Protective Liability policy, Certificates of Insurance and all notices and correspondence regarding the insurance policies to:

Insurance Department
CSX Transportation, Inc.
500 Water Street, C-907
Jacksonville, FL 32202

OR

insurancedocuments@csx.com

2. Neither Agency nor Contractor may begin work on the Project until it has received CSX's written approval of the required insurance.

EXHIBIT C

WAIVER AND RELEASE FORM TEMPORARY LICENSE AGREEMENT

_____ shall indemnify and hold CSX Transportation, Inc. ("CSX"), the owner or holder in interest of the tract of real property known as the CSX Transportation right of way under the_____, (the "Property"), harm- less from all claims, damages, demands, causes of action, suits, expenses (including attorney's fees and costs), judgments and interest whatsoever arising from a project to clean up and paint the bridge supports on the Property.

Signature: _____

Date:_____

Note: AGENCY must require any member, volunteer or other person not employed by AGENCY to execute this Waiver and Release Form, Exhibit C, prior to entering CSX property and/or commencing any work on the Project. A copy of all Waiver and Release Forms obtained from any member, volunteer or other person not employed by AGENCY must be sent to:

Julie Skinner
CSX Insurance Analyst
500 Water Street, 14th Floor, Jacksonville, FL 32202
Phone: 904-366-3804

EXHIBIT D

ACCEPTANCE BY AGENCY DESIGNEE

To and for the benefit of CSX Transportation, Inc. ("CSX") and to induce CSX to permit the AGENCY Designee on or about CSX's property for the purposes of performing Work or Spot Painting in accordance with the Agreement dated _____ 201 , between AGENCY and CSX, AGENCY Designee hereby agrees to abide by and perform all applicable terms of the Agreement, including, but not limited to Exhibit B and Exhibit C to the Agreement, and Sections 2, 3, 7, 8, 11, and 13 of the Agreement. Any notices required to be given to AGENCY Designee shall be in writing and delivered to the person identified below.

AGENCY Designee

By: _____

Print Name: _____

Title: _____

Date: _____

Notices shall be delivered to:
[name and address]

EXHIBIT E

ESTIMATE OF REIMBURSABLE EXPENSES

Attached

APPENDIX

CSX TRANSPORTATION

CSX SPECIAL PROVISIONS

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

DEFINITIONS:

As used in these Special Provisions, all capitalized terms shall have the meanings ascribed to them by the Agreement, and the following terms shall have the meanings ascribed to them below:

"CSX" shall mean CSX Transportation, Inc., its successors and assigns.

"CSX Representative" shall mean the authorized representative of CSX Transportation, Inc.

"Agreement" shall mean the Agreement between CSX and Agency dated as of_____, 20___amended from time to time. "Agency" shall mean the_____, _____

"Agency Representative" shall mean the authorized representative of_____, _____

"Contractor" shall have the meaning ascribed to such term by the Agreement.

"Work" shall mean the Project as described in the Agreement.

I. AUTHORITY OF CSX ENGINEER

The CSX Representative shall have final authority in all matters affecting the safe maintenance of CSX operations and CSX property, and his or her approval shall be obtained by the Agency or its Contractor for methods of construction to avoid interference with CSX operations and CSX property and all other matters contemplated by the Agreement and these Special Provisions.

II. INTERFERENCE WITH CSX OPERATIONS

A. Agency or its Contractor shall arrange and conduct its work so that there will be no interference with CSX operations, including, but not limited to: train, signal, telephone and telegraphic services, or damage to CSX's property, or to poles, wires, and other facilities of tenants on CSX's Property or right-of-way. Agency or its Contractor shall store materials so as to prevent trespassers from causing damage to trains, or CSX Property. Whenever Work is likely to affect the operations or safety of trains, the method of doing such Work shall first be submitted to the CSX Representative for approval, but such approval shall not relieve Agency or its Contractor from liability in connection with such Work.

B. If conditions arising from or in connection with the Project require that immediate and unusual provisions be made to protect train operation or CSX's property, Agency or its Contractor shall make such provision. If the CSX Representative determines that such provision is insufficient, CSX may, at the expense of Agency or its Contractor, require or provide such provision as may be deemed necessary, or cause the Work to cease immediately.

C. Should work activities be required within CSX property or right-of-way, the Contractor shall request CSX to locate any buried utilities or facilities (air lines, wells, etc.). A written request shall be delivered to the CSX Representative at least five (5) days in advance. The traditional "One Call" utility locate services are not responsible for locating any CSX undergrade utilities or facilities.

III. INSURANCE

The Contractor shall not be permitted to work on, or have potential to foul, CSX property or right-of-way until CSX has acknowledged written acceptance of the insurance coverages for the proposed project. See PAGE 16 - INSURANCE REQUIREMENTS.

IV. NOTICE OF STARTING WORK

Agency or its Contractor shall not commence any work on CSX Property or rights-of-way until it has complied with the following conditions:

A. Notify CSX in writing of the date that it intends to commence Work on the Project. Such notice must be received by CSX at least ten (10) business days in advance of the date Agency or its Contractor proposes to begin Work on CSX property. The notice must refer to this Agreement by date. If flagging service is required, such notice shall be submitted at least thirty (30) business days in advance of the date scheduled to commence the Work.

B. Obtain authorization, through the Notice to Proceed, from the CSX Representative to begin Work on CSX property. Once authorization is given, Agency or Contractor shall provide a detailed schedule to include means and methods for review, comment and/or approval prior to commencement of work. CSX will in turn provide direction regarding specific conditions with which it must comply.

C. Obtain from CSX the names, addresses and telephone numbers of CSX's personnel who must receive notice under provisions in the Agreement. Where more than one individual is designated, the area of responsibility of each shall be specified.

V. WORK FOR THE BENEFIT OF THE CONTRACTOR

A. No temporary or permanent changes to wire lines or other facilities (other than third party fiber optic cable transmission systems) on CSX property that are considered necessary to the Work are anticipated or shown on the Plans. If any such changes are, or become, necessary in the opinion of CSX or Agency, such changes will be covered by appropriate revisions to the Plans and by preparation of a force account estimate. Such force account estimate may be initiated by either CSX or Agency, but must be approved by both CSX and Agency. Agency or Contractor shall be responsible for arranging for the relocation of the third party fiber optic cable transmission systems, at no cost or expense to CSX.

B. Should Agency or Contractor desire any changes in addition to the above, then it shall make separate arrangements with CSX for such changes to be accomplished at the Agency or Contractor's expense.

VI. HAUL ACROSS RAILROAD

A. If Agency or Contractor desires access across CSX property or tracks at other than an existing and open public road crossing in or incident to construction of the Project, the Agency or Contractor must first obtain the permission of CSX and shall execute a license agreement or right of entry satisfactory to CSX, wherein Agency or Contractor agrees to bear all costs and liabilities related to such access.

1. Temporary construction haul roads across CSX tracks will require a separate application and payment to CSX Property Services. Agreement extensions require additional payment. Actual cost is variable and project specific. Additional information can be found at this URL: https://www.csx.com/index.cfm/customers/value-added-services/property-real-estate/permitting-utility-installations-and-rights-of-entry/.\\

B. Agency and Contractor shall not cross CSX's property and tracks with vehicles or equipment of any kind or character, except at such crossing or crossings as may be permitted pursuant to this section.

VII. COOPERATION AND DELAYS

A. Agency or Contractor shall arrange a schedule with CSX for accomplishing stage construction involving work by CSX. In arranging its schedule, Agency or Contractor shall ascertain, from CSX, the lead time required for assembling crews and materials and shall make due allowance therefor.

B. Agency or Contractor may not charge any costs or submit any claims against CSX for hindrance or delay caused by railroad traffic; work done by CSX or other delay incident to or necessary for safe maintenance of railroad traffic; or for any delays due to compliance with these Special Provisions.

C. Agency and Contractor shall cooperate with others participating in the construction of the Project to the end that all work may be carried on to the best advantage.

D. Agency and Contractor understand and agree that CSX does not assume any responsibility for work performed by others in connection with the Project. Agency and Contractor further understand and agree that they shall have no claim whatsoever against CSX for any inconvenience, delay or additional cost incurred by Agency or Contractor on account of operations by others.

VIII. STORAGE OF MATERIALS AND EQUIPMENT

Agency and Contractor shall not store their materials or equipment on CSX's property or where they may potentially interfere with CSX's operations, unless Agency or Contractor has received CSX Representative's prior written permission. Agency and Contractor understand and agree that CSX will not be liable for any damage to such materials and equipment from any cause and that CSX may move, or require Agency or Contractor to move, such material and equipment at Agency's or Contractor's sole expense. To minimize the possibility of damage to the railroad tracks resulting from the unauthorized use of equipment, all grading or other construction equipment that is left parked near the tracks unattended by watchmen shall be immobilized to the extent feasible so that it cannot be moved by unauthorized persons.

IX. CONSTRUCTION PROCEDURES

A. General

1. Construction work on CSX property shall be subject to CSX's inspection and approval.

2. Construction work on CSX property shall be in accord with CSX's Construction Submission Criteria, latest edition and CSX's written outline of specific conditions and with these Special Provisions.

3. Contractor shall observe the terms and rules of the CSX Safe Way manual, which Agency and Contractor shall be required to obtain from CSX, and in accord with any other instructions furnished by CSX or CSX's Representative. Failure to comply with the terms of the agreement and CSX rules can result in mandatory railroad worker protective training for the Agency, Contractor and its subcontractors.

B. Blasting

1. Agency or Contractor shall obtain CSX Representative's and Agency Representative's prior written approval for use of explosives on or adjacent to CSX property. If permission for use of explosives is granted, Agency or Contractor must comply with the following:

a. Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of Agency or Contractor.

b. Electric detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.

c. No blasting shall be done without the presence of an authorized representative of CSX. At least thirty (30) days' advance notice to CSX Representative is required to arrange for the presence of an authorized CSX representative and any flagging that CSX may require.

d. Agency or Contractor must have at the Project site adequate equipment, labor and materials, and allow sufficient time, to (i) clean up (at Agency's expense) debris resulting from the blasting without any delay to trains; and (ii) correct (at Agency's expense) any track misalignment or other damage to CSX's property resulting from the blasting, as directed by CSX Representative, without delay to trains. If Agency's or Contractor's actions result in delay of any trains, including Amtrak passenger trains, Agency shall bear the entire cost thereof.

e. Agency and Contractor shall not store explosives on CSX property.

2. CSX Representative will:

a. Determine the approximate location of trains and advise Agency or Contractor of the approximate amount of time available for the blasting operation and clean-up.

b. Have the authority to order discontinuance of blasting if, in his or her opinion, blasting is too hazardous or is not in accord with these Special Provisions.

X. ENVIRONMENTAL

A. Should soil excavation within CSX property be anticipated and said soils cannot remain on CSX property during and after construction, then CSX Environmental must be contacted at least thirty (30) days in advance of the work in order to schedule sampling, classification and disposition of material. Excavated material is prohibited from being removed from CSX property, or rights-of-way, without expressed written direction from CSX. Should final disposition require disposal of excavated material, CSX shall have sole discretion of means and location of said disposal. The project sponsor or Agency will bear all costs associated with sampling, staging and subsequent disposal if deemed necessary. Contractor will be required to obtain all disposal tickets / documentation and provide the information to the CSX Representative. CSX will not bear any costs associated with this work.

B. Any waste materials generated by the Project, including but not limited to washing with cleaning solvents, blasting, scraping, brushing and painting operations, shall be the responsibility of the Agency or its Contractor and shall be contained, collected and properly disposed of by the Agency or its Contractor. Agency and its Contractor agree to fully comply with all federal, state, and local environmental laws, regulations, statutes and ordinances at all times.

XI. MAINTENANCE OF DITCHES ADJACENT TO CSX TRACKS

Agency or Contractor shall maintain all ditches and drainage structures free of silt or other obstructions that may result from their operations. In addition, Agency or Contractor shall maintain all CSX property or right-of-way impacted by project operations including but not limited to; access or haul roads, staging areas, parking lots in a manner that provides CSX free and clear access to facilities, materials while providing acceptable driving surfaces free of drainage impacts or reduced CSX capacity. Agency or Contractor shall provide erosion control measures during construction and use methods that accord with applicable state standard specifications for road and bridge construction, including either (1) silt fence; (2) hay or straw barrier; (3) berm or temporary ditches; (4) sediment basin; (5) aggregate checks; and (6) channel lining. All such maintenance and repair of damages due to Agency's or Contractor's operations shall be performed at Agency's expense.

XII. TRACK PROTECTION / INSPECTION SERVICE

A. CSX has sole authority to determine the need for track protection required to protect its operations and property. In general, track protection will be required whenever Agency or Contractor or their equipment are, or are likely to be, working within fifty (50) feet of live track or other track clearances specified by CSX, or over tracks.

B. Agency shall reimburse CSX directly for all costs of track protection that is required on account of construction within CSX property shown in the Plans, or that is covered by an approved plan revision, supplemental agreement or change order.

C. Agency or Contractor shall give a minimum of thirty (30) days' advance notice to CSX Representative for anticipated need for track protection. No work shall be undertaken until the flag person(s) is/are at the job site. If it is necessary for CSX to advertise a flagging job for bid, it may take up to ninety (90) days to obtain this service and CSX shall not be liable for the cost of delays attributable to obtaining such service.

D. CSX shall have the right to assign an individual to the site of the Project to perform inspection service whenever, in the opinion of CSX Representative, such inspection may be necessary. Agency shall reimburse CSX for the costs incurred by CSX for such inspection service. Inspection service shall not relieve Agency or Contractor from liability.

E. CSX shall render invoices for, and Agency shall pay for, the actual pay rate of the flagpersons and inspectors used, plus standard additives, whether that amount is above or below the rate provided in the Estimate. If the rate of pay that is to be used for inspector or flagging service is changed before the work is started or during the progress of the work, whether by law or agreement between CSX and its employees, or if the tax rates on labor are changed, bills will be rendered by CSX and paid by Agency using the new rates. Agency and Contractor shall perform their operations that require track protection or inspection service in such a manner and sequence that the cost of such will be as economical as possible.

XIII. UTILITY FACILITIES ON CSX PROPERTY

Agency shall arrange, upon approval from CSX, to have any utility facilities on or over CSX Property changed as may be necessary to provide clearances for the proposed trackage.

XIV. CLEAN-UP

Agency or Contractor, upon completion of the Project, shall remove and dispose from CSX's Property any temporary construction work, any temporary erosion control measures used to control drainage, all machinery, equipment, surplus materials, falsework, rubbish, or temporary buildings belonging to Agency or Contractor. Agency or Contractor, upon completion of the Project, shall leave CSX Property in neat condition, satisfactory to the CSX Representative.

XV. FAILURE TO COMPLY

If Agency or Contractor violate or fail to comply with any of the requirements of these Special Provisions, (a) CSX may require Agency and/or Contractor to vacate CSX Property; and (b) CSX may withhold monies due Agency and/or Contractor; (c) CSX may require Agency to withhold monies due Contractor; and (d) CSX may cure such failure and the Agency shall reimburse CSX for the cost of curing such failure.

APPENDIX

CSX TRANSPORTATION

OVERHEAD BRIDGE CRITERIA

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

CSX Transportation (CSX) has minimum requirements for outside parties constructing, rehabilitating, or replacing bridges over CSX's railroad tracks. These requirements are intended to provide safe and continuous passage of all train traffic during and after construction of bridges over its tracks. Part of these requirements is for the outside party to submit a detailed plan of the project as well as provide details of the construction methodology. This document provides information on the requirements by CSX for overhead bridges.

Plans and specifications for new or reconstructed bridges over CSX's railroad tracks or right-of-way shall meet the following requirements:

I. GENERAL REQUIREMENTS:

A. CSX's valuation station and the distance from the nearest milepost at the intersection of the centerline of the track and the centerline of the bridge shall be shown on the General Plan.

B. The existing and proposed minimum horizontal and vertical clearances shall be marked clearly on the General Plan and Elevation.

C. At least one subsurface exploration boring for each substructure unit adjacent to the track shall be furnished to CSX's during the design submittal. Borings shall provide enough information to design shoring and foundations.

D. Prior to construction activities, all overhead bridge projects will require the procurement of the appropriate property rights from Real Estate and other construction agreement(s) with CSX Transportation.

E. All lifting equipment and connection devices shall have capacity for 150% of the actual lifting load. The factor of safety provided by the manufacturer in the lifting capacity data shall not be considered in the 150% requirement. A licensed professional engineer, familiar with lifting and rigging, in the State where the construction work is proposed must sign and seal all plans and calculations related to critical lifting on the project.

II. CLEARANCES:

A. Horizontal Clearance: Standard horizontal clearance from centerline of the track to the face of the pier or abutment shall typically be 25'-0" or greater, but never less than 18'-0", measured perpendicular to the track. Provisions for future tracks, access roads, other CSX facilities, and drainage may require the minimum clearance be increased or use of multi-span structures. The toe of footings shall not be closer than 11'-0" from centerline of the track to provide adequate room for sheeting.

B. Vertical Clearance: A standard vertical clearance of 23'-0" shall be provided, measured from top of high rail to lowest point of structure in the horizontal clearance area which extends 6'-0" either side of the centerline of track.

C. Temporary Construction clearances to be used shall be subject to approval by CSX. Typically reductions in clearance for construction are not permitted.

D. CSX shall be furnished as-built drawings showing actual clearances as constructed.

III. CRASHWALLS:

AREMA Specifications, Chapter 8, Article 2.1.5 covers the requirements for crashwalls. Crashwalls are required when face of the pier is closer than 25'-0" from centerline of the track, measured perpendicular to the track, except as noted below.

Crashwalls shall meet the following requirements:

A. Crashwalls for single column piers shall be minimum 2'-6" thick and shall extend a minimum of 6'-0" above the top of high rail for piers located between 18'-0" and 25'-0" from the centerline of the nearest track. The wall shall extend minimum 6'-0" beyond the column on each side in the direction parallel to the track.

B. For multi-column piers, the columns shall be connected with a wall of the same thickness as the columns or 2'-6" whichever is greater. The wall shall extend a minimum of 2'-6" beyond the end of outside columns in a direction parallel to the track.

C. Reinforcing steel to adequately anchor the crashwalls to the column and footing shall be provided. For piers of heavy construction, crashwalls may be omitted. Solid piers with a minimum thickness of 2'-6" and length of 20'-0", single column piers of minimum 4'-0" X 12'-6" dimensions or any other solid pier sections with equivalent cross sections and minimum 2'-6" thickness are considered as heavy construction.

IV. DRAINAGE:

Drainage from the bridge shall be preferably collected with drain pipes and drained away from CSX's right-of-way. When open scuppers are provided on the bridge, none shall be closer than 25'-0" of the centerline of nearest track. Flow from the scuppers shall be directed away from CSX's drainage ditches.

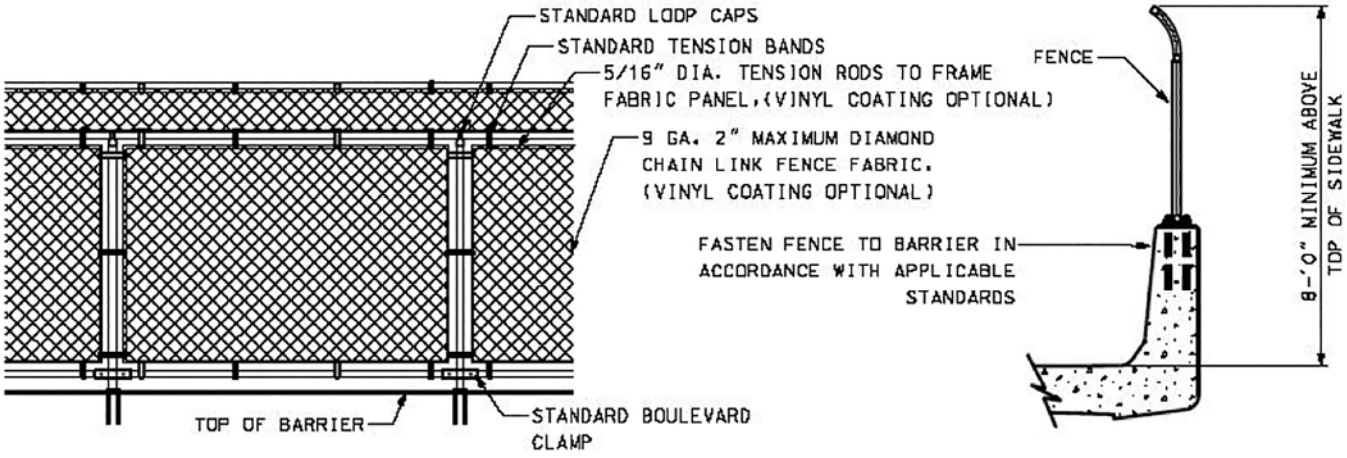
Projects including stormwater systems shall be designed for a 100-year storm event as a minimum. If stormwater is drained on or to CSX's right-of-way, calculations must be submitted to CSX to verify the 100-year storm event is properly handled. Improvements to the adjacent drainage systems may be required at project expense, to ensure the impacted system will meet the 100-year storm event minimum condition.

During and after completion of construction, the outside party or its contractor must clear CSX's drainage ditches of all debris to the satisfaction of CSX's construction engineering and inspection representative.

V. PROTECTIVE FENCING:

All highway structures including controlled access highways shall have a protective barrier fence to extend at least 8'-0" from the top of the sidewalk or driving surface adjacent to the barrier wall. The fence may be placed on top of the barrier wall. The fence shall be capable of preventing pedestrians from dropping debris onto CSX's right-of-way, and in particular, passing trains.

Openings in the fence hall not exceed 2" x 2". Fencing should also include anti-climbshields or be of a configuration to minimize the likelihood of climbing on the outside of the protective fencing. A chain link fence option is shown below:



VI. STRUCTURE EXCAVATION AND SHORING:

Shoring protection shall be provided when excavating adjacent to an active track. Shoring will be provided in accordance with AREMA Manual for Railway Engineering Chapter 8 part 28, except as noted below.

Shoring will not be required if both the following conditions are satisfied:

1. Excavation does not encroach upon a 1 horizontal to 1 vertical theoretical slope line starting at bottom corner of tie (live load influence zone).

2. Track is on level ground or in a cut section and on stable soil.

When the track is on an embankment, excavating the toe of the embankment without shoring may affect the stability of the embankment. Therefore, excavation of the embankment toe without shoring will not be permitted.

Preferred protection is the cofferdam type that completely encloses the excavation. Where dictated by conditions, partial cofferdams with open sides away from the track may be used. Cofferdams shall be constructed using steel sheet piling or steel soldier piles with timber lagging. Wales and struts shall be provided as needed. The following shall be considered when designing cofferdams:

a. Shoring shall be designed to resist a vertical live load surcharge of 1,882 lbs. per square foot, in addition to active earth pressure. The surcharge shall be assumed to act on a continuous strip, 8'-6" wide. Lateral pressures due to surcharge shall be computed using the strip load formula shown in AREMA Manual for Railway Engineering, Chapter 8, Part 20.

b. Allowable stresses in materials shall be in accordance with AREMA Manual for Railway Engineering, Chapter 7, 8, and 15.

c. A construction procedure for temporary shoring shall be shown on the drawing.

d. Safety railing shall be installed when temporary shoring is within 15'-0" of the centerline of the track.

e. A minimum distance of 10 feet from centerline of the track to face of nearest point of shoring shall be maintained.

The contractor shall submit the following drawings and calculations for CSX's review and approval.

1. Three (3) sets of detailed drawings of the shoring systems showing sizes of all structural members, details of connections, and distances form centerline of track to face of shoring. Drawing shall show a section showing height of shoring and track elevation in relation to bottom of excavation.

2. One set of calculations of the shoring design.

The drawings and calculations shall be prepared by a Licensed Professional Engineer in the State where shoring is to be constructed and shall bear his seal and signature. Shoring plans shall be approved by CSX's construction engineering and inspection representative.

3. For sheeting and shoring within 18'-0" of the centerline of the track, the live load influence zone, and in slopes, the contractor shall use sheet pile. No sheet pile in slopes or within 18'-0" of the centerline of track shall be removed. Sheet piles shall be cut off 3'-0" below the finished ground line. The remaining 3'-0" shall be backfilled and compacted immediately after cut off.

VII. DEMOLITION OF EXISTING STRUCTURE:

The Contractor shall submit a detailed procedure for demolition of existing structures over or adjacent to CSX's tracks or right-of-way. The procedure shall clearly indicate the capacity of cranes, location of cranes with respect to the tracks and calculated lifting loads (refer to Section I.E of this document). The demolition procedure must be approved by CSX's construction engineering and inspection representative.

CSX's tracks, signals, structures, and other facilities shall be protected from damage during demolition of existing structure or replacement of deck slab. As a minimum, both of the following methods shall be used:

A. During demolition of the deck, a protection shield shall be erected from the underside of the bridge over the track area to catch falling debris. The protection shield shall be supported from girders or beams. The deck shall be removed by cutting it in sections and lifting each section out. The protection shield shall be designed, with supporting calculations, for a minimum of 50 pounds per square foot plus the weight of the equipment, debris, personnel, and other loads to be carried.

Large pieces of deck shall not be allowed to fall on the protection shield

B. A ballast protection system consisting of geofabric or canvas shall be placed over the track structure to keep the ballast clean. The system shall extend along the track structure for a minimum of 25'-0" beyond the limits of the demolition work, or farther if required by CSX's construction engineering and inspection representative.

C. The Contractor shall submit detailed plans, with supporting calculations, of the protection shield and ballast protection systems for approval prior to the start of demolition.

D. Blasting will not be permitted to demolish a structure over or within CSX's right-of-way.

VIII. ERECTION PROCEDURE:

The Contractor shall submit a detailed procedure for erecting over or adjacent to CSX's tracks or right-of-way. The procedure shall clearly indicate the capacity of cranes, location of cranes with respect to the tracks and calculated lifting loads (refer to Section. E of this document). The erection procedure must be approved by CSX's construction engineering and inspection representative.

IX. PILE INSTALLATION:

A. For the installation of piles and sheeting for abutment foundations, pier foundations, retaining wall foundations, temporary and permanent shoring and other structures on or adjacent to CSX's right-of-way, the contractor may be required to submit a detailed track monitoring program for CSX's approval prior to performing any work near CSX's right-of-way.

B. The program shall specify the survey locations, the distance between the location points, and frequency of monitoring before, during, and after construction. CSX shall have the capability of modifying the survey locations and monitoring frequency as needed during the project.

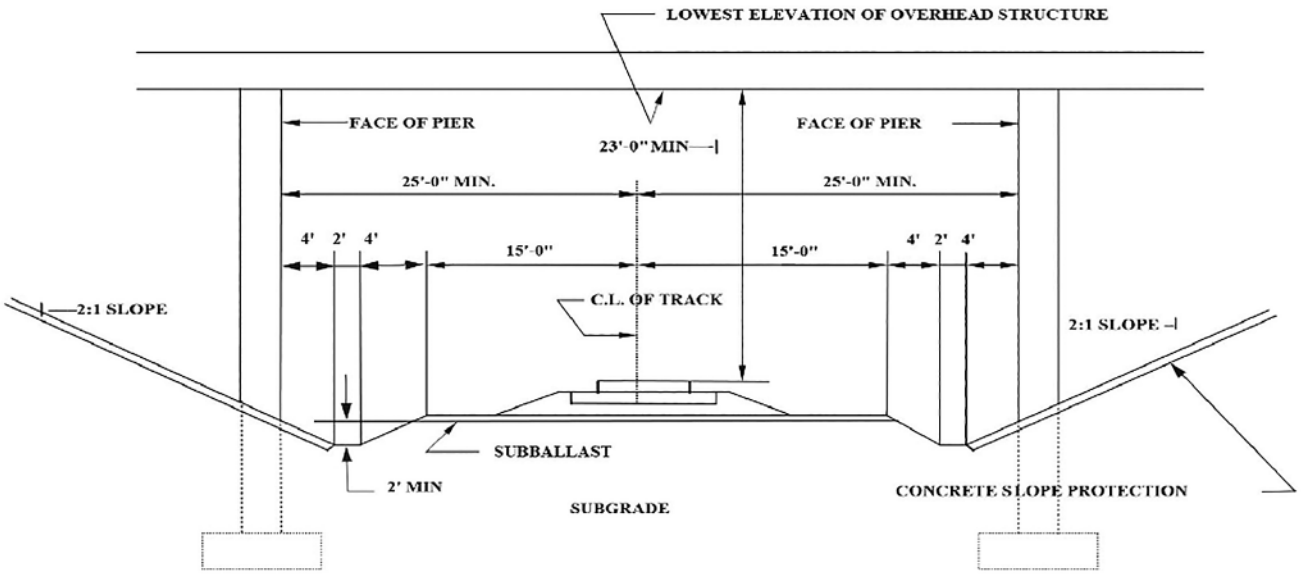
C. If any settlement is observed, CSX's construction engineering and inspection representative shall be immediately notified. CSX, at its sole discretion, shall have the right to immediately require all contractor operations to be ceased, have the excavated area immediately backfilled and/or determine what corrective action is required. Any corrective action required by CSX or performed by CSX including the monitoring of corrective action of the contractor will be at project expense.

X. PEDESTRIAN OVERHEAD:

Pedestrian overhead bridges shall be governed by this document in its entirety with the following exceptions:

A. Pedestrian overhead bridges shall span the entire width of CSX's right-of-way. Intermediate piers or other supports will not be permitted.

B. Pedestrian overhead bridges shall be completely enclosed with protective canopy or by other means to prevent users from dropping debris onto CSX's right-of-way.

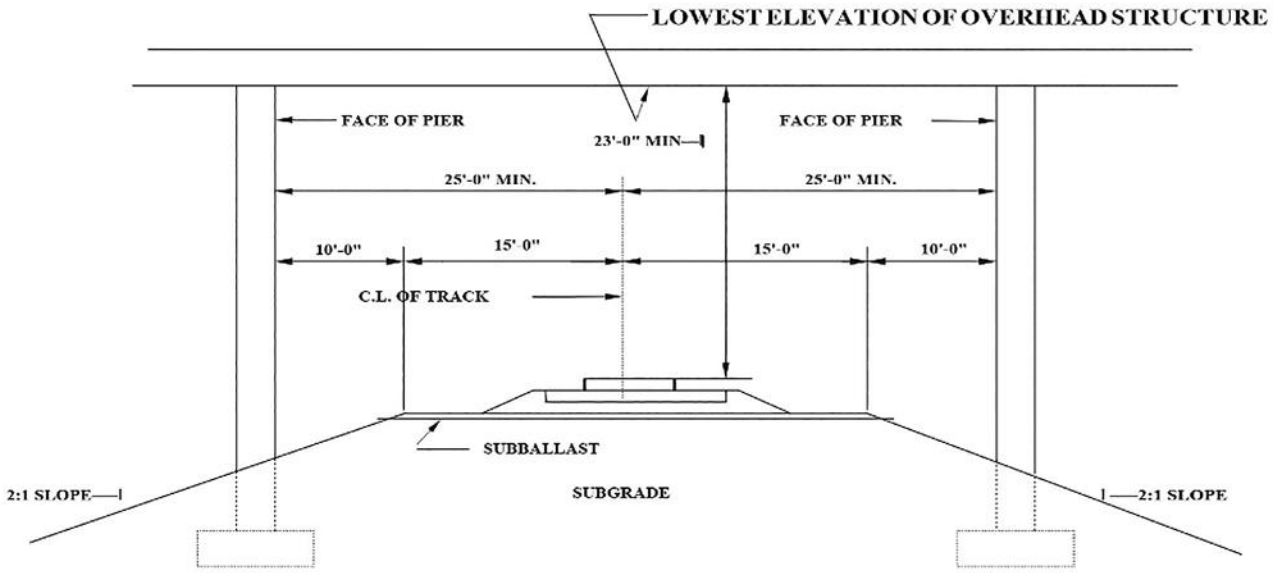


CLEARANCES REQUIRED FOR OVERHEAD STRUCTURES
TYPICAL ROADBED SECTION WITH STANDARD DITCHES

NOTE: FOR MULTIPLE TRACKS, STANDARD TRACK CENTERS IS 15'-0". AN ADDITIONAL 8'-0" WIDE ACCESS ROAD MAY BE REQUIRED TO PROVIDE 33'-0" MINIMUM DISTANCE FROM CENTERLINE OF TRACK TO FACE OF PIER.

CSX ENGINEERING DEPARTMENT

STANDARD CLEARANCES FOR OVERHEAD STRUCTURES

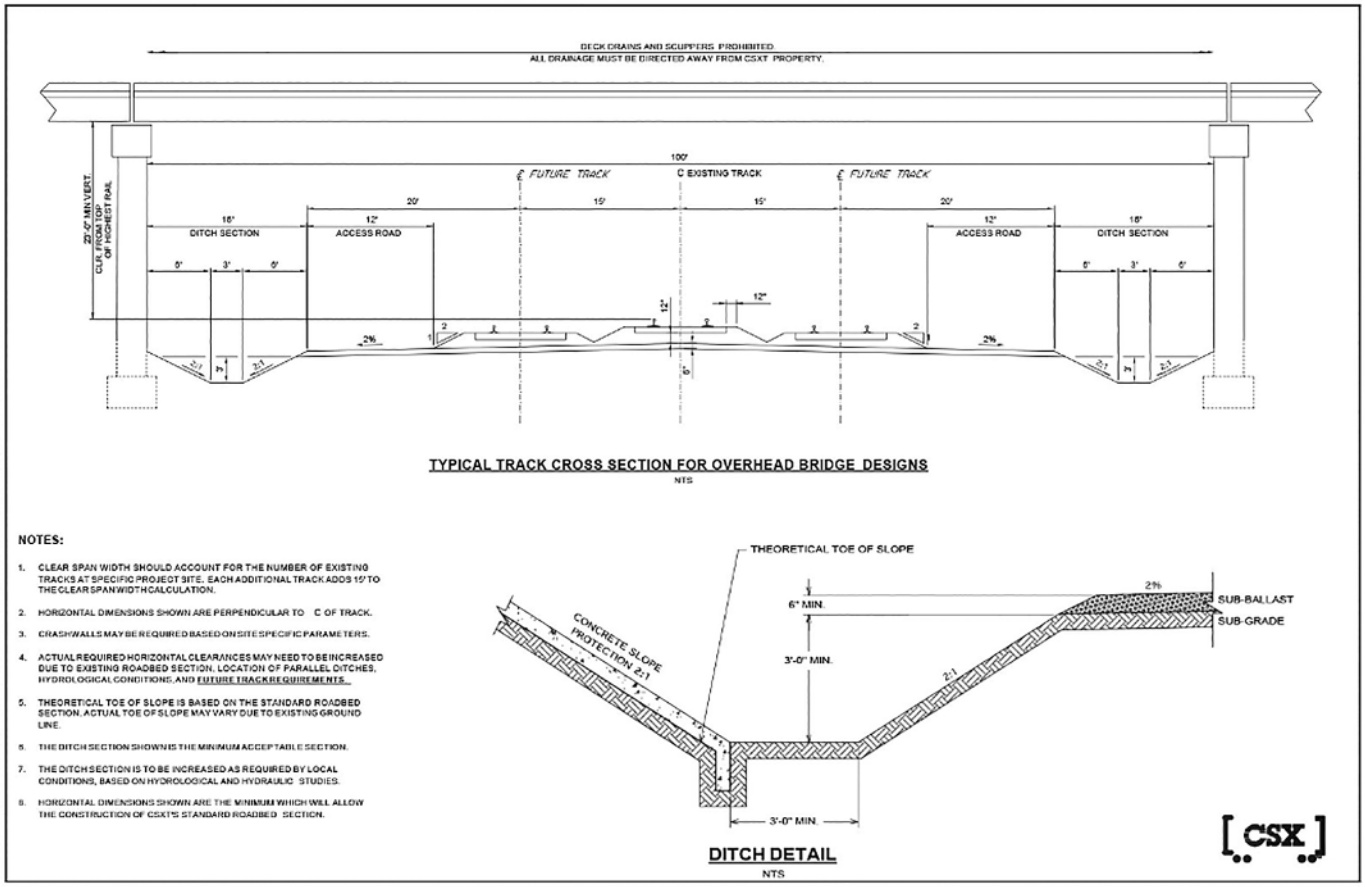


CLEARANCES REQUIRED FOR OVERHEAD STRUCTURES
TYPICAL SECTION FOR ROADBED IN FILL

(WHERE NO DEFINED DITCHES ARE NEEDED)

CSX ENGINEERING DEPARTMENT

STANDARD CLEARANCES FOR OVERHEAD STRUCTURES



TYPICAL TRACK CROSS SECTION FOR OVERHEAD BRIDGE DESIGNS

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NOTES:

1. CLEAR SPAN WIDTH SHOULD ACCOUNT FOR THE NUMBER OF EXISTING TRACKS AT SPECIFIC PROJECT SITE. EACH ADDITIONAL TRACK ADDS 15' TO THE CLEAR SPAN WIDTH CALCULATION.
2. HORIZONTAL DIMENSIONS SHOWN ARE PERPENDICULAR TO ℄ OF TRACK.
3. CRASHWALLS MAY BE REQUIRED BASED ON SITE SPECIFIC PARAMETERS.
4. ACTUAL REQUIRED HORIZONTAL CLEARANCES MAY NEED TO BE INCREASED DUE TO EXISTING ROADBED SECTION, LOCATION OF PARALLEL DITCHES, HYDROLOGICAL CONDITIONS, AND FUTURE TRACK REQUIREMENTS.
5. THEORETICAL TOE OF SLOPE IS BASED ON THE STANDARD ROADBED SECTION. ACTUAL TOE OF SLOPE MAY VARY DUE TO EXISTING GROUND LINE.
6. THE DITCH SECTION SHOWN IS THE MINIMUM ACCEPTABLE SECTION.
7. THE DITCH SECTION IS TO BE INCREASED AS REQUIRED BY LOCAL CONDITIONS, BASED ON HYDROLOGICAL AND HYDRAULIC STUDIES.
8. HORIZONTAL DIMENSIONS SHOWN ARE THE MINIMUM WHICH WILL ALLOW THE CONSTRUCTION OF CSXT'S STANDARD ROADBED SECTION.

DITCH DETAIL

NTS

APPENDIX

CSX TRANSPORTATION

CRITERIA FOR UNDERGRADE RAILROAD BRIDGES

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

INTRODUCTION

The AREMA Manual for Railway Engineering shall serve as the overarching authority for recommended practice in designing CSX railroad bridges. The intent of this document is to provide criteria which supplements, modifies and/or supersedes the applicable sections of the AREMA Manual for designing undergrade railway bridges which are to be owned and/or operated on by CSX. Additionally, these requirements help guide an outside party through the necessary procedures for interacting with CSX and delivering an acceptable structure that is constructible, inspectable, maintainable, long lasting, and reliable.

I. DEFINITIONS

1. Agency – The project sponsor (i.e., State DOT, Provincial MOT, Local Agencies, Private Developer, etc.)

2. AREMA – American Railway Engineering and Maintenance-of-Way Association – the North American railroad industry standards group. The use of this term shall be in specific reference to the AREMA Manual for Railway Engineering.

3. Construction Submission – The Agency or its representative shall submit a digital copy of the project plans, supporting calculations, and detailed means and methods procedures for the specific proposed activity. All plans, specifications, and supporting calculations shall be signed and sealed by a Professional Engineer as defined below.

4. Controlled Demolition – Removal of an existing structure or subcomponents in a manner that positively prevents any debris or material from falling, impacting, or otherwise affecting CSX employees, equipment or property. Provisions shall be made to ensure that there is no impairment of railroad operations or CSX's ability to access its property at all times.

5. Contractor – The Agency's representative retained to perform the project work.

6. Engineer – CSX Engineering Representative or a GEC authorized to act on the behalf of CSX.

7. Flagman – A qualified CSX employee with the sole responsibility to direct or restrict movement of trains, at or through a specific location, to provide protection for workers.

8. GEC – General Engineering Consultant who has been authorized to act on the behalf of CSX.

9. Horizontal Clearance – Minimum distance measured perpendicularly from centerline of any track to the nearest obstruction at any elevation between TOR and the maximum vertical clearance of the track.

10. Professional Engineer – An engineer who is licensed in the Commonwealth, District, Province, or State in which the project is to occur. All plans, specifications, and supporting calculations shall be prepared under the direction of a Professional Engineer and shall bear their seal and signature.

11. Potential to Foul – Work having the possibility of impacting CSX property or operations; defined as one or more of the following:

   a. Any activity where access onto CSX property is required.

   b. Any activity where work is being performed on CSX ROW.

   c. Any excavation work adjacent to CSX tracks or facilities, within the Theoretical Railroad Live Load Influence Zone, or where the active earth pressure zone extends within the CSX property limits.

d. The use of any equipment where, if tipped and laid flat in any direction (360 degrees) about its center pin, can encroach within twenty five feet (25'-0") of the nearest track centerline. This is based upon the proposed location of the equipment during use, and may be a function of the equipment boom length. Note that hoisting equipment with the potential to foul must satisfy the 150% factor of safety requirement for lifting capacities.

e. Any work where the scatter of debris, or other materials has the potential to encroach within twenty five feet (25'-0") of the nearest track centerline.

f. Any work where significant vibration forces may be induced upon the track structure or existing structures located under, over, or adjacent to the track structure.

g. Any other work which poses the potential to disrupt rail operations, threaten the safety of railroad employees, or otherwise negatively impact railroad property, as determined by CSX.

12. ROW – Right of Way; refers to all CSX property and facilities, including all aerial and underground space within the property limits.

13. Submission Review Period – a minimum of 30 days in advance of start of work. Up to 30 days will be required for the initial review response. Up to an additional 30 days may be required to review any/all subsequent submissions or resubmission.

14. Theoretical Railroad Live Load Influence Zone – A 1 horizontal to 1 vertical theoretical slope line starting at bottom corner of tie.

15. TOR – Top of Rail. This is the base point for clearance measurements. It refers to the crown (top) of the steel rail; the point where train wheels bear on the steel rails. In superelevated track this refers to the higher of the two rails.

16. Track Structure – All load bearing elements supporting train loads. This includes, but is not limited to, the rail, ties, appurtenances, ballast, sub-ballast, embankment, retaining walls, and bridge structures.

17. Vertical Clearance – Distance measured from TOR to the lowest obstruction within six feet (6'-0") either side of the track centerline.

II. GENERAL REQUIREMENTS

A. Bridge shall be designed in accordance with the applicable specifications from the current edition of AREMA. Applicable sections may include, but are not limited to, the following:

Chapter 8 Concrete Structures and Foundations
Chapter 9 Seismic Design for Railway Structures
Chapter 15 Steel Structures

B. Design and construction shall be in accordance with the current edition of the CSX Design and Construction Standard Specifications. The requirements in this document shall be supplemented by AREMA recommendations for fabrication and erection.

C. Items not covered by CSX Design and Construction Standard Specifications shall be governed by applicable highway specifications from the Commonwealth, District, Province, or State where the bridge is being constructed.

D. Reference CSX Construction Submission Criteria for other construction considerations.

E. Any proposed deviation(s) from the required design and construction specifications shall be submitted in writing to the CSX Public Projects Manager for review and approval by the CSX Chief Engineer - Design and Construction.

III. BRIDGE LAYOUT

A. The general plan drawing of the bridge shall show the railroad valuation stations at the front face of backwalls, and centerline of piers or bents, along the centerline of the bridge. Distance from front face of low milepost backwall to low milepost nearest the bridge shall also be shown. The following criteria will serve as a guide for labeling the bridge layout.

1. Railroad bridges are laid out in direction of increasing milepost, increasing from left to right on plans.

2. Plans should denote the railroad direction and the nearest significant terminal or junction leading away from either end of the bridge.

3. Substructures are numbered starting with zero and increasing in the direction of increasing mileposts

4. Superstructures are numbered starting with 1 and increasing in the direction of increasing mileposts.

5. Floor systems of thru plate girder, through truss, and deck truss spans are numbered starting with 0 and increasing in the direction of increasing mileposts.

6. Bridge components are numbered from left to right facing the direction of increasing milepost.

B. Low mile post backwall GPS coordinates shall be detailed on plans, in degrees-minutes-seconds, or decimal format with precision to six decimal places.

C. For bridges on curves, the girders, abutments and piers shall be located with reference to chords.

D. Bridge shall be located to provide optimal railroad grade, profile, and alignment of structures and track.

IV. CLEARANCES

A. Under Bridge Vehicular Clearances

1. Undergrade structures shall be designed to ensure that the structure will be protected from oversized or unauthorized loads by providing sufficient vertical clearance and protective devices. Provide a minimum vertical clearance over the entire roadway width for all new or reconstructed structures as follows:

i. 16'-6" for steel superstructure with 5 or more beams or 4 or more deck plate girders per track.

iii. 17'-6" for steel through plate girders or less than 4 deck plate girders per track with bolted bottom flanges.

iv. 20'-0" for steel through plate girders or less than 4 deck plate girders per track with welded bottom flanges.

v. Concrete superstructures shall not be permitted over the entire roadway width.

iv. Vertical clearance must not be violated due to the deflection of the superstructure.

2. Roadway profile and design roadway vehicle information shall be provided and considered in vertical clearance design.

B. Bridge Clearances

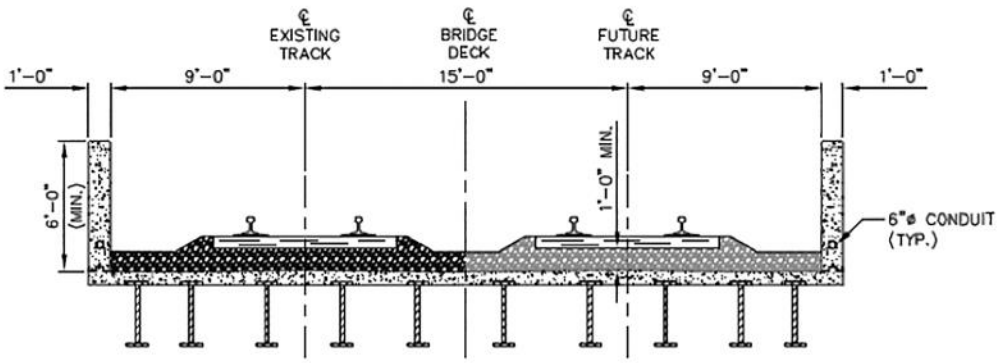
1. Standard clearances on the bridge shall not be modified without written notice of approval by the CSX Chief Engineer – Design & Construction. Any proposed modification shall be furnished with detailed engineering justification for review.

2. Commonwealth, District, Provincial, or State clearance laws must not be violated. Legal requirements must be upheld, unless written permission for waiver is provided by the appropriate regulatory authority.

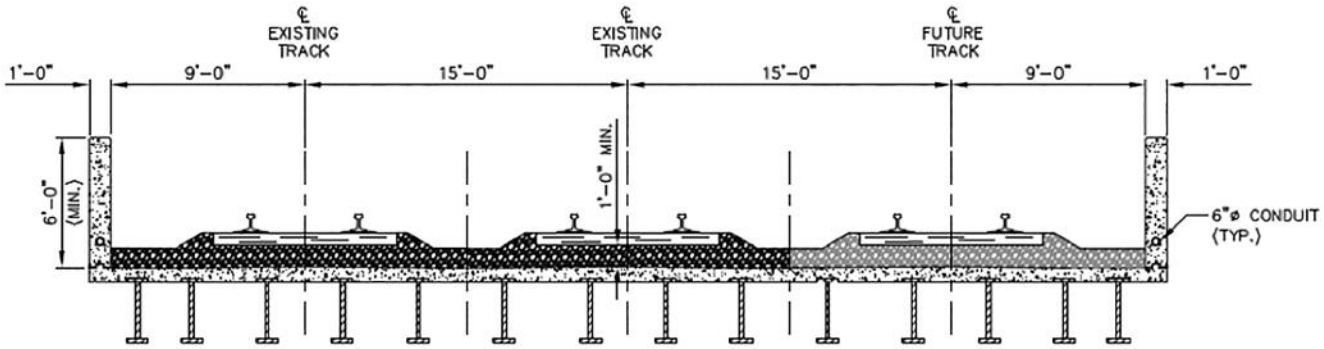
3. Adequate clearance and capacity shall be provided for a future track.

4. Track centers shall not be closer than 15'-0".

5. Minimum horizontal clearance on the bridge shall be provided as shown below:



UNDERGRADE BRIDGE – TYPICAL ONE TRACK SECTION
NTS



UNDERGRADE BRIDGE – TYPICAL TWO TRACK SECTION
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6. Standard clearances are for tangent track and increases must be provided to account for effects from curvature and superelevation as per CSX Standard Drawing 2604.

V. DESIGN LOADS

A. Railroad bridges shall be designed for all loads specified in AREMA.

B. Live loads for steel structures shall consider both the Cooper E-90 loading and the Alternate Live Load with full diesel impact; whichever produces the greater stress. Live loads for concrete structures shall consider Cooper E-90 loading with full diesel impact.

C. All bridges shall be designed with non-composite interaction between superstructure and deck. Mechanical connections shall be provided as necessary to satisfy design load requirements.

D. The weight of the minimum ballast depth one foot (1'-0") plus an additional two feet (2'-0") of ballast below the tie shall be included when computing the dead load of the structure.

VI. PLAN PREPARATION AND SUBMITTALS

A. Preliminary Plans

1. An electronic copy of type, size and location (TS&L) plans shall be submitted to CSX for review and acceptance. The TS&L plan shall show plan view, elevation and typical cross section of the proposed structure. Railroad acceptance must be granted before proceeding with design.

2. Furnish cross sections showing the AREMA Clearance Envelope, topographic map with contours, and soil exploration data along with TS&L plans. Railroad acceptance must be granted before proceeding with design.

B. CSX will assign a bridge designation when TS&L plans are reviewed. This bridge designation shall be shown on all drawings.

C. Construction Work Plans

1. CSX may require construction work plans to be submitted, particularly when work is being performed in the proximity of an active track, with Potential to Foul.

2. All construction work plans shall be submitted in accordance with the *CSX Construction Submission Criteria.*

D. Material Submissions

1. Structural steel shop drawings shall be provided for CSX review and acceptance, prior to ordering material. Welding procedures shall be submitted with the structural steel shop drawings.

2. Concrete mix designs shall be submitted for CSX review and acceptance, prior to ordering material.

3. 3rd party testing reports shall be provided to CSX for review and acceptance in a timely manner.

4. All other materials shall be provided in accordance with the plans. All materials shall be reviewed and approved by the Agency or its representative. Proposed changes are subject to review and acceptance by CSX. Approved material submissions shall be furnished to CSX for confirmation and project documentation.

E. Final Plans

1. Provide electronic set of final signed and sealed design plans and calculations for CSX acceptance. Final plans shall include a stress sheet with bending, shear, and axial design load stresses and capacities for all main members as well as Cooper E load ratings for both Normal and Maximum conditions at 60mph, 25mph, and 10mph.

SUPERSTRUCTURE RATING TABLE

SPAN	SHAPE	CONTROLLING MEMBER	A_w (in^2)	S_n (in^3)	F_y (ksi)	SPAN +/- (C-C)		DL	LL	I (60mph)	NORMAL RATING			MAXIMUM RATING		
											60mph	25mph	10mph	60mph	25mph	10mph
SPAN 3 (2 - DPG)	BUILT-UP 1913	DPG	35	3937	30	76'-11"	SHEAR (kips)	43	240	96	78	85	93	141	154	169
							MOMENT (k-ft.)	820	4042	1617	64	70	77	99	108	119
Span 4 (2 - DPG)	BUILT-UP 1924	DPG	48	7258	30	98'-11"	SHEAR (kips)	66	297	107	87	93	102	158	170	185
							MOMENT (k-ft.)	1624	6326	2266	77	83	91	120	129	140

2. Submit special provisions or special specifications for CSX acceptance.

3. Provide an electronic set of as-built plans to CSX upon completion of construction. All Changes shall be noted and clearly called out on a redlined set of as-built plans. All pages shall be clearly marked "AS-BUILT", and include the date of completion. AS-BUILT plans shall contain complete pile logs for all piles included in the final structure.

VII. MATERIAL REQUIREMENTS

All materials shall be in accordance with *CSX Design and Construction Standard Specifications, Division 7 – Structures.*

VIII. CONSTRUCTION CONSIDERATIONS

A. After construction contract is awarded, a copy of the contract shall be provided to CSX.

B. Maintenance of railroad traffic

1. It is essential that the construction be performed with minimum interference to rail traffic. Continuity of safe rail operations will be required for the duration of the project.

2. The Agency's Design Engineer should contact the Public Project Manager in the preliminary design stage to determine railroad operational requirements. The most effective method of maintaining traffic is to temporarily reroute traffic around the construction site using detour tracks. Detour tracks will be required where feasible. If detour tracks cannot be provided, the new superstructure shall be constructed adjacent to final location and rolled into place. Construction plans shall show complete details of temporary bridges and/or roll-in structure.

3. A detailed construction procedure for maintaining traffic shall be shown on the plans. When construction requires total interruption of rail traffic, an estimate of the time required will be shown in the procedure. This interval must be within the approved time frame furnished by Public Project Manager.

4. Prior to the start of construction, written approval from the Railroad for the construction procedure must be secured.

IX. BRIDGE DECKS

A. Walkways and Parapets

1. Deck shall be a uniform ballast pan across all tracks and provide for a ballast walkway between all tracks and on the field side of the exterior tracks. Intermediate curbs shall not be permitted.

2. All exterior walkways shall utilize the uniform ballast pan and be equipped with a 72 inch tall parapet wall, measured from top surface of bridge deck. Parapet walls should include two each six inch ducts to accommodate signal and utility needs.

B. Minimum ballast depth shall be one foot (1'-0") measured from top of deck waterproofing to the bottom of tie, at the centerline of the low rail. This dimension shall be clearly labeled on cross section drawings.

C. On bridges, timber crossties (7" x 9" x 8'6") shall be used, spaced at 20" centers. Alternatively, concrete crossties may be used also at 20" centers or steel crossties may be used at 36" centers.

D. Track material shall be subject to review by CSX or provided by CSX at project expense.

E. Steel Deck Plates

1. Steel deck plates shall be shop welded with a pair of 5/16 inch continuous fillet welds to each floor beam or deck girder. Deck units shall be shop assembled with multiple beams per unit, and areas to be field welded shall be masked and field painted after welding is complete.

2. The closing deck plate between adjacent deck units shall be fillet welded to the beams with continuous 5/16 inch fillet welds at each beam. After deck plates are welded to the beam, fill space between deck plates at joint with material compatible with deck waterproofing membrane.

3. The minimum thickness of steel deck plates shall be as follows:

Plate Thickness	**Maximum Clear Distance Between Beams**
½ inch	1'-6"
5/8 inch	2'-0"
¾ inch	2'-4"

4. For multiple deck girders with steel deck plates

i. Provide a welded field splice in the deck plate at, or near the centerline of bearing of the girders. Provide a closing deck plate from the abutments to this field splice that is normal to the girders and normal to the long direction of the main deck plates. This will avoid splicing deck plates over the back wall.

ii. Outside girders shall be spaced such that deck plates will not overhang the flange of the outside girders by more than 2 inches and a concrete parapet wall shall be provided. The wall shall be securely anchored to the deck girder and have a minimum width of 12 inches, at the top.

F. Concrete Decks

1. Bridge deck shall have adequate anchorage to the bridge superstructure. Shear studs shall not be permitted.

2. The outside edge of the slab shall be not more than 1'-6" from the centerline of the outside (fascia) girder.

3. Provide a drip edge on the outside edge, bottom face of the deck slab.

G. Deck Drainage & Waterproofing

1. Top surface of waterproofing protection shall have a minimum transverse slope of 1/8" per foot with a crown at centerline of the deck.

2. Top surface of waterproofing protection shall have a minimum longitudinal slope of 0.5%.

3. Concrete decks shall be designed and constructed to provide the required slopes and to direct water to deck drains.

4. When the deck is level or slopes less than 0.5%, underlayment is to be used to provide required slopes.

5. Deck drains shall be cast iron and downspouts shall be ductile iron. Deck drains shall have a grate or perforated cover. Downspouts shall be provided with cleanouts at each change in direction.

6. All bridge decks shall be waterproofed using membrane waterproofing.

7. All deck joints between spans shall be watertight.

8. Waterproofing shall be applied to the entire surface of deck and bottom three feet (3'-0") of inside faces of parapets or curb plates. Materials and construction to be in accordance with AREMA, Chapter 8.

X. SUPERSTRUCTURE

A. All bridges shall be comprised of simple spans. Continuous spans are prohibited.

B. Design shall provide accommodations for future maintenance. Jacking locations as well as jack sizing shall be specifically denoted and laid out in the bridge plans. Jacks shall be sized to accommodate full dead load including future ballast.

C. Welded Plate Girders

1. A full penetration groove weld shall be used for flange to web connection.

2. No more than two flange section transitions will be permitted without special permission.

3. When a lateral bracing system is required, girder connections shall be bolted.

4. Jacking stiffeners are required at all end diaphragms. These locations must be specifically called out in the plans.

5. Bearing stiffeners shall be welded or milled to bear for both top and bottom flanges.

6. Inspection walkways shall be included between any girders which have depth of 5'-0" or more beneath the deck.

D. Through Plate Girders

1. Through plate girder bridges are only permitted for double track bridges. The use of intermediate girders in double track applications will not be permitted.

2. All stringers shall frame into floorbeams.

3. End floorbeams shall be provided and connections shall be designed such that the bridge can be jacked up by placing jacks between the end floorbeams and pier or abutment. Jacking stiffeners shall be provided at points of jacking.

4. Intermediate floorbeams shall frame into the girder web using double connection angles and high strength bolts.

5. All Stringers shall have top and bottom flanges clipped at an angle not greater than 45 degrees to permit field removal and installation.

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XI. SUBSTRUCTURE

A. Design shall provide accommodations for future maintenance. Jacking locations as well as jack sizing shall be specifically denoted and laid out in the bridge plans.

B. Abutments and Wing Walls

1. The minimum abutment width shall be sufficient to provide for 15'–0" track centers, and standard road bed section.

2. Wing walls shall be designed to support 2 horizontal to 1 vertical embankment slope as well as a level approach to the bridge walkways. MSE and sheet pile walls are not permissible.

3. Provide minimum clearance necessary between end of structural steel and face of backwalls to accommodate expansion, but not less than two inches at each end.

4. Provide water stops at all construction joints. Water stops shall be a hollow bulb PVC 9" X 3/8" (Bulb ¾ inch inside diameter, 1½ inch outside diameter.) continuous across joint.

5. Two feet of porous backfill, measured horizontally, shall be provided full height below subballast, behind all abutments and wing walls.

6. Provide adequate drainage behind abutments and wing walls utilizing perforated pipe drains at the base of the abutments and wingwalls. When abutment geometry does not allow for perforated pipe drains, weep holes may be required.

7. Non-perforated pipe shall be connected to the perforated pipe and drain away from the bridge with a 1% minimum slope.

C. Piers

1. Width of pier shall be minimum four feet (4'-0") width measured at the bearing seat.

XII. TRAIL CONSTRUCTION UNDER CSX BRIDGES

A. Plan Requirements

1. Plans shall show all clearances between the proposed trail and the bridge structure.

2. A canopy will be installed under the CSX bridge, the minimum clearance between the top of the canopy and the underside of the bridge shall be 5 feet. The trail in the vicinity of the undergrade bridge must be able to be closed and the canopy removed as necessary to allow CSX access to inspect and maintain the bridge. The trail must remain closed until the CSX work is completed and the canopy and fencing is restored. CSX will not be responsible for any damage to the portions of the canopy and fencing that occur due to CSX inspection, maintenance, operations or other work.

3.Provide the closure procedure for periods when the trail will require closure in the vicinity of the undergrade bridge due to CSX inspection, maintenance or other operations.

4. Provide fencing along the trail in the vicinity of the undergrade bridge to prevent trespassing near the active CSX track area and facilities. Gates must be provided to readily permit CSX access to the undergrade bridge areas from below the bridge. CSX to provide lock.

5. The canopy shall be adequately designed to sustain the impact of debris falling from the CSX bridge. Debris with potential to fall includes but is not limited to tie plates which are approximately 18"x8"x1-1/2" and weigh approximately 36.5 pounds.

6. Clearly show and label the CSX right of way lines on the plans.

7. A canopy shall extend at least 15 feet beyond the bridge fascias on either side of the bridge.

8. Provide details for signage to prevent trespassers from accessing the CSX right of way.

B. Construction Submittals

1. During construction, CSX will review all submittals relating to the installation of the trail components in relation to the bridge structure.

APPENDIX

CSX TRANSPORTATION

CONSTRUCTION SUBMISSION CRITERIA

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

INTRODUCTION

SECTION I: Definitions

SECTION II: Construction Submissions

SECTION III: Hoisting Operations

SECTION IV: Demolition Procedure

SECTION V: Erection Procedure

SECTION VI: Temporary Excavation and Shoring

SECTION VII: Track Monitoring

INTRODUCTION

The intent of this document is to guide outside agencies and their Contractors when performing work on, over, or with potential to impact CSX property (ROW). Work plans shall be submitted for review to the designated CSX Engineering Representative for all work which presents the potential to affect CSX property or operations; this document shall serve as a guide in preparing these work plans. All work shall be performed in a manner that does not adversely impact CSX operations or safety; as such, the requirements of this document shall be strictly adhered to, in addition to all other applicable standards associated with the construction. Applicable standards include, but are not limited to, CSX Standards and Special Provisions, CSX Insurance Requirements, CSX Pipeline Occupancy Criteria, as well as the governing local, county, state and federal requirements. It shall be noted that this document and all other CSX standards are subject to change without notice, and future revisions will be made available at the CSX website: www.csx.com.

I. DEFINITIONS

1. Agency – The project sponsor (i.e., State DOT, Local Agencies, Private Developer, etc.)

2. AREMA – American Railway Engineering and Maintenance-of-Way Association – the North American railroad industry standards group. The use of this term shall be in specific reference to the AREMA Manual for Railway Engineering.

3. Construction Submission – The Agency or its representative shall submit six (6) sets of plans, supporting calculations, and detailed means and methods procedures for the specific proposed activity. All plans, specifications, and supporting calculations shall be signed/sealed by a Professional Engineer as defined below.

4. Controlled Demolition – Removal of an existing structure or subcomponents in a manner that positively prevents any debris or material from falling, impacting, or otherwise affecting CSX employees, equipment or property. Provisions shall be made to ensure that there is no impairment of railroad operations or CSX's ability to access its property at all times.

5. Contractor – The Agency's representative retained to perform the project work.

6. Engineer – CSX Engineering Representative or a GEC authorized to act on the behalf of CSX.

7. Flagman – A qualified CSX employee with the sole responsibility to direct or restrict movement of trains, at or through a specific location, to provide protection for workers.

8. GEC – General Engineering Consultant who has been authorized to act on the behalf of CSX.

9. Horizontal Clearance – Distance measured perpendicularly from centerline of any track to the nearest obstruction at any elevation between TOR and the maximum vertical clearance of the track.

10. Professional Engineer – An engineer who is licensed in State or Commonwealth in which the project is to occur. All plans, specifications, and supporting calculations shall be prepared by the Licensed Professional Engineer and shall bear his/her seal and signature.

11. Potential to Foul – Work having the possibility of impacting CSX property or operations; defined as one or more of the following:

    a. Any activity where access onto CSX property is required.

b. Any activity where work is being performed on CSX ROW.

c. Any excavation work adjacent to CSX tracks or facilities, within the Theoretical Railroad Live Load Influence Zone, or where the active earth pressure zone extends within the CSX property limits.

d. The use of any equipment where, if tipped and laid flat in any direction (360 degrees) about its center pin, can encroach within twenty five feet (25'-0") of the nearest track centerline. This is based upon the proposed location of the equipment during use, and may be a function of the equipment boom length. Note that hoisting equipment with the potential to foul must satisfy the 150% factor of safety requirement for lifting capacities.

e. Any work where the scatter of debris, or other materials has the potential to encroach within twenty five feet (25'-0") of the nearest track centerline.

f. Any work where significant vibration forces may be induced upon the track structure or existing structures located under, over, or adjacent to the track structure.

g. Any other work which poses the potential to disrupt rail operations, threaten the safety of railroad employees, or otherwise negatively impact railroad property, as determined by CSX.

12. ROW – Right of Way; Refers to CSX Right-of-Way as well as all CSX property and facilities. This includes all aerial space within the property limits, and any underground facilities.

13. Submission Review Period - a minimum of thirty (30) days in advance of start of work. Up to thirty (30) days will be required for the initial review response. Up to an additional thirty (30) days may be required to review any/all subsequent submissions or resubmission.

14. Theoretical Railroad Live Load Influence Zone – A 1 horizontal to 1 vertical theoretical slope line starting at bottom corner of tie.

15. TOR – Top of Rail. This is the base point for clearance measurements. It refers to the crown (top) of the steel rail; the point where train wheels bear on the steel rails.

16. Track Structure – All load bearing elements which support the train. This includes, but is not limited to, the rail, ties, appurtenances, ballast, sub-ballast, embankment, retaining walls, and bridge structures.

17. Vertical Clearance – Distance measured from TOR to the lowest obstruction within six feet (6'-0") of the track centerline, in either direction.

II. GENERAL SUBMISSION REQUIREMENTS

A. A construction work plan is required to be submitted by the Agency or its Contractor, for review and acceptance, prior to accessing or performing any work with Potential to Foul.

B. The Agency or its representative shall submit six (6) sets of plans, specifications, supporting calculations, and detailed means and methods procedures for the specific proposed work activity.

C. Construction submissions shall include all information relevant to the work activity, and shall clearly and concisely explain the nature of the work, how it is being performed, and what measures are being taken to ensure that railroad property and operations are continuously maintained.

D. All construction plans shall include a map of the work site, depicting the CSX tracks, the CSX right of way, proposed means of access, proposed locations for equipment and material staging (dimensioned from nearest track centerline), as well as all other relevant project information. An elevation drawing may also be necessary in order to depict clearances or other components of the work.

E. Please note that CSX will not provide pricing to individual contractors involved in bidding projects. Bidding contractors shall request information from the agency and not CSX.

F. The Contractor shall install a geotextile fabric ballast protection system to prevent construction or demolition debris and fines from fouling ballast. The geotextile ballast protection system shall be installed and maintained by the Contractor to the satisfaction of the Engineer.

G. The Engineer shall be kept aware of the construction schedule. The Contractor shall provide timely communication to the Engineer when scheduling the work such that the Engineer may be present during the work. The Contractor's schedule shall not dictate the work plan review schedule, and flagging shall not be scheduled prior to receipt of an accepted work plan.

H. At any time during construction activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions or other circumstances that may create a potential hazard to rail operations or CSX facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Engineer's satisfaction. CSX and its GEC shall not be responsible for any additional costs or time claims associated with such revisions.

I. Blasting will not be permitted to demolish a structure over or within CSX's right-of-way. When blasting off of CSX property but with Potential to Foul, vibration monitoring, track settlement surveying, and/or other protective measures may be required as determined by the Engineer.

J. Blasting is not permitted adjacent to CSX right-of-way without written approval from the Chief Engineer, CSX.

K. Mechanical and chemical means of rock removal must be explored before blasting is considered. If written permission for the use of explosives is granted, the Agency or Contractor must submit a work plan satisfying the following requirements:

1. Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of the Agency or Contractor.

2. Electronic detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.

3. No blasting shall be done without the presence of an authorized representative of CSX. Advance notice to the Engineer is required to arrange for the presence of an authorized CSX representative and any flagging that CSX may require.

4. Agency or Contractor must have at the project site adequate equipment, labor and materials, and allow sufficient time, to clean up debris resulting from the blasting and correct any misalignment of tracks or other damage to CSX property resulting from the blasting. Any corrective measures required must be performed as directed by the Engineer at the Agency's or Contractor's expense without any delay to trains. If Agency's or Contractor's actions result in the delay of any trains including passenger trains, the Agency or Contractor shall bear the entire cost thereof.

5. The Agency or Contractor may not store explosives on CSX property.

6. At any time during blasting activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions or other circumstances that may create a potential hazard to rail operations or CSX facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Engineer's satisfaction. CSX and its GEC shall not be responsible for any additional costs or time claims associated with such revisions.

III. HOISTING OPERATIONS

A. All proposed hoisting operations with Potential to Foul shall be submitted in accordance with the following:

1. A plan view drawing shall depict the work site, the CSX track(s), the proposed location(s) of the lifting equipment, as well as the proposed locations for picking, any intermediate staging, and setting the load(s). All locations shall be dimensioned from centerline of the nearest track. Crane locations shall also be dimensioned from a stationary point at the work site for field confirmation.

2. Computations showing the anticipated weight of all picks. Computations shall be made based upon the field-verified plans of the existing structure. Pick weights shall account for the weight of concrete rubble or other materials attached to the component being removed; this includes the weight of subsequent rigging devices/components. Rigging components shall be sized for the subsequent pick weight.

3. All lifting equipment, rigging devices, and other load bearing elements shall have a rated (safe lifting) capacity that is greater than or equal to 150% of the load it is carrying, as a factor of safety. Supporting calculations shall be furnished to verify the minimum capacity requirement is maintained for the duration of the hoisting operation.

4. Dynamic hoisting operations are prohibited when carrying a load with the Potential to Foul. Cranes or other lifting equipment shall remain stationary during lifting. (i.e., no moving picks).

5. For lifting equipment, the manufacturer's capacity charts, including crane, counterweight, maximum boom angle, and boom nomenclature is to be submitted.

6. A schematic rigging diagram must be provided to clearly call out each rigging component from crane hook to the material being hoisted. Copies of catalog or information sheets shall be provided to verify rigging weights and capacities.

7. For built-up rigging devices, the contractor shall submit the following:

i. Details of the device, calling out material types, sizes, connections and other properties.

ii. Load test certification documents and/or design computations bearing the seal and signature of a Professional Engineer. Load test shall be performed in the configuration of its intended use as part of the subject demolition procedure.

i. Copies of the latest inspection reports of the rigging device. The device shall be inspected within one (1) calendar year of the proposed date for use.

8. A detail shall be provided showing the crane outrigger setup, including dimensions from adjacent slopes or facilities. The detail shall indicate requirements for bearing surface preparation, including material requirements and compaction efforts. As a minimum, outriggers and/or tracks shall bear on mats, positioned on level material with adequate bearing capacity.

9. A complete written narrative that describes the sequence of events, indicating the order of lifts and any repositioning or re-hitching of the crane(s).

IV. DEMOLITION PROCEDURE

A. The Agency or its Contractor shall submit a detailed procedure for a controlled demolition of any structure on, over, or adjacent to the ROW. The controlled demolition procedure must be approved by the Engineer prior to beginning work on the project.

B. Existing Condition of structure being demolished:

1. The Contractor shall submit as-built plans for the structure(s) being demolished

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2. If as-built plans are unavailable, the Contractor shall perform an investigation of the structure, including any foundations, substructures, etc. The field measurements are to be made under the supervision of the Professional Engineer submitting the demolition procedure. Findings shall be submitted as part of the demolition means and methods submittal for review by the Engineer.

3. Any proposed method for temporary stabilization of the structure during the demolition shall be based on the existing plans or investigative findings, and submitted as part of the demolition means and methods for review by the Engineer.

C. Demolition work plans shall include a schematic plan depicting the proposed locations of the following, at various stages of the demolition:

1. All cranes and equipment, calling out the operating radii.

2. All proposed access and staging locations with all dimensions referenced from the center line of the nearest track

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3. Proposed locations for stockpiling material or locations for truck loading

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4. The location, with relevant dimensions, of all tracks, other railroad facilities; wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions.

5. Note that no crane or equipment may be set on the CSX rails or track structure and no material may be dropped on CSX property.

D. Demolition submittal shall also include the following information:

1. All hoisting details, as dictated by Section III of this document.

2. A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure. The proposed time frames for all critical subtasks (i.e., torch/saw cutting various portions of the superstructure or substructure, dismantling splices, installing temporary bracing, etc.) shall be furnished so that the potential impact(s) to CSX operations may be assessed and eliminated or minimized.

3. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.

4. Design and supporting calculations shall be prepared, signed, and sealed by the Professional Engineer for items including the temporary support of components or intermediate stages shall be submitted for review. A guardrail will be required to be installed in a track in the proximity of temporary bents or shoring towers, when located within twelve feet (12'-0") from the centerline of the track. The guardrail will be installed by CSX forces, at the expense of the Agency or its contractor.

E. Girders or girder systems shall be stable at all times during demolition. Temporary bracing shall be provided at the piers, abutments, or other locations to resist overturning and/or buckling of the member(s). The agency shall submit a design and details of the proposed temporary bracing system, for review by the Engineer. Lateral wind forces for the temporary conditions shall be considered in accordance with AREMA, Chapter 8, Section 28.6.2. The minimum lateral wind pressure shall be fifteen pounds per square foot (15 psf).

F. Existing, obsolete, bridge piers shall be removed to a minimum of three feet (3'-0") below the finished grade, final ditch line invert, or as directed by the Engineer.

G. A minimum quantity of twenty five (25) tons of CSX approved granite track ballast may be required to be furnished and stockpiled on site by the Contractor, or as directed by the Engineer.

H. The use of acetylene gas is prohibited for use on or over CSX property. Torch cutting shall be performed utilizing other materials such as propane.

I. CSX's tracks, signals, structures, and other facilities shall be protected from damage during demolition of existing structure or replacement of deck slab.

J. Demolition Debris Shield

1. On-track or ground-level debris shields (such as crane mats) are prohibited for use by CSX.

2. Demolition Debris Shield shall be installed prior to the demolition of the bridge deck or other relevant portions of the structure. The demolition debris shield shall be erected from the underside of the bridge over the track area to catch all falling debris. The debris shield shall not be the primary means of debris containment.

i. The demolition debris shield design and supporting calculations, all signed/sealed by a Professional Engineer, shall be submitted for review and acceptance.

ii. The demolition debris shield shall have a minimum design load of 50 pounds per square foot (50 psf) plus the weight of the equipment, debris, personnel, and all other loads.

iii. The Contractor shall verify the maximum particle size and quantity of the demolition debris generated during the procedure does not exceed the shield design loads. Shield design shall account for loads induced by particle impact; however the demolition procedure shall be such that impact forces are minimized. The debris shield shall not be the primary means of debris containment.

iv. The Contractor shall include installation/removal means and methods for the demolition debris shield as part of the proposed Controlled Demolition procedure submission.

v. The demolition debris shield shall provide twenty three feet (23'-0") minimum vertical clearance, or maintain the existing vertical clearance if the existing clearance is less than twenty three feet (23'-0").

vi. Horizontal clearance to the centerline of the track should not be reduced unless approved by the Engineer.

vii. The Contractor shall clean the demolition debris shield daily or more frequently as dictated either by the approved design parameters or as directed by the Engineer.

K. Vertical Demolition Debris Shield

1. This type of shield may be required for substructure removals in close proximity to CSX track and other facilities, as determined by the Engineer.

2. The Agency or its Contractor shall submit detailed plans with detailed calculations, prepared, signed, and sealed by a Professional Engineer, of the protection shield.

V. ERECTION PROCEDURE

A. The Agency or its Contractor shall submit a detailed procedure for erection of a structure with Potential to Foul. The erection procedure must be approved by the Engineer prior to beginning work on the project.

B. Erection work plans shall include a schematic plan depicting the following, at all stages of the construction:

1. All proposed locations of all cranes and equipment, calling out the operating radii.

2. All proposed access and staging locations with all dimensions referenced from the center line of the nearest track.

3. All proposed locations for stockpiling material or locations for truck loading.

4. The location, with relevant dimensions, of all tracks, other railroad facilities; wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions.

C. No crane or equipment may be set on the CSX rails or track structure and no material may be dropped on CSX property.

D. For erection of a structure over the tracks, the following information shall be submitted for review and acceptance by the Engineer, at least thirty (30) days prior to erection:

1. As-built beam seat elevations – field surveyed upon completion of pier/abutment construction.

2. Current Top of Rail (TOR) elevations – field measured at the time of as-built elevation collection.

3. Computations verifying the anticipated minimum vertical clearance in the final condition which accounts for all deflection and camber, based upon the current TOR and as-built beam seat elevations. The anticipated minimum

vertical clearance shall be greater than or equal to that which is indicated by the approved plans. Vertical clearance (see definitions) is measured from TOR to the lowest point on the overhead structure at any point within six feet (6'-0") from centerline of the track. Calculations shall be signed and sealed by a Professional Engineer.

E. Girders or girder systems shall be stable at all times during erection. No crane may unhook prior to stabilizing the beam or girder.

1. Lateral wind forces for the temporary conditions shall be considered in accordance with AREMA, Chapter 8, Section 28.6.2. The minimum lateral wind pressure shall be fifteen pounds per square foot (15 psf).

2. Temporary bracing shall be provided at the piers, abutments, or other locations to resist overturning and/or buckling of the member(s). The agency shall submit a design and details of the proposed temporary bracing system, for review by the Engineer.

3. Temporary bracing shall not be removed until sufficient lateral bracing or diaphragm members have been installed to establish a stable condition. Supporting calculations, furnished by the Professional Engineer, shall confirm the stable condition.

F. Erection procedure submissions shall also include the following information:

1. All hoisting details, as dictated by Section III of this document.

2. A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure. The proposed time frames for all critical subtasks (i.e., performing aerial splices, installing temporary bracing, installation of diaphragm members, etc.) shall be furnished so that the potential impact(s) to CSX operations may be assessed and eliminated or minimized.

3. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.

4. A guardrail will be required to be installed in a track in the proximity of temporary bents or shoring towers, when located within twelve feet (12'-0") from the centerline of the track. The guardrail will be installed by CSX forces, at the expense of the Agency or its Contractor.

5. Design and supporting calculations prepared by the Professional Engineer for items including the temporary support of components or intermediate stages shall be submitted for review.

VI. TEMPORARY EXCAVATION AND SHORING

A. The Agency or its Contractor shall submit a detailed design and procedure for the installation of a sheeting/shoring system adjacent to the tracks. Shoring protection shall be provided when excavating with Potential to Foul, or as otherwise determined by CSX. Shoring shall be provided in accordance with the AREMA, except as noted below.

B. Shoring may not be required if all of the following conditions are satisfied:

1. The excavation does not encroach within the Theoretical Live Load Influence Zone. Please refer to Figure 1.

2. The track structure is situated on level ground, or in a cut section, and on stable soil.

3. The excavation does not adversely impact the stability of a CSX facility (i.e., signal bungalow, drainage facility, undergrade bridge, building, etc), or the stability of any structure on, over, or adjacent to CSX property with potential to foul.

4. Shoring is not required by any governing federal, state, local or other construction code.

C. Shoring is required when excavating the toe of an embankment. Excavation of any embankment which supports an active CSX track structure without shoring will not be permitted.

D. Trench boxes are not an acceptable means of shoring. Trench boxes are prohibited for use on CSX property or within the Theoretical Railroad Live Load Influence Zone.

E. Shoring shall be a cofferdam-type, which completely encloses the excavation. However, where justified by site or work conditions, partial cofferdams with open sides away from the track may be permissible, as determined by the Engineer.

F. Cofferdams shall be constructed using interlocking steel sheet piles, or when approved by the Engineer, steel soldier piles with timber lagging. Wales and struts shall be included when dictated by the design.

G. The use of tiebacks can be permissible for temporary shoring systems, when conditions warrant. Tiebacks shall have a minimum clear cover of 6'-0", measured from the bottom of the rail. Upon completion of the work, tiebacks shall be grouted, cut off, and remain in place.

H. All shoring systems on, or adjacent to CSX right-of-way, shall be equipped with railings or other fall protection, compliant with the governing federal, state or local requirements. Area around pits shall be graded to eliminate all potential tripping hazards.

I. Interlocking steel sheet piles shall be used for shoring systems qualifying one or more of the following conditions:

1. Within 18'-0" of the nearest track centerline
2. Within the live load influence zone
3. Within slopes supporting the track structure
4. As otherwise deemed necessary by the Engineer.

J. Sheet piles qualifying for one or more of the requirements listed in Section VI.I (above) of this document shall not be removed. Sheet piles shall be left in place and cut off a minimum of 3'-0" below the finished grade, the ditch line invert, or as otherwise directed by the Engineer. The ground shall be backfilled and compacted immediately after sheet pile is cut off.

K. The following design considerations shall be considered when preparing the shoring design package:

1. Shoring shall be designed to resist a vertical live load surcharge of 1,880 lbs. per square foot, in addition to active earth pressure. The surcharge shall be assumed to act on a continuous strip, eight feet six inches (8'-6") wide. Lateral pressures due to surcharge shall be computed using the strip load formula shown in AREMA Manual for Railway Engineering, Chapter 8, Part 20.
2. Allowable stresses in materials shall be in accordance with AREMA Chapter 7, 8, and 15.3.
3. A minimum horizontal clearance of ten feet (10'-0") from centerline of the track to face of nearest point of shoring shall be maintained, provided a twelve feet (12'-0") roadbed is maintained with a temporary walkway and handrail system.

4. For temporary shoring systems with Potential to Foul, piles shall be plumb under full dead load. Maximum deflection at the top of wall, under full live load, shall be as follows:

i. One-half (1/2) inch for walls within twelve feet (12'-0") of track centerline (Measured from centerline of the nearest track to the nearest point of the supporting structure).

ii. One (1) inch for walls located greater than twelve feet (12'-0") from track centerline

L. Shoring work plans shall be submitted in accordance with Section II of this document, as well as the following additional requirements:

1. The work plan shall include detailed drawings of the shoring systems calling out the sizes of all structural members, details of all connections. Both plan and elevation drawings shall be provided, calling out dimensions from the face of shoring relative to the nearest track centerline. The elevation drawing shall also show the height of shoring, and track elevation in relation to bottom of excavation.

2. Full design calculations for the shoring system shall be furnished.

3. A procedure for cutting off the sheet pile, backfilling and restoring the embankment.

VII. TRACK MONITORING

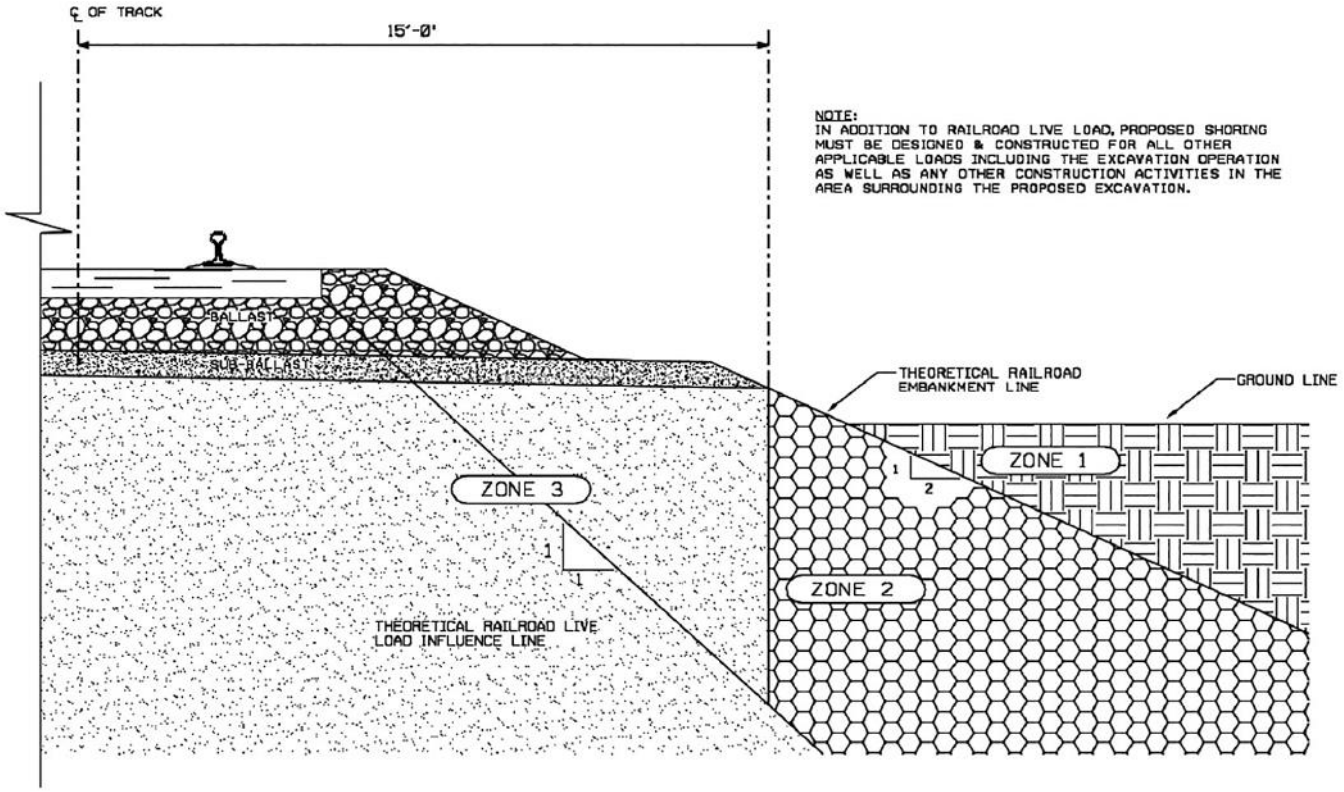
A. When work being performed has the potential to disrupt the track structure, a work plan must be submitted detailing a track monitoring program which will serve to monitor and detect both horizontal and vertical movement of the CSX track and roadbed.

B. The program shall specify the survey locations, the distance between the location points, and frequency of monitoring before, during, and after construction. CSX reserves to the right to modify the survey locations and monitoring frequency as necessary during the project.

C. The survey data shall be collected in accordance with the approved frequency and immediately furnished to the Engineer for analysis.

D. If any movement has occurred as determined by the Engineer, CSX will be immediately notified. CSX, at its sole discretion, shall have the right to immediately require all contractor operations to be ceased, have the excavated area immediately backfilled and/or determine what corrective action is required. Any corrective action required by CSX or performed by CSX including the monitoring of corrective action of the contractor will be at project expense.

FIGURE 1: Theoretical Live Load Influence Zone



NORMAL REQUIREMENTS FOR SHORING ADJACENT TO TRACK

ZONE 1 - EXCAVATIONS ABOVE AND OUTSIDE OF THE THEORETICAL RAILROAD EMBANKMENT LINE - DO NOT NORMALLY REQUIRE SHORING TO PROTECT RAILROAD ROADBED, SHORING MAY BE REQUIRED FOR OTHER REASONS.

ZONE 2 - EXCAVATIONS WHOSE BOTTOMS EXTEND INTO ZONE 2 REQUIRE SHORING, BUT THE SHORING MAY NORMALLY BE PULLED AFTER THE EXCAVATION HAS BEEN BACKFIELD.

ZONE 3 - EXCAVATIONS WHOSE BOTTOMS EXTEND INTO ZONE 3 WILL NORMALLY REQUIRE THE SHORING TO BE LEFT IN PLACE AND CUT-OFF 3' BELOW BASE OF RAIL. SHORING MUST BE DESIGNED FOR COOPER E80 LIVE LOAD

APPENDIX

CSX TRANSPORTATION

DRAINAGE CRITERIA

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

INTRODUCTION

CSX owns its right-of-way for the primary purpose of operating a railroad. All drainage occupancies shall therefore be designed and constructed so that rail operations and facilities are not interfered with, interrupted, or endangered. In addition, the proposed facility shall be located to minimize encumbrance to the right-of-way so that the railroad will have unrestricted use of its property for current and future operations. No drainage shall be directed towards CSX Right of Way.

The CSX Design & Construction Standard Specifications for Pipelines, last revised June 5, 2018 shall serve as the overarching authority for recommended practice in providing sufficient drainage and protective measures for projects on CSX property. The intent of this document is to provide criteria which supplements, modifies and/or supersedes the applicable sections of the AREMA Manual when designing a project which can affect drainage on or about the CSX ROW. Additionally, these requirements help guide an outside party through the necessary procedures for interacting with CSX and delivering an acceptable design.

I. DEFINITIONS

1. Agency – The project sponsor (i.e., State DOT, Local Agencies, Private Developer, etc.)

2. AREMA – American Railway Engineering and Maintenance-of-Way Association – the North American railroad industry standards group. The use of this term shall be in specific reference to the AREMA Manual for Railway Engineering.

3. Construction Submission – The Agency or its representative shall submit electronic plans and 1 hard copy, supporting calculations, and detailed means and methods procedures for the specific proposed activity. All plans, specifications, and supporting calculations shall be signed/sealed by a Professional Engineer as defined below.

4. Controlled Demolition – Removal of an existing structure or subcomponents in a manner that positively prevents any debris or material from falling, impacting, or otherwise affecting CSX employees, equipment or property. Provisions shall be made to ensure that there is no impairment of railroad operations or CSX's ability to access its property at all times.

5. Contractor – The Agency's representative retained to perform the project work.

6. Engineer – CSX Engineering Representative or a GEC authorized to act on the behalf of CSX.

7. Flagman – A qualified CSX employee with the sole responsibility to direct or restrict movement of trains, at or through a specific location, to provide protection for workers.

8. GEC – General Engineering Consultant who has been authorized to act on the behalf of CSX. GECs perform preliminary engineering, construction inspection, and monitoring under the direction of the CSX Engineering personnel. GEC personnel also perform day-to-day administration of certain types of projects.

9. Horizontal Clearance – Distance measured perpendicularly from centerline of any track to the nearest obstruction at any elevation between TOR and the maximum vertical clearance of the track.

10. Professional Engineer – An engineer who is licensed in State or Commonwealth in which the project is to occur. All plans, specifications, and supporting calculations shall be prepared by the Professional Engineer and shall bear his seal and signature.

11. Potential to Encroach – Work having the possibility of impacting CSX property or operations; defined as one or more of the following:

a. Any activity where access onto CSX property is required.

b. Any activity where work is being performed on CSX ROW.

c. Any excavation work adjacent to CSX tracks or facilities, within the Theoretical Railroad Live Load Influence Zone, or where the active earth pressure zone extends within the CSX property limits.

d. The use of any equipment where, if tipped and laid flat in any direction (360 degrees) about its center pin, can encroach within twenty five feet (25'-0") of the nearest track centerline. This is based upon the proposed location of the equipment during use, and may be a function of the equipment boom length. Note that hoisting equipment with the potential to foul must satisfy the 150% factor of safety requirement for lifting capacities.

e. Any work where the scatter of debris or other materials has the potential to encroach within twenty five feet (25'-0") of the nearest track centerline.

f. Any work where significant vibration forces may be induced upon the track structure or existing structures located under, over, or adjacent to the track structure.

g. Any other work which poses the potential to disrupt rail operations, threaten the safety of railroad employees, or otherwise negatively impact railroad property, as determined by CSX.

12. ROW – Right of Way; Refers to CSX Right-of-Way as well as all CSX property and facilities. This includes all aerial space within the property limits, and any underground facilities.

13. Submission Review Period - A minimum of 30 days will be required for the initial review response. Up to an additional 30 days may be required to review any/all subsequent submissions or resubmission.

14. Theoretical Railroad Live Load Influence Zone – A 1 horizontal to 1 vertical theoretical slope line starting at bottom corner of tie.

15. TOR – Top of Rail. This is the base point for clearance measurements. It refers to the crown (top) of the steel rail; the point where train wheels bear on the steel rails. Use the higher of the two rails when track is superelevated.

16. Track Structure – All load bearing elements which support the train. This includes, but is not limited to, the rail, ties, appurtenances, ballast, sub-ballast, embankment, retaining walls, and bridge structures.

17. Vertical Clearance – Distance measured from TOR to the lowest obstruction, within six feet (6'-0") of the track centerline, in either direction.

II. CSX GENERAL DESIGN REQUIREMENTS

A. Refer to CSX's Design & Construction Standard Specifications for Pipeline Occupancies, last dated June 5, 2018, for the design requirements for all pipes and drainage structures under the railroad.

B. All pipes, ditches, and other structures carrying surface drainage on CSX property and/or under CSX track(s) shall be designed to carry the run-off from the 100-year, 24-hour design storm without ponding of water against the roadbed.

C. Pipe(s) used to carry surface drainage on CSX's right-of-way shall have a minimum diameter of 36 inches (36").

D. When calculating the capacity of existing or proposed drainage structures, under CSX's track(s), the headwater calculation at the structure shall not be greater than one (1):

$$HW/D \leq 1.$$

E. Rate and quantity of storm water runoff from any proposed development shall not exceed the rate and quantity of runoff prior to development. This standard shall be maintained for all design storms up to the 100-year storm event.

F. Pipes (casing or carrier) placed under CSX tracks shall not be less than 5.5 (5½'-0") feet from base of rail to top of pipe at its shallowest point.

G. Pipelines laid longitudinally on CSX's right-of-way, 50 feet (50'-0") or less from centerline of track shall be buried not less than 4 feet (4'-0") from ground surface to top of pipe. Where the pipeline is laid more than 50 feet (50'-0") from centerline of track, the minimum cover shall be at least 3 feet (3'-0").

H. Erosion prevention methods shall be used to protect railroad ditches and other drainage facilities during construction on and adjacent to CSX's right-of-way.

I. Permanent erosion and sediment pollution control facilities shall be designed for the 100-year storm. Provide calculations and details of any riprap outlet protection and channel linings as needed within CSX right-of-way.

J. Pipes and culverts within the live load influence shall conform to current AREMA Recommendations and ASTM Specifications. All such structures shall be designed to carry Cooper's E-80 loading with diesel impact. Refer to CSX's Design & Construction Standard Specifications for Pipeline Occupancies approved material types and specifications.

K. CSX right-of-way shall not be utilized for retention, detention or settling basins. Also, the railroad embankment must not be used as any part of a detention pond structure.

L. Track roadbed fills shall not be used as dams or levees for retention of runoff.

M. Temporary sediment basins/traps shall not be constructed against track roadbed fill.

N. Formal approval of the proposed design, by the appropriate governmental agency having jurisdiction, shall be submitted to CSX for their review and acceptance.

O. Pipes and culverts are not to be located within the limits of a turnout or nor closer than 45 feet (45'-0") to any railroad bridge, building or any other important structure.

P. When excavation for a pipeline or other structure will be within the theoretical railroad embankment line of an adjacent track, interlocking steel sheet piling will be required to protect the track(s). Trench Boxes are prohibited for use on CSX within the Theoretical Railroad Live Load Influence Zone. Please refer to the CSX Transportation, Construction Submission Criteria for further details regarding sheeting.

Q. Blasting is not permitted on or adjacent to CSX right-of-way without prior written approval from the Chief Engineer – Design & Construction.

R. Crossing of tracks at grade by equipment and personnel is prohibited except by prior arrangement with and as directed by, CSX.

S. Temporary Track Supports may be required when jacking, boring or tunneling method of installation is used, and depending upon the size and location of the drainage crossing. The Agency's contractor shall furnish and supply the CSX approved track supports, with the installation and removal performed by CSX employees. The Agency shall reimburse CSX for all costs associated with the installation and removal of the track supports.

T. Plans submitted to CSX for approval shall be prepared by a Professional Engineer and should indicate design, suitable topographic plan, and outline of total drainage area.

U. If the drainage is to discharge into an existing drainage channel on CSX's right-of-way and/or through a drainage structure under CSX's track(s), the computations must include the hydraulic analysis of any existing ditch and/or structure.

V. Extension of pipes, culverts and other drainage structures previously installed under CSX owned track shall be made with culvert or drainage structure having the same size, shape, and dimensions, as the existing pipe. In no case shall the existing drainage structure be extended so that the hydraulic capacity is decreased or obstructed. In some cases, it may be necessary to extend existing outlets with pipe or culvert of a larger size. Details of connections to mismatched culverts shall be submitted for CSX approval.

W. Agency may be required to provide corrective measures to alleviate an existing drainage problem within CSX property which may be affected by the proposed development. It shall be the responsibility of the Agency to obtain all drainage easements and permits. CSX shall be indemnified and held harmless of any liability.

X. Agency is to provide information on groundwater recharge if infiltration is proposed adjacent to CSX property. Soils testing and certification by a registered professional engineer shall be required.

Y. Emergency spillways discharging onto CSX property are to be designed and constructed so that the basin berm is protected against erosion.

Z. Energy dissipating devices are to be placed at all outlets discharging to CSX property.

AA. Concrete end walls shall be placed at outlets discharging to CSX property. All concrete outlet pipes on CSX property must be equipped with a trash rack.

BB. Under no conditions shall any person be allowed to modify, alter or change a previously approved storm water management (SWM) facility discharging to CSX property unless an approved alternate facility is approved by CSX.

CC. Design of the drainage system, including alterations of the existing drainage system on CSX right-of-way, is the responsibility of the Agency. Drainage shall not be diverted, directed toward CSX, or increased in quantity without prior approval and agreement with CSX.

DD. Supporting calculations must be provided for all proposed drainage and storm water management facilities that discharge onto or impact CSX property.

EE. Occupancies shall be designed, and their construction shall be accomplished, so that adequate and uninterrupted drainage of CSX's rights-of way is maintained.

FF. If, in the course of construction, it may be necessary to block a ditch, pipe, or other drainage facility, temporary pipes, ditches, or other proposed drainage facilities shall be installed to maintain adequate drainage, as approved by CSX. Upon completion of the Project, the temporary facilities shall be removed and the permanent facilities restored.

GG. Temporary and permanent erosion control and sedimentation (E&S) devices must be provided to prevent the flow of sediment onto and adjacent to CSX property.

HH. The design shall take into account and provide upstream areas within the entire watershed in computing discharge, sizing of pipes, inlets, and other structures.

II. When applicable, Agency is to provide maintenance and operation of E&S/Storm water facilities.

III. PLANS

A. Plans shall include the following, but not limited to:

1. Existing property boundaries, easements, etc.

2. Existing drainage features and topography

3. Existing utility locations

4. Existing structures, tracks, roads, features, etc.

5. Existing topography including wetlands and all environmental features

6. Delineate & Dimension proposed property acquisition or property easements

7. Dimension distances from all temporary and proposed E&S and storm water management facilities to CSX's property line and/or easement

8. Dimension distances from all temporary and proposed E&S and storm water management facilities to CSX's tracks

9. Dimension all temporary and proposed encroachments within CSX's property

10. Show existing contours

11. Provide TOR elevations

12. Provide proposed contours, site grading and drainage facilities

13. Provide proposed improvements, including easements and property lines and limit of disturbance

14. Details for all temporary and proposed drainage structures, SWM and E&S Best Management Practices (BMP) devices

15. Detail proposed E&S, SWM, drainage collection & conveyance systems (pipes, ditches, etc.)

i. Provide location, size, slope & type of pipe.

ii. Ditch cross sections

iii. Invert elevations

iv. Grate and rim elevations

16. If applicable, identify the 100-year floodplain if project is within a specified flood zone.

17. Provide E&S Plans in compliance with all State and Local requirements.

18. Seal and signature of a Professional Engineer who is licensed in the Commonwealth, District, Province, or State in which the project is to occur.

IV. CALCULATIONS & REPORTS

A. Design Calculations:

1. Pre and post development Drainage Area Maps

i. Provide soils boundary lines & soil types

ii. Delineate drainage areas

iii. Time of Concentration (Tc) flow path

iv. Provide weighted CN and c-values (as applicable to design method)

2. Pre-development 100-year runoff volume and flows for all facilities draining to or on CSX ROW

3. Post-development 100-year runoff volume and flows for all facilities draining to or on to CSX ROW

i. Verify no increase in rate or quantity of runoff to CSX property from Pre-Development conditions

ii. Provide hydraulic analysis (depth and velocity calculations) for all facilities draining to or on CSX ROW (existing and proposed) and verify sufficient capacity for proposed flow is provided.

4. Design of proposed collection & conveyance systems (pipes, ditches, etc.)

i. CSX requires capacity for a 100-year, 24 hour storm

ii. CSX requires a minimum diameter of 36-inches for pipes within CSX ROW

5. Provide all temporary and permanent E&S and SWM BMP calculations

6. Seal and signature of a Professional Engineer who is licensed in the Commonwealth, District, Province, or State in which the project is to occur.

B. Project narrative/summary describing proposed improvements, drainage design, SWM and E&S methodologies, site soil and geological conditions (if known), flooding characteristics (if applicable) and State and Local requirements used to produce designs.

C. Recommended: Photographs of the site and adjacent CSX property, as well as discharge locations and drainage facilities on CSX property to receive runoff from the proposed development.

V. CONSTRUCTION SPECIFICATIONS

A. Construction shall be in accordance to the CSX Design & Construction Standard Specifications for Pipeline Occupancies, last revised June 5, 2018 or latest revision, under the Construction Requirements section.

B. All work on or near CSX property shall be conducted in accordance with CSX safety rules and regulations. Specifically all Agency's employees and Contractors, while on CSX property, shall be required to wear a hard hart, safety glasses with side shields, 6" lace up boots with a distinct heel, shirts with sleeves, and long pants; additional personal protective equipment may be required based on certain operations. The Contractor and its employees shall comply with the CSX safety rules at all times while occupying CSX's property. Operations will be subject to CSX inspection at any and all times. All personnel operating equipment must be qualified on it to perform task at hand.

C. For the installation of temporary or permanent shoring systems, including but not limited to soldier piles and lagging, and interlocked steel sheeting on or adjacent to CSX's right-of-way, the contractor may be required to submit a detailed track monitoring program for CSX's approval prior to performing any work near CSX's right-of-way. Please refer to CSX Transportation, Construction Submission Criteria for additional information.

D. When water is known or expected to be encountered all plans and specifications must be submitted to the Engineer for approval before the process begins. Pumps of sufficient capacity to handle the flow shall be maintained at the site, provided the contractor has received approval from CSX to operate them. Pumps in operation shall be constantly attended on a 24-hour basis until, in the sole judgment of CSX, the operation can be safely halted. When dewatering, a process for monitoring for any settlement of track or structures must be in place.

E. If any track movement has occurred as determined by the Engineer, CSX will be immediately notified. CSX, at its sole discretion, shall have the right to immediately require all contractor operations to be ceased, have the excavated area immediately backfilled and/or determine what corrective action is required. Any corrective action required by CSX or performed by CSX including the monitoring of corrective action of the contractor will be at project expense.

F. Installation by the open cut method is not approved under CSX's mainline tracks, tracks carrying heavy tonnage or tracks carrying passenger trains. Also, open cut shall not be used within the limits of a highway/railroad grade crossing or its approaches, 25 feet (25'-0") either side of traveled way, where possible.

APPENDIX

CSX TRANSPORTATION

SOIL AND WATER MANAGEMENT POLICY

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

Any CSX environmental costs associated with a public project shall be borne by the Agency.

Public projects that generate soils from CSX property must adhere to CSX's soil management policies. CSX requires soils generated from its property to either be properly disposed in a CSX approved disposal facility or reused on CSX property. The management of soils generated from CSX property should be planned for and properly permitted (if applicable) prior to initiating any work on CSX property.

- Soil Reuse: CSX Environmental Department must review and approve reuse of soil on CSX property.

- Soil Disposal: If the soil cannot be reused on CSX property, it must be properly disposed at a CSX approved disposal facility. CSX prohibits any contractor from taking soils for off property reuse. CSX Environmental Department will handle waste characterization and profiling into an approved disposal facility. CSX prohibits any environmental sampling on its property unless granted through a written Environmental Right of Entry or approved in writing by the CSX Environmental Department. For access or right-of-entry issues for outside parties (Right-of-Entry) on CSX property please see: https://www.csx.com/index.cfm/customers/value-added-services/property-real-estate/. All analytical analyses must be completed at a CSX approved laboratory.

If Agency has arrangements with a disposal facility not approved by CSX, Agency can request CSX to evaluate the disposal facility. Request to evaluate alternate disposal facilities should take place prior to work being initiated on CSX property. Contact the CSX Manager Environmental Programs at (904) 366-4174 for assistance.

- If dewatering is planned for a public project, CSX Environmental Department must review and approve the dewatering plan prior to work being initiated on CSX property. CSX prohibits the discharge of water onto its property without prior approval. CSX prohibits environmental sampling of groundwater or surface water unless granted through a written Environmental Right of Entry or approved in writing by the CSX Environmental Department. Contact the Manager Environmental Programs at (904) 359-4833 for assistance.

All waste must be removed from the project site in a timely manner. It is the policy of CSX that all materials discarded by or on behalf of CSX will be managed in accordance with local, state and federal regulations as well as CSX's best management practices and sustainability goals. To ensure that these goals are achieved, CSX has mechanisms in place to monitor waste management activities, capture the information necessary to ensure 100% compliance with local, state and federal requirements 100% of the time, and track progress in the CSX sustainability program. These mechanisms also allow CSX to complete reporting requirements to federal and state regulatory agencies and document CSX's progress toward its sustainability goals.

Prior to disposal, recycling, or reuse, a CSX authorization number for transportation and disposal of all waste types (i.e. – hazardous, non-hazardous, special, etc.) must be obtained from the CSX Manager Environmental Programs and included on the disposal manifest or Bill of Lading (BOL). Promptly forward completed hazardous waste, non-hazardous waste, special waste manifests, BOLs, analytical, and profiles to the CSX Project Manager with copies to CSX's Manager Environmental Programs to wastedisposal@csx.com.

Containment system, clean up and disposal of all paint and other material removed from a bridge: The clean-up and disposal of material from the surface preparation for painting and the actual painting must comply with all appropriate regulations and CSX's policies and procedures. The materials removed during the surface preparation must not impact the surrounding area including ground, water, or air impacts. Materials must not be stored on CSX property.

A list of the CSX approved laboratories and disposal/recycling facilities can be obtained from the Manager Environmental Programs at wastedisposal@csx.com.

APPENDIX

CSX TRANSPORTATION

TRAIL CONSTRUCTION UNDER CSX BRIDGES

Public Projects Group
Jacksonville, FL
Date Issued: April 2022

OVERVIEW

A. Plan Requirements

1. Plans shall show all clearances between the proposed trail and the bridge structure.

2. A canopy will be installed under the CSX bridge, the minimum clearance between the top of the canopy and the underside of the bridge shall be 5 feet (5'-0"). The trail in the vicinity of the undergrade bridge must be able to be closed and the canopy removed as necessary to allow CSX access to inspect and maintain the bridge. The trail must remain closed until the CSX work is completed and the canopy and fencing is restored. CSX will not be responsible for any damage to the portions of the canopy and fencing that occur due to CSX inspection, maintenance, operations or other work.

3. Provide the closure procedure for periods when the trail will require closure in the vicinity of the undergrade bridge due to CSX inspection, maintenance or other operations.

4. Provide fencing along the trail in the vicinity of the undergrade bridge to prevent trespassing near the active CSX track area and facilities. Gates must be provided to readily permit CSX access to the undergrade bridge areas from below the bridge. CSX to provide lock.

5. The canopy shall be adequately designed to sustain the impact of debris falling from the CSX bridge. Debris with potential to fall includes but is not limited to tie plates which are approximately 18" x 8" x 1-1/2" and weigh approximately 36.5 pounds.

6. Please clearly show and label the CSX right of way lines on the plans.

7. A canopy shall extend at least 15 feet (15'-0") beyond the bridge fascias on either side of the bridge.

8. Provide details for signage to prevent trespassers from accessing the CSX right of way.

B. Construction Submittals

1. During construction, CSX will review all submittals relating to the installation of the trail components in relation to the bridge structure.


CSX

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

B. Related Requirements:

1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.2 USE CHARGES

A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Architect, testing agencies, and authorities having jurisdiction.

1.3 INFORMATIONAL SUBMITTALS

A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.

B. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.

1.4 PROJECT CONDITIONS

A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

3.2 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

C. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

3.3 TEMPORARY UTILITY INSTALLATION

A. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

3.4 SUPPORT FACILITIES INSTALLATION

A. Comply with the following:

1. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

B. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

C. Parking: Use designated areas of Owner's existing parking areas for construction personnel.

D. Storage and Staging: Use designated areas of Project site for storage and staging needs.

E. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.

1. Identification Signs: Provide Project identification signs according to Owner's requirements.
2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.

    a. Provide temporary, directional signs for construction personnel and visitors.

3. Maintain and touch up signs so they are legible at all times.

F. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

G. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

C. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

D. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.

1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
2. Maintain security by limiting number of keys and restricting distribution to authorized personnel.

E. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.

F. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

G. Temporary Egress: Provide temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction. Provide signage directing occupants to temporary egress.

H. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241 manage fire-prevention program.

1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.

3.6 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

B. Related Requirements:

1. Section 012500 "Substitution Procedures" for requests for substitutions.

1.2 DEFINITIONS

A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility. Salvaged items or items reused from other projects are not considered new products. Items that are manufactured or fabricated to include recycled content materials are considered new products, unless indicated otherwise.
3. Comparable Product: Product by named manufacturer that is demonstrated and approved through the comparable product submittal process described in Part 2 "Comparable Products" Article, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the specifications, select another named product or product from another named manufacturer that does meet the requirements of the specifications; submit a comparable product request or substitution request, if applicable.

C. Comparable Product Request Submittal: An action submittal requesting consideration of a comparable product, including the following information:

1. Identification of basis-of-design product or fabrication or installation method to be replaced, including Specification Section number and title and Drawing numbers and titles.

2. Data indicating compliance with the requirements specified in Part 2 "Comparable Products" Article.

D. Substitution: Refer to Section 012500 "Substitution Procedures" for definition and limitations on substitutions.

1.3 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products, using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

1.5 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written standard warranty form furnished by individual manufacturer for a particular product and issued in the name of the Owner or endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner and issued in the name of the Owner or endorsed by manufacturer to Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included in the Project Manual, prepare a written document, using indicated form properly executed.
3. See other Sections for specific content requirements and particular requirements for submitting special warranties.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.

B. Product Selection Procedures:

1. Non-Limited List of Products: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed or an unnamed product that complies with requirements.

a. Non-limited list of products is indicated by the phrase "Subject to compliance with requirements, available products that may be incorporated in the Work include, but are not limited to, the following."
b. Provision of an unnamed product is not considered a substitution, if the product complies with requirements.

2. Non-Limited List of Manufacturers: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed or a product by an unnamed manufacturer that complies with requirements.

a. Non-limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following."
b. Provision of products of an unnamed manufacturer is not considered a substitution, if the product complies with requirements.

C. Visual Matching Specification: Where Specifications require the phrase "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.

D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or a similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A. Conditions for Consideration of Comparable Products: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with the following requirements:

1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work.
2. Detailed comparison of significant qualities of proposed product with those of the named basis-of-design product. Significant product qualities include attributes, such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.
3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects, with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

B. Architect's Action on Comparable Products Submittal: If necessary, Architect will request additional information or documentation for evaluation, as specified in Section 013300 "Submittal Procedures."

1. Form of Approval of Submittal: As specified in Section 013300 "Submittal Procedures."
2. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.

C. Submittal Requirements, Single-Step Process: When acceptable to Architect, incorporate specified submittal requirements of individual Specification Section in combined submittal for comparable products. Approval by the Architect of Contractor's request for use of comparable product and of individual submittal requirements will also satisfy other submittal requirements.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:

1. Installation of the Work.
2. Cutting and patching.
3. Progress cleaning.
4. Protection of installed construction.
5. Correction of the Work.

B. Related Requirements:

1. Section 011000 "Summary" for limits on use of Project site.
2. Section 024119 "Selective Demolition" for demolition and removal of selected portions of the building.

1.2 DEFINITIONS

A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.

B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

1.3 QUALITY ASSURANCE

A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.

1. Structural Elements: When cutting and patching structural elements, or when encountering the need for cutting and patching of elements whose structural function is not known, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in

reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.

4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Comply with requirements specified in other Sections.

B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials. Use materials that are not considered hazardous.

C. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, electrical systems, and other construction affecting the Work.

1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, gas service piping, and water-service piping; underground electrical services; and other utilities.
2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Existing Utility Information: Furnish information to Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect in accordance with requirements in Section 013100 "Project Management and Coordination."

3.3 INSTALLATION

A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb, and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure satisfactory results as judged by Architect. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations, so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.

E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.

F. Tools and Equipment: Select tools or equipment that minimize production of excessive noise levels.

G. Templates: Obtain and distribute to the parties involved templates for Work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions with manufacturer.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
2. Allow for building movement, including thermal expansion and contraction.
3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

I. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect, as judged by Architect. Fit exposed connections together to form hairline joints.

3.4 CUTTING AND PATCHING

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

C. Temporary Support: Provide temporary support of Work to be cut.

D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching in accordance with requirements in Section 011000 "Summary."

F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to interruption to occupied areas.

G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
4. Proceed with patching after construction operations requiring cutting are complete.

H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable, as judged by Architect. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

    a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    b. Restore damaged pipe covering to its original condition.

I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.5 PROGRESS CLEANING

A. Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F (27 deg C).
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

    a. Use containers intended for holding waste materials of type to be stored.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where Work is in progress to the level of cleanliness necessary for proper execution of the Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls."

H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

J. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.

C. Comply with manufacturer's written instructions for temperature and relative humidity.

3.7 CORRECTION OF THE WORK

A. Repair or remove and replace damaged, defective, or nonconforming Work. Restore damaged substrates and finishes.

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Repair Work previously completed and subsequently damaged during construction period. Repair to like-new condition.

C. Restore permanent facilities used during construction to their specified condition.

D. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

E. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

F. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:

1. Substantial Completion procedures.
2. Final completion procedures.
3. Warranties.
4. Final cleaning.

B. Related Requirements:

1. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of cleaning agent.

B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.

C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.3 CLOSEOUT SUBMITTALS

A. Certificates of Release: From authorities having jurisdiction.

B. Certificate of Insurance: For continuing coverage.

1.4 SUBSTANTIAL COMPLETION PROCEDURES

A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.

B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

2. Submit closeout submittals specified in other Division 01 Sections, including Project Record Documents, operation and maintenance manuals, damage or settlement surveys, and similar final record information.
3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number.
5. Submit testing, adjusting, and balancing records.
6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.

C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Advise Owner of pending insurance changeover requirements.
2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
3. Complete startup and testing of systems and equipment.
4. Perform preventive maintenance on equipment used prior to Substantial Completion.
5. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
6. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
7. Complete final cleaning requirements.
8. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.

D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1.5 FINAL COMPLETION PROCEDURES

A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:

1. Submit a final Application for Payment in accordance with Section 012900 "Payment Procedures."
2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.

3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.

B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1.6 LIST OF INCOMPLETE ITEMS

A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

1. Organize items by corresponding specification division and section.
2. Include the following information at the top of each page:

    a. Project name.
    b. Date.
    c. Name of Contractor.
    d. Page number.

3. Submit list of incomplete items in the following format:

    a. MS Excel Electronic File: Architect will return annotated file.
    b. PDF Electronic File: Architect will return annotated file.

1.7 SUBMITTAL OF PROJECT WARRANTIES

A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.

B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.

C. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

1. Submit on digital media acceptable to Architect.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

A. Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:

a. Clean Project site of rubbish, waste material, litter, and other foreign substances.
b. Clean exposed hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
c. Remove debris and surface dust from limited-access spaces.
d. Clean flooring, removing debris, dirt, and staining; clean according to manufacturer's recommendations.
e. Vacuum and mop concrete.
f. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint, and other foreign substances.
g. Clean luminaires, lamps, globes, and reflectors to function with full efficiency.
h. Clean strainers.
i. Leave Project clean and ready for occupancy.

C. Construction Waste Disposal: Comply with waste-disposal requirements in Section 015000 "Temporary Facilities and Controls."

3.2 REPAIR OF THE WORK

A. Complete repair and restoration operations required by Section 017300 "Execution" before requesting inspection for determination of Substantial Completion.

END OF SECTION 017700

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for Project Record Documents, including the following:

1. Record specifications.

1.2 CLOSEOUT SUBMITTALS

A. Record Specifications: Submit annotated PDF electronic files of Project's Specifications, including addenda and Contract modifications.

1.3 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation, where installation varies from that indicated in Specifications, addenda, and Contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
4. Note related Change Orders where applicable.

B. Format: Submit record specifications as scanned PDF electronic file(s) of marked-up paper copy of Specifications.

1.4 MAINTENANCE OF RECORD DOCUMENTS

A. Maintenance of Record Documents: Store Record Documents in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017839

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.
2. Salvage of existing items to be reused or recycled.

1.2 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.3 INFORMATIONAL SUBMITTALS

A. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property. Indicate proposed locations and construction of barriers.

B. Schedule of selective demolition activities with starting and ending dates for each activity.

C. Predemolition photographs or video.

1.4 CLOSEOUT SUBMITTALS

A. Inventory of items that have been removed and salvaged.

1.5 FIELD CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: By a separate conract, it has been determined that the paint used on the train canopy contains lead. Provide abatement according to and as appended to Section 003126, “Existing Hazardous Conditions “.

E. Storage or sale of removed items or materials on-site is not permitted.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

G. Arrange selective demolition schedule so as not to interfere with Owner's operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI/ASSP A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.

C. Inventory and record the condition of items to be removed and salvaged.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

3.3 PROTECTION

A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and

finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

C. Remove temporary barricades and protections where hazards no longer exist.

3.4 SELECTIVE DEMOLITION

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
4. Maintain fire watch during and for at least 4 hours after flame-cutting operations.
5. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
6. Dispose of demolished items and materials promptly.

B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

C. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

D. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable,

protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 CLEANING

A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

B. Burning: Do not burn demolished materials.

C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood blocking and nailers.
2. Wood sleepers.

1.2 ACTION SUBMITTALS

A. Product Data:

1. For each type of process and factory-fabricated product.
2. For preservative-treated wood products.

1.3 INFORMATIONAL SUBMITTALS

A. Material Certificates:

1. For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.
2. For preservative-treated wood products. Indicate type of preservative used and net amount of preservative retained.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: Comply with DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Grade lumber by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
3. Dress lumber, S4S, unless otherwise indicated.

B. Maximum Moisture Content:

1. Boards: 15 percent.

2. Dimension Lumber: 15 percent for 2-inch nominal (38-mm actual) thickness or less; 19 percent for more than 2-inch nominal (38-mm actual) thickness unless otherwise indicated.

2.2 PRESERVATIVE TREATMENT

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat all rough carpentry unless otherwise indicated.

2.3 MISCELLANEOUS LUMBER

A. Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.
3. Grounds.

B. Dimension Lumber Items: Standard, Stud, or No. 3 grade lumber of any species.

C. Concealed Boards: 19 percent maximum moisture content and any of the following species and grades:

1. Mixed southern pine or southern pine; No. 2 grade; SPIB.
2. Eastern softwoods; No. 2 Common grade; NeLMA.
3. Northern species; No. 2 Common grade; NLGA.

2.4 FASTENERS

A. General: Fasteners are to be of size and type indicated and comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches (38 mm) into wood substrate.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless steel.

B. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Set work to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

B. Do not splice structural members between supports unless otherwise indicated.

C. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

D. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code (IBC).
2. ICC-ES evaluation report for fastener.

3.2 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061000

SECTION 061516 - WOOD ROOF DECKING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes solid-sawn wood roof decking

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 WOOD ROOF DECKING, GENERAL

A. General: Comply with DOC PS 20 and with applicable grading rules of inspection agencies certified by ALSC's Board of Review.

2.2 SOLID-SAWN WOOD ROOF DECKING

A. Standard for Solid-Sawn Wood Roof Decking: Comply with AITC 112.

B. Balsam fir, Douglas fir-larch, Douglas fir-larch (North), hem-fir, hem-fir (North), southern pine, spruce pine-fir (North), western hemlock, or western hemlock (North).

C. Roof Decking Nominal Size: Match existing.

D. Roof Decking Grade: Commercial Decking or Commercial Dex.

E. Grade Stamps: Factory mark each item with grade stamp of grading agency. Apply grade stamp to surfaces that are not exposed to view.

F. Moisture Content: Provide wood roof decking with 15 percent maximum moisture content at time of dressing.

G. Face Surface: Smooth.

H. Edge Pattern: Match existing or provide Vee grooved.

2.3 ACCESSORY MATERIALS

A. Fastener Material: Hot-dip galvanized steel.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install solid-sawn wood roof decking to comply with AITC 112.

1. Locate end joints as required to match those existing.

B. Anchor wood roof decking, where supported on walls, with bolts as indicated.

3.2 PROTECTION

A. Provide water-resistive barrier over roof decking as the Work progresses to protect roof decking until roofing is applied.

END OF SECTION 061516

SECTION 064013 - EXTERIOR ARCHITECTURAL WOODWORK

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Exterior standing and running trim.
2. Wood furring, blocking, shims, and hanging strips for installing exterior architectural woodwork items that are not concealed within other construction.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Wood-Preservative Treatment:

a. Include data and warranty information from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements.
b. Indicate type of preservative used and net amount of preservative retained.
c. Include chemical-treatment manufacturer's written instructions for finishing treated material and manufacturer's written warranty.

2. Waterborne Treatments: For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.

B. Shop Drawings:

1. Include dimensioned plans, elevations, sections, and attachment details.
2. Show locations and sizes of furring, blocking, and hanging strips, including blocking and reinforcement concealed by construction and specified in other Sections.

PART 2 - PRODUCTS

2.1 ARCHITECTURAL WOODWORK, GENERAL

A. Quality Standard: Unless otherwise indicated, comply with the Architectural Woodwork Standards for grades of exterior architectural woodwork indicated for construction, finishes, installation, and other requirements.

2.2 EXTERIOR STANDING AND RUNNING TRIM FOR OPAQUE FINISH

A. Architectural Woodwork Standards Grade: Premium.

B. Backout or groove backs of flat trim members, and kerf backs of other wide, flat members, except for members with ends exposed in finished work.

C. Wood Species: Any closed-grain hardwood.

1. Do not use plain-sawn softwood lumber with exposed, flat surfaces more than 3 inches (76 mm) wide.
2. Wood Moisture Content: 10 to 15 percent.

2.3 WOOD MATERIALS

A. Softwood Plywood: DOC PS 1, exterior.

2.4 PRESERVATIVE-TREATED-WOOD MATERIALS

A. Preservative-Treated-Wood Materials: Provide with water-repellent preservative treatment complying with AWPA N1 (dip, spray, flood, or vacuum-pressure treatment).

1. Preservative Chemicals: 3-iodo-2-propynyl butyl carbamate (IPBC).
2. Use chemical formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants in solution to distinguish treated material from untreated material.

B. Extent of Preservative-Treated Wood Materials: Treat all wood materials unless otherwise indicated on Drawings.

2.5 FASTENERS

A. General: Provide fasteners of size and type indicated, acceptable to authorities having jurisdiction, and that comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches (38 mm) into wood substrate.

1. Use fasteners with hot-dip zinc coating complying with ASTM A153/A153M or ASTM F2329/F2329M unless otherwise indicated.
2. For pressure-preservative-treated wood, use stainless steel fasteners.

B. Nails: ASTM F1667.

C. Power-Driven Fasteners: ICC-ES AC70.

D. Wood Screws and Lag Screws: ASME B18.2.1, ASME B18.6.1, or ICC-ES AC233.

E. Carbon Steel Bolts: ASTM A307 with ASTM A563 (ASTM A563M) hex nuts and, where indicated, flat washers all hot-dip zinc coated.

F. Stainless Steel Bolts: ASTM F593, Alloy Group 1 or 2; with ASTM F594, Alloy Group 1 or 2 (ASTM F836M, Grade A1 or Grade A4) hex nuts and, where indicated, flat washers.

G. Postinstalled Anchors: Stainless steel, torque-controlled expansion anchors with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing in accordance with ASTM E488/E488M conducted by a qualified independent testing and inspecting agency.

1. Stainless steel bolts and nuts complying with ASTM F593 and ASTM F594, Alloy Group 1 or 2 (ASTM F836M, Grade A1 or Grade A4).

2.6 MISCELLANEOUS MATERIALS

A. Blocking, Shims, and Nailers: Softwood or hardwood lumber, kiln-dried to less than 15 percent moisture content.

1. Wood-Preservative Treatment: By pressure process, AWPA U1; Use Category UC3b.

a. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent.
b. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
c. Mark lumber with treatment quality mark of an inspection agency approved by the American Lumber Standards Committee's (ALSC) Board of Review.

2.7 FABRICATION

A. Fabricate exterior architectural woodwork as required to match the existing elements they are replacing or the original shape as closely as is discernable providing allowance for scribing, trimming, and fitting.

1. Ease edges to radius indicated for the following:

a. Edges of Solid-Wood (Lumber) Members: 1/16 inch (1.5 mm) unless otherwise indicated.

PART 3 - EXECUTION

3.1 PREPARATION

A. Before installation, condition exterior architectural woodwork to average prevailing humidity conditions at Project site.

B. Before installing exterior architectural woodwork, examine shop-fabricated work for completion, and complete work as required, including removing packing and backpriming concealed surfaces.

3.2 INSTALLATION

A. Grade: Install exterior architectural woodwork to comply with same grade as item to be installed.

B. Install exterior architectural woodwork level, plumb, true in line, and without distortion.

1. Shim as required with concealed shims.
2. Install level and plumb to a tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm).

C. Standing and Running Trim:

1. Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible.
2. Do not use pieces less than 60 inches (1500 mm) long, except where shorter single-length pieces are necessary.
3. Scarf running joints and stagger in adjacent and related members.

D. Scribe and cut exterior architectural woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.

E. Preservative-Treated Wood Materials: Where field cut or drilled, treat cut ends and drilled holes in accordance with AWPA M4.

F. Anchor exterior architectural woodwork to anchors or blocking built in or directly attached to substrates.

1. Secure with countersunk, concealed fasteners and blind nailing.
2. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with exterior architectural woodwork.
3. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced and with adjacent rows staggered.

G. Touch up finishing work specified in this Section after installation of exterior architectural woodwork.

1. Fill nail holes with matching filler where exposed.
2. Apply specified finish coats, including stains and paste fillers if any, to exposed surfaces where only sealer/prime coats are shop applied.

H. Field Finishing: See Section 099114 "Exterior Painting MPI Standards" for final finishing of installed exterior architectural woodwork.

END OF SECTION 064013

SECTION 070150.19 - PREPARATION FOR REROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Full tear-off of entire roof system.
2. Removal of flashings and counterflashings.

1.2 ALLOWANCES

A. Allowance for removal of existing slate shingles, and replacement with new slate shingles, is specified under Section 012100 "Allowances."

B. Allowance for removal of existing deteriorated wood roof deck, and replacement with new wood deck, is specified under Section 012100 "Allowances."

C. Allowance for removal of existing deteriorated wood nailers and curbs, and replacement with new wood, is specified under Section 012100 "Allowances."

1.3 UNIT PRICES

A. Work of this Section is affected by roof sheathing removal and replacement unit price and slate shingle removal and replacement unit price.

1.4 INFORMATIONAL SUBMITTALS

A. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces in accordance with Section 013233 “Photographic Documentation,” that might be misconstrued as having been damaged by reroofing operations.

1. Submit before commencing Work.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Approved by warrantor of existing roofing system to work on existing roofing.

1.6 FIELD CONDITIONS

A. Existing Roofing System: slate shingle roofing.

B. Owner will not occupy portions of building immediately below reroofing area.

1. Conduct reroofing so Owner's operations are not disrupted.
2. Provide Owner with not less than 72 hours' written notice of activities that may affect Owner's operations.
3. Coordinate work activities daily with Owner so Owner has adequate advance notice to place protective dust and water-leakage covers over sensitive equipment and furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.
4. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below affected area.

a. Verify that occupants below work area have been evacuated before proceeding with work over impaired deck area.

C. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.

D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

E. Conditions existing at time of inspection for bidding will be maintained by Owner as far as practical.

F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.

1. Remove only as much roofing in one day as can be made watertight in the same day.

PART 2 - PRODUCTS

2.1 AUXILIARY REROOFING MATERIALS

A. General: Use auxiliary reroofing preparation materials recommended by roofing system manufacturer for intended use and compatible with components of existing and new roofing system.

PART 3 - EXECUTION

3.1 PREPARATION

A. Test existing roof drains to verify that they are not blocked or restricted.

1. Immediately notify Architect of any blockages or restrictions.

B. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.

C. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday.

1. Prevent debris from entering or blocking roof drains and conductors.

a. Use roof-drain plugs specifically designed for this purpose.
b. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.

2. If roof drains are temporarily blocked or unserviceable due to roofing system removal or partial installation of new roofing system, provide alternative drainage method to remove water and eliminate ponding.

a. Do not permit water to enter into or under existing roofing system components that are to remain.

3.2 ROOF TEAR-OFF

A. Notify Owner each day of extent of roof tear-off proposed for that day.

B. Lower removed roofing materials to ground and onto lower roof levels, using dust-tight chutes or other acceptable means of removing materials from roof areas.

C. Full Roof Tear-off: Remove existing roofing and other roofing system components down to the existing roof deck.

1. Remove base flashings and counter flashings.
2. Remove perimeter edge flashing.
3. Remove flashings at pipes, curbs, mechanical equipment, and other penetrations.
4. Remove wood blocking, curbs, and nailers.
5. Remove fasteners from deck.

3.3 DECK PREPARATION

A. Inspect deck after tear-off of roofing system.

B. If broken or loose fasteners that secure deck panels to one another or to structure are observed, or if deck appears or feels inadequately attached, remove.

C. If deck surface is unsuitable for receiving new roofing or if structural integrity of deck is suspect, remove.

D. Provide additional deck securement as required.

E. Replace wood roof decking to the extent required for a successful installation of the specified roofing system.

3.4 BASE FLASHING REMOVAL

A. Remove existing base flashings.

1. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.

B. Do not damage metal counterflashings that are to remain.

1. Replace metal counterflashings damaged during removal with counterflashings specified in Section 076200 "Sheet Metal Flashing and Trim."

END OF SECTION 070150.19

SECTION 073126 - SLATE SHINGLES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Slate shingles.
2. Underlayment materials.
3. Metal flashing and trim.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Slate shingles.
2. Underlayment materials.
3. Metal flashing and trim.

B. Shop Drawings: For metal flashing and trim.

C. Samples: For each exposed product and for each color and texture specified.

PART 2 - PRODUCTS

2.1 SLATE SHINGLES

A. Slate Shingles: ASTM C406/C406M, Grade S1; hard, dense, and sound; with chamfered edges and nail holes machine punched or drilled and countersunk; with no broken or cracked slates, no broken exposed corners, and no broken corners on covered ends that could sacrifice nailing strength or laying of a watertight roof.

a. Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following.Black Diamond Slate.
b. North Country Slate.
c. Virginia Slate Company.

2. Thickness and Surface Texture: Match existing.
3. Length: Match existing.
4. Width: Match existing.
5. Nail Holes: Two per shingle.
6. Butt Shape: Match existing.
7. Color: Gray or as required to match existing.
8. Weather-Exposure Color Change: Weathering.

B. Starter Slate: Slate shingles with chamfered nail holes front-side punched.

1. Length: Exposure of slate shingle plus headlap.

C. Ridge Slate: Slate shingles fabricated with vertical or horizontal grain orientation as required to match existing.

2.2 UNDERLAYMENT MATERIALS

A. Synthetic Underlayment: UV-resistant polypropylene, polyolefin, or polyethylene polymer fabric with surface coatings or treatments to improve traction underfoot and abrasion resistance; recommended, in writing, by manufacturer for use under slate shingles; and evaluated and documented to be suitable for use as a roof underlayment under applicable codes by a testing and inspecting agency acceptable to authorities having jurisdiction.

a. Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the followingDupont Safety and Construction.
b. Typar.
c. Underlayment Specialties Plus.

B. Self-Adhering, Polymer-Modified Bitumen Sheet, High Temperature: ASTM D1970/D1970M, minimum 40-mil- (1.0-mm-)thick sheet; glass-fiber-mat-reinforced, polymer-modified asphalt; with slip-resistant top surface and release backing; cold applied.

1. Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following.

a. Dupont Safety and Construction.
b. Typar.
c. Underlayment Specialties Plus.

2. Thermal Stability: Stable after testing at 240 deg F (116 deg C) in accordance with ASTM D1970/D1970M.
3. Top Surface: Polyester.

2.3 ACCESSORIES

A. Asphalt Roofing Cement: ASTM D4586/D4586M Type II, asbestos free.

B. Butyl Sealant: ASTM C1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied.

C. Elastomeric Sealant: ASTM C920, Type S, Grade NS, one-part, non-sag, elastomeric polymer sealant; of class and use classifications required to seal joints in slate-shingle roofing and remain watertight; recommended in writing by manufacturer for applications indicated.

D. Cold-Applied Adhesive: Manufacturer's standard asphalt-based, one- or two-part, asbestos-free, cold-applied adhesive specially formulated for compatibility and use with underlayments.

E. Slating Nails: ASTM F1667, copper, smooth-shanked, wire nails; 0.135-inch- (3.4-mm-) minimum thickness; sharp pointed; with 3/8-inch- (10-mm-) minimum diameter flat head; of sufficient length to penetrate a minimum of 3/4 inch (19 mm) into sheathing or extend at least 1/8 inch (3 mm) through sheathing less than 3/4 inch (19 mm) thick.

1. Where nails are in contact with metal flashing, use nails made from same metal as flashing.

F. Underlayment Nails: Aluminum, stainless steel, or hot-dip galvanized-steel wire nails with low-profile metal or plastic caps, 1-inch- (25-mm-) minimum diameter.

1. Provide with minimum 0.0134-inch- (0.34-mm-) thick metal cap, 0.010-inch- (0.25-mm-) thick power-driven metal cap, or 0.035-inch- (0.89-mm-) thick plastic cap; and with minimum 0.083-inch- (2.11-mm-) thick ring shank or 0.091-inch- (2.31-mm-) thick smooth shank of length to penetrate at least 3/4 inch (19 mm) into roof sheathing or to penetrate through roof sheathing less than 3/4 inch (19 mm) thick.

G. Nailer Strips: Comply with requirements in Section 064013 "Exterior Architectural Woodwork."

H. Nails for Wood Strips: ASTM F1667; common or box, steel wire, flat head, and smooth shank; hot-dip galvanized.

2.4 METAL FLASHING AND TRIM

A. Comply with requirements in Section 076200 "Sheet Metal Flashing and Trim."

1. Sheet Metal: Copper .

B. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" for design, dimensions, metal, and other characteristics of the item unless otherwise indicated on Drawings.

PART 3 - EXECUTION

3.1 INSTALLATION OF SLATE SHINGLES

A. Beginning at eaves, install slate shingles in accordance with manufacturer's written instructions and with details and recommendations in NRCA's "The NRCA Roofing Manual: Steep-Slope Roof Systems."

1. Install wood strip cant at eave edges under underlayment materials .
2. Install shingle starter course chamfered face down.

B. Install first and succeeding shingle courses chamfered face up. Install full-width first course at rake edge.

1. Offset joints of uniform-width slate shingles by half the shingle width in succeeding courses.
2. Offset joints of random-width slate shingles a minimum of 3 inches (76 mm) in succeeding courses.

C. Match existing headlap between succeeding shingle courses.

D. Maintain uniform exposure of shingle courses between eaves and ridge.

E. At eaves, extend shingle starter course and first course over fasciae as required to match existing.

F. At rakes, extend shingle starter course and succeeding courses over fasciae as required to match existing.

G. Cut and fit slate neatly around projections through roof.

H. Hang slate with two slating nails for each shingle, with nail heads lightly touching slate.

1. Do not drive nails home, which draws slates downward, and do not leave nail heads protruding enough to interfere with the overlapping shingle above.
2. At vented ridges, terminate slate shingles to produce a uniform airspace on each side of ridge apex.

I. Ridges: Install ridge slate in configuration as required to match existing.

1. Install and anchor wood nailer strips of thicknesses to match abutting courses of slate shingles, terminating nailer strip 3 to 4 inches (76 to 102 mm) from the eave. Cover with self-adhering, polymer-modified bitumen sheet >, extending to underlying slate but concealed by ridge slate.
2. Lay ridge slate in bed of butyl sealant.
3. Anchor ridge slate to supporting wood nailer strip with two nails for each slate shingle, without nails penetrating underlying slate.
4. Cover heads of exposed nails at final ridge shingle with butyl sealant.

J. Remove and replace damaged or broken slate shingles.

3.2 INSTALLATION OF UNDERLAYMENT MATERIALS

A. Comply with slate-shingle and underlayment manufacturers' written installation instructions and with recommendations in NRCA's "The NRCA Roofing Manual: Steep-Slope Roof Systems" applicable to products and applications indicated unless more stringent requirements are specified in this Section or indicated on Drawings.

B. Synthetic-Underlayment Top Layer: Install in accordance with manufacturer's written installation instructions and as second layer over anchor-layer underlayment.

1. Completely cover anchor-layer underlayment and install parallel with and starting at the eaves, with side laps offset halfway between side laps of underlying anchor layer.

2. Lap sides and ends as recommended in writing by manufacturer, but not less than 4 inches (102 mm) for side laps and 6 inches (152 mm) for end laps.
3. Stagger end laps from anchor-layer end laps and between succeeding top courses at interval recommended in writing by manufacturer, but not less than 72 inches (1829 mm).
4. Fasten with underlayment nails.

C. Self-Adhering, Polymer-Modified Bitumen Sheet: Install, wrinkle free.

1. Comply with low-temperature installation restrictions of underlayment manufacturer.
2. Install lapped in direction that sheds water. Lap sides not less than 4 inches (102 mm).
3. Lap ends not less than 6 inches (152 mm), staggered 24 inches (610 mm) between succeeding courses.
4. Roll laps with roller.

5. Water and Ice-Dam Protection Installation: Install on roof deck a minimum of two feet up from the fascia for entire length of canopy.

3.3 INSTALLATION OF METAL FLASHING AND TRIM

A. Install metal flashings and other sheet metal to comply with requirements in Section 076200 "Sheet Metal Flashing and Trim."

1. Install metal flashings in accordance with recommendations in NRCA's "The NRCA Roofing Manual: Steep-Slope Roof Systems."

END OF SECTION 073126

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Formed roof-drainage sheet metal fabrications.

1.2 ACTION SUBMITTALS

A. Product Data: For each of the following

1. For each type of product.

B. Shop Drawings: For sheet metal flashing and trim.

1. Include plans, elevations, sections, and attachment details.
2. Detail fabrication and installation layouts, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled Work.
3. Include details for forming, including profiles, shapes, seams, and dimensions.
4. Include details for joining, supporting, and securing, including layout and spacing of fasteners, cleats, clips, and other attachments. Include pattern of seams.
5. Include details of termination points and assemblies.
6. Include details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction from fixed points.
7. Include details of roof-penetration flashing.
8. Include details of edge conditions, including eaves, flashings, and counterflashings.
9. Include details of special conditions.

1.3 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of coping and roof edge flashing that is ANSI/SPRI/FM 4435/ES-1 tested.

B. Sample warranty.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance data.

B. Special warranty.

1.5 QUALITY ASSURANCE

A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.

1. For copings and roof edge flashings that are ANSI/SPRI/FM 4435/ES-1 tested, shop is to be listed as able to fabricate required details as tested and approved.

1.6 WARRANTY

A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Finish Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Sheet metal flashing and trim assemblies, including cleats, anchors, and fasteners, are to withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim are not to rattle, leak, or loosen, and are to remain watertight.

B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual: Architectural Metal Flashing, Condensation and Air Leakage Control, and Reroofing" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.

C. Sheet Metal Standard for Copper: Comply with CDA's "Copper in Architecture Handbook." Conform to dimensions and profiles shown unless more stringent requirements are indicated.

D. SPRI Wind Design Standard: Manufacture and install roof edge flashings tested in accordance with ANSI/SPRI/FM 4435/ES-1 and capable of resisting the following design pressure:

1. Design Pressure: 72 vertical and 34 horizontal P-Design.

E. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces .

2.2 SHEET METALS

A. Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.

B. Copper Sheet: ASTM B370, cold-rolled copper sheet, H00 or H01 temper.

1. Nonpatinated, Exposed Finish: Mill.

2.3 UNDERLAYMENT MATERIALS

A. As specified in Section 073126 “Slate Shingles.”

B. Self-Adhering, High-Temperature Sheet Underlayment: As specified in Section 073126 “Slate Shingles.”

C. Slip Sheet: Rosin-sized building paper, 3 lb/100 sq. ft. (0.16 kg/sq. m) minimum.

2.4 MISCELLANEOUS MATERIALS

A. Provide materials and types of fasteners, solder, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.

B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.

1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.

a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
b. Blind Fasteners: High-strength aluminum or stainless steel rivets suitable for metal being fastened.
c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.

2. Fasteners for Copper Sheet: Copper, hardware bronze or passivated Series 300 stainless steel.

C. Solder:

1. For Copper: ASTM B32, with maximum lead content of 0.2 percent.

D. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.

E. Elastomeric Sealant: ASTM C920, elastomeric silicone polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

F. Butyl Sealant: ASTM C1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.

G. Asphalt Roofing Cement: ASTM D4586, asbestos free, of consistency required for application.

2.5 FABRICATION, GENERAL

A. Custom fabricate sheet metal flashing and trim to comply with details indicated and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required.

1. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
2. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
3. Verify shapes and dimensions of surfaces to be covered and obtain field measurements for accurate fit before shop fabrication.
4. Form sheet metal flashing and trim to fit substrates without excessive oil-canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
5. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.

B. Fabrication Tolerances:

1. Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet (6 mm in 6 m) on slope and location lines indicated on Drawings and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.
2. Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified.

C. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.

1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with butyl sealant concealed within joints.
2. Do not use lapped expansion joints.

D. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal in accordance with cited sheet metal standard to provide for proper installation of elastomeric sealant.

E. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.

F. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.

G. Seams:

1. Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for strength.

2.6 ROOF-DRAINAGE SHEET METAL FABRICATIONS

A. Built-in Gutters:

1. Fabricate to cross section required to match existing, with riveted and soldered joints, complete with end pieces, outlet tubes, and other special accessories as required.
2. Fabricate in minimum 96-inch- (2400-mm-) long sections. Fabricate expansion joints and accessories from same metal as gutters unless otherwise indicated.
3. Fabricate gutters with built-in expansion joints.
4. Accessories: Wire-ball downspout strainer.
5. Fabricate from the following materials:

a. Copper: 16 oz./sq. ft. (0.55 mm thick) .

B. Downspouts: Fabricate round downspouts to dimensions required to match existing, complete with mitered elbows. Furnish with metal hangers from same material as downspouts and anchors.

1. Hanger Style: Match Existing.
2. Fabricate from the following materials:

a. Copper: 16 oz./sq. ft. (0.55 mm thick).

2.7 STEEP-SLOPE ROOF SHEET METAL FABRICATIONS

A. Drip Edges: Fabricate from the following materials:

1. Copper: 16 oz./sq. ft. (0.55 mm thick).

B. Eave, Rake Flashing: Fabricate from the following materials:

1. Copper: 16 oz./sq. ft. (0.55 mm thick) .

PART 3 - EXECUTION

3.1 INSTALLATION OF UNDERLAYMENT

A. Felt Underlayment: Install felt underlayment, wrinkle free, using adhesive to minimize use of mechanical fasteners under sheet metal flashing and trim.

1. Install in shingle fashion to shed water.
2. Lap joints not less than 2 inches (50 mm).

B. Synthetic Underlayment: Install synthetic underlayment, wrinkle free, in accordance with manufacturers' written instructions, and using adhesive where possible to minimize use of mechanical fasteners under sheet metal.

1. Lap horizontal joints not less than 4 inches (100 mm).
2. Lap end joints not less than 12 inches (300 mm).

C. Self-Adhering, High-Temperature Sheet Underlayment:

1. Install self-adhering, high-temperature sheet underlayment; wrinkle free.
2. Prime substrate if recommended by underlayment manufacturer.
3. Comply with temperature restrictions of underlayment manufacturer for installation; use primer for installing underlayment at low temperatures.
4. Apply in shingle fashion to shed water, with end laps of not less than 6 inches (150 mm) staggered 24 inches (600 mm) between courses.
5. Overlap side edges not less than 3-1/2 inches (90 mm). Roll laps and edges with roller.
6. Roll laps and edges with roller.
7. Cover underlayment within 14 days.

D. Install slip sheet, wrinkle free, [over underlayment] [directly on substrate] <Insert requirement> before installing sheet metal flashing and trim.

1. Install in shingle fashion to shed water.
2. Lapp joints not less than 4 inches (100 mm).

3.2 INSTALLATION, GENERAL

A. Install sheet metal flashing and trim to comply with details indicated and recommendations of cited sheet metal standard that apply to installation characteristics required unless otherwise indicated on Drawings.

1. Install fasteners, solder, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
2. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder.
3. Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement.
4. Install sheet metal flashing and trim to fit substrates and to result in watertight performance.
5. Space individual cleats not more than 12 inches (300 mm) apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
6. Install exposed sheet metal flashing and trim with limited oil-canning, and free of buckling and tool marks.
7. Do not field cut sheet metal flashing and trim by torch.

B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.

1. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim.

1. Space movement joints at maximum of 10 feet (3 m) with no joints within 24 inches (600 mm) of corner or intersection.
2. Form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with sealant concealed within joints.
3. Use lapped expansion joints only where indicated on Drawings.

D. Fasteners: Use fastener sizes that penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance .

E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

F. Seal joints as required for watertight construction.

1. Use sealant-filled joints unless otherwise indicated.

a. Embed hooked flanges of joint members not less than 1 inch (25 mm) into sealant.
b. Form joints to completely conceal sealant.
c. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for 50 percent movement each way.
d. Adjust setting proportionately for installation at higher ambient temperatures.

1) Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).

2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

G. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter.

1. Pretin edges of sheets with solder to width of 1-1/2 inches (38 mm); however, reduce pretinning where pretinned surface would show in completed Work.
2. Do not use torches for soldering.
3. Heat surfaces to receive solder, and flow solder into joint.

a. Fill joint completely.
b. Completely remove flux and spatter from exposed surfaces.

4. Copper Soldering: Tin edges of uncoated sheets, using solder for copper.

3.3 INSTALLATION OF ROOF-DRAINAGE SYSTEM

A. Install sheet metal roof-drainage items to produce complete roof-drainage system in accordance with cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof-drainage system.

B. Built-in Gutters:

1. Join sections with riveted and soldered joints.
2. Provide for thermal expansion.
3. Slope to downspouts.
4. Provide end closures and seal watertight with sealant.
5. Install underlayment layer in built-in gutter trough and extend to drip edge at eaves and under underlayment on roof sheathing.

    a. Lap sides minimum of 2 inches (50 mm) over underlying course.
    b. Lap ends minimum of 4 inches (100 mm).
    c. Stagger end laps between succeeding courses at least 72 inches (1830 mm).
    d. Fasten with roofing nails.
    e. Install slip sheet over underlayment.

6. Install gutter with expansion joints at locations not exceeding, 50 feet (15.2 m) apart. Install expansion-joint caps.

C. Downspouts:

1. Join sections with 1-1/2-inch (38-mm) telescoping joints.
2. Provide hangers with fasteners designed to hold downspouts securely to walls.
3. Locate hangers at top and bottom and at approximately 60 inches (1500 mm) o.c.
4. Connect downspouts to existing underground drainage system.

3.4 INSTALLATION OF ROOF FLASHINGS

A. Install sheet metal flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and cited sheet metal standard.

1. Provide concealed fasteners where possible, and set units true to line, levels, and slopes.
2. Install work with laps, joints, and seams that are permanently watertight and weather resistant.

B. Roof Edge Flashing:

1. Install roof edge flashings in accordance with ANSI/SPRI/FM 4435/ES-1.
2. Anchor to resist uplift and outward forces in accordance with recommendations in cited sheet metal standard unless otherwise indicated. Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate at staggered 3-inch (75-mm) centers.

C. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending minimum of 4 inches (100 mm) over base flashing. Install stainless steel draw band and tighten.

D. Counterflashing: Coordinate installation of counterflashing with installation of base flashing.

1. Insert counterflashing in reglets or receivers and fit tightly to base flashing.
2. Extend counterflashing 4 inches (100 mm) over base flashing.
3. Lap counterflashing joints minimum of 4 inches (100 mm).

E. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Seal with elastomeric sealant and clamp flashing to pipes that penetrate roof.

3.5 INSTALLATION TOLERANCES

A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet (6 mm in 6 m) on slope and location lines indicated on Drawings and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.

3.6 CLEANING

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean and neutralize flux materials. Clean off excess solder.

C. Clean off excess sealants.

3.7 PROTECTION

A. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions.

B. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures, as determined by Architect.

END OF SECTION 076200

SECTION 090190.52 - MAINTENANCE REPAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes maintenance repainting as follows:

1. Removing existing paint.
2. Patching substrates.
3. Repainting.

B. Related Requirements:

1. Section 099114 "Exterior Painting (MPI Standards) for MPI paint systems and the application thereof on exterior surfaces.

1.2 UNIT PRICES

A. Work of this Section is affected by unit prices specified in Section 012200 "Unit Prices."

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each type of paint system and each pattern, color, and gloss.

1. For each painted color being matched to a standardized color-coding system, include the color chips from the color-coding-system company with Samples.
2. Label each Sample for location and application.

C. Product List: Printout of current "MPI Approved Products List" for each MPI-product category specified in paint systems, with the proposed product highlighted.

1.4 INFORMATIONAL SUBMITTALS

A. Color Matching Certificate: For computer-matched colors.

1.5 QUALITY ASSURANCE

A. Color Matching: Custom computer-match paint colors for all existing colors.

PART 2 - PRODUCTS

2.1 PREPARATORY CLEANING MATERIALS

A. Water: Potable.

B. Detergent Solution: Solution prepared by mixing 2 cups (0.5 L) of tetrasodium pyrophosphate (TSPP), 1/2 cup (125 mL) of laundry detergent that contains no ammonia, 5 quarts (5 L) of 5 percent sodium hypochlorite bleach, and 15 quarts (15 L) of warm water for every 5 gal. (20 L) of solution required.

C. Mildewcide: Commercial proprietary mildewcide or a job-mixed solution prepared by mixing 1/3 cup (80 mL) of household detergent that contains no ammonia, 1 quart (1 L) of 5 percent sodium hypochlorite bleach, and 3 quarts (3 L) of warm water.

D. Abrasives for Ferrous Metal Cleaning: Aluminum oxide paper, emery paper, fine steel wool, steel scrapers, and steel-wire brushes of various sizes.

E. Rust Remover: Manufacturer's standard phosphoric acid-based gel formulation, also called "naval jelly," for removing corrosion from iron and steel.

2.2 PAINT REMOVERS

A. Low-Odor, Solvent-Type Paste Paint Remover: Manufacturer's standard low-odor, water-rinsable, solvent-type paste, gel, or foamed emulsion formulation for removing paint from masonry, stone, wood, plaster, or metal as required to suit Project; and containing no methanol or methylene chloride.

2.3 PAINT, GENERAL

A. Material Compatibility:

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

B. Colors: As required to match existing colors.

2.4 PAINT MATERIAL MANUFACTURERS

A. As specified in Section 099114 “Exterior Painting (MPI Standards).”

2.5 PAINT MATERIALS

A. As specified in Section 099114 “Exterior Painting.”

2.6 PATCHING MATERIALS

A. Wood-Patching Compound: Two-part, epoxy-resin, wood-patching compound; knife-grade formulation as recommended in writing by manufacturer for type of wood repair indicated, tooling time required for the detail of work, and site conditions. Compound shall be designed for filling voids in damaged wood materials that have deteriorated from weathering and decay. Compound shall be capable of filling deep holes and spreading to feather edge.

B. Metal-Patching Compound: Two-part, polyester-resin, metal-patching compound; knife-grade formulation as recommended in writing by manufacturer for type of metal repair indicated, tooling time required for the detail of work, and site conditions. Compound shall be produced for filling metal that has deteriorated from corrosion. Filler shall be capable of filling deep holes and spreading to feather edge.

PART 3 - EXECUTION

3.1 MAINTENANCE REPAINTING, GENERAL

A. Execution of the Work: In repainting surfaces, disturb them as minimally as possible and as follows:

1. Remove failed coatings and corrosion and repaint.
2. Verify that substrate surface conditions are suitable for repainting.
3. Allow other trades to repair items in place before repainting.

B. Mechanical Abrasion: Where mechanical abrasion is needed for the work, use gentle methods, such as scraping and lightly hand sanding, that will not abrade softer substrates, reducing clarity of detail.

C. Heat Processes: Do not use torches, heat guns, or heat plates.

3.2 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of painting work. Comply with paint manufacturer's written instructions for inspection.

B. Maximum Moisture Content of Substrates: Do not begin application of coatings unless moisture content of exposed surface is below the maximum value recommended in writing by paint manufacturer and not greater than the following maximum values when measured with an electronic moisture meter appropriate to the substrate material:
1. Wood: 15 percent.

C. Alkalinity: Do not begin application of coatings unless surface alkalinity is within range recommended in writing by paint manufacturer. Conduct alkali testing with litmus paper on exposed plaster, cementitious, and masonry surfaces.

3.3 PREPARATORY CLEANING

A. General: Use the gentlest, appropriate method necessary to clean surfaces in preparation for painting. Clean all surfaces, corners, contours, and interstices.

B. Detergent Cleaning: Wash surfaces by hand using clean rags, sponges, and bristle brushes. Scrub surface with detergent solution and bristle brush until soil is thoroughly dislodged and can be removed by rinsing. Use small brushes to remove soil from joints and crevices. Dip brush in solution often to ensure that adequate fresh detergent is used and that surface remains wet. Rinse with water applied by clean rags or sponges.

C. Solvent Cleaning: Use solvent cleaning to remove oil, grease, smoke, tar, and asphalt from painted or unpainted surfaces before other preparation work. Wipe surfaces with solvent using clean rags and sponges. If necessary, spot-solvent cleaning may be employed just prior to commencement of paint application, provided enough time is allowed for complete evaporation. Use clean solvent and clean rags for the final wash to ensure that all foreign materials have been removed. Do not use solvents, including primer thinner and turpentine, that leave residue.

D. Mildew: Clean off existing mildew, algae, moss, plant material, loose paint, grease, dirt, and other debris by scrubbing with bristle brush or sponge and detergent solution. Scrub mildewed areas with mildewcide. Rinse with water applied by clean rags or sponges.

E. Mechanical Rust Removal:

1. Remove rust with specified abrasives for ferrous-metal cleaning. Clean to bright metal.
2. Wipe off residue with mineral spirits and either steel wool or soft rags.
3. Dry immediately with clean, soft cloths. Follow direction of grain in metal.
4. Prime immediately to prevent rust. Do not touch cleaned metal surface until primed.

3.4 PAINT REMOVAL

A. General: Remove paint where indicated. Where cleaning methods have been attempted and further removal of the paint is required because of incompatible or unsatisfactory surfaces for repainting, remove paint to extent required by conditions.

1. Brushes: Use brushes that are resistant to chemicals being used.

    a. Metal Substrates: If using wire brushes on metal, use brushes of same metal composition as metal being treated.
    b. Wood Substrates: Do not use wire brushes.

B. Paint Removal with Hand Tools: Remove paint manually using hand-held scrapers, wire brushes, sandpaper, and metallic wool as appropriate for the substrate material.

C. Paint Removal with Low-Odor, Solvent-Type Paste Paint Remover:

1. Remove loose and peeling paint using scrapers, stiff brushes, or a combination of these. Let surface dry thoroughly.

2. Apply thick coating of paint remover to dry, painted surface with natural-fiber cleaning brush, deep-nap roller, or large paintbrush. Apply in one or two coats according to manufacturer's written instructions.
3. Allow paint remover to remain on surface for period recommended in writing by manufacturer or as determined by preconstruction testing.
4. Use mechanical methods recommended in writing by manufacturer to remove chemicals and paint residue.
5. Repeat process if necessary to remove all paint.

3.5 SUBSTRATE REPAIR

A. General: Repair substrate surface defects that are inconsistent with the surface appearance of adjacent materials and finishes.

B. Wood Substrate:

1. Repair wood defects including dents and gouges more than 1/4 inch (6 mm) in size and all holes and cracks by filling with wood-patching compound and sanding smooth. Reset or remove protruding fasteners.

C. Metal Substrate:

1. Preparation: Treat repair locations by wire-brushing and solvent cleaning. Use mechanical rust removal method to clean off rust.
2. Defects in Metal Surfaces: Repair non-load-bearing defects in existing metal surfaces, including dents and gouges more than 1/8 inch (3 mm) deep or 1 inch (25 mm) across and all holes and cracks by filling with metal-patching compound and sanding smooth. Remove burrs and protruding fasteners.
3. Priming: Prime iron and steel surfaces immediately after repair to prevent flash rusting. Stripe paint corners, crevices, bolts, welds, and sharp edges. Apply two coats to surfaces that are inaccessible after completion of the Work.

3.6 PAINT APPLICATION, GENERAL

A. Prepare surfaces to be painted according to the Surface-Preparation Schedule and with manufacturer's written instructions for each substrate condition.

B. Apply a transition coat over incompatible existing coatings.

C. Metal Substrate: Stripe paint corners, crevices, bolts, welds, and sharp edges before applying full coat. Apply two coats to surfaces that are inaccessible after completion of the Work. Tint stripe coat different than the main coating and apply with brush.

D. Blending Painted Surfaces: When painting new substrates patched into existing surfaces or touching up missing or damaged finishes, apply coating system specified for the specific substrate. Apply final finish coat over entire surface from edge to edge and corner to corner.

3.7 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage paint-remover manufacturer's factory-authorized service representative for consultation and Project-site inspection and to provide on-site assistance when requested by Owner or Owner’s Agent.

3.8 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

C. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.9 SURFACE-PREPARATION SCHEDULE

A. General: Before painting, prepare surfaces for painting according to applicable requirements specified in this schedule.

1. Examine surfaces to evaluate each surface condition according to paragraphs below.
2. Where existing degree of soiling prevents examination, preclean surface and allow it to dry before making an evaluation.
3. Repair substrate defects according to "Substrate Repair" Article.

B. Surface Preparation for MPI DSD 0 Degree of Surface Degradation:

1. Surface Condition: Existing paint film in good condition and tightly adhered.
2. Paint Removal: Not required.
3. Preparation for Painting: Wash surface by detergent cleaning; use solvent cleaning where needed. Roughen or degloss cleaned surfaces to ensure paint adhesion according to paint manufacturer's written instructions.

C. Surface Preparation for MPI DSD 1 Degree of Surface Degradation:

1. Surface Condition: Paint film cracked or broken but adhered.
2. Paint Removal: Scrape by hand-tool cleaning methods to remove loose paint until only tightly adhered paint remains.
3. Preparation for Painting: Wash surface by detergent cleaning; use other cleaning methods for small areas of bare substrate if required. Roughen, degloss, and sand the cleaned surfaces to ensure paint adhesion and a smooth finish according to paint manufacturer's written instructions.

D. Surface Preparation for MPI DSD 2 Degree of Surface Degradation:

1. Surface Condition: Paint film loose, flaking, or peeling.

2. Paint Removal: Remove loose, flaking, or peeling paint film by hand-tool or chemical paint-removal methods.
3. Preparation for Painting: Wash surface by detergent cleaning; use solvent cleaning where needed. Use other cleaning methods for small areas of bare substrate if required. Sand surfaces to smooth remaining paint film edges. Prepare bare cleaned surface to be painted according to paint manufacturer's written instructions for substrate construction materials.

E. Surface Preparation for MPI DSD 3 Degree of Surface Degradation:

1. Surface Condition: Paint film severely deteriorated.
2. Paint Removal: Completely remove paint film by hand-tool or chemical paint-removal methods. Remove rust.
3. Preparation for Painting: Prepare bare cleaned surface according to paint manufacturer's written instructions for substrate construction materials.

F. Surface Preparation for MPI DSD 4 Degree of Surface Degradation:

1. Surface Condition: Missing material, small holes and openings, and deteriorated or corroded substrate.
2. Substrate Preparation: Repair, replace, and treat substrate according to "Substrate Repair" Article and requirements in other Specification Sections.
3. Preparation for Painting: Sand substrate surfaces to smooth remaining paint film edges and prepare according to paint manufacturer's written instructions for substrate construction materials. Remove rust.
4. Painting: Paint as required for MPI DSD 2 degree of surface degradation.

3.10 EXTERIOR MAINTENANCE REPAINTING SCHEDULE

A. As specified in Section 099114 “Exterior Painting (MPI Standards).”

END OF SECTION 090190.52

SECTION 099114 - EXTERIOR PAINTING (MPI STANDARDS)

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Surface preparation and application of paint systems on exterior substrates.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.

B. Samples: For each type of topcoat product.

C. Product List: Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in the Exterior Painting Schedule to cross-reference paint systems specified in this Section. Include color designations.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following.

1. Benjamin Moore and Co.
2. PPG Paints.
3. Sherwin-Williams Company (The).

2.2 PAINT PRODUCTS

A. MPI Standards: Provide products complying with MPI standards indicated and listed in its "MPI Approved Products List."

B. Material Compatibility:

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.

2. For each coat in a paint system, provide products recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.

C. Colors: As selected by Architect from manufacturer's full range to match existing.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify suitability of substrates, including surface conditions and compatibility, with existing finishes and primers.

B. Proceed with coating application only after unsatisfactory conditions have been corrected.

1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.

3.3 INSTALLATION

A. Apply paints in accordance with manufacturer's written instructions and recommendations in "MPI Manual."

B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 CLEANING AND PROTECTION

A. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

B. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

C. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.5 EXTERIOR PAINTING SCHEDULE

A. Steel and Iron Substrates:

1. Alkyd System MPI EXT 5.1Q:

a. Surface-Tolerant Prime Coat: Primer, metal, surface tolerant, MPI #23.
b. Intermediate Coat: Exterior, alkyd enamel, matching topcoat.
c. Gloss Topcoat: Alkyd, exterior, gloss (MPI Gloss Level 6), MPI #9.

B. Galvanized-Metal Substrates:

1. Alkyd System MPI EXT 5.3B:

a. Prime Coat: Primer, galvanized, cementitious, MPI #26.
b. Intermediate Coat: Exterior, alkyd enamel, matching topcoat.
c. Gloss Topcoat: Alkyd, exterior, gloss (MPI Gloss Level 6), MPI #9.

C. Wood Substrates: Exposed framing.

1. Latex over Alkyd Primer System MPI EXT 6.2A:

a. Prime Coat: Primer, alkyd for exterior wood, MPI #5.
b. Intermediate Coat: Latex, exterior, matching topcoat.
c. Flat Topcoat: Latex, exterior, flat (MPI Gloss Level 1), MPI #10.
d. Gloss Topcoat: Latex, exterior, gloss (MPI Gloss Level 6), MPI #119.

D. Wood Substrates: Wood trim.

1. Latex System MPI EXT 6.3A:

a. Prime Coat: Primer, alkyd for exterior wood, MPI #5.
b. Intermediate Coat: Latex, exterior, matching topcoat.
c. Gloss Topcoat: Latex, exterior, gloss (MPI Gloss Level 6), MPI #119.

E. Wood Substrates: Wood-based panel products.

1. Latex over Alkyd Primer System MPI EXT 6.4G:

a. Prime Coat: Primer, alkyd for exterior wood, MPI #5.
b. Intermediate Coat: Latex, exterior, matching topcoat.
c. Gloss Topcoat: Latex, exterior, gloss (MPI Gloss Level 6), MPI #119.

END OF SECTION 099114

Attach to Bid

Identification of HUB Certified/ Minority Business Participation

I,_____,
(Name of Bidder)

do hereby certify that on this project, we will use the following HUB Certified/ minority business as construction subcontractors, vendors, suppliers or providers of professional services.

Firm Name, Address and Phone #	Work Type	*Minority Category	**HUB Certified (Y/N)

*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

** HUB Certification with the state HUB Office required to be counted toward state participation goals.

The total value of minority business contracting will be ($)_____.

Attach to Bid

State of North Carolina AFFIDAVIT A – Listing of Good Faith Efforts

County of _____

(Name of Bidder)

Affidavit of_____

I have made a good faith effort to comply under the following areas checked:

Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

- ❑ **1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- ❑ **2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- ❑ **3** – **(15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- ❑ **4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- ❑ **5** – **(10 pts)** Attended prebid meetings scheduled by the public owner.
- ❑ **6** – **(20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- ❑ **7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- ❑ **8** – **(25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- ❑ **9** – **(20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- ❑ **10** - **(20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date:_____ Name of Authorized Officer:_____

Signature:_____

Title:_____

SEAL

State of_____, County of_____

Subscribed and sworn to before me this _____day of _____20____

Notary Public_____My commission expires _____

Attach to Bid

State of North Carolina --AFFIDAVIT B-- Intent to Perform Contract with Own Workforce.

County of _____

Affidavit of:

_____
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the _____

_____contract.
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date:_____Name of Authorized Officer:_____

Signature:_____

SEAL

Title:_____

State of _____County of_____

Subscribed and sworn to before me this _____day of _____20___

Notary Public _____

My commission expires_____

Do not submit with bid

State of North Carolina - AFFIDAVIT C - Portion of the Work to be Performed by HUB Certified/Minority Businesses

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the portion of the work to be executed by HUB certified/minority businesses as defined in GS143-128.2(g) and 128.4(a),(b),(e) is equal to or greater than 10% of the bidders total contract price, then the bidder must complete this affidavit.
This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of _____ I do hereby certify that on the
(Name of Bidder)

_____
(Project Name)

Project ID#_____ Amount of Bid $_____

I will expend a minimum of _____% of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below.

Attach additional sheets if required

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

**** HUB Certification with the state HUB Office required to be counted toward state participation goals.**

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date:_____ Name of Authorized Officer:_____

SEAL

Signature:_____

Title:_____

State of _____, County of _____

Subscribed and sworn to before me this _____day of _____20____

Notary Public_____

My commission expires_____

Do not submit with Bid

State of North Carolina AFFIDAVIT D – Good Faith Efforts

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the goal of 10% participation by HUB Certified/ minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

Affidavit of _____ I do hereby certify that on the
(Name of Bidder)

_____
(Project Name)

Project ID#_____ Amount of Bid $_____

I will expend a minimum of _____% of the total dollar amount of the contract with HUB certified/ minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. (Attach additional sheets if required)

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

**** HUB Certification with the state HUB Office required to be counted toward state participation goals.**

Examples of documentation that may be required to demonstrate the Bidder's good faith efforts to meet the goals set forth in these provisions include, but are not necessarily limited to, the following:

A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.

B. Copies of quotes or responses received from each firm responding to the solicitation.

C. A telephone log of follow-up calls to each firm sent a solicitation.

D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.

E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.

F. Copy of pre-bid roster

G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.

H. Letter detailing reasons for rejection of minority business due to lack of qualification.

I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date:_____ Name of Authorized Officer:_____

Signature:_____

Title:_____

SEAL

State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public_____

My commission expires _____

Attach to Bid

STATE OF NORTH CAROLINA
AFFIDAVIT

COUNTY OF _____

****

I, _____ (the individual attesting below), being duly authorized by and on behalf of _____ (the entity bidding on project hereinafter "Employer") after first being duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25(5).

2. Employer understands that Employers Must Use E-Verify. Each employer, after hiring an employee to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS§64-26(a).

3. Employer is a person, business entity, or other organization that transacts business in this State and that employs 25 or more employees in this State. (mark Yes or No)

   a. YES _____, or b. NO _____

4. Employer's subcontractors comply with E-Verify, and if Employer is the winning bidder on this project Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer.

This ____ day of _____, 2023.

Signature of Affiant

Print or Type Name: _____

State of _____County of _____

Signed and sworn to (or affirmed) before me, this the _____

day of _____, 2023.

My Commission Expires:

_____

Notary Public

(Affix Official/Notarial Seal)

PROCEDURE FOR REPORTING NORTH CAROLINA SALES TAX EXPENDITURES ON CITY OF WILSON CONTRACTS

1. The following procedure in handling the North Carolina Sales Tax is applicable to this project. Contractors shall comply fully with the requirements outlined hereinafter, in order that the owner may recover the amount of the tax permitted under the law.

2. (a) It shall be the general contractor's responsibility to furnish the owner documentary evidence showing the materials used and sales tax paid by the general contractor and each of his subcontractors. Any county sales tax included in the Contractor's statements must be shown separately from the state sales tax. If more than one county is shown, each county shall be listed separately.

   (b) The documentary evidence shall consist of a certified statement, by the general contractor and each of his subcontractors individually, showing total purchases of materials from each separate vendor and total sales taxes by each county paid each vendor. The certified statement must show the invoice number(s) covered and inclusive dates of such invoices. State sales tax shall be listed separately from county sales tax. If more than one county is shown, each county shall be listed separately.

   (c) Materials used from general contractor's or subcontractor's warehouse stock shall be shown in a certified statement at warehouse stock prices.

   (d) The general contractor shall not be required to certify the subcontractor's statements.

   (e) The documentary evidence to be furnished to owners eligible for sales or use tax refunds covers sales and/or use taxes paid on building materials used by contractors and subcontractors in the performance of Contracts with churches, orphanages, hospitals not operated for profit, educational institutions not operated for profit, and other charitable or religious institutions or organizations not operated for profit and incorporated cities, towns, and counties in this State. The documentary evidence is to be submitted to the above-named institutions, organizations, and governmental units to be included in claims for refunds to be prepared and submitted by them to obtain refunds provided by G.S. 105-164.14 and is to include the purchases of building materials, supplies, fixtures, and equipment which become a part of or annexed to buildings or structures being erected, altered, or repaired under Contracts with such institutions, organizations or governmental units.

3. The Contractor or contractors to whom an award is made on this project will be required to follow the procedure outlined above.

4. The Contractor is advised that all requests for payment, partial or final, for work completed under this Contract must include a sales tax report submitted in accordance with the procedures outlined above.

Attach to Bid

REFERENCES

COMPANY NAME_____

**Provide three references for our records:

Firm: _____

Contact Name: _____

Phone Number: _____

Firm: _____

Contact Name: _____

Phone Number: _____

Firm: _____

Contact Name: _____

Phone Number: _____

EXECUTION OF BID

By submitting this BID, the potential contractor certifies the following:

An authorized representative of the firm signs this BID.

It can obtain insurance certificates as required within 10 days after notice of award.

The cost and availability of all equipment, materials, supplies associated with performing the services described herein have been determined and include in the proposed cost.

All labor costs, direct and indirect, have been determined and included in the proposed cost.

The offeror can and will provide the specified performance bond or alternate performance guarantee.

The potential contractor has read and understands the conditions set forth in this ITB and agrees to them with no exceptions.

OFFEROR: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

TELEPHONE NUMBER: _____

FEDERAL EMPLOYER IDENTIFICATION NUMBER:

_____

BY: _____ **TITLE:** _____ **DATE:** _____
(Signature)

_____
(Typed or printed name)

THIS PAGE MUST BE SIGNED AND INCLUDED IN YOUR BID.
UNSIGNED BIDS WILL NOT BE CONSIDERED!

ACCEPTANCE OF BID
CITY OF WILSON

BY: _____ **TITLE:** _____ **DATE:** _____

Contractor certifies that as of this date, it is not on the Final Divestment List as created by the State Treasurer pursuant to N.C.G.S. 143-6A-4. In compliance with the requirements of the Iran Divestment Act and N.C.G.S. 143C-6A-5(b), Contractor shall not utilize in the performance the contract any subcontractor that is identified on the Final Divestment List.

Attach to Bid