REQUEST FOR PROPOSALS

Item Description: ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH (# 38713)

Date to be opened: December 5, 2022, 2:15 PM

Issuing Department: **DEPARTMENT OF PLANNING AND DEVELOPMENT**

QUESTIONS

- Please direct questions relative to the bidding process, how to fill out forms, and how to submit a bid (Pages 1-8) to Purchasing Agent Chevell Burgess.
    - Phone: (401) 680-5265; Email cburgess@providenceri.gov
        - Please use the subject line "**RFP Question**"
- Please direct questions relative to the Minority and Women's Business Enterprise Program and the corresponding forms to the MBE/WBE Outreach Director for the City of Providence, Grace Diaz
    - Phone: (401) 680-5766; Email: gdiaz@providenceri.gov
        - Please use subject line "**MBE WBE Forms**"
- Please direct questions relative to the specifications or contract documents in writing to Chris Martin Principal Planner, Department of Planning & Development **and** cc: Francis Marinaccio, P.E., BETA Group, Inc.
    - Email: crmartin@providenceri.gov, cc: fmarinaccio@BETA-Inc.com
    - Please use subject line "**ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH**"

PRE_BID MEETING

A pre-bid meeting will be held for this bid package on **November 14, 2022 at 10:00 AM EST** via Zoom: https://us06web.zoom.us/j/2048218508?pwd=dXB3aVZ3aFQwNk1pNlFMN2ZvT1NuUT09

Meeting ID: 204 821 8508
Passcode: 02865

INSTRUCTIONS FOR SUBMISSION

- Bids may be submitted up to **2:15 PM** on the above meeting date ("date to be opened") at the **Department of the City Clerk. Room 311, City Hall. 25 Dorrance Street, Providence.** At 2:15 P.M. all bids will be publicly opened and read at the Board of Contract Meeting in the City Council Chambers, on the 3rd floor of City Hall.
- Bidders must submit **one original and two copies** of their bid in sealed envelopes or packages labeled with the captioned **Item Description** and the **City Department to which the RFP and bid are related along with a USB drive containing a single PDF of all documents and forms associated with their bid**. No CDs or emailed documents will be accepted. Failure to provide a USB drive/USB stick with a single PDF of all documents and forms may result in disqualification.

- Communications to the Board of Contract and Supply that are not competitive sealed bids (i.e. product information/samples) should have "**NOT A BID**" written on the envelope or wrapper.
- Only use form versions and templates included in this RFP. If you have an old version of a form do not recycle it for use in this bid.
- The bid envelope and information relative to the bid must be addressed to:
    - **Board of Contract and Supply Department of the City Clerk – City Hall, Room 311 25 Dorrance Street Providence, RI 02903**
- **PLEASE NOTE: This bid may include details regarding information that you will need to provide (such as proof of licenses) to the issuing department before the formalization of an award.
- *This information is NOT requested to be provided in your initial bid by design*.
- All bids submitted to the City Clerk become public record. Failure to follow instructions could result in information considered private being posted to the City's Open Meetings Portal and made available as a public record. The City has made a conscious effort to avoid the posting of sensitive information on the City's Open Meetings Portal, by requesting that such sensitive information be submitted to the issuing department only at their request.

BID PACKAGE CHECKLIST

Digital forms are available in the City of Providence Purchasing Department Office or online at **http://www.providenceri.gov/purchasing/how-to-submit-a-bid/**

The bid package **MUST** include the following, in this order:

- **Bid Form 1:** Bidder's Blank as the cover page/ 1st page (s*ee page **6** of this document*)
- **Bid Form 2:** Certification of Bidder as 2nd page (s*ee page **7** of this document*)
- **Bid Form 3:** Certificate Regarding Public Records (s*ee page **8** of this document)*
- **Forms from the Minority and Women Business Enterprise Program:** Based on Bidder Category. S*ee forms and instructions enclosed (pages **9-13**) or on: https://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/*

  Please note: MBE/WBE forms must be completed for EVERY bid submitted and must be inclusive of ALL required signatures. Forms without all required signatures may be considered incomplete.
- **Other Required Forms:** (*Forms begin on page 32*)
  - Certificate as to Corporate Principal
  - Non-Collusion Affidavit of Prime Bidder
  - Non-Collusion Affidavit of Subcontractor
  - Certification of Non-Segregated Facilities
  - Bidder's Certification of Equal Employment Opportunity
  - Special Requirements for Out-of-State Contractors and Firms
  - Certification with Regard to Performance of Previous Contracts and Subcontracts
  - Affidavit of Non-Discrimination
  - Certification of Non-Discrimination in Equal Employment Opportunity
  - ARPA Requirements Addendum (*see Appendix E*)
- **Bidder's Proposal/Packet:** Formal response to the requirements as outlined in the Bid Package Specification Section of this RFP, including pricing information and details related to the good(s) or service(s) being provided. Please be mindful of formatting responses as requested to ensure clarity.

1. Bid Bond
2. Certificate of Corporate Principal
3. Non-Collusion Affidavit of Prime Bidder
4. Non-Collusion Affidavit of Subcontractor
5. Certification of Non-Segregated Facilities
6. Bidder's Certification for Equal Employment Opportunity
7. Special Requirement for All Out-of-State Contractors and Firms
8. Certification with Regard to Performance of Previous Contracts and Subcontracts
9. Affidavit of Non-Discrimination
10. Certification of Non-Discrimination in Equal Employment Opportunity

11. Statement of Bidders Qualifications
12. Proposed Subcontractors
13. Schedule of Unit Prices
14. Schedule of Rates for all Labor and Equipment

• **Financial Assurance,** *if requested* (a*s indicated on page 5 of this document under "Bid Terms")*

All of the above listed documents are REQUIRED. (With the exception of financial assurances, which are only required if specified on page 6.)

******Failure to meet specified deadlines, follow specific submission instructions, or enclose all required documents with all applicable signatures will result in disqualification, or in an inability to appropriately evaluate bids*.**

NOTICE TO VENDORS

1. The Board of Contract and Supply will make the award to the lowest qualified and responsible bidder.
2. In determining the lowest responsible bidder, cash discounts based on preferable payment terms will not be considered.
3. Where prices are the same, the Board of Contract and Supply reserves the right to award to one bidder, or to split the award.
4. No proposal will be accepted if the bid is made in collusion with any other bidder.
5. Bids may be submitted on an "equal in quality" basis. The City reserves the right to decide equality. Bidders must indicate brand or the make being offered and submit detailed specifications if other than brand requested.
6. A bidder who is an out-of-state corporation shall qualify or register to transact business in this State, in accordance with the Rhode Island Business Corporation Act, RIGL Sec. 7-1.2-1401, et seq.
7. The Board of Contract and Supply reserves the right to reject any and all bids.
8. Competing bids may be viewed in person at the Department of the City Clerk, City Hall, Providence, immediately upon the conclusion of the formal Board of Contract and Supply meeting during which the bids were unsealed/opened. Bids may also be accessed electronically on the internet via the City's Open Meetings Portal.
9. As the City of Providence is exempt from the payment of Federal Excise Taxes and Rhode Island Sales Tax, prices quoted are not to include these taxes.
10. In case of error in the extension of prices quoted, the unit price will govern.
11. The contractor will **NOT** be permitted to: a) assign or underlet the contract, or b) assign either legally or equitably any monies or any claim thereto without the previous written consent of the City Purchasing Director.
12. Delivery dates must be shown in the bid. If no delivery date is specified, it will be assumed that an immediate delivery from stock will be made.
13. A certificate of insurance will normally be required of a successful vendor.
14. For many contracts involving construction, alteration and/or repair work, State law provisions concerning payment of prevailing wage rates apply (RIGL Sec. 37-13-1 et seq.)
15. No goods should be delivered or work started without a Purchase Order.
16. Bidder must certify that it does not unlawfully discriminate on the basis of race, color, national origin, gender, gender identity or expression, sexual orientation and/or religion in its business and hiring practices and that all of its employees are lawfully employed under all applicable federal, state and local laws, rules and regulations. (See Bid Form 2.)

BID TERMS

1. Financial assurances may be required in order to be a successful bidder for Commodity or Construction and Service contracts. If either of the first two checkboxes below is checked, the specified assurance **must accompany** a bid, or the bid will not be considered by the Board of Contract and Supply. The third checkbox indicates the lowest responsible bidder will be contacted and required to post a bond to be awarded the contract.

☐a) A certified check for **$**_____ must be deposited with the City Clerk as a guarantee that the Contract will be signed and delivered by the bidder.

☒ b) A bid bond in the amount of __5__ per centum (%) of the proposed total price, must be deposited with the City Clerk as a guarantee that the contract will be signed and delivered by the bidder; and the amount of such bid bond shall be retained for the use of the City as liquidated damages in case of default.

☒ c) A performance and payment bond (statutory form and noted on the federal register) with a satisfactory surety company will be posted by the bidder in a sum equal to one hundred per centum (100%) of the awarded contract.

☐ d) No financial assurance is necessary for this item.

2. Awards will be made within **sixty (60) days of bid opening**. All bid prices will be considered firm, unless qualified otherwise. Requests for price increases will not be honored.

3. Failure to deliver within the time quoted or failure to meet specifications may result in default in accordance with the general specifications. It is agreed that deliveries and/or completion are subject to strikes, lockouts, accidents and Acts of God.

The following entry applies only for COMMODITY BID TERMS:

4. Payment for partial delivery will not be allowed except when provided for in blanket or term contracts.

The following entries apply only for CONSTRUCTION AND SERVICE BID TERMS:

5. Only one shipping charge will be applied in the event of partial deliveries for blanket or term contracts.

6. Prior to commencing performance under the contract, the successful bidder shall attest to compliance with the provisions of the Rhode Island Worker's Compensation Act, RIGL 28-29-1, et seq. If exempt from compliance, the successful bidder shall submit a sworn Affidavit by a corporate officer to that effect, which shall accompany the signed contract.

7. Prior to commencing performance under the contract, the successful bidder shall, submit a certificate of insurance, in a form and in an amount satisfactory to the City, noting the City of Providence and Providence Public Building Authority as additionally insured.

WBE/MBE Form Instructions

The City of Providence actively seeks Minority and Women business enterprises to participate in bids to meet the City's procurement needs. Pursuant to the City of Providence Code of Ordinances, Chapter 21, Article II, Sec. 21-52 (Minority and Women's Business Enterprise) and Rhode Island General Laws (as amended), Chapter 31-14, et seq. (Minority Business Enterprise), Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) participation goals apply to contracts.

The goal for Minority Business Enterprise (MBE) participation is **10%** of the total bid value.

The goal for Women's Business Enterprise (WBE) participation is **10%** of the total bid value.

The goal for combined MBE/WBE participation is **20%** of the total bid value.

Only businesses certified with the State of Rhode Island as minority and/or women business enterprises are counted towards the City's goals. Eligible minority or women-owned businesses are encouraged to seek certification from the State of Rhode Island Minority Business Enterprise Compliance Office at: http://odeo.ri.gov/offices/mbeco/
Note: MBE certification with the State of Rhode Island on the basis of Portuguese heritage is not currently recognized by the City of Providence's MBE program.

Bid Requirements:

All Bidders: All bidders must complete and submit the ***MBE/WBE Participation Affidavit*** indicating whether or not they are a state-certified MBE/WBE and acknowledging the City's participation goals. Submission of this form is required with **every bid**. Your bid will not be accepted without an affidavit.

Bidders who will be subcontracting: Bidders who will be subcontracting must submit the ***Subcontractor Disclosure Form*** as part of their bid submission. All subcontractors, regardless of MBE/WBE status, must be listed on this form. Business NAICS codes can be found at https://www.naics.com/search/. Awarded bidders are required to submit ***Subcontractor Utilization and Payment Reports*** with each invoice.

Waiver Requests:
If the percentage of the total amount of the bid being awarded to MBE or WBE vendors is less than 20% (Box F on the Subcontractor Disclosure Form) and the prime contractor is not a Rhode Island State-certified MBE or WBE, the Bidder must complete the *MBE/WBE Waiver Request Form* for review. Waivers will be considered on a case-by-case basis.

No waiver will be granted unless the waiver request includes documentation that demonstrates that the Bidder has made good faith efforts to achieve the City's stated participation goals. Waivers must be reviewed and signed by the City of Providence's MBE/WBE Outreach Director, Grace Diaz, or her designee. Department Directors cannot recommend a bidder for award if this form is applicable and absent. If the bid does not meet the participation goals of the City of Providence and a waiver is not filed with the signature of the MBE/WBE Outreach Director or her designee, the bid will not be accepted.

Verifying MBE/WBE Certification
It is the responsibility of the bidder to confirm that every MBE/WBE named in a proposal and included in a contract is certified by the Rhode Island Minority Business Enterprise Compliance office. The current MBE/WBE directory is available at the State of RI MBE Office, One Capitol Hill, 2nd Floor, Providence,

RI, or online at http://odeo.ri.gov/offices/mbeco/mbe-wbe.php. You can also call (401) 574-8670 to verify certification, expiration dates, and services that the MBE/WBE is certified to provide. Note: MBE certification with the State of Rhode Island on the basis of Portuguese heritage is not currently recognized by the City of Providence's MBE program.

Form Instructions:
Access all bid forms from http://www.providenceri.gov/oeo/ or http://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/.

Download the forms as blank PDFs. Once saved on your computer, fill them out using the Adobe program. The fillable PDFs must be completed in Adobe in order to be saved property. Google Chrome and similar platforms do not allow for the forms to be saved as filled PDFs. Therefore, please download the blank forms to your computer, then fill them out and save.

Assistance with Form Requirements
Examples of completed forms can be found on the City of Providence website at http://www.providenceri.gov/oeo/ or http://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/.

Contract Requirements:
Prime contractors engaging subcontractors must submit the ***Subcontractor Utilization and Payment Report*** to the City Department's Fiscal Agent with every invoice and with request for final payment. This form is not submitted as a part of the initial bid package.

For contracts with duration of less than 3 months, this form must be submitted along with the contractor's request for final payment. The form must include all subcontractors utilized on the contract, both MBE/WBE and non- MBE/WBE, the total amount paid to each subcontractor for the given period and to date. During the term of the contract, any unjustified failure to comply with the MBE/WBE participation requirements is a material breach of contract.

Questions?

For more information or for assistance with MBE/WBE Forms, contact the City of Providence MBE/WBE Outreach Director, Grace Diaz, at mbe-wbe@providenceri.com or (401) 680-5766.

BID PACKAGE SPECIFICATIONS

Introduction

The City of Providence seeks consultant services from a qualified contractor, to provide construction services associated with ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH as outlined in the attached Contract Documents.

CONTRACT DOCUMENTS

ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

HONORABLE Jorge O. Elorza

Mayor, City of Providence

PREPARED BY:

DEPARTMENT of PLANNING AND DEVELOPMENT
444 Westminster Street
Providence, Rhode Island 02903
(401) 680-8400

Bonnie Nickerson, Director

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REQUIRED BIDDING DOCUMENTS

List of Forms: *(TO BE COMPLETED and SUBMITTED with each BID)*

1. Form of Bid
2. Purchasing Department Documents and MBE/WBE Participation Forms
3. Bid Bond
4. Certificate as to Corporate Principal
5. Non-Collusion Affidavit of Prime Bidder
6. Non-Collusion Affidavit of Subcontractor
7. Certification of Non-Segregated Facilities
8. Bidder's Certification for Equal Employment Opportunity
9. Special Requirement for All Out-of-State Contractors and Firms
10. Certification with Regard to Performance of Previous Contracts and Subcontracts
11. Affidavit of Non-Discrimination
12. Certification of Non-Discrimination in Equal Employment Opportunity
13. Statement of Bidders Qualifications
14. Proposed Subcontractors
15. Schedule of Unit Prices

CONTRACT FORMS

1. AGREEMENT

Misc. Agreement Forms: (TO BE SUBMITTED PRIOR TO CONTRACT SIGNING)

2. Performance / Payment Bond
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343. Cleaning Finished Work
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345. Care of the Work
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362. Daily Reports
363. Other Prohibited Interests
364. Water
365. Electricity
366. Drawings
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APPENDIX

INVITATION FOR BIDS
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

This procurement is for ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH. The work to be performed under this Contract includes, but is not limited to, all labor, material and equipment necessary to construct sidewalk and roadway improvements on Washington Street between Dorrance and Exchange Streets and East Approach between Washington Street and Exchange Terrace, in the City of Providence, RI. Included in the work is the installation of a new concrete sidewalk and roadway, granite curbing, curb ramps, and detectable warning systems; new retractable bollards and removable steel bollards; landscape and planting elements, removal and disposal of existing signs and installation of new signs and pavement markings; and all other incidentals necessary to execute the work complete in place and accepted within the limits of this contract to the satisfaction of the Engineer. The project will be funded through the Providence American Rescue Plan Act (ARPA) with a budget of $2,100,000.

The Owner is defined as the City of Providence (City).

All the above shall be performed in strict accordance with the Contract Documents and is to be completed in full by November 15, 2023.

Copies of the Bidding/Contract Documents will be available for inspection at the office of the Purchasing Agent, Providence City Hall, 3rd Floor, Providence, Rhode Island 02903. There will be no charge or fee for obtaining each set of bidding documents.

All questions or comments concerning the bidding of this project must be submitted in writing as prescribed in Section 2 of the Instructions to Bidders. Bidders are responsible to monitor the website for addendum. An addendum acknowledgment page is included in the Required Bidding Documents.

A satisfactory bid bond executed by the Bidder and an acceptable surety in an amount equal to five (5%) percent of the total amount of the bid shall accompany each proposal. The proposal guaranty will be furnished by surety companies licensed to do business in the State of Rhode Island. The City of Providence reserves the right to retain the surety of all bidders until the successful bidder enters into the Contract or until such time as the award or cancellation of the Contract is announced at which point Sureties will be returned to all bidders by the City of Providence.

A Performance Bond in an amount of One Hundred (100%) percent of the contract price and a Labor and Material Payment Bond in the amount of One Hundred (100%) percent of the Contract Price with a satisfactory surety company will be required of the successful bidder. All surety companies must be listed with the Department of the Treasury, Fiscal Services, Circular 570 (Latest Revision published by the Federal Register). All bonds shall be in accordance with RIGL 37-13-14 and 37-13-1 et seq.

The Bidders' attention is called to the fact that minimum salaries and wages, as set forth in the Bidding/Contract Documents, must be paid on this project. Paid wages shall be at rates not less than those prevailing on the same type of work on similar construction in the immediate locality as determined by the United States Secretary of Labor, in accordance with the Act of August 30, 1935, known as the Davis-Bacon Act, under Decision Nos. 1 through 6 as applicable. Prevailing wage rates and Davis-Bacon Wage Determination Reference Materials are available online at https://sam.gov/.

The Bidders' attention is called to the fact that the Contractor must ensure that employees and applicants for employment are not discriminated against because of their race, color, place of national origin, religion, sexual preference, or gender.

The Owner will not consider bids from prime bidders who do not prove at least 5 years construction experience (within the last 7 years) on Roadway Improvement Projects. Roadway Improvement Projects shall be defined as existing, active roadways within an existing City, State or federally owned right-of-way. Instructions on documenting this experience are included in the "Statement of Bidders Qualifications" bid form in the Contract Documents.

Bids may be held by the Owner for a period not to exceed ninety (90) days from the date of opening of bids, for the purpose of reviewing the bids and investigating the qualifications of bidders, all prior to award of the Contract. The Department of Public Works reserves the right to reject any or all bids either in part or in full. All bidders shall be available for a Pre-Bid Award Descope Meeting as may be required by the Owner. The Owner reserves the right to descope one or more bidders. Additionally, the meeting minutes of the Descope Meeting shall be enumerated as part of the signed contract agreement. The intent is NOT to renegotiate cost in any manner but to obtain clarifications and details of representations made by the Bidder to assure an understanding of the bid prior to final award.

After a thorough review, and descope as required, of bids, the Owner anticipate submitting their recommendation for award of contract to the lowest responsible bidder to the Board of Contract and Supply for its regular meeting of **December 5, 2022**. The Board of Contract and Supply may take up to sixty (60) days to formally award.

INSTRUCTION TO BIDDERS
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

1. USE OF SEPARATE BID FORMS

The Contract Documents include a complete set of Bidding Documents such as, but not limited to Front End Documents, Specifications, Drawings, Addendum and Contract forms which are compiled for the convenience of Bidders and are not to be detached from the Contract Documents, filled out, or executed. Separate copies of the Bid Forms are furnished for this purpose and can be found in this document.

2. INTERPRETATIONS OR ADDENDA

No oral interpretation will be made to any Bidder as to the meaning of the Contract Documents or any part thereof. Every request for such an interpretation shall be made in writing to the Owner. Any inquiry received seven or more days prior to the date fixed for opening of Bids will be given consideration. Every interpretation made to a bidder will be in the form of an Addendum to the Contract Documents when issued and will be on file with the City of Providence Purchasing Department. In addition, all Addenda will be mailed to each person holding Contract Documents, but it shall be the Bidder's responsibility to make inquiry as to the Addenda issued. All such addenda shall become part of the Contract and all Bidders shall be bound by such Addenda, whether or not received by the Bidder.

3. INSPECTION OF SITE

A. Each Bidder should visit the site in person and not rely on digital street and overhead views provided by mediums such as, but not limited to, Google and Bing to review areas of the proposed work and fully acquaint himself with the existing conditions there, relating to construction and labor, and should fully inform himself as to the facilities involved, the difficulties and restrictions attending the performance of the Contract. The Bidder should thoroughly examine and familiarize himself with the Drawings, Technical Specifications and all other Contract Documents and supporting information. The Contractor, by the execution of the Contract, shall in no way be relieved of any obligation under it due to his failure to receive or examine any form or legal instrument or to visit the site and acquaint himself with the conditions there existing, and the Owner will be justified in rejecting any claim based on facts regarding which, he should have been on notice as a result thereof.

B. At the time of the opening of Bids, each Bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the Contract Documents (including all addenda). The failure or omission of any Bidder to examine any form, instrument or document or to inspect the site, shall in no way relieve any Bidder from any obligation in respect to his Bid.

4. ALTERNATIVE BIDS

Add alternative bids are included in this contract. All requested alternates shall be bid. Bidder shall make no additional stipulations on the bid form nor qualify his bid in any other manner.

5. ALLOWANCES

A. Allowances shall be included as part of the Base Bid and then further delineated in the Project Schedule of Values. Allowances are subject to all general conditions and standards of the Contract.

1. Quantity Adjustments: This allowance addresses scope creep where the anticipated quantity values in the base bid may be exceeded. Work under this allowance will be reimbursed based on the unit values that are established as part of the unit costs for the project submitted in the base bid.
2. Other stipulations as outlined in Appendix A: Technical Specifications and Measurement & Payment

B. While allowances are part of the Overall Bid Value submitted, that Contractor is advised that there are No Guarantees that they will be used or otherwise drawn down on and should have no expectation of the allowance work being awarded. Allowances will be accounted for the Schedule of Values as separate Lines Items with the value debited as separate values as they are drawn against.

6. BIDS

A. All Bids must be submitted on forms supplied by the Owner and shall include all of the requirements of the Contract Documents, including, but not limited to, the Drawings and other incidental and appurtenant exhibits including these INSTRUCTIONS TO BIDDERS. All Bids shall be complete in every respect and no interlineations, excisions or special conditions shall be made to be included in the Bid Form by the Bidder. All blank spaces for Bid Prices shall be filled in in ink or typewritten; in both words and figures.

B. Required documents: Bid, Bid Documents including the Bid, the Bid Guarantee, the Non-Collusion Affidavit and the Statement of Bidder's Qualifications (if requested), shall be submitted to the City's Board of Contract and Supply as indicated on Page 1 of this document. **One original and two paper copies of the bid documents and required forms shall be submitted along with one USB drive with a single PDF containing all bid documents and required forms. No CDs or emailed PDFs will be accepted. Failure to submit a USB stick with a single PDF of the required documents and forms may result in disqualification.**

C. The Owner may consider as irregular any Bid on which there is an alteration of or departure from the Bid Form hereto attached and, at its option may reject the same.

D. If the Contract is awarded it will be awarded by the Owner to a responsible Bidder on the basis of the lowest Bid and the selected Alternative Bid items, if any. However, the City reserves the right to select an alternate bidder, if in the best interest of the City. The Contract will require the completion of the work according to the Contract Documents.

E. Each Bidder shall include in his Bid the following information:

PRINCIPALS Names Home Addresses, including City, State and Zip Code.	FIRM Name Address City, State and Zip Code

7. BID GUARANTEE

A. The Bid must be accompanied by a Bid Guarantee which shall not be less than **five percent (5%)** of the amount of Bid. The guarantee may be a bid bond in the form attached. The Bid Bond shall be secured by a guarantee or a surety company listed in the latest issue of the U.S. Treasury Circular 570. The amount of such Bid Bond

shall be within the maximum amount specified for such company in said Circular 570. No Bid will be considered unless it is accompanied by the required guarantee. Certified checks, cashier's checks, or cash deposits will not be accepted. The Bid Guarantee shall insure the execution of the Agreement and the furnishing of the surety bond or bonds by the successful Bidder; all as required by the Contract Documents.

B. Revised Bids submitted before the opening of Bids, whether forwarded by mail or telegram, if representing an increase in excess of two percent (2%) of the original Bid, must have the Bid Guarantee adjusted accordingly, otherwise the Bid will not be considered.

C. Bid Bonds of unsuccessful Bidders will be returned as soon as practical after the opening of Bids.

8. COLLUSIVE AGREEMENTS

A. Each Bidder submitting a Bid to the Owner for any portion of the work contemplated by the documents on which bidding is based, shall execute and attach thereto, an affidavit substantially in the form herein provided, to the effect that he has not entered into a collusive agreement with any other person, firm, or corporation in regard to any Bid submitted.

B. Before executing any subcontract, the successful Bidder shall submit the name of any proposed Subcontractor for prior approval and an affidavit substantially in the form provided in this document.

9. STATEMENT OF BIDDER'S QUALIFICATIONS

A. Each Bidder shall completely fill out a STATEMENT OF BIDDER'S QUALIFICATIONS noting his/her experience record in constructing the type of improvements embraced in the work, his/her organization and equipment available for the work contemplated on the form furnished for that purpose, and when specifically requested by the Owner, a detailed financial statement. The Owner shall have the right to take such steps as it deems necessary to determine the ability of the Bidder to perform his obligations under the Contract and the Bidder shall furnish the Owner all such information and data for this purpose as it may request. The right is reserved to reject any Bid where an investigation of the available evidence or information does not satisfy the Owner that the Bidder is qualified to carry out properly the terms of the contract.

B. The Owner will not consider bids from prime bidders who do not prove at least 5 years construction experience (within the last 7 years) on Roadway Improvement Projects. Roadway Improvement Projects shall be defined as existing, active roadways within an existing city, state or federally owned right-of-way. Instructions on documenting this experience are included in the STATEMENT OF BIDDER'S QUALIFICATIONS bid form.

C. The Low Bidder (Responsive and Responsible) must:

Provide a list of equipment owned/leased in their possession;

Provide the names and qualifications of the Superintendent and Supervisory personnel assigned major features of work;

Provide a description of all self-performed work;

Provide the names of proposed subcontractors and extent of work to be performed;

The Contractor shall demonstrate and provide a work plan to comply with the State Public Works Contract apprenticeship program as prescribed by RIGL Title 37 Section 37-13-3.1. These documents are considered part of the Contract as if attached and written in full.

Provide the name of the firm's Equal Employment Opportunity with reference to the City or State;

Provide Certification of Non-Discrimination in Equal Employment Opportunity with reference to the State;

Provide financial references and set of audited financial statements (prepared by a CPA) for most recent 3-year period to City for its' review and approval;

Provide original letters from Bonding & Insurance Companies District Offices indicating willingness to furnish bonds/certificates;

Provide insurance documentation naming the Owner as additionally insured;

Provide list of 10 most recent contracts completed;

Provide list of all uncompleted contracts;

List whether in the past 3 years the firm has had any bids rejected for lack of qualifications, Responsibility, submission of informal/non-responsive bids, been denied or revoked of pre-qualification; or violated any State labor law or prevailing wage citation.

10. UNIT PRICES, SUPPLEMENTAL UNIT PRICES AND ALTERNATES

The Unit Price for each of the items in the proposal of each Bidder shall include as part of the Unit Cost the pro rata share of overhead and profit so that the sum of the products obtained by multiplying the quantity shown for each item by the Unit Price Bid represents the Total Bid. Bid pricing sheets are included in Appendix C.

The special attention of all Bidders is called to this provision for, should conditions make it necessary to revise the quantities, no limit will be fixed for such increased or decreased quantities nor extra compensation allowed, provided the net monetary value of all such additive and subtractive changes in quantities of such items of work (i.e., difference in cost) shall not increase or decrease the original contract price by more than **twenty-five percent (25%)**, except for work not covered in the Drawings and Technical Specifications as provided for in the RHODE ISLAND DEPARTMENT OF TRANSPORTATION Standard Specifications for Road and Bridge Construction, 2004 Edition, Amended March 2018 GENERAL CONDITIONS PART 1, Section 104.0.7 a2.

The Bidder shall provide Bid Unit Costs that reflect the Fair Market Value of the work to be performed to prevent an unbalanced bid. As such the practice of submitting Penny, Dollar or Token Bid values is discouraged and could result in rejection of the bid if found to be unbalanced.

11. CORRECTIONS

Erasures or other changes in the Bids must be explained or noted over the signature of the Bidder.

12. TIME FOR RECEIVING BIDS

A. Bids received prior to the advertised hour of opening will be securely kept and sealed. The officer whose duty it is to open them will decide when the specified

time has arrived and no Bid received thereafter will be considered. Bidders are solely responsible for delivery to and receipt by the Owner of bids. The time of receipt will determine the acceptability of mailed bids, regardless of postmark.

B. Bidders are cautioned that while telegraphic modifications of Bids may be received as provided above, such modifications, if not explicit and if in any sense subject to misinterpretation, shall make the Bid so modified, or amended, subject to rejection.

13. OPENING OF BIDS

At the time and place fixed for the opening of Bids, the Owner will cause to be opened and publicly read aloud, every Bid received within the time set for receiving Bids, irrespective of any irregularities therein. Bidders and other persons properly interested may be present in person or by representative.

14. WITHDRAWAL OF BIDS

Bids may be withdrawn upon written or telegraphic request dispatched by the Bidder in time for delivery in the normal course of business to the time fixed for opening provided that written confirmation of any telegraphic withdrawal over the signature of the Bidder is placed in the mail and postmarked prior to the time set for Bid opening. The Bid Guarantee of any Bidder withdrawing his Bid in accordance with the foregoing conditions will be returned promptly.

15. DESCOPE MEETING

All bidders shall be available for a Pre-Bid Award Descope Meeting as may be required by the Owner. The Owner reserves the right to descope one or more bidders. Additionally, the meeting minutes of the Descope Meeting shall be enumerated as part of the signed contract agreement. The intent is NOT to renegotiate cost in any manner but to obtain clarifications and details of representations made by the Bidder to assure an understanding of the bid prior to final award.

16. AWARD OF CONTRACT; REJECTION OF BIDS

A. The Contract will be awarded to the lowest, qualified responsible Bidder submitting the lowest bid complying with the conditions of the Invitation for Bids. The Bidder to whom the award is made will be notified at the earliest possible date. The Owner, however, reserves the right to reject any and all Bids and to waive any informality in Bids received, whenever such rejection or waiver is in its interest.

B. The Owner reserves the right to consider as unqualified to do the work of general construction, any Bidder who does not habitually perform work with their own forces, the major portions of the work involved in the construction of the improvements embraced in this Site Improvements contract.

C. The Owner will not award the Contact to any Contractor who is, at the time, ineligible under the provisions of any regulations issued by the Secretary of Labor; United States Department of Labor; or is not qualified under applicable ordinances of the City of Providence or the Laws of the State of Rhode Island. Attention of all Bidders is called to Title 37, Chapter 13, Sections 1-14, General Laws of Rhode Island, 1956, relative to the payment of wages, obligations and charges by Contractors on public works (see GENERAL CONDITIONS PART II, Section 202).

17. EXECUTION OF AGREEMENT; PERFORMANCE AND PAYMENT BOND

A. Subsequent to the award within ten (10) days after the prescribed forms are presented for signature, the successful Bidder shall execute and deliver to the

Owner an Agreement on the form included in the Contract Documents in such number of copies as the Owner may require.

B. Having satisfied all conditions of award as set forth elsewhere in these documents, the successful Bidder shall, within the period specified in paragraph "A" above, furnish a surety bond in a penal sum not less than the amount of the Contract as awarded, as security for the faithful performance of the Contract and for the payment of all persons, firms or corporations to whom the Contractor may become legally indebted for labor, materials, tools, equipment, or services of any nature including utility and transportation services employed or used by him in performing the work. Such Bond shall be in the same form as that included in the Contract Documents and shall bear the same date as, or a date subsequent to, that of the Agreement. The current power of attorney for the person who signs for any surety company shall be attached to such bond. This bond shall be signed by a guarantee or surety company listed in the latest issue of the U.S. Treasury Circular 570 and the penal sum shall be within the maximum specified for such company in said Circular 570.

C. The failure of the successful Bidder to execute such Agreement and to supply the required bond or bonds within ten (10) days after the prescribed forms are presented for signature, or within such extended period as the Owner may grant based upon reasons determined sufficient by the Local Public Agency, shall constitute a default and the Owner may either award the Contract to the next lowest responsible Bidder, or readvertise for Bids and, may charge against the Bidder the difference between the amount of the Bid and the amount for which a Contract for the work is subsequently executed; irrespective of whether the amount thus due exceeds the amount of the Bid Bond. If a more favorable Bid is received by readvertising, the defaulting Bidder shall have no claim against the Owner for a refund.

18. WAGES AND SALARIES

A. Attention of Bidders is particularly called to the requirements concerning the payment of not less than the prevailing wage and salary rates specified in the Contract Documents and the conditions of employment with respect to certain categories and classifications of employees. See General Conditions, Part II.

B. The rates of pay set forth under General Conditions, Part II, are the minimums to be paid during the life of the Contract. It is therefore the responsibility of Bidders to inform themselves as to local labor conditions, such as length of work day and work week, overtime compensation, health and welfare contributions, labor supply and prospective changes or adjustments of rates.

C. Attention of all Bidders is called to Title 37, Chapter 13, Section I-14 of the General Laws of Rhode Island, 1956, relative to the payment of wages, obligations, and charges by contractors on public works.

D. Prevailing wage rates and Davis-Bacon Wage Determination Reference Materials are available online at https://sam.gov/.

19. EQUAL EMPLOYMENT OPPORTUNITY

Attention of Bidders is particularly called to the requirement for ensuring that employees and applicants for employment are not discriminated against because of their race, color, religion, sex, or national origin.

20. NOTICE TO PROCEED, TIME OF COMPLETION, AND LIQUIDATED DAMAGES

A. The Bidder must agree to commence work on or before a date to be specified in a written Notice to Proceed by the Owner and to be fully completed by **November 15, 2023**.

B. The Contractor is required to sign and date one copy of the Notice to Proceed and scan it as a PDF. The Contractor shall email the PDF to Chris Martin in the Department of Planning and Development at crmartin@providenceri.gov.

C. The Bidder must agree to commence work on or before a date to be specified in a written Notice to Proceed by the Owner and to fully complete the project by the indicated completion date. The Bidder will be subject to liquidated damages as indicated in the SPECIAL CONDITIONS, Section 303.

21. ITEMS NOT LISTED IN THE BID

Appurtenant items of work shown on the drawings or specified or required to complete the work but not listed separately under the list of items in the Bid shall be included in the cost of payment under the various applicable Bid items of work and no separate payment will be made for such items. It shall be the responsibility of the Contractor to verify any missing or incomplete data.

22. BALANCED BIDDING

Minus-bidding on any item or items of the specifications is prohibited. Bids should be made on each separate item of work shown in the Bid (proposal) with reasonable relation to the probable cost of doing the work included in such items; the right is reserved to reject wholly any Bid in case an item or items thereof are obviously unbalanced or appear to the Owner to be so unbalanced as to affect, or liable to affect adversely any interests of the Owner. The attention of the Bidder is called to the fact that unbalancing of Bids may adversely affect the Contractor if certain portions of the work are increased or decreased as provided in the Contract Documents.

23. PRICES

A. Bidders shall state the proposed price for the work by which the Bids will be compared. This price is to cover all the expenses incidental to the completion of the work in full conformity with the contract specifications and drawings. The price or prices proposed shall be stated both in writing and in figures, and any Bid not so stated may be rejected.

B. In the event that there is a discrepancy between the price written in words, and written in figures, the price written in words shall govern. No bid will be accepted which does not contain a unit or lump sum price for every item contained in the Bid Form.

C. The Contractor shall provide Schedule of Rates for all Labor and Equipment as part of the Bid for the project. This rate table will be used for adjustments in costs in the event they are required.

24. UNCERTAINTY OF QUANTITIES

A. The quantities listed in the Bid (proposal) are approximate and are given only for use in comparing Bids and to indicate approximately the total amount of the contract, and the Owner does not expressly or by implication represent that the actual amounts of work will even approximately correspond therewith but does call particular attention to the uncertainty in the quantities of the work involved which cannot be predicted in advance. The work under certain items may be materially greater or less than those given in the Bid (proposal) as may be necessary in the judgment of the Owner to complete the work contemplated in the contract. Attention

is particularly called to the fact that the quantity of work to be done under some Bids may be largely dependent on subsurface ground conditions encountered and therefore the quantities of work to be done under the various items may vary substantially from the estimated quantities or may even be omitted.

B. Under the contract, the Owner reserves the right to increase or decrease the approximate quantities for, or to omit entirely, any of the items as listed in the Bid.

Only such quantities of the respective items of work actually performed and accepted will be paid for. An increase or decrease in the quantity for any item shall not be regarded as ground for an increase or decrease in the Bid Prices, except as provided for in the RHODE ISLAND DEPARTMENT OF TRANSPORTATION Standard Specifications for Road and Bridge Construction, 2004 Edition, Amended March 2018 GENERAL CONDITIONS PART 1, Section 104.0.7 a2.

25. CONTRACT

A contract in the form set forth hereinafter will be required to be executed by the successful Bidder and the Owner. The attention of all Bidders is, therefore, called to the form of said proposed contract and the provisions thereof.

26. WORK ON PRIVATE PROPERTY

Conditions may warrant work on private property due to grade change at a driveway, sidewalk or curb ramp. Work on private property may only occur with instruction from the Engineer and Owner.

27. CONDITIONS OF WORK

Each Bidder must inform himself fully of the conditions relating to the construction and labor under which the work is now or will be performed; failure to do so will not relieve the successful Bidder of his obligation to furnish all required materials, equipment, services, systems, and labor necessary to carry out all of the provisions of the Contract Documents, and to complete the prescribed set forth in their Bid. Insofar as possible, the Contractor, in the carrying out of their work must employ such methods or means as will not cause any reasonable interruption of or interference with traffic, the use of existing facilities and utilities, the use of municipally or State- or privately-owned lands, or with the work being performed by others. The Contractor shall perform the work in accordance with the Drawings and the Traffic Management Plan, as found in the appendices. The Contractor is responsible for any and all additional efforts required to accommodate protections for pedestrians, vehicles and bicycle traffic through the work zone, including providing temporary access routes/ramps that are detectable and include accessibility features consistent with the existing sidewalks, resulting infield conditions created by the means and methods deployed by the Contractor.

The Contractor must satisfy himself by his own investigation and research as to the nature and location of the work, the general and local conditions, including but not restricted to those bearing upon underground pipes and structures, subsurface soil conditions including rock and groundwater, transportation, disposal, handling and storage of materials, water, electric power, roads, means of access, the construction and making of connections of the work to existing facilities and utilities, the locations of existing utilities and structures affecting the work, or other similar conditions at the site, the character of equipment and facilities needed preliminary to and during prosecution of the work, requirements of owners and controlling authorities having jurisdiction over the various lands, existing structures, facilities and utilities and all other conditions affecting the work to be done and labor and materials needed, and make his Bid in sole reliance thereon, and shall not at any time after the submission of a Bid assert that there was any misunderstanding in regard to the nature or amount of the work to be done.

28. NOTICE OF SPECIAL CONDITIONS

Attention is particularly called to those parts of the contract documents and specifications which deal with the following:

A. Inspection and testing of materials

B. Insurance requirements

C. Wage rates

D. Interpretation of drawings and specifications

E. Test Pits

F. The use of explosives

G. As-built drawings

H. Existing utilities and connections

I. Layout of work

J. Locations of work

K. Schedule of work

L. Salvageable materials

M. Construction schedule

N. Preconstruction conference

O. Occupational Safety and Health Standards (OSHA) required PPE shall be provided by the Contractor as part of their costs, as well as any PPE Requirements related to Covid-19

   The Contractor shall submit a Life and Safety Plan prior to the execution of the Work including the Contractor’s COVID-19 Plan

P. Environmental

29. LAWS AND REGULATIONS

The Bidder's attention is directed to the fact that all applicable Federal and State laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included as if they are attached and written in full.

30. DEFINITIONS

The term "Owner" means the Department of Planning and Development which is authorized to undertake this contract.

31. SEQUENCE OF CONSTRUCTION

The Contractor shall schedule his operations so as to minimize delays and inconvenience to traffic and shall at all times cooperate with the City of Providence, Parks Department, Department of Public Properties, Police and Fire Departments, the Traffic Engineering Department and the

Department of Planning & Development and their appointed representatives. The Contractor shall also cooperate with the Department of Public Works, the Rhode Island Department of Transportation, the Providence Water Supply Board, National Grid, the Rhode Island Public Transit Authority (bus stops and route impacts) and other private companies. The Contractor shall submit his proposed "Sequence of Construction" to the Engineer and Owner for approval before commencing work. Refer to Section “320. SEQUENCE OF WORK” and Section “374. SEQUENCE OF CONSTRUCTION/ MAINTENANCE AND MOVEMENT OF TRAFFIC/WORK RESTRICTIONS”

32. TITLE 37 - CHAPTER 13 (LABOR AND PAYMENT OF DEBTS BY CONTRACTORS – GENERAL LAWS OF RI, 1956, AS AMENDED)

Title 37 - Chapter 37-13 of the General Laws of RI, 1956, as amended, shall be considered part of this Contract as if attached and written in full.

33. PROVIDENCE CODE OF ORDINANCES – SECTION 21.28.1. QUALIFICATIONS OF PARTIES DOING BUSINESS WITH THE CITY.

The Contractor shall comply fully with this Section as if attached and written in full.

https://library.municode.com/ri/providence/codes/code_of_ordinances

34. INSTRUCTIONS TO BIDDERS

Instructions to Bidders are contained in the Instructions to Bidders Division, of which this Article is hereby made part of. When the provisions of the Contract Documents are changed by this Article, the portion modified is referred to by number. Unchanged portions and other provisions remain intact.

35. BID SECURITY

Bid Security shall be in the amount stated in the Board of Contract and Supply CONSTRUCTION & SERVICE CONTRACT BID TERMS and INVITATION FOR BIDS and shall be: Bid Bond naming the City of Providence as Obligee.

36. PRE-BID CONFERENCE

A MANDATORY PRE-BID CONFERENCE HAS BEEN SCHEDULED PER PAGE 1 OF THIS DOCUMENT.

Notice of Special Requirements:

A. Attention is particularly called to those parts of the Contract Documents and Specifications dealing with the following:

1. Non-Collusive Affidavit
2. Insurance Requirements
3. Wage Rates
4. Required State Certifications
5. Requirements for Affirmative Action
6. Federal Procurement Regulations

7. Minority Employment and EEO Compliance

8. Special Requirement for All Out-of-State Contractors and Firms

9. First Source List

10. Miscellaneous/Notifications/Required License

11. City of Providence Code of Ordinances, Chapter 21, Article II, Section 21-52. Minority and Women Business Enterprise

12. City of Providence Code of Ordinances, Chapter 21, Article II, Section 21-28.1. Qualifications of parties doing business with the Owner.

B. The Bidder is specifically advised that any person or firm, or other party to whom it is proposed to award a subcontract under this Contract must be acceptable to the Owner.

37. REQUIRED BID DOCUMENTS

A. The following documents must be fully executed on the special forms provided herein and must accompany all bids:

13. City of Providence Board of Contract and Supply and MBE/WBE Participation Forms

14. Bid Bond

15. Certificate of Corporate Principal

16. Non-Collusion Affidavit of Prime Bidder

17. Non-Collusion Affidavit of Subcontractor

18. Certification of Non-Segregated Facilities

19. Bidder's Certification for Equal Employment Opportunity

20. Special Requirement for All Out-of-State Contractors and Firms

21. Certification with Regard to Performance of Previous Contracts and Subcontracts

22. Affidavit of Non-Discrimination

23. Certification of Non-Discrimination in Equal Employment Opportunity

24. Statement of Bidders Qualifications

25. Proposed Subcontractors

26. Schedule of Unit Prices

27. Schedule of Rates for all Labor and Equipment

38. CERTIFICATE OF NON-SEGREGATED FACILITIES

All contractors should be aware of the Certification of Non-Segregated Facilities which is part of the Bid proposal.

39. CERTIFICATION WITH REGARD TO PERFORMANCE OF PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO THE EQUAL OPPORTUNITY CLAUSE

In general, this certificate refers to Standard Form 100, which is an annual form submitted by certain contractors to the U.S. Department of Labor. Contractors should refer to the Federal Procurement Regulations for a more thorough explanation of this report.

40. SUBMISSION OF STANDARD FORM 257

Bidders shall be advised that the contractor who is awarded the Contract will be required to submit to the Department of Labor Form 66 and the Minority Manpower Utilization Report. This report will be completed for the Owner on the fifth day of each month for work done the preceding month. This report is required of not only the prime contractor, but all subcontractors and must reflect minority manpower utilization for all work done in the State during the performance of this Contract.

41. MISCELLANEOUS / NOTIFICATIONS

A. The Contractor shall notify "Dig-Safe" and all public and private utility companies for confirmation and layout of utility locations prior to the commencement of work.

City-Owned utilities such as but not limited to drainage, sewers, traffic signal and street lighting infrastructure are NOT PART of the DIG SAFE program in Providence and are not marked by the City of Providence. Contractors are urged to exercise due diligence and review handholes, manholes, fixtures and other visual clues that underground utilities exist in the Work Zone that may not be located and marked by Dig Safe. This effort may require observing underground structures by removing manhole and handhole covers to observed depths and direction of utilities. Additionally, the Providence Department of Public Works does have a limited library of public utilities and roadway information on file. This information can be obtained by contacting the Engineering Division at DPW.

B. Refer to the Contract Specifications for Additional Requirements.

C. The Contractor shall verify all dimensions and accurately locate the property boundary and Limit-of-Work lines to the satisfaction of the Owner prior to the commencement of work.

D. As of **May 18, 1995**, all contractors proposing to execute work within the public right-of-way in the City of Providence must obtain an annual sidewalk license through the Providence Department of Public Works, 700 Allens Avenue, Providence, RI. The **annual license fee is $100.00**, to be paid by the Contractor.

The Contractor shall be back charged for at actual costs to correct issues resulting from not failure to perform this task and required timely notifications of work. The Contractor will not be eligible for extensions in time for failure to comply.

E. Project layout and the highest standards of execution for the project is extremely important. All methods and materials will be approved in advance of the execution of work. The Contractor, Owner and the Engineer Inspector and Project Manager shall agree on a project schedule, acceptable work schedule and schedule of approvals in advance of any work or action taken on the site and delivery of materials.

Contractors and Subcontractors shall provide all the qualified and skilled labor required to meet the quality level expected for this project. If the Owner determines

that the Contractor is not providing the labor and skill required he/she will be required to immediately provide new personnel or Subcontractor for said skill acceptable to the Owner to replace unacceptable sections/areas and continue the project.

Work deemed unacceptable during the course of the work will be cause for the Owner to reasonably withhold payments for work completed to-date until acceptability is achieved and required work is properly corrected. The contractor shall not proceed to new work until work done to-date is acceptable.

42. HOLDING OF BIDS BY DEPARTMENT OF PURCHASING

Bids may be held by the Owner for a period not to exceed ninety (90) days from the date of Opening of Bids, for the purpose of reviewing of bids and investigating the qualifications of bidders, all prior to award of Contract.

43. AWARD OF CONTRACT / START OF CONSTRUCTION

The CONTRACT for construction is expected to be awarded on **December 19, 2022**. The Board of Contract and Supply may take up to 60 days to formally award the Contract.

CONTRACTOR shall commence construction within ten (10) calendar days of issuance of NOTICE-TO-PROCEED or at the end of winter shut-down, April 15, 2023. The Contractor shall have made application for required bonds no later than the day after Contract Award. The City reserves the right to issue notices to proceed in phases.

REQUIRED BIDDING DOCUMENTS

ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

List of Forms:

The following forms must be completed and signed by the bidder and included with the bid. Failure to execute any form, or portion thereof may lead to disqualification of a bid.

1. Form of Bid
2. Purchasing Department Documents and MBE/WBE Participation Forms
3. Bid Bond
4. Certificate of Corporate Principal
5. Non-Collusion Affidavit of Prime Bidder
6. Non-Collusion Affidavit of Subcontractor
7. Certification of Non-Segregated Facilities
8. Bidder's Certification for Equal Employment Opportunity
9. Special Requirement for All Out-of-State Contractors and Firms
10. Certification with Regard to Performance of Previous Contracts and Subcontracts
11. Affidavit of Non-Discrimination
12. Certification of Non-Discrimination in Equal Employment Opportunity
13. Statement of Bidders Qualifications
14. Proposed Subcontractors
15. Schedule of Unit Prices (Appendix C)

FORM OF BID
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

TO: PURCHASING OFFICE
3rd Floor City Hall
Providence, Rhode Island 02903

To Whom It May Concern:

1. The undersigned, having familiarized (himself) (themselves) (itself) with existing conditions of the **ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH** project affecting the cost of work, and with the Contract Documents (which includes the Invitation for Bids, Instructions to Bidders, Form of Bid, Form of Bid Bond, Form of Agreement, Form of Non-Collusive Affidavit, Addenda (if any), Drawings, Technical Specifications, Schedule of Unit Prices, Form of Surety Bond(s); as prepared by the City of Providence, hereby proposes to furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment and services including utility and transportation services, and to perform and complete all required work for the **ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH** project and such other required and incidental work, complete, all in accordance with the above listed documents and for the unit prices for work in-place for the items and quantities listed in the submitted Schedules of Unit Prices.

Total of Bid – For the sum of: $ _____

_____ **Dollars**

2. In submitting this Bid, the Bidder understands that the right is reserved by the Owner to reject any and all Bids. If written notice of acceptance of this Bid is mailed, telegraphed or delivered to the undersigned within (90) days after the opening thereof, or at any time thereafter before this Bid is withdrawn, the undersigned agrees to execute and deliver an Agreement in the prescribed form and furnish the required bond within ten (10) days after the Agreement is presented to him/her for signature.

3. Security in the sum of _____ Dollars

($ _____), in the form of _____
is submitted herewith in accordance with the Instructions to Bidders.

4. Attached hereto is an affidavit in proof that the undersigned has not colluded with any person in respect to this Bid or any Bids for the Contract for which this Bid is submitted. Also attached is a Statement of Bidder's Qualifications.

5. The Bidder is prepared to submit a financial and experience statement upon request.

6. If applicable unit prices are contained in the Agreement (established as the result of a Unit Price), the Owner may order the Contractor to proceed with desired changes in the work, the value of such changes to be determined by the measured quantities involved and the applicable unit prices specified in the Contract; provided that in case of a unit price contract the net value of all changes does not increase or decrease the original total amount shown in the Agreement by more than **twenty-five percent (25%)** in accordance with the Section entitled Unit Prices, under Instructions to Bidders.

Bidder Signature and Acknowledgement of Addenda:

DATE: _____, 20_____

Official Address:

_____

_____

_____

Name of Bidder (Firm):

_____

By: _____ *(Signature)*

Title: _____

Bidder shall indicate, in space provided,
the earliest possible Project **Start-up Date:** _____, 20_____

ADDENDA: **The undersigned acknowledges receipt of the following Addenda, if any, and has included the provisions thereof in this Bid:**

Addendum No.	**Date**	**Addendum No.**	**Date**
_____	_____, 20___	_____	_____, 20___
_____	_____, 20___	_____	_____, 20___
_____	_____, 20___	_____	_____, 20___
_____	_____, 20___	_____	_____, 20___

BID BOND
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____as
(Name of Principal)
PRINCIPAL, and _____ AS SURETY are held and firmly bound unto
(Name of Surety)

the **City of Providence** thereinafter called the "Owner", in the penal sum of

_____ Dollars,

($ _____) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that Whereas the principal has submitted the

Accompanying Bid, Dated _____, 20_____, for

_____

_____

NOW, THEREFORE, if the Principal shall not withdraw said Bid within the period specified therein after the opening of the same, or, if no period be specified, within thirty (30) days after the said opening, and shall within the period specified therefor, or if no period be specified, within ten (10) days after the prescribed forms are presented to him for signature, enter into a written Contract with the Owner in accordance with the Bid as accepted and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such Contract; or in the event of the withdrawal of said Bid, within the period specified, or the failure to enter into such Contract and give such bond within the time specified, if the Principal shall pay the Owner the difference between the amount specified in said Bid and the amount for which the Owner may procure the required work or supplies or both, if the latter be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents signed by its undersigned representative, pursuant to authority of its governing body.

In presence of: _____ (Seal)

(Individual Principal) _____ _____

(Business Address including Zip)

(Title) _____ _____ (Seal)

(Partnership)

_____

_____

(Business Address including Zip)

By: _____

Attest:

_____ _____

(Corporate Principal)

_____

(Business Address including Zip)

By: _____

(Affix Corporate Seal)

_____ _____

Attest:

_____ _____

(Corporate Surety)

By: _____

(Affix Corporate Seal)

Countersigned:

by _____

*Attorney-in-Fact, State of _____

(*Power-of-attorney for person signing for surety company must be attached to bond.)

CERTIFICATE AS TO CORPORATE PRINCIPAL
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

I, _____, certify that I am the _____, Secretary of the Corporation named as Principal in the within bond; that, who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed, and attested to for and in behalf of said corporation by authority of this governing body.

_____ (Corporate Seal)

_____
(Title)

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

State of _____

County of _____

_____, being first duly sworn, deposes and says that:

(1) He is _____ of _____

(owner, partner, officer, representative, or agent) _____

, the Bidder that has submitted the attached Bid:

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid:

(3) Such Bid is genuine and is not a collusive or sham Bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement, any advantage against the Department of Public Works or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

_____
(Title)

Subscribed and sworn to before me this

_____day of _____, 20____

_____

_____
(Title)

My Commission expires _____

NON-COLLUSION AFFIDAVIT of SUBCONTRACTOR
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

State of _____

County of _____

_____, being first duly sworn, deposes and says that:

(1) He is _____ of _____

(owner, partner, officer, representative, or agent) _____

, the Subcontractor that has submitted the attached Bid:

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid:

(3) Such Bid is genuine and is not a collusive or sham Bid;

(4) Neither the said Subcontractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Subcontractor, Bidder, firm or person to submit a collusive sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has communication or conference with any other Subcontractor, Bidder, firm or person to fix the price or prices in the attached Bid or of any other Subcontractor, Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Subcontractor, Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement, any advantage against the Department of Public Works or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Subcontractor or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

_____
(Title)

Subscribed and sworn to before me this

_____day of _____, 20____

_____

_____
(Title)

My Commission expires _____

CERTIFICATION OF NON-SEGREGATED FACILITIES

ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

The Bidder certifies that he/she does not maintain or provide for his/her employees any segregated facilities at any of his establishments, and that he/she does not permit his/her employees to perform their services at any location, under his/her control, where segregated facilities are maintained. The Bidder agrees that a breach of this certification will be a violation of the Equal Opportunity Clause in any contract resulting from acceptance of this Bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work rooms, restrooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Bidder agrees that (except where he/she has obtained identical certification from proposed subcontractors for specific time periods) he/she will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000.00 which are not exempt from provisions of the Equal Opportunity Clause, and that he/she will retain such certifications in his/her files.

Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. & 1001.

Date _____, 20_____

Official Address:

_____

_____

_____

_____

Name of Bidder (Firm):

_____

By _____
(Name)

_____
(Signature)

Title _____

BIDDER'S CERTIFICATION FOR EQUAL EMPLOYMENT OPPORTUNITY
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

In compliance with Executive Order 11246 Equal Opportunity (GC II, Section 210, or latest publication) the Bidder hereby certifies he shall comply with Bid Conditions, Affirmative Action Requirements, Equal Employment Opportunity, as provided in the attachment Shown on pages GC II - 47a to GC II - 47f, or latest publication.

Full name and address of individual or company submitting this Bid:

_____

_____

_____

_____

Signed _____

Name _____

Title _____

Date _____

Notice: Bid should be signed in ink by a person having proper legal authority, and the person's title should be given, such as "Owner" in the case of an individual, "Partner" in the case of a general partnership, "President", Treasurer, or other authorized officer in the case of a corporation.

SPECIAL REQUIREMENT FOR ALL OUT-OF-STATE CONTRACTORS AND FIRMS

ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

It is the understanding that any and all out-of-state firms and companies must be registered to do business in the State of Rhode Island with the Secretary of State's Office. Any false statements made in this regard will cause this Contract to become null and void at the option of the City, therefore, in accordance with this requirement the following statement is made:

I (we) being duly sworn officers of said company or firm, hereby declare and affirm that this company or firm is registered with the Rhode Island Secretary of State's Office to do business in Rhode Island.

_____
(Company or Firm)

Attest:

Signature _____ Name _____

Title _____

Note: If proposal is being made by an in-state contractor or firm, this form may be left blank.

CERTIFICATION WITH REGARD TO PERFORMANCE OF PREVIOUS CONTRACTS AND SUBCONTRACTS
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

The Bidder _____, proposed Subcontractor _____, hereby certifies that he/she ___ HAS ___ HAS NOT, participated in a previous contract or subcontract subject to the Equal Opportunity Clause, as required by Executive Orders 10924, 11114, or 11246 and that he/she ___ HAS ___ HAS NOT, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements:

Company _____

Signature _____ By _____

Date _____ Title _____

NOTE: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7 (b)(1), and must be submitted by bidders and proposed subcontractors any in connection with the contracts and subcontracts which are subject to the Equal Opportunity Clause. Contracts and subcontracts which are exempt from the Equal Opportunity Clause are set forth in 41 CFR 60-15. Generally, only contracts or subcontracts of $10,000.00 or under are exempt.

Currently, Standard Form 100 (EEO-11) is the only report required by the Executive Orders or their implementing regulations. Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the

Executive Orders and have filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts

and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

AFFIDAVIT OF NON-DISCRIMINATION
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

State of _____

County of _____

_____, being first duly sworn, deposes and says that:

He is the _____of_____

a corporation organized and existing under the Laws of _____ and the

Contractor for the _____

Project No.that he makes this affidavit for and on behalf of said Corporation; that during the period

_____, 20____ to _____, 20____, the said corporation has maintained the practices of employment as required by federal, state, and city laws in regards to the hiring of employees for the aforementioned project and that in employment, upgrading, the demotion or transfer, recruitment or recruitment advertising; layoffs or termination, rates of pay or other forms of compensation; and selection for training including apprenticeship, that it has not discriminated against any employee or applicant for employment on the work covered by this contract because of race, religion, color or national origin.

Signed _____

Name _____

Title _____

Subscribed and sworn to before me this

_____ day of _____, 20_____ (Seal)

Signed _____

Title _____

My commission Expires _____

CERTIFICATION OF NON-DISCRIMINATION IN EQUAL EMPLOYMENT OPPORTUNITY
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

The bidder represents the he/shehas, _has not, participated in a previous contract or subcontract to either the equal opportunity clause contracted in Section 202 of the Executive Order 11246; that he/she has, has not,

filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations; and that representations indicating submission of required compliance reports, signed by proposed subcontractors will be obtained prior to subcontract awards.

Full name and address of individual or company submitting this Bid:

_____

_____

_____

_____

Signed _____

Name _____

Title _____

Date _____

Notice: Bid should be signed in ink by a person having proper legal authority, and the person's title should be given, such as "Owner" in the case of an individual, "Partner" in the case of a general partnership, "President", Treasurer, or other authorized officer in the case of a corporation.

STATEMENT OF BIDDER'S QUALIFICATIONS
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

Separate statements shall be submitted by the bidder with his/her proposal for Him/herself, the Designer, the Construction Contractor, and for major design or construction subcontractors. All questions must be answered completely. The date given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached pages keyed into this form. The bidder may submit any additional information he/she desires.

1. Name of Bidder _____ (Proper Name First)

2. Contact Person / Title _____

3. Permanent Main _____
   Office Address
   _____

4. Telephone _____

5. When Organized _____

6. If a Corporation,
   When Incorporated _____

7. How many years have you been engaged in the contracting business under your present firm or trade name?
   _____

8. State your current contracts in-hand. (Schedule the contracts showing amount of each contract and the appropriate anticipated date of completion.)

   _____

   _____

   _____

   _____

   _____

   _____

9. Will your firm be the Bidder, Designer, Construction Contractor, or Design or Construction Contractor for this project?
   _____

10. State the general character of work performed by your Company:

11. Have you ever failed to complete any work awarded to you? _____

If so, where and why: _____

12. Have you ever defaulted on a contract? _____

If so, where and why: _____

13. List the more important projects recently completed by your Company, stating the appropriate cost for each, and the month and year complete:

Projects	**Cost**	**Completion Date**

14. List the major equipment your Company has available for this project:

15. List the names of projects, owners, architects, contract amounts, dates of completion, and percent of work accomplished with own forces which have been completed within the last five (5) years (or projects etc. which a partner or officer, while associated with another organization, was primarily responsible for:

Project Location	Owner	Engineer/ Architect	Contract Amount	Date Completed	Contact Name/Phone

16. List the background and experience of all principal members of your organization:

Name	Background / Experience

17. State your firm's particular qualifications, services, etc. for completing the project on-time within the project's program:

18. Based on your knowledge of construction and the Owner's program for the project, indicate a project completion date:

_____

19. Credit Available: _____

20. Give bank reference: _____

21. Will you, upon request, complete a detailed financial statement and furnish any other information requested by the Owner?

_____

22. The Bidder hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner in verification of the recitals comprising this:

STATEMENT OF BIDDER'S QUALIFICATIONS, dated _____

this _____ day of _____, 20_____

Name of Bidder _____

By/Title _____

State of _____

County of _____

Subscribed and sworn before me

____ day of _____, 20_____

Signed _____

Title _____

My Commission expires _____

CONTRACT FORMS
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

List of Forms

1. AGREEMENT

Misc. Agreement Forms: (TO BE SUBMITTED PRIOR to CONTRACT SIGNING)

2. Performance Bond
3. Labor and Material Payment Bond

CONSTRUCTION AGREEMENT
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

CONSTRUCTION AGREEMENT BETWEEN THE CITY OF PROVIDENCE AND

INSERT CONTRACTOR NAME HERE

FOR

ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

This Construction Agreement ("Agreement") is made this _____ day of _____, 20___ by and between the City of Providence Department of Planning and Development (DPD, "Owner") and insert contractor name and mailing address ("Contractor") (jointly, "Parties").

Project: This contract is for ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH. The work to be performed under this Contract includes, but is not limited to, all labor, material, and equipment necessary to construct sidewalk and roadway improvements on Washington Street between Dorrance and Exchange Streets and East Approach between Washington Street and Exchange Terrace, in the City of Providence, RI. Included in the work is the installation of a new concrete sidewalk and roadway, granite curbing, curb ramps, and detectable warning systems; new retractable bollards and removable steel bollards; landscape and planting elements, removal and disposal of existing signs and installation of new signs and pavement markings; and all other incidentals necessary to execute the work complete in place and accepted within the limits of this contract to the satisfaction of the Engineer and Owner.

Project Address: Washington Street between Dorrance and Exchange Streets and East Approach between Washington Street and Exchange Terrace, in the City of Providence, RI.

Contractor agrees to complete the work identified in this Agreement and in the Contract Documents, ("Project"). With regard to the Project, Owner and Contractor agree:

1. CONTRACT DOCUMENTS

1.1. This Agreement, the scope of work, invitation for bids, and any other documents referenced in or attached to this agreement are collectively referred to as the "contract documents," and include:

1.2. Contract Documents prepared by the Department of Planning and Development and issued by Owner as part of the Request for Proposals – ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH awarded in December, 2022;

1.2.1. Bid submitted by Contractor dated December 5, 2022;

1.2.2. Contract Documents, insert name/title of contract documents here, prepared by Department of Planning and Development, dated month, year;

1.2.3. Plan of insert name/title of plan set(s), City of Providence, RI Contract No. _____, prepared by BETA Group, Inc, dated month, year; (Refer to Section 371, List of Contract Drawings)

1.3. Each of the Contract Documents forms part of and is fully incorporated in this Agreement.

1.4. To the extent any of the Contract Documents that form part of and are incorporated in this Agreement differ or contradict the terms of this Agreement, the terms of this Agreement shall control.

1.5. RIDOT Standard Specifications for Road and Bridge Construction, 2004 Edition, Amended March 2018 GENERAL CONDITIONS PART 1, Section 104.0.7 a2, , and the State and Federal Special Provisions included in the contract documents, Standard Details for this project are City of Providence Standard Details, 2017 Edition, with all revisions. Refer to RIDOT Standard Details, 2019 Edition, with all revisions, for all other standard details. These documents shall be considered to be part of the contract documents.

2. SCOPE OF WORK AND AGREEMENT PRICE

2.1. Contractor, having examined the Contract Documents and Project Site, agrees to be bound by the Contract Documents.

2.2. Contractor agrees to furnish all required Project Management, labor, materials, equipment, competent supervision, tools, safety measures, transportation costs, proof of insurance, performance bond and payment bond (as directed by Owner) and any and all other appurtenant items necessary for complete performance of the Contract Work in a good and workmanlike manner.

2.3. The Contract Work shall conform to all applicable laws, regulations and/or ordinances of any and all governmental agencies including Quasi and having jurisdiction over the Contract Work. All required standards required by the Utility Providers shall be strictly complied with unless otherwise confirmed in writing by the Engineer and Owner.

2.4. Contractor agrees to perform the necessary construction, project installation and oversight work set forth in the Scope of Work.

2.5. Contractor agrees to perform the Contract Work strictly in accordance with the Contract Documents, task order and subject to the final approval of Owner for the Agreement Price. Owner and Contractor may amend the Agreement Price only by a written Change Order executed by both Parties. Contractor shall not charge overtime or travel time to Owner unless Owner first approves such charges in writing.

2.6. Contractor is responsible for the cleanup and removal of all debris associated with the Contract Work to assure the safety and protection of all persons and property associated with the Project.

2.7. If the progress schedule cannot be met due to business interruption and circumstances beyond the control of Contractor, the Owner and Contractor shall discuss and document the cause of such delay and present to the Owner to review and discuss reasonable means to complete the work to avoid further delay. No overtime work will be conducted without an agreed upon Change Order.

2.8. From Time to Time the Contractor may be given advanced notice of special events taking place within the Project Limit Lines that will require special attention to work around and/or otherwise provide detailed cleanup, minimize road openings and sidewalk closures as well other applicable tasks that may be required. These events will be required to be captured in the Project Schedule and worked around as necessary to accommodate the events and assure that efforts are made to accommodate the events. Potential events

in and around the project area shall be provided to the contractor upon award.

2.9. Contractor is employed as an independent contractor to perform the Contract Work and is responsible to provide all tools, equipment and incidentals required to complete the Work.

2.10. Contractor has examined the Project Site and has acquainted themselves with local conditions, including readable availability of a project management Team, labor, sub-contractors, equipment, and materials.

2.11. Based on the Contractors examination of the Project Site, the Contractor accepts all open and obvious conditions at the Project Site visible upon reasonable inspection as of the date of this Agreement. No allowances will be made after the date of this Agreement for any oversight, error or omission by Contractor in assessing the Project Site with respect to the Scope of Work to be performed and the Agreement Price for conditions falling within these parameters.

3. PERFORMANCE AND WARRANTY

3.1. Time is of the essence.

3.2. Contractor shall cooperate with Owner in scheduling and performing the Contract Work to avoid conflict, delay in or interference with any separate work of the Owner or other engineers or contractors. Performance requirements may be included in task order, to be agreed to by the City and Contractor.

3.3. At Owner's request, Contractor shall promptly provide Owner with proof of the ordering of all materials, equipment and supplies required for complete performance of the Contract Work.

3.4. Within Ten (10) Calendar Days, the Contractor shall promptly provide Owner with a schedule of work to be performed which shall be considered a living schedule and update a minimum of every two (2) weeks. Failure to submit and update may result in rescinding work and/or withholding of payment.

3.5. Contractor shall use only new material for the Contract Work. Contractor shall remove and replace promptly, at Contractor's own expense, all defective or nonconforming work or materials. Contractor shall promptly report to Owner, in writing, any errors, inconsistencies or omissions relating to the Contract Work and any errors, inconsistencies or omissions in the Drawings and Specifications. Contractor may use salvaged materials with the approval of the Owner provided environmental test reports are provided to assure they are not contaminated. Test reports shall be provided in advance of materials being brought to the site.

3.6. Contractor shall complete each aspect of the Contract Work in strict accordance with the standards set forth in this Agreement and the other Contract Documents. Notice to proceed will be issued upon the Contractor's furnishing of insurance, bond, and execution of this Agreement. Contractor shall begin the work no earlier than five calendar days after full execution of this contract, no later than ten calendar days after full execution of this contract, and must complete work by month, day, year unless otherwise stipulated in the task order. The Completion Date may be changed only by a written Change Order signed by the Contractor and Owner. Contractor's failure to perform and timely complete each aspect of the Contract Work, excluding delays caused by Owner or third party persons who are not under Contractor's control, in strict accordance with the Contract Documents, or delay of any work by other engineers, contractors or Owner caused by Contractor, constitutes a material breach of this Agreement, and Contractor shall be responsible for all additional costs incurred by Owner or other engineers or contractors, including overhead, profit, attorneys' fees and litigation expenses resulting from any such breach.

3.7. If Contractor, by its own fault or omission, fails to diligently pursue completion of the Contract Work, overtime work may be required by Contractor without additional compensation from Owner.

3.8. In certain situations, Contractor may be required by Owner to work overtime and, if Contractor is not in default under the Agreement, Contractor shall be paid additional compensation as agreed to in writing prior to performance of the overtime work. Owner must approve in advance and in writing all overtime work for

which Contractor seeks additional compensation and such overtime work will be addressed in a Change Order.

> The Contractor shall provide Schedule of Rates for all Labor and Equipment as part of the Bid for the project. This rate table will be used for adjustments in costs in the event they are required.
>
> The rate Schedule will be reviewed during Bid Review process for fairness and will be part of the review for the De-Scope Meeting.

3.9. Contractor agrees to keep Owner informed both verbally and in writing as to the progress of the Contract Work and shall perform the Contract Work faithfully and in such order as necessary to keep the overall Project on schedule and to avoid any delay in completion of the Project. Failure to updated project schedule may result in rescinding work and/or withholding of payment.

3.10. Contractor shall provide safe and proper facilities for inspection at all times during performance of the Contract Work including preparing and maintaining a **Safety Plan to be submitted prior to the start of Work.**

3.11. Contractor warrants that the Contract Work shall (i) be free of defects in material and workmanship for a period of Two (2) years except where prescribed to be for a longer period; (ii) comply with the Drawings and the Specifications or as otherwise agreed to by the Parties; (iii) be performed in safe and workmanlike manner by trained, qualified, and efficient workers, in strict conformity with construction best practices; and (iv) be constructed of new materials of the most suitable grade for the application, and furnish satisfactory evidence to Owner of the type and quality of materials so furnished and used. In the event that the Contract Work fails to meet any of the aforementioned warranties, Contractor shall have the right to cure any nonconforming or defective Work and may replace the defective Contract Work, or reimburse Owner for the Contract Work at the invoice or market price, within thirty (30) days after discovery of the breach of warranty. Contractor shall also, at its cost, remove all material, equipment, and Contract Work which does not comply with the Drawings or meet the Specifications, or is otherwise defective, whether incorporated in the Project or not, and shall re-execute the Contract Work and correct any other work damaged thereby. If Contractor does not remove nonconforming or defective Contract Work promptly, Owner may do so and restore such nonconforming Contract Work at Contractor's expense.

3.12. Contractor shall reimburse Owner for all reasonable costs and expenditures made in the settlement of any claim against Owner relating to nonconforming or defective Contract Work.

3.13. Neither acceptance of the Contract Work nor payment of some or all of the Agreement Price shall relieve Contractor of responsibility for faulty materials, equipment or workmanship. Contractor shall remedy, as soon as possible, defects appearing within two (2) years from the date of final payment, or within such longer period of time as provided by any manufacturer's warranty, and correct resulting damage to other work at no cost to Owner.

4. ASSIGNMENT

4.1. Contractor shall not assign or sublet the whole or any part of this Agreement or any funds accrued or to accrue under this Agreement without the prior written consent of Owner; any assignment or sublet without prior written consent or Owner shall be voidable at the election of Owner. Owner retains the right to refuse any and all assignments or subletting in Owner's sole and absolute discretion. Any attempt to assign this Agreement in whole or in part without Owner's prior written consent constitutes a material breach of this Agreement.

5. CHANGES AND DELAYS

5.1. Contractor shall not deviate from the Contract Documents except on written order of Owner, received by Contractor before beginning any deviation.

5.2. Owner may make written changes in the Contract Documents which may add to or deduct from the Contract Work without invalidating this Agreement. All work outside the scope of the Contract Work to which Contractor is directed to perform by Owner or Owner's authorized representative without an agreement as to the price for the work shall be preserved and resolved through the dispute resolution clause in Section 14 of this Agreement.

5.3. Unless a written Construction Change Directive has been issued to Contractor by Owner directing that certain work be performed prior to agreement on extra compensation and/or time or in the event of a dispute as to whether the work is within the original Scope of Work, no extra compensation for extra work, materials or any time extension shall be allowed unless a written Change Order has been signed by Owner, nor shall Contractor proceed with extra work without a written Change Order signed by Owner. Compensation for any work added by a Change Order shall be in accordance with unit prices, applicable add/alternate prices, a lump sum price, or with the prior approval of Owner, shall be performed on a time and material basis with a detailed account of labor and material costs associated with the work.

5.4. Recovery by Contractor for delays caused by Owner shall be limited to time extensions only as set forth in an executed Change Order. Contractor shall not be entitled to damages or compensation for any losses on account of delay from any cause whatsoever, including, but not limited to, any act, neglect, omission, default or failure of performance by Owner or separate contractors, failure to obtain required materials, delay in obtaining permits, or other conditions.

5.5. If materials are not delivered promptly, Owner may expedite or substitute delivery of material to be supplied by Contractor and back charge Contractor for any costs incurred.

6. PROTECTION OF THE WORK AND EMPLOYEES; SUPERVISION AT THE PROJECT SITE

6.1. Until the Contract Work is complete, Contractor shall effectively secure and protect the Contract Work and shall repair and/or replace all loss or damage to the Contract Work caused by the Contractor or anyone for whom Contractor is responsible.

6.2. Following completion of the Contract Work, Contractor shall be bound by the warranty obligations of Contractor and its subcontractors and suppliers.

6.3. Contractor shall at all times supply a sufficient number of skilled workers to perform the Contract Work in a timely and efficient manner. In addition. Contractor shall assign a competent person who shall supervise the performance of the Contract Work, be present at the Project Site at all times when Contract Work is being performed, and act as Contractor's representative at the Project Site for the purposes of coordinating Contractor's activities with those of the Owner and others at the Project Site.

7. BREACH AND REMEDIES

7.1. Contractor shall be deemed to be in material breach of this Agreement if Contractor: (i) fails to perform the Contract Work in strict accordance with the Contract Documents or task order; (ii) fails to provide competent supervision or a sufficient number of properly skilled workers; (iii) fails to supply sufficient material or equipment of proper quality; (iv) fails to correct nonconforming or defective work promptly; (v) fails to perform any terms of this Agreement; (vi) is unable to meet its debts or fails to pay promptly for labor, material or other obligations; (vii) becomes financially insecure; (viii) disregards any law, including, without limitation, the Environmental Laws (as defined in Section 8.5), rules, regulations or ordinances applicable to the Contract Work; (ix) by negligent act or omission causes delay or interference with Owner or separate contractors; (x) assigns this Agreement for any reason without the prior written consent of Owner; or (xi) performs or fails to perform any act the commission or omission of which is defined elsewhere in the Contract Documents as a material breach of this Agreement or which would constitute a material

breach at common law.

7.2. In the event of Contractor's breach, Owner shall have the following remedies in addition to any other remedies available at law or in equity:

7.2.1. Upon five (5) days' written notice to Contractor, Owner may declare Contractor in breach of this Agreement subject to the Contractor's right to cure, and after such time, the Owner may (i) terminate the Agreement; (ii) after termination, employ one or more other contractors to complete the Contract Work; (iii) complete the Contract Work with its own forces; or (iv) employ some combination of the foregoing to complete the Contract Work. Upon Contractor's breach, Contractor shall assign all material, equipment, tools, services, and supplies, and all of Contractor's agreements and supply contracts to Owner for the purpose of assisting Owner's completion of the Contract Work by any of the foregoing means. Equipment and tools left on the Project Site subject to a security or rental agreement shall be returned to Contractor. Equipment or tools owned outright by Contractor left on the Project Site may be assigned to Owner upon the termination of this Agreement resulting from Contractor's breach of the Contract Documents for use to complete the Project.

7.2.2. Contractor shall remain liable to Owner for all costs incurred by Contractor in completing the Contract Work caused by Contractor's breach of the terms of this Agreement.

7.3. If Contractor breaches this Agreement, Contractor shall not be entitled to any further payments for Contract Work not completed until the Contract Work has been completed and accepted by Owner and all above-described expenses have been paid by Contractor to Owner. Contractor shall be liable to Owner for all costs of completion of the Contract Work that exceed the balance due under this Agreement, and Contractor shall promptly pay all valid amounts owed to Owner upon demand.

7.4. The Owner will be in breach of this Agreement and in default if any of the following events occur:

7.4.1. Owner fails or refuses to pay on time (generally within 60 days of acceptance of Payment Application) any monies due under the Contract Documents;

7.4.2. Owner fails or refuses to perform any obligation required under the Contract Documents;

7.4.3. Owner makes any assignment for the benefit of creditors or files any petition under any bankruptcy or debtor-relief law.

8. INDEMNITY

8.1. To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless Owner, its respective employees, agents, officers, directors and representatives (collectively, the "Indemnified Parties") from, for, of, and against any and all claims, damages, losses, liabilities, demands, costs and expenses, including but not limited to attorneys' fees and litigation expenses arising out of or resulting from, in whole or in part, the performance of the Contract Work, or which are caused, in whole or in part, by any negligent act or omission of the Contractor, or by any of Contractor's subcontractors or suppliers, or anyone directly or indirectly employed by them.

8.2. To the fullest extent permitted by law, Owner shall indemnify and hold harmless Contractor and its agents, officers, directors and employees from, for, of, and against any and all claims, damages, losses, liabilities, demands, costs and expenses, including but not limited to attorneys' fees and litigation expenses attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property which are caused, in whole, by any negligent act or omission of Owner, or any of Owner's separate contractors, or anyone directly or indirectly employed by them.

8.3. Such obligations shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this section.

9. INSURANCE

9.1. Contractor shall purchase and maintain the following insurance for limits in amounts no less than set forth below:

9.1.1. GENERAL LIABILITY INSURANCE – PROPERTY DAMAGE AND BODILY INJURY: One Million Dollars ($1,000,000) per Occurrence; Two Million Dollars ($2,000,000) Aggregate Limit.

9.1.2. OWNED, HIRED AND NON-OWNED AUTOMOBILE LIABILITY INSURANCE: for Bodily Injury, Wrongful Death and Property Damage; One Million Dollars ($1,000,000) per Occurrence; Two Million Dollars ($2,000,000) Aggregate.

9.1.3. WORKERS COMPENSATION AND OCCUPATIONAL DISEASE: including Employer's Liability-Statutory Limit, such Employer's Liability limits for bodily injury by accident or disease to not be less than Five Hundred Thousand Dollars ($500,000) each accident, Five Hundred Thousand Dollars ($500,000) each employee and Five Hundred Thousand Dollars ($500,000) policy limit.

9.1.4. UMBRELLA LIABILITY INSURANCE: Five Million Dollars ($5,000,000) per Occurrence; Five Million Dollars ($5,000,000) Aggregate.

9.1.5. POLLUTION LIABILITY INSURANCE: Two Million Dollars ($2,000,000) policy limit.

9.2. All required insurance coverages listed above shall be written on an occurrence-basis, and shall be maintained continuously, without interruption, from the date of commencement of this Agreement until the completion of the Contract Work or the date of final payment for the Contract Work, whichever occurs later.

9.3. Certificates of insurance acceptable to Owner shall be submitted to Owner before commencement of the Contract Work. The certificates of insurance and the insurance policies required above shall include a provision stating that the insurance coverage under each policy shall not be cancelled or otherwise allowed to expire until at least thirty (30) days' advance notice has been given directly to Owner by the insurance company or companies.

9.4. The insurance policies required for general liability coverages, owned, hired and non-owned automobile liability coverage shall include Owner (City of Providence and the Providence Public Building Authority) as an additional insured and shall provide that these insurance coverages are primary and non-contributory in the event any additional insured is insured for the same coverages under another insurance policy or policies. Contractor shall provide copies of the endorsements from the carrier showing that these entities have been added as additional insured.

9.5. Nothing in the provisions of this Section shall modify, alter or otherwise affect the indemnity obligations of Contractor under Section 8 of this Agreement.

10. SAFETY

10.1. At its own expense and at all times, Contractor shall take all necessary precautions to protect persons and property at or adjacent to the Project Site from damage, loss, or injury resulting from performance of the Contract Work by the Contractor, its employees, subcontractors and others for whom Contractor is responsible.

10.2. If any accident occurs, person is injured, or property is damaged at or near the Project Site resulting from the performance of the Contract Work by Contractor, its employees, subcontractors or others for whom Contractor is responsible, Contractor shall immediately notify Owner both verbally and in writing.

10.3. Contractor shall maintain a safety program that complies with all applicable laws and shall comply with all specific safety requirements promulgated by any applicable governmental authority and the City of

Providence, including without limitation, the requirements of the Occupational Safety and Health Act ("OSHA"). Copies of the program shall be furnished to the Owner upon request.

10.4. The Contractor shall submit a Life and Safety Plan prior to the execution of the Work including the Contractors COVID-19 Plan.

11. COMPLIANCE WITH LAWS

11.1. Contractor shall comply with all applicable federal, state, and local laws, codes, regulations and ordinances, including, but not limited to, the Fair Labor Standards Act, OSHA, workers compensation, social security, employment and wage and hour laws.

11.2. Contractor shall not discriminate in the employment or advancement of any employee or applicant because of race, national origin, sex, color, age, religion, creed, physical handicap, Veteran's status or any protected class.

11.3. Contractor shall maintain all records and accounts for the employment of labor and the furnishing of materials and supplies in accordance with proper accounting and record keeping procedures and with all federal, state, and local laws, codes, regulations and ordinances. Copies of such records shall be provided to Owner upon request.

12. PAYMENTS

12.1. For the satisfactory performance and timely completion of the Contract Work, Owner shall pay Contractor the Agreement Price, subject to additions and deductions as herein provided. Payment will be less the aggregate of previous payments.

12.2. As a condition precedent to Contractor's right to payment, Contractor shall submit to Owner pay applications in AIA format in MS Excel Format not locked based on an Owner Approved Schedule of Values containing the following, and no pay applications will be accepted or processed for payment without the following:

12.2.1. Project Site name and address;

12.2.2. Date of the Contract Work;

12.2.3. CIP Number and Name

12.2.4. Milestone of Project Completion or line item percent complete in Schedule of Values.

12.2.5. MBE/WBE Utilization form

12.2.6. Apprenticeship utilization reports

12.2.7. Certified Payrolls

12.2.8. Partial Lien Releases

12.2.9. Cost Loaded Progress Schedule

12.2.10. Digital Progress Photos (Labeled)

12.2.11. Real time Punch List Items Addressed

12.3. Pencil pay applications shall be submitted digitally (unlocked MS Excel Format) to Owner on a thirty (30) day billing cycle, by. Owner shall have fourteen (14) days from receipt of a properly documented pay application to approve and certify the pay application. Owner shall review each line item independently and base payment approval on each line item. In no case shall a disputed line item constitute a rejection of an entire pay application. In the case of a disputed line item(s), payment shall be made for all other line items and disputed line item(s) shall be settled in accordance with Section 14. Owner shall generally issue payment within 60 days after the pay application is approved and certified.

12.4. Payment shall not be considered approval or acceptance of Contract Work or materials that do not comply with the Contract Documents.

12.5. Retainage in the amount of 5% will be withheld by the Owner until final completion and acceptance of the project. If the Contractor is from out of state, the 5% retainage shall be increased to 8%.

12.6. If labor, materials or other charges relating to the Contract Work are not being paid by Contractor when due, Owner may take all steps necessary to ensure such payments are made, including paying Contractor's bills directly, and charge such payments to Contractor.

12.7. Owner may reduce or delay payment to Contractor for any and all of the following reasons: (i) unsatisfactory job progress; (ii) defective work or materials not remedied; (iii) disputed work; (iv) failure of Contractor to comply with the provisions of this Agreement; (v) legitimate and non-frivolous third party claims filed or reasonable evidence that a legitimate and non- frivolous claim will be filed; (vi) failure of Contractor to make timely payments for labor, equipment and materials; (vii) damage to Owner or a separate contractor; (viii) reasonable evidence that the Agreement cannot be completed for the unpaid balance of the Agreement Price, (ix) failure to submit apprenticeship utilization reports, MBE/WBE utilization reports or updated construction schedule, or (x) punch lists not being addressed as project proceed (Real Time).

12.8. If Contractor's materialmen, suppliers, or subcontractors file a lien or other claim, or attempt to exercise any right or remedy against Owner, Owner’s interest in the Project Site, or the Project Site, Contractor shall immediately remove the lien or other claim, by payment, bond, or otherwise. If Contractor fails to act on the notice of lien or claim as outlined above within thirty (30) days, the Owner may, in addition to its right to declare a material breach of this Agreement and exercise all rights and remedies, take whatever acts are necessary to remove the lien or resolve such claims and charge Contractor for the costs incurred.

12.9. Final payment to Contractor is conditioned upon and subject to the approval of the Contract Work by Owner. As a condition of final payment, Contractor shall provide to Owner "as built" drawings of the finished Project and all warranties, operating instructions and manuals and an agreement to hold Owner harmless from all claims, all in forms acceptable to Owner. Contractor also shall provide to Owner a lien waiver for labor and materials furnished by Contractor, its subcontractors and suppliers and from all lower tier subcontractors and suppliers who have served preliminary lien notices on Owner or Contractor. The Contractor shall provide consent of the Surety Company as well.

> Acceptance of final payment shall act as a waiver and release of any and all claims by Contractor, except unknown claims for personal injury or property damage caused by Owner.

12.10. Final payment by the Owner shall in no way relieve the Contractor for liability for its obligations to repair or replace faulty or defective Contract Work discovered after final payment. All such defenses Contractor may have to such claims are preserved.

13. RIGHTS AND REMEDIES

13.1. Duties and obligations imposed by this Agreement and rights and remedies available hereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available at law or in equity.

14. DISPUTES

14.1. Disputes to be resolved in accordance with the Rhode Island General Law Tittle 37, Chapter 37-16.

14.2. All claims, disputes, and other matters in question arising out of or relating to this contract or the performance or interpretation thereof shall be submitted to arbitration. Arbitration shall be commenced by a demand in writing made by one party to the contract upon the other within a reasonable time after the dispute, claim, or other matter in question arose but in no event after payment in full of the contract price has been made and accepted. The written demand shall contain a statement of the question to be arbitrated and a detailed statement of each item or matter in dispute and the name of the arbitrator appointed by that party. The other party to the contract within ten (10) days of the receipt of the written demand shall appoint an arbitrator and give notice in writing thereof to the party who commenced arbitration. The two (2) arbitrators appointed by the parties shall within ten (10) days of the date of the appointment of the second arbitrator select a third arbitrator who shall be designated as chairperson and who immediately shall give written notice to the parties of his or her appointment. The third arbitrator shall select a time, date, and place for hearing and give each party five (5) days' notice in writing thereof. The date for hearing shall not be more than fifteen (15) days after the date of appointment of the third arbitrator. The award shall be made promptly by the arbitrators and, unless otherwise agreed by the parties or specified by law, no later than thirty (30) days from the date of closing the hearing, or, if oral hearings have been waived, from the date of the transmittal of the final statements and proofs to the arbitrators. The award shall be in writing and shall be signed by a majority of the arbitrators. It shall be executed in the manner required by law. The arbitrator shall provide a written explanation of the reasoning for the award. In the event the party of whom arbitration is demanded shall fail to appoint his or her arbitrator within the time specified or the two (2) arbitrators appointed by the parties are unable to agree on an appointment of the third arbitrator within the time specified, either party may petition the presiding justice of the superior court to appoint a single arbitrator who shall hear the parties and make an award as provided herein. The petitioner shall give five (5) days' notice in writing to the other party before filing his or her petition.

15. GOVERNING LAW

15.1. This Agreement shall be governed by and construed under the laws of the State of Rhode Island, without regard to its conflicts of law principles.

16. ALL CHANGES TO AGREEMENT SHALL BE IN WRITING

16.1. This Agreement shall not be changed except by written agreement of Owner and Contractor.

17. LEGAL EFFECT

17.1. In the event any provision contained herein is found to be legally unenforceable, all other provisions of this Agreement shall remain in full force and effect as if the unenforceable provision was never made a part of this Agreement.

18. INTERPRETATION

18.1. This Agreement is the result of negotiations between the parties and, accordingly, shall not be construed for or against either party regardless of which party drafted this Agreement or any portion thereof.

19. NO PARTNERSHIP

19.1. Nothing contained herein shall, or shall be deemed to, create any relationship between the Parties other than that of Owner and Contractor.

20. FURTHER DOCUMENTS

20.1. The Parties shall execute and deliver all such documents and perform all such acts as reasonably requested by the other party from time to time, to carry out the matters contemplated by this Agreement.

21. RECORD KEEPING, AUDIT AND INSPECTION

21.1. Contractor shall retain all books and records pertaining to the provision of the Contract Work for a period of no less than five (5) years after completion of all Contract Work or the termination of this Agreement, whichever occurs earlier and shall, during such time, shall permit Owner and its designated representative(s) to audit, inspect, and make copies of all such books and records so maintained by Contractor. Any such audit and inspection shall take place during normal business hours upon reasonable prior notice to Contractor. The right to audit and inspect shall survive the termination of the Agreement.

22. NOTICE

22.1. All notices to either party pursuant to this Agreement shall be in writing and signed by a duly authorized representative of the party giving such notice and shall be served either in person, by overnight delivery service or by certified mail, return receipt requested, to the respective address for each party given in the Agreement.

23. AUTHORITY

23.1. The individuals executing this Agreement on behalf of the parties represent they are duly authorized to sign on behalf of the parties and bind the Parties hereto.

24. COUNTERPARTS

24.1. This Agreement may be signed in counterparts.

25. NOTICES

25.1. No notice, consent, approval, or other communication given in connection herewith shall be validly given, made, delivered, or served unless in writing and delivered by hand, email, or by registered/certified United States mail to Owner or Contractor, as the case may be. Correspondence shall be delivered to the respective mailing and/or email addresses set forth below, or to such other addresses as either party may from time to time designate in writing and deliver to the other party. Notices, consents,

approval, or communications shall be deemed given or received 24 hours after deposit in the mail, or immediately if hand-delivered or sent by email transmission. All written correspondence shall be followed by a telephone call within 24 hours of sending to confirm that it was received by the other party.

If to Owner:
Jess Lance, Acting Director of Special Projects
Department of Planning and Development 444
Westminster Street
Providence, RI 02903
Phone: 401-680-8400
jlance@providenceri.gov

and

Chris Martin, Principal Planner
crmartin@providenceri.gov

If to Contractor:

Insert contractor contact person name, company name, mailing address, phone number, and email address

26. EXHIBITS

This Exhibit List is hereto attached to that certain Construction Agreement between the City of Providence/Providence Building Authority and the Contractor, _____, for the Project known as ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH.

EXHIBIT A	Request for Proposals dated _____
EXHIBIT A-1	Contractor's Proposal dated _____
EXHIBIT B	Contractor's Insurance
EXHIBIT C	Contractor's Performance and Payment Bonds (Statutory Form)
EXHIBIT D	Contractor's Schedule of Values, if applicable
EXHIBIT E	Contractor's Safety Program
EXHIBIT F	Contractor's Equal Opportunity and Affirmative Action Plan
EXHIBIT G	List of Drawings
EXHIBIT H	List of Specifications
EXHIBIT I	Full and Partial Releases
EXHIBIT J	RIGL (Prevailing Wages) Sections 37-13-5, 6, 7 & 9
EXHIBIT K	Application for Payment, AIA G702
EXHIBIT L	Project Schedule

[SIGNATURES APPEAR ON FOLLOWING PAGES]

NOW, THEREFORE, the Parties execute this Agreement on the day and date listed in the Preamble.

City of Providence Department and Planning and Development:

_____

Bonnie Nickerson, Director

_____

Date

Approved as to form and correctness:

_____

_____

Date

City of Providence, Mayor's Office:

_____ _____

Diana Perdomo, Chief of Policy Witness Signature

_____ _____

Date Date

Insert Contractor Name Here:

_____

Insert name and title of person signing for contractor here

_____

Date

GENERAL CONDITIONS, PART I

ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

101. BRIEF SCOPE OF WORK

This project is for ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH. The work to be performed under this Contract includes, but is not limited to, all labor, material, and equipment necessary to construct sidewalk and roadway improvements on Washington Street between Dorrance and Exchange Streets and East Approach between Washington Street and Exchange Terrace, in the City of Providence, RI. Included in the work is the installation of a new concrete sidewalk and roadway, granite curbing, curb ramps, and detectable warning systems; new retractable bollards and removable steel bollards; landscape and planting elements, removal and disposal of existing signs and installation of new signs and pavement markings; and all other incidentals necessary to execute the work complete in place and accepted within the limits of this contract to the satisfaction of the Engineer.

102. DEFINITIONS

Whenever used in any of the Contract Documents, the following meanings shall be given to the terms defined:

A. The term "Contract" means the Contract executed by the Owner and the Contractor, of which these GENERAL CONDITIONS PART I and II and III form a part.

B. The term "Owner" means the **CITY OF PROVIDENCE, THE CITY OF PROVIDENCE DEPARTMENT OF PLANNING AND DEVELOPMENT (DPD)** which is authorized to undertake this Contract.

C. The term "Contractor" means the person, firm or corporation entering into the Contract with the Owner to construct and install the improvements embraced in this Contract.

D. The term “Project Area” means the site of the **ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH** within the City of Providence which are the specified Contract limits of the improvements contemplated to be constructed in whole or in part under this Contract. The Project Area shall be considered the City of Providence boundaries.

E. The term "Engineer" means **BETA Group, Inc, 701 George Washington Highway, Lincoln, RI 02865, (401) 333-2382**, Attn: Francis Marinaccio, P.E., employed by the Local Public Agency for the purpose of directing or having in charge the work of Site Improvements embraced in this Contract, the said Engineer acting directly or indirectly through any Assistant Engineer having general charge of the work or through any assistant having immediate charge of a portion thereof limited by the particular duties entrusted to him

The Engineer does not have unilateral authority and the Owner and the Engineer shall work collaboratively on all matters related to this Work.

F. The term "Local Government" means the City of Providence, Rhode Island, within which the Project Area is situated.

G. The term "Contract Documents" means and shall include the following: Executed Agreement, Addenda (if any), Invitation for Bids, Instructions to Bidders, Signed Copy of Bid, General Conditions Parts I and III, Special Conditions, Technical Specifications, and Drawings (as listed in the Schedule of Drawings).

H. The term "Drawings" means the drawings listed in the Schedule of Drawings.

I. The term "Technical Specifications" means that part of the Contract Documents which describes, outlines and stipulates: the quality of the materials to be furnished; the quality of workmanship required; and the methods to be used in carrying out the construction work to be performed under this Contract.

J. The term "Addendum" or "Addenda" means any changes, revisions or clarifications of the Contract Documents which have been duly issued by the Owner to prospective Bidders prior to the time of receiving Bids.

K. Wherever in the specifications or upon the contract drawings the words directed, required, permitted, ordered instructed, designated, considered necessary, or words of like import are used, it shall be understood that the direction, requirement, permission, order, instructions, designation or decision of the Engineer is intended; where as shown, as indicated, as detailed or words of similar import are used, it shall be understood that reference to the drawings accompanying these specifications is made unless otherwise stated; and similarly the words approved, acceptable, satisfactory, or words of like import shall mean approved by, or acceptable, or satisfactory to the Engineer. As used herein "provided" shall be understood to mean "provided complete in place", that is "furnished and installed complete".

103. SUPERINTENDENCE BY CONTRACTOR

A. Except where the Contractor is an individual and gives his personal superintendence to the work, the Contractor shall provide a competent Superintendent and/or Project Manager, dedicated to the project and satisfactory to the Owner and the Engineer, on the work at all times during working hours with full authority to act on behalf of the Contractor. The Contractor shall also provide an adequate staff for the proper coordination and expediting of his work.

B. The Contractor shall lay out their own work and shall be responsible for all work executed under the Contract. The Contractor shall verify all figures and elevations before proceeding with the work and will be held responsible for any error resulting from failure to do so.

104. SUBCONTRACTS

A. The Contractor shall not execute an agreement with any Subcontractor or permit any Subcontractor to perform any work included in this contract until they have submitted a non-collusion affidavit from the Subcontractor and have received written approval of such Subcontractor from the Owner. (See Non-Collusion Affidavit for Subcontractor in Bidding Documents section)

B. No proposed Subcontractor shall be disapproved by the Owner except for cause.

C. The Contractor shall be as fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them as they are for the acts and omissions of persons directly employed by them.

D. The Contractor shall cause appropriate provision to be inserted in all subcontracts relative to the work to require compliance by each Subcontractor with the applicable provisions of the Contract for the improvements embraced in the Site Preparation.

E. Nothing contained in the Contract shall create any contractual relation between any Subcontractor and the Owner.

F. The Contractor shall have full control over their Subcontractors to deliver the project and/or elements of the project allowing he Contractor to perform the work timely. The Contractor shall not permit any Subcontractor from holding up the project due to unavailability or not wanting to perform small sections of Work. If a Subcontractor is not able to perform work in a timely manner, the Contractor shall replace them with a replacement Subcontractor approved by the Owner.

G. The Contractor shall provide complete sets of items, such as, but not limited to, Contracts, Specifications, Drawings, Sketches and other applicable documents for both office and field use.

105. OTHER CONTRACTS

The Owner may award, or may have awarded, other contracts for additional work, and the Contractor shall cooperate fully with such other Contractor, by scheduling his own work with that to be performed under other Contracts as may be directed by the Owner. The Contractor shall not commit or permit any act, which will interfere with the performance of work by any other Contractor as scheduled.

106. FITTING AND COORDINATION OF THE WORK

The Contractor shall be fully responsible for the proper fitting of all work and for the coordination of the operations of all trades, Subcontractors, or materialmen engaged upon this Contract. The Contractor shall be prepared to guarantee to each of their Subcontractors the locations and measurements which they may require for the fitting of their work to all surrounding work.

107. MUTUAL RESPONSIBILITY OF CONTRACTORS

If, through acts or neglect on the part of the Contractor, any other Contractor or any Subcontractor shall suffer loss or damage on the work, the Contractor shall settle with such other Contractor or Subcontractor by agreement or arbitration, if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor shall assert any claim against the Owner on account of any damage alleged to have been so sustained, the Owner will notify this Contractor, who shall defend at his own expense any suit based upon such claim, and, if any judgment or claims against the Owner shall be allowed, the Contractor shall pay or satisfy such judgment or claim and pay all costs and expenses in connections therewith.

108. PROGRESS SCHEDULE

The Contractor shall submit for approval immediately after execution of the Agreement, a carefully prepared Cost Loaded Progress Schedule (in PDF and Native Format), showing the proposed dates of starting and completing each of the various sections of the work, the anticipated monthly payments to become due the Contractor, and the accumulated percent of progress every two weeks Every two weeks, the Contractor shall update and submit the progress schedules for review by the Owner. Failure to maintain the progress schedule will be cause to withhold payments due to the Contractor.

109. COMPENSATION AND PAYMENTS TO CONTRACTOR

A. Compensation:

1. The Owner will pay and the Contractor shall receive as full compensation for all work completed to date.

2. Unit prices shall be based on a schedule dividing the project into component parts, together with a quantity and price for each part such that the sum of the product prices and quantities will equal the Base Bid total. A final schedule shall be submitted by the Contractor for the approval of the Owner before the first estimate becomes due. A Schedule of Values shall be provided for the length of the project. Please be reminded, without this, the Contractor shall not be paid for materials in storage.

3. When base bid quantities are exceeded, they shall be added to the Schedule of Values as a new line item. The Contractor, Design Engineer, and the Owner all shall monitor overages versus those items coming in lower than estimated to assure that the budget health is not compromised.

4. The amount of the Contract (accepted bid prices) listed in the Bid is based on the estimated quantities and the unit and/or lump sum bid prices as set forth in the Bid. Actual work may result in greater or lesser quantities estimated. It is understood and agreed that the Contractor will accept as payment the actual measured quantities at the unit and/or lump sum bid prices as set forth in the accepted bid and may be considered for an adjustment as prescribed in accordance with the terms outlined in Section 109 hereof.

5. The estimated quantities given in the Bid (proposal) for the various items of work are given for the purpose of comparing proposals offered for the work under this contract and if it is found in the performance of the contract work that any or all of the said estimated quantities are not even approximately correct, the Contractor shall have no claim for anticipated profits, or for loss of profits or for increase in prices as listed in the accepted Bid because of the difference between the quantities of the various items of work actually done and the estimated quantities stated in the accepted Bid (proposal) except as provided for in Section 109 hereof.

6. It is understood that, except as otherwise specifically stated in the contract documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence, temporary construction of every nature, and all other services and facilities of every nature whatsoever necessary to protect, execute, complete and deliver the work within the specified time.

7. Any work necessary to be performed after regular working hours, on Saturdays, Sundays and legal holidays, shall be performed by the Contractor without additional expense to the Owner.

8. Night work or work on Saturdays, Sundays and legal holidays shall be done only with the approval of the Providence Traffic Engineering Department.

B. Partial Payments:

1. The Contractor shall prepare his requisition for partial payment no more than monthly, by the 20th day of each month, and submit it digitally in a PDF and unlocked Excel document formats, to the City for approval. The amount of the payment due the Contractor shall be determined by adding to the total value of work completed to date, the value of materials properly stored on the site and

deducting (1) five percent (5%) of the total amount, to be retained until final payment and (2) the amount of all previous payments. If the Contractor is from out of state, the five percent retainage shall be increased to eight percent (8%). The total value of work completed to date shall be based on the actual quantities of work completed and on the unit prices contained in the agreement. For lump sum items the value of the work completed to date will be based on the actual amount of the work done and the schedule required to be submitted by the Contractor in Section 108. The value of materials properly stored on the site shall be based upon the estimated quantities of such materials and the invoice prices. Copies of all invoices shall be available for inspection by the Owner.

2. Monthly or partial payments made by the Owner to the Contractor are monies advanced for the purpose of assisting the Contractor to expedite the work of construction. The Contractor shall be responsible for the care and protection of all materials and work upon which payments have been made until final acceptance of such work and materials by the Owner. The Contractor shall obtain additional insurance for stockpiled materials. Such payments shall not constitute a waiver of the right of the Owner to require the fulfillment of all terms of the Contract and the delivery of all improvements embraced in this Contract complete and satisfactory to the Owner in all details.

   THE OWNER, PRIOR TO MAKING EACH PAYMENT TO THE CONTRACTOR, shall require the Contractor to furnish releases or receipts from any or all persons / firms performing work and supplying material or services to the Contractor, or any Subcontractor, if this is deemed necessary to protect its interest. Additionally, the Contractor may be required to submit certified payrolls for any and all employees, including Subcontractors.

C. Final Payment:

1. After final inspection and acceptance by the Owner of all work under the Contract, the Contractor shall prepare his requisition for final payment which shall be based upon the carefully measured or computed quantity of each item of work at the applicable unit prices stipulated in the Agreement. The total amount of the final payment due the Contractor under this contract shall be the amount computed as described above less all previous payments. Final payment to the Contractor shall be made subject to his furnishing the Owner with a release in satisfactory form of all claims against the Owner arising under and by virtue of his contract, other than such claims, if any as may be specifically excepted by the Contractor from the operation of the release as provided under Section 112 hereof.

The Contractor shall retain consent of surety. This shall be submitted at the time of the final Payment requisition.

The Owner, before paying the final estimate, may require the Contractor to furnish releases or receipts from all Subcontractors having performed any work and all persons having supplied materials, equipment (installed on the Project) and services to the Contractor, if the Owner deems the same necessary in order to protect its interest. The Owner, however, may if it deems such action advisable, make payment in part or in full to the Contractor without requiring the furnishing of such releases or receipts and any payments so made shall in nowise impair the obligations of any surety or sureties furnished under this Contract.

Withholding of any amount from the Owner under Section 303, entitled "Liquidated Damages", under SPECIAL CONDITIONS, shall be deducted from the final payment due the Contractor.

D. Withholding Payments:

1. The Owner may withhold from any payment otherwise due the Contractor so much as may be necessary to protect the Owner and if it so elects may also

withhold any amounts due from the Contractor to any Subcontractors or material dealers, for work performed or material furnished by them. The foregoing provisions shall be construed solely for the benefit of the Owner and will not require the Owner to determine or adjust any claims or disputes between the Contractor and his Subcontractors or material dealers, or to withhold any monies for their protection unless the Owner elects to do so. The failure or refusal of the Owner to withhold any monies from the Contractor shall in nowise impair the obligations of any surety or sureties under any bond or bonds furnished under this Contract.

2. Certified Payroll

3. WBE and DBE

4. Liens Releases

5. Supporting information to review invoices

6. Incomplete Work

7. Not Addressing REAL TIME Punch lists

E. Payments Subject to Submission of Materials Certificates and Materials Testing:

1. Each payment to the Contractor by the Owner shall be made subject to submission by the Contractor of all written certifications required of him and his Subcontractors. Materials and associated bid items found to be deficient by the City's third-party testing agency will not be paid until defective materials have been replaced.

F. Payments Subject to Reporting Requirements:

1. Each payment to the Contractor by the Owner shall be made after satisfactory reporting is submitted for First Source, Apprenticeship Utilization, MBE/WBE utilization and any other reporting as stated at the pre-construction meeting. Payment to the Contractor by the Owner is also contingent upon receipt of updated and accurate project construction schedules.

G. Payments Subject to Certified Payroll Requirements:

1. Complete and executed certified payroll statements are required to be submitted with all invoice requests. Failure to do so will result in non-payment until certified payrolls are received.

H. Payments Subject to Progress Schedule

1. Each payment to the Contractor by the Owner shall be made subject to submission of a current, accurate and reasonable progress schedule. Failure to do so will result in non-payment until a progress schedule is received and accepted.

110. CHANGES IN THE WORK

A. The Owner may make changes in the scope of the work required to be performed by the Contractor under the Contract or making additions thereto, or by omitting work therefrom, without invalidation of the Contract, and without relieving or releasing the Contractor from any of his obligations under the Contract or any guarantee given by

him pursuant to the Contract provisions, and without affecting the validity of the guaranty bonds, and without relieving or releasing the surety or sureties of said bonds. All such work shall be executed under the terms of the original Contract unless it is expressly provided otherwise.

B. Except for the purpose of affording protection against any emergency endangering health, life, limb or property, the Contractor shall make no change in the materials used or in the specified manner of constructing and/or installing the improvements or supply additional labor, services or materials beyond that actually required for the execution of the Contract, unless in pursuance of a written order from the Owner authorizing the Contractor to proceed with the change. No claim for an adjustment of the Contract Price will be valid unless so ordered.

C. If applicable unit prices are contained in the Agreement (established as a result of either a unit price bid or a Supplemental Schedule of Unit Prices) the Owner may order the Contractor to proceed with desired changes in the work, the value of such changes to be determined by the measured quantities involved and the applicable unit prices specified in the Contract; provided that in case of a unit price contract the net value of all changes does not increase or decrease the original total amount shown in the Agreement by more than **twenty-five percent (25%)** in accordance with the Section entitled Unit Prices, Supplemental Unit Prices and Alternates under INSTRUCTIONS TO BIDDERS.

D. If applicable unit prices are not contained in the Agreement or if the total net change increases or decreases the total Contract Price more than **twenty-five percent (25%)** the Owner shall, before ordering the Contractor to proceed with desired changes, request an itemized proposal from him covering the work involved in the change after which the procedure shall be as follows:

1. If the proposal is acceptable, the Owner will prepare the change order in accordance with Paragraph E below for acceptance by the Contractor, and

If the proposal is not acceptable and prompt agreement between the two parties cannot be reached, the Owner may order the Contractor to proceed with the work on a cost-plus-limited basis, defined as the net cost of the Contractor's labor, materials and insurance plus fifteen percent (15%) of said net cost to cover overhead and profit, the total cost not to exceed a specified limit.

E. Each change order shall include in its final form:

1. A detailed description of the change in the work.

The Contractor's proposal (if any) or a conformed copy thereof.

A definite statement as to the resulting change in the contract price and/or time.

The statement that all work involved in the change shall be performed in accordance with Contract requirements except as modified by the change order.

F. The Contractor shall be allowed a markup on any additional work not accounted for, as follows:

1. The Contractor shall consider a markup of cost of work plus general conditions at three percent (3%) plus overhead and profit at nine percent (9%).

2. The Subcontractor shall consider a markup of cost of work plus general conditions at three percent (3%) plus overhead and profit at nine percent (9%).

3. The Contractor's markup on Subcontractors shall be five percent (5%).

4. Labor and equipment rates shall be as provided as part of the original Bid document.

111. CLAIMS FOR EXTRA COST

A. If the Contractor has any claims for additional cost or extension of time, they shall, within three days after the occurrence of the claim, and in any event before proceeding to execute the work, submit their claim in writing to the Owner, stating clearly in detail the basis of the claim. No such claim will be considered unless so made.

B. Claims for additional compensation for extra work, due to alleged errors in ground elevations, contour lines, or bench marks, will not be recognized unless accompanied by certified survey data, made prior to the time the original ground was disturbed, clearly showing that errors exist which resulted, or would result, in handling more material, or performing more work, than would be reasonably estimated from the Drawings and maps issued.

C. Any discrepancies which may be discovered between actual conditions and those represented by the Drawings and maps shall at once be reported to the Owner and work shall not proceed except at the Contractor's risk, until written instructions have been received by him from the Owner.

D. If, on the basis of the available evidence, the Owner determines that an adjustment of the Contract Price and/or Time is justifiable, the procedure shall be as provided in Section 109 hereof.

112. TERMINATION, DELAYS, AND LIQUIDATED DAMAGES

A. **Termination of Contract**: If the Contractor or any of his Subcontractors refuses or fails to prosecute the work with such diligence as will ensure its completion within the time specified in these Contract Documents, or as modified as provided in these Contract Drawings, or violates any other Provisions of this Contract, the Owner, by written notice to the Contractor, may terminate the Contractor's right to proceed with the work. Upon such termination, the Owner may take over the work and prosecute the same to completion, by contract or otherwise, and the Contractor and his sureties shall be liable to the Owner for any additional cost incurred by the Owner in its completion of the work and they shall also be liable to the Owner for liquidated damages for any delay in the completion of the work as provided below. If the Contractor's right to proceed is so terminated, the Owner may take possession of and utilize in completing the work such materials, tools, equipment, and plant as may be on the site of the work and necessary therefor.

B. **Liquidated Damages for Delays**: If the work is not completed within the time stipulated in the SPECIAL CONDITIONS, Section 302, including any extensions of time for excusable delays as herein provided, the Contractor shall pay to the Owner as fixed, agreed, and liquidated damages for each calendar day of delay, until the work is completed, the amount as set forth in SPECIAL CONDITIONS, Section 303, and the Contractor and his sureties shall be liable to the Owner for the amount thereof.

C. **Excusable Delays**: An excusable delay is defined as a delay to the Contract or Milestone/phase completion date which was unforeseeable and beyond the Contractor's control and not caused by the Contractor's fault or negligence and for

which a Contract or Milestone time extension may be granted by the Owner. Excusable delays include the following:

1. Acts of the Government, including controls or restrictions upon or requisitioning of materials, equipment, tools, or labor by reason of war, National Defense, or any other national emergency;

2. Acts of the Owner;

3. Causes not reasonably foreseeable by the parties to this Contract at the time of the execution of the Contract which are beyond the control and without the fault or negligence of the Contractor, including, but not restricted to acts of God or of the public enemy, acts of another Contractor in the performance of some other contract with the Owner, fires, floods, epidemics, pandemics, quarantine, restriction, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones, and other extreme weather conditions; and

4. Any delay of any Subcontractor occasioned by any of the causes specified in subparagraphs (1), (2) and (3) of this paragraph "C". Provided, however, that the Contractor promptly notify the Owner within three (3) days in writing of the cause of the delay. Upon receipt of such notification the Owner shall ascertain the facts and the cause and extent of delay. If, upon the basis of the facts and the terms of this contract, the delay is properly excusable, the Owner shall extend the time for completing the work for a period of time commensurate with the period of excusable delay.

113. ASSIGNMENT OR NOVATION

The Contractor shall not assign or transfer, whether by an assignment or novation, any of its rights, duties, benefits, obligations, liabilities, or responsibilities under this Contract without the written consent of the Owner's sole discretion.

114. DISPUTES

A. Disputes to be resolved in accordance with the Rhode Island General Law Tittle 37, Chapter 37-16.

B. All claims, disputes, and other matters in question arising out of or relating to this contract or the performance or interpretation thereof shall be submitted to arbitration. Arbitration shall be commenced by a demand in writing made by one party to the contract upon the other within a reasonable time after the dispute, claim, or other matter in question arose but in no event after payment in full of the contract price has been made and accepted. The written demand shall contain a statement of the question to be arbitrated and a detailed statement of each item or matter in dispute and the name of the arbitrator appointed by that party. The other party to the contract within ten (10) days of the receipt of the written demand shall appoint an arbitrator and give notice in writing thereof to the party who commenced arbitration. The two (2) arbitrators appointed by the parties shall within ten (10) days of the date of the appointment of the second arbitrator select a third arbitrator who shall be designated as chairperson and who immediately shall give written notice to the parties of his or her appointment. The third arbitrator shall select a time, date, and place for hearing and give each party five (5) days' notice in writing thereof. The date for hearing shall not be more than fifteen (15) days after the date of appointment of the third arbitrator. The award shall be made promptly by the arbitrators and, unless otherwise agreed by the parties or specified by law, no later than thirty (30) days from the date of closing the hearing, or, if oral hearings have

been waived, from the date of the transmittal of the final statements and proofs to the arbitrators. The award shall be in writing and shall be signed by a majority of the arbitrators. It shall be executed in the manner required by law. The arbitrator shall provide a written explanation of the reasoning for the award. In the event the party of whom arbitration is demanded shall fail to appoint his or her arbitrator within the time specified or the two (2) arbitrators appointed by the parties are unable to agree on an appointment of the third arbitrator within the time specified, either party may petition the presiding justice of the superior court to appoint a single arbitrator who shall hear the parties and make an award as provided herein. The petitioner shall give five (5) days' notice in writing to the other party before filing his or her petition.

115. TECHNICAL SPECIFICATIONS AND DRAWINGS

Anything mentioned in the Technical Specifications and not shown on the Drawings or shown on the Drawings and not mentioned in the Technical Specifications, shall be of like effect as if shown on or mentioned in both. In case of difference between Drawings and Technical Specifications, the Technical Specifications shall govern. In case of any discrepancy in Drawings, or Technical Specifications, the matter shall be immediately submitted to the Owner, without whose decision, said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense.

Work Items of this Project are referenced with Item Numbers and Item Descriptions similar to those currently in use by the RIDOT Standard Specifications and the Providence Standard Specifications and Details.

Method of Measurement and Basis of Payment for Work Items shall be as called for under the City Specifications and the appropriate section of the RIDOT Standard Specifications, unless modified in the Special Provisions and the Construction Specifications.

116. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

It shall be the responsibility of the Contractor to make timely requests of the Owner for any additional information not already in his possession which should be furnished by the Owner under the terms of this Contract, and which he will require in the planning and execution of the work. Such requests may be submitted from time to time as the need is approached, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay. The additional drawings and instructions thus supplied to the Contractor will coordinate with the Contract and instructions thus supplied to the Contractor will coordinate with the Contract Documents and will be so prepared so that they can be reasonably interpreted as part thereof. The Contractor shall carry out the work in accordance with the additional detail drawings and instructions. The Contractor and the Engineer will prepare jointly a schedule, fixing the dates at which special detail drawings will be required, such drawings if any, to be furnished by the Engineer in accordance with said schedule, and a schedule fixing the respective dates for the submission of shop drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment, and the completion of the various parts of the work; each such schedule to be subject to change from time to time in accordance with the progress of the work. The Contractor shall, if requested, furnish promptly any assistance and information the Engineer may require in responding to these requests of the Contractor. The Contractor shall be fully responsible for any delay in his work or to others arising from his failure to comply fully with the provisions of this Section.

117. SHOP DRAWINGS

A. The Contractor shall submit promptly to the Engineer each shop drawing, machinery or equipment details, layout drawings, or setting drawing, etc., prepared in

accordance with the schedule predetermined as aforesaid. After examination of such drawings by the Engineer and returned approval/denial, the Contractor shall make such corrections to the drawings as have been indicated and shall submit new shop drawings. Regardless of corrections made in or approval given to such drawings by the Engineer, the Contractor will nevertheless be responsible for the accuracy of such drawings and for their conformity to the drawings and specifications, unless they notify the Engineer in writing of any deviations at the time they furnish such drawings.

B. The Contractor is required to have a portal to provide the Owner access to shop drawing documents. The portal shall be maintained for five years. The Owner shall be afforded administrative access. Five (5) seats shall be provided to the Owner.

C. Shop drawings of all fabricated work shall be submitted to the Engineer for approval and no work shall be fabricated by the Contractor save at their own risk until approval has been given.

D. The Contractor shall submit all shop and setting drawings and dates sufficiently in advance of requirements to enable the Engineer ample time for checking same, including time for correction, resubmission and recheck if necessary, and no claim for delay will be granted the Contractor by reason of their failure in this respect.

E. All shop drawings submitted must bear the stamp of approval of the Contractor as evidence that the Drawings have been checked by the Contractor. Any drawings submitted without this stamp of approval will not be considered and will be returned to the Contractor for resubmission. If the shop drawings show variations from the requirements of the Contract Documents because of standard shop practice or other reason, the Contractor shall make specified mention of such variation in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment; otherwise the Contractor will not be relieved of the responsibility for executing the work in accordance with the contract documents even though such shop drawings have been approved.

F. Where shop drawings are submitted by the Contractor that indicate a departure from the Contract which the Engineer deems to be a minor adjustment in his interest and not involving a change in the Contract price or extension of time, the Engineer may approve the drawings by the approval will contain, in substance, the following:

> The modification shown on the attached drawings is approved in the interest of the Owner to effect an improvement for the Project and is ordered with the understanding that it does not involve any change in the Contract price or time; that it is subject generally to all Contract stipulations and covenants; and that it is without prejudice to any and all rights of the Owner under the contract and surety bond or bonds.

G. The approval of shop drawings will be general and shall not relieve the Contractor from the responsibility for adherence to the Contract nor shall it relieve him of the responsibility for any error which may exist.

H. The Contractor agrees to hold the Engineer and the Owner harmless and defend them against damages or claims for damages arising out of injury to others or property of third persons which result from errors on shop, working or setting drawings whether or not the same have been approved by the Engineer and/or the Owner.

118. MATERIALS AND WORKMANSHIP

A. Unless otherwise specifically provided for in the Technical Specifications, all workmanship, equipment, materials and articles incorporated in the work shall be new and the best grade of the respective kinds for the purpose. Where equipment, materials, articles or workmanship are referred to in the Technical Specifications as "equal to" any particular standard, the Engineer shall decide the question of equality. Whenever a material or article required is specified or shown on the drawings by using the name of the proprietary product or of a particular manufacturer or vendor, any material or article which will perform adequately the duties imposed by the general design may be considered equal and satisfactory providing the material or article so proposed is of equal substance and function in the opinion of the Engineer. It shall not be purchased or installed without his written approval. In all cases, new material shall be used in the project. If two or more brands, makes or material, devices or equipment are shown or specified, each should be regarded as the approved equal of the other. Any other brand, make of material, device or equipment, which in the opinion of the Engineer or his authorized agent, is the recognized approved equal of that specified, considering quality, workmanship and economy of operation and is suitable for the purpose intended, may be accepted.

B. The Contractor shall furnish to the Owner for approval the manufacturer's detailed specifications for all machinery, mechanical and other special equipment, which he contemplates installing together with full information as to type, performance characteristics, and all other pertinent information as required, and shall likewise submit for approval as required full information concerning all other materials or articles which he proposes to incorporate in the work.

C. Machinery, mechanical and other equipment, materials or articles installed or used without such prior approval shall be at the risk of subsequent rejection.

D. Materials specified by reference to the number or symbol of a specific standard, such as an A.S.T.M. Standard, a Federal Specification or other similar standard, shall comply with requirements in the latest revision thereof any amendment or supplement thereto in effect on the date of the invitation for Bids, except as limited to type, class or grade, or modified in such reference. The Standards referred to, except as modified in the Technical Specifications shall have full force and effect as though printed therein.

E. The Owner may require the Contractor to dismiss from the work such employee or employees as the Owner or the Engineer may deem incompetent, or careless, or insubordinate.

119. SAMPLES, CERTIFICATIONS AND TESTS

A. The Contractor shall submit all material or equipment samples, certificates, affidavits, etc., as called for in the Contract Documents, or required by the Engineer, promptly after award of the Contract and acceptance of the Contractor's bond. No such material or equipment shall be manufactured or delivered to the site, except at the Contractor's own risk, until the required samples or certificates have been approved in writing by the Engineer. Any delay in the work caused by late or improper submission of samples or certificates for approval shall not be considered just cause for an extension of the Contract time.

Each sample submitted by the Contractor shall carry a label giving the name of the Contractor, the project for which it is intended, and the name of the producer. The accompanying certificate or letter from the Contractor shall state that the sample complies with Contract requirements, shall give the name and brand of the product, its place of origin, the name and address of the producer and all specifications or other detailed information which will assist the Engineer in passing upon the acceptability of the sample promptly. It shall also include the statement that all

materials or equipment furnished for use in the project will comply with the samples and/or certified statements.

B. Approval of any materials shall be general only, and shall not constitute a waiver of the Owner's right to demand full compliance with the Contract Documents after actual deliveries, the Engineer will have such check tests made as they deem necessary in each instance and may reject materials and equipment and accessories for cause, even though such materials and articles have been given general approval. If materials, equipment or accessories which fail to meet check tests have been incorporated in the work, the Engineer will have the right to cause their removal and replacement by proper materials or to demand and secure such reparation by the Contractor as is equitable.

C. Except as otherwise specifically stated in the Contract, the costs of sampling and testing will be divided as follows:

1. The Contractor shall furnish without extra cost, including packing and delivery charges, all samples required for testing purposes, except those samples taken on the project by the Engineer or testing agency, however, the Contractor shall cooperate with and assist the Engineer or testing agency in the taking of samples on the project where the taking of samples is deemed necessary by the Engineer.

2. The Contractor shall assume all costs of retesting materials which fail to meet contract requirements. The Contractor shall assume all costs of testing materials offered in substitution for those found deficient. All other expenses for testing of materials will be paid for by the Owner.

D. Testing and inspection of the various materials, equipment, or articles, etc., heretofore mentioned shall be performed by testing agency or agencies selected by the Owner.

E. Payments to the testing agency or agencies shall be paid for by the Local Owner.

120. PERMITS AND LICENSES

A. The Contractor shall give all notices required by and comply with all applicable laws, ordinances, standard requirements, and codes of the Local Government. All construction work and/or utility installation shall comply with all applicable ordinances, standard requirements, and codes including all written waivers. Before installing any work, the Contractor shall examine the Drawings and Technical Specifications for compliance with applicable ordinances, standard requirements and codes and shall immediately report any discrepancy to the Owner. Where the requirements of the Drawings and Technical Specifications fail to comply with such applicable ordinances, standard requirements, or codes, the Owner will adjust the Contract by Change Order to conform to such ordinances, standard requirements, or codes (unless waivers in writing covering the difference have been granted by the governing body or department) and make appropriate adjustment in the Contract Price or stipulated prices. Should the Contractor fail to observe the foregoing provisions and proceed with the construction and/or install any utility at variance with any applicable ordinance, standard requirement, or code, including any written waivers (notwithstanding the fact that such installation is in compliance with the Drawings and Technical Specifications), the Contractor shall remove such work without cost to the Owner, but a Change Order will be issued to cover only the excess cost the Contractor would have been entitled to receive if the change had been made before the Contractor commenced work on the items involved.

B. The Contractor shall, at his own expense, secure and pay to the appropriate department of the Local Government the fees or charges for all permits for street

pavement, sidewalks, sheds, removal of abandoned water taps, sealing of house connection drains, pavement cuts, buildings, electrical, plumbing, water, gas and sewer permits required by the local regulatory body or any of its agencies. The required permits shall be those set forth in SPECIAL CONDITIONS, Section 367.

C. The Contractor shall comply with applicable local laws and ordinances governing the disposal of surplus excavation, materials, debris and rubbish on or off the Project Area and commit no trespass on any public or private property in any operation due to or connected with the Improvements embraced in this Contract.

121. CARE OF WORK

A. The Contractor shall be responsible for all damages to person or property that occur as a result of his fault or negligence in connection with the prosecution of the work and shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the Owner.

B. The Contractor shall provide at his own expense sufficient competent watchmen, both day and night, including Saturday, Sundays, and holidays, from the time the work is commenced until final completion and acceptance.

C. In an emergency affecting the safety of life, limb or property, including adjoining property, the Contractor, without special instructions or authorization from the Owner, is authorized to act at his discretion to prevent such threatened loss or injury, and he shall so act. He shall likewise act if instructed to do so by the Owner. Any compensation claimed by the Contractor on account of such emergency work will be determined by the Owner as provided in the GENERAL CONDITIONS, PART 1, Section 109.

D. The Contractor shall avoid damage as a result of his operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, etc., and he shall at his own expense completely repair any damage thereto caused by his operations.

E. The Contractor shall shore up, brace, underpin, secure, and protect as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be in any way affected by the excavations or other operations connected with the construction of the Improvements embraced in this Contract. The Contractor shall be responsible for giving of any and all required notices to any adjoining or adjacent property owner or other party before the commencement of any work. The Contractor shall indemnify and save harmless the Owner from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the Owner may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.

122. ACCIDENT PREVENTION AND JOB SAFETY

A. The Contractor shall exercise proper precaution at all times for the protection of persons and property and shall be responsible for all damages to persons or property, either on or off the site, which occur as a result of his prosecution of the work. The safety provisions of applicable laws and building and construction codes shall be observed and the Contractor shall take or cause to be taken such additional safety and health measures as the Owner may determine to be reasonable necessary. Further, the Contractor shall comply, and shall cause all Subcontractors to comply with all applicable provisions of the U.S. Department of Labor "Williams-Steiger Occupational Safety and Health Act of 1970."

B. The Contractor shall maintain an accurate record of all cases of death, occupational disease, or injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the Contract. The Contractor shall promptly furnish the Owner with reports concerning these matters.

C. The Contractor shall indemnify and save harmless the Owner and the Engineer from any claims for damages resulting from property damage, personal injury and/or death suffered or alleged to have been suffered by any person as a result of any work conducted under this contract.

D. Upon execution of the Contract, the Contractor shall provide their Safety Program to the Owner.

123. SANITARY FACILITIES

A. The Contractor shall furnish, install, and maintain ample sanitary facilities for the workmen. As the needs arise, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by the sanitary codes of the State and Local Government. Drinking water shall be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing and governing health regulations.

B. Sanitary facilities shall not be placed in the public right-of-way.

124. USE OF PREMISES

A. The Contractor shall confine his equipment, storage of materials, and construction operations to the Contract Limits as shown on the Drawings and as prescribed by ordinances or permits, or as may be desired by the Owner, and shall not unreasonably encumber the site or public rights-of-way with his materials and construction equipment.

B. The Contractor shall comply with all reasonable instructions of the Owner and the ordinances and codes of the Local Government, regarding signs, advertising, traffic, fires, explosives, danger signals and barricades.

C. The Contractor is not permitted to store equipment or stockpiles in the public right-of-way.

125. REMOVAL OF DEBRIS, CLEANING, ETC.

The Contractor shall, periodically or as directed during the progress of the work, remove and legally dispose of all surplus excavated material and debris, and keep the Project Area and public rights-of-way reasonably clear. Upon completion of the work, he shall remove all temporary construction facilities, debris and unused materials provided for the work and put the whole site to the work and public rights-of-way in a neat and clean condition. No trash burning will be permitted on the site of the work. The Contractor shall obey all Owner and existing State and local regulations.

126. INSPECTION

A. All materials and workmanship shall be subject to inspection, examination, or test by the Owner and the Engineer at any and all times during manufacture or construction and at any and all places where such manufacture or construction is carried on. The Owner shall have the right to reject defective material and workmanship or require

its correction. Unacceptable workmanship shall be satisfactorily corrected. Rejected material shall be promptly segregated and removed from the Project Area and replaced with material of specified quality without charge therefor. If the Contractor fails to proceed at once with the correction of rejected workmanship or defective material, the Owner may by Contract or otherwise have the defects remedied or rejected materials removed from the Project Area and charge the cost of the same against any monies which may be due the Contractor, without prejudice to any other rights or remedies of the Owner.

B. The Contractor shall furnish promptly all materials reasonably necessary for any tests which may be required. (See Section 118 hereof.) All tests by the Owner will be performed in such manner as not to delay the work unnecessarily and will be made in accordance with the provisions of the Technical Specifications.

C. The Contractor shall notify the Owner sufficiently in advance of backfilling or concealing any facilities to permit proper inspection. If any facilities are concealed without approval or consent of the Owner, the Contractor shall uncover for inspection and recover such facilities all at his own expense, when so requested by the Owner. Should it be considered necessary or advisable by the Owner at any time before final acceptance of the entire work to make an examination of work already completed by uncovering the same, the Contractor shall on request promptly furnish all necessary facilities, labor, and material. If such work is found to be defective in any important or essential respect, due to fault of the Contractor or his Subcontractors, the Contractor shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the actual cost of labor and material necessarily involved in the examination and replacement, plus 15% of such costs to cover superintendence, general expenses and profit, shall be allowed the Contractor and he shall, in addition, if completion of the work of the entire Contract has been delayed thereby, be granted a suitable extension of time on account of the additional work involved.

D. Inspection of materials and appurtenances to be incorporated in the Improvements embraced in this Contract may be made at the place of production, manufacture or shipment, whenever the quantity justifies it, and such inspection and acceptance, unless otherwise stated in the Technical Specifications, shall be final except as regards (1) latent defects, (2) departures from specific requirements of the Contract, (3) damage or loss in transit, or (4) fraud or such gross mistakes as amount to fraud. Subject to the requirements contained in the preceding sentence, the inspection of materials as a whole or in part will be made at the Project Site.

E. Neither inspection, testing, approval nor acceptance of the work in whole or in part, by the Owner or its agents shall relieve the Contractor or his sureties of full responsibility for materials furnished or work performed not in strict accordance with the Contract.

127. REVIEW BY OWNER

The Owner, its authorized representatives and agents and the Representative for the Secretary shall at all times have access to and be permitted to observe and review all work, materials, equipment, payrolls, personnel records, employment conditions, material invoices, and other relevant data and records pertaining to this Contract, provided, however, that all instructions and approval with respect to the work will be given to the Contractor only by the Owner through its authorized representatives or agents.

128. FINAL INSPECTION

When the Improvements embraced in this Contract are substantially completed, the Contractor shall notify the Owner in writing that the work will be ready for final inspection on a definite date which shall be stated in the notice. The notice will be given at least ten (10) days prior to the date stated for final inspection, and bear the signed concurrence of the representative of the Owner having charge of inspection. If the Owner determines that the status of the improvements is as represented, it will make the arrangements necessary to have final inspection commenced on the date stated in the notice, or as soon thereafter as is practicable. The inspection party will also include the representatives of each department of the Local Government.

129. CORRECTION OF WORK

All work, all materials, whether incorporated in the work or not, all processes of manufacture, and all methods of construction shall be at all times and places subject to the inspection of the Engineer who shall be the final judge of the quality and suitability of the work, materials, processes of manufacture and methods of construction for the purposes for which they are used. Should they fail to meet his approval they shall be forthwith reconstructed, made good, replaced and/or corrected, as the case may be, by the Contractor, at their own expense. Rejected material shall immediately be removed from the site. If, in the opinion of the Engineer and the Owner, it is undesirable to replace any defective or damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the Contract Documents, the compensation to be paid to the Contractor hereunder shall be reduced by such amount as in the judgment of the Owner shall be equitable. The Contractor shall be responsible for all costs associated with correction of work, including but not limited to police details, construction management/inspection, Traffic Engineering fees and materials testing.

130. INSURANCE

Schedule A5 – Department of Transportation Projects: As contained in the State of Rhode Island Department of Transportation's Standard Specifications for Road and Bridge Design document commonly referenced as the Rhode Island Department of Transportation's "Blue Book" located at www.dot.ri.gov/business/bluebook.php and as required below. If the Blue Book's insurance requirements and the following insurance requirements conflict, the larger requirement shall control.

Required Insurance: Contract Party shall procure Required Insurance as defined herein:

A. At the sole cost and expense of Contract Party.

B. Obtain and maintain such Required Insurance in full force and effect during the entire term of the Contract until all obligations of Contract Party have been discharged, including any warranty periods or extended reporting periods, against claims that may arise out of, are alleged to arise out of, directly or indirectly, in whole or in part, from or in connection with the Contract and/or result from the performance of the Contract.

C. Any deductible, self-insured retention, or form of self-insurance under the policies shall be the sole responsibility of the Contract Party and shall be disclosed to and acceptable to the State authorized personnel.

D. Any required liability insurance policy that is to insure any form of products liability and/or completed operations exposure created by Contract Party must provide extended coverage as follows:

1. When required liability insurance policy uses "Occurrence" coverage trigger (Including that known as "Reported Occurrence"):

i. Policy issued by same insurer for Contract Party as of effective date of Contract between State and Contract Party or by comparable insurer providing renewal insurance policy of 1-same coverage terms and conditions of prior expired policy or 2-coverage at least equal to that required by Contract.

2. Such coverage must be provided for a period of not less than five (5) years after the later of:

    i. when the Contract has ended; or

    ii. when products or services have been put to intended use; or

    iii. when hardware, software, buildings, other physical structures or repairs have been put to intended use.

3. Such required insurance can be provided by annual insurance policies or by single runoff policy commonly referred to as “discontinued products or operations.”

E. When required liability insurance policy uses any form of “claims-first made trigger:”

1. Policy issued by same insurer for Contract Party as of effective date of Contract between State and Contract Party or by comparable insurer providing renewal insurance policy of 1-same coverage terms and conditions of prior expired policy or 2-coverage at least equal to that required by Contract.

2. Provide coverage with a retroactive date on or before the effective date of the Contract or at the beginning of Contract work.

3. Such coverage must be provided for a period of not less than five (5) years after the later of:

    i. when the Contract has ended; or

    ii. when products or services have been put to intended use; or

    iii. when hardware, software, buildings, other physical structures or repairs have been put to intended use.

4. Such required insurance can be provided by annual insurance policies or by single runoff policy commonly referred to as “discontinued products or operations”.

5. If “claims-first made” liability insurance policy is cancelled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Contract date, the Contract Party must purchase extended reporting coverage for a minimum of five (5) years after completion of work.

6. Required Insurance limits to be provided by single insurance policy or through “follow form primary” layered excess insurance policies to obtain overall required limit(s).

7. Contract Party’s subcontractors to maintain same insurance.

8. Any insurance obtained by Contract Party that includes an “insured vs. insured” exclusion must be revised to exclude State and Owner as Additional Insured.

9. The State and Owner reserve the right to consider and accept alternative forms and plans of insurance or to require additional more extensive coverage for any individual requirement and can modify types of insurance and revise limits required of Contract Party at any time during the term of this Contract.

F. Required Insurance:

1. Commercial General Liability Insurance. Commercial General Liability Insurance (“CGL”) based on Insurance Services Office (“ISO”) most recent version of Commercial General Liability policy form CG00 01, or its equivalent:

    i. Covering bodily injury (including death), broad form property damage, personal and advertising injury, independent contractors, products and completed operations and contractual liability.

    ii. Such insurance coverage is subject to a minimum combined single limit of $1,000,000 per occurrence, $2,000,000 general aggregate and $1,000,000 products/completed operations aggregate.

    iii. The general aggregate must be on a “per project” or “per location” basis.

    iv. Shall include waiver of subrogation in favor of State and City of Providence.

    v. Include State and Owner as additional insured on a primary and non-contributory basis.

    vi. The Contract Party shall submit a copy of any policy endorsement, or blanket endorsement, evidencing the State and Owner as additional insured on a primary and non- contributory basis and a waiver of subrogation in favor of State and Owner. All endorsements shall be subject to review and approval by the authorized State personnel.

    vii. Any time Contract Party is responsible for construction of any kind the additional status for State shall include additional Insured-products/completed operations in addition to additional insured-premises/operations.

2. Automobile Liability Insurance. Automobile Liability Insurance based on ISO most recent version of Business Automobile Policy (“BAP”) CA 00 01, or its equivalent:

    i. Covering bodily injury and property damage for any vehicles used in conjunction with the performance of this Contract including owned, non-owned, and hired vehicles.

    ii. If a Contract Party does not own any vehicle at any time during the duration of this Contract then the Contract Party can seek hired

and non-owned automobile coverage as provided by BAP or by hired non-owned automobile coverage endorsement to CGL.

iii. At a minimum Contract Party must maintain hired and non-owned automobile coverage for the full duration of this Contract.

iv. Such insurance coverage is subject to a minimum combined single limit of $1,000,000 per occurrence and $2,000,000 aggregate.

v. Shall include waiver of subrogation in favor of State and City of Providence.

vi. Include State and Owner as additional insured on a primary and non-contributory basis.

vii. The Contract Party shall submit a copy of any policy endorsement, or blanket endorsement, evidencing the State as additional insureds on a primary and non- contributory basis and a waiver of subrogation in favor of State. All endorsements shall be subject to review and approval by the authorized State personnel.

3. Workers' Compensation and Employers' Liability.

    i. Statutory coverage as required by the workers' compensation laws of the State of Rhode Island, plus any applicable state law other than State of Rhode Island if employee(s) state of hire is other than State of Rhode Island or employee(s) work related to the Contract is not in the State of Rhode Island.

    ii. Policy form based on NCCI or its equivalent.

    iii. Employers' Liability with minimum limits of $500,000 each accident, $500,000 disease or policy limit and $500,000 each employee or minimum amount necessary for umbrella/excess liability policy of Contract Party.

    iv. A Contract Party neither eligible for, nor entitled to, Worker's Compensation who is an independent Contract Party under Rhode Island law must comply with the statutory procedure precluding an independent Contract Party from bringing a workers' compensation claim against the State or the Owner.

    v. Policy to include waiver of subrogation in favor of State and Owner.

    vi. The Contract Party shall submit a copy of any policy endorsement or blanket endorsement evidencing the waiver of subrogation in favor of the State and Owner. All endorsements shall be subject to review and approval by the State authorized personnel.

4. Umbrella Liability Insurance

    i. $5,000,000 per occurrence and $5,000,000 in aggregate.

5. Pollution Liability Insurance

    i. $2,000,000 policy limit

All Required Insurance shall be:

1. Placed with insurers:

    a. Authorized to do business in Rhode Island.

    b. Rated “A-,” class X or better by A.M. Best Company, Inc.

    c. Any insurer with a lesser financial rating must be approved by the authorized State personnel.

The legal defense provided to the State and the Owner under the policy and any endorsements must be free of any conflicts of interest, even if retention of separate legal counsel for the State and the Owner is necessary.

As evidence of the insurance required by this Contract, the Contract Party shall furnish to the Owner Certificates of Insurance, including confirmation of all required policy endorsements including, but not limited to, additional insured endorsements:

a. In form acceptable to the Owner prior to a Division of Purchases award. Failure to comply with this provision may result in rejection of the bid offer.

b. All certificates of insurance, whenever issued, shall include the requirement of the insurer for thirty (30) days advance written notice of cancellation or non-renewal of any insurance policy to the Owner. Contract Party shall also immediately notify the Owner if the Required Insurance is cancelled, non-renewed, potential exhaustion of policy limits or otherwise changed.

c. Certificates of Insurance and required endorsements shall thereafter be submitted annually or earlier upon expiration and renewal of any of the policies.

d. All Certificates of Insurance and to the extent possible endorsements shall reference the City procurement ID number.

e. State and Owner retains the right to demand a certified copy of any Required Insurance policy, Certificate of Insurance or endorsement.

The Contract Party shall be responsible to obtain and maintain insurance on any real or personal property owned, leased or used by State that is in the care, custody or control of Contract Party. All property insurance of Contract Party must include a waiver of subrogation that shall apply in favor of the Owner.

No warranty is made that the coverages and limits listed herein are adequate to cover and protect the interests of the Contract Party for the Contract Party’s operations. These are solely minimums that have been established to protect the interest of the Owner.

Owner shall be indemnified and held harmless as required by the Contract and to the full extent of any coverage actually secured by the Contract Party in excess of the minimum requirements set forth above.

The Contract Party shall use at its own risk and insure at its own cost any of its owned, leased or used real or personal property. All such insurance of Contract Party must include a waiver of subrogation that shall apply in favor of the Owner.

The Contract Party shall comply with any other insurance requirements including, but not limited to, additional coverages or limits contained in the procurement or solicitation.

Failure to comply with these Insurance Requirements is a material breach entitling the Owner to terminate or suspend the Contract immediately.

These Insurance Requirements shall survive expiration or termination of the Contract.

131. PATENTS

The Contractor shall hold and save the Owner, its officers and employees, harmless from liability of any nature or kind, including costs and expenses, for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contact, including its use by the Owner, unless otherwise specifically stipulated in the Technical Specifications.

132. WARRANTY OF TITLE

No material, supplies, or equipment to be installed or furnished under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale, lease-purchase or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies, and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvement and appurtenances constructed or placed thereon by him to the Owner free from any claims, liens, or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have any right to a lien upon any improvement or appurtenance thereon. Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the Owner. The provisions of this paragraph shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

133. GENERAL GUARANTY

Neither the final certificate of payment nor any provision in the Contract nor partial or entire use of the Improvements embraced in this Contract by the Owner or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom which shall appear within a period of 24 months from the date of final acceptance of the work. Final acceptance shall be defined as the date in which all outstanding punch list items are completed and when all work items identified during the final inspection are completed The Owner will give notice of defective materials and work with reasonable promptness.

134. REPRESENTATIONS OF CONTRACTOR

The Contractor represents and warrants:

A. That they are financially solvent and that they are experienced and competent to perform the type of work or furnish the plant, material, supplies, or equipment to be performed or furnished by them; and

B. That they are familiar with all Federal, State, municipal and department laws, ordinances, orders and regulations which may in any way effect the work of those employed therein, including but not limited to any special, acts relating to the work or to the project of which it is a part; and

C. That such temporary and permanent work required by the Contract Documents to be done by them can be satisfactorily constructed and used for the purpose for which it is intended, and that such construction will not injure any person or damage any property; and

D. That they have carefully examined the Drawings, Technical Specifications and addendum (or addenda), if any, and the site of the work, and that from their own investigation they have satisfied themselves as to the nature and location of the work, the character, quality and quantity of surface and subsurface materials likely to be encountered, the character of equipment and. other facilities needed for the performance of the work, the general and local conditions, and all other materials which may in any way affect the work or its performance.

135. WEATHER CONDITIONS

In the event of temporary suspension of work, or during inclement weather, or whenever the Engineer shall direct, the Contractor shall, and shall cause his Subcontractors to protect carefully his and their work and materials against damage or injury from the weather at no additional cost to the Owner. If, in the opinion of the Engineer, any work or material shall have been damaged or injured by reason of failure on the part of the Contractor or any of his Subcontractors so to protect his work, or otherwise damaged by the negligence of the Contractor, Subcontractors or their agents or servants, or is otherwise defective, such materials shall be removed and replaced at the expense of the Contractor. Special attention shall be given to the winter shutdown period. All temporary patching to make the roads passable or to keep driveways open and safe, shall be done at no additional cost to the Owner.

136. QUANTITIES OF ESTIMATE

Wherever the estimated quantities of work to be done and materials to be furnished under this contract are shown in any of the Contract Documents including the Bid (proposal), they are given for use in comparing bids and the right is especially reserved by the Owner to increase or diminish them as may be deemed reasonably necessary or desirable by the Owner, and such increase or diminution shall in no way vitiate claims or liability for damages except as provided for in Section 109 hereof.

137. NOTICE AND SERVICE THEREOF

A. The service of any notice, letter or other communication shall be deemed to have been made to one of the contracting parties on the other party to the Contract when such letter, notice or other communication has been delivered to the legal office address of the addressee, by a duly authorized representative of the address or in person, or when such notice, letter or other communication has been deposited in any regularly maintained mailbox of the United States Postal Department in a properly addressed, postpaid wrapper. The date of such service shall be considered to be the date of such personal delivery or mailing.

B. The address of the Contractor noted in his bid (proposal) and/or the address of his field office on or near the site of the work hereunder shall be considered as his legal address for the purposes as above set forth.

138. PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

139. LIENS

Neither the final payment nor any part of the retained percentage shall become due until the Contractor delivers to the Owner a complete release of all liens arising out of this contract, or receipts in full in lieu thereof, and an affidavit that so far as he has knowledge or information the releases and receipts include all the labor and material for which a lien could be filed, but the Contractor may, if any Subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner to indemnify him against any liens. If any liens remain unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

THE OWNER, PRIOR TO MAKING EACH PAYMENT TO THE CONTRACTOR, may require the Contractor to furnish releases or receipts from any or all persons / firms performing work and supplying material or services to the Contractor, or any Subcontractor, if deemed necessary to protect its interest.

140. CONTRACTOR'S OBLIGATIONS

A. The Contractor shall and will in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper to perform and complete all the work required by this Contract, within the time herein specified, in accordance with the provisions of this Contract and said Technical Specifications and in accordance with the Plans and Drawings covered by this contract and any and all supplemental Plans and Drawings, and in accordance with the directions of the Engineer as given from time to time during the progress of the work as may be required. He alone shall be responsible for the safety, efficiency and adequacy of his plant, appliances and methods and for any damage which may result from their failure or their improper construction, maintenance or operation. The Contractor shall observe, comply with and be subject to all terms, conditions, requirements and limitations of the Contract specifications, and shall do, carry on, and complete the entire work to the satisfaction of the Engineer and the Owner.

B. The Contractor shall be solely responsible for all the work and shall provide all precautionary measures necessary for preventing injury to persons or damage to property. All injury or damage of whatever nature resulting from the work or resulting to persons, property or the work during its progress, from whatever cause, shall be the responsibility of and shall be borne and sustained by the Contractor. The Contractor shall hold the Engineer, the Owner or their agents harmless and defend and indemnify the Engineer and the Owner or their agents against damages or claims for damages due to injuries to persons or to property arising out of the execution of the work and for damages to materials furnished for the work, infringement of inventions, patents and patent rights used in doing the work, or damages arising out of the use of any improper materials, equipment, or labor used in the work, and for any act, omission or neglect of the Contractor, his agents, employees and his Subcontractors therein. He shall bear all losses resulting to him including but not limited to losses sustained on account of character, quality or quantity of any part or all of the work, or because the nature of the land in or on which the work done being different from what was estimated or indicated, or on account of the weather, elements or other causes.

141. ENGINEER'S AUTHORITY

The Engineer shall give all orders and directions contemplated under this Contract and Technical Specifications relative to the execution of the work. The Engineer shall determine the amount, quality, acceptability and fitness of the several kinds of work and materials which are to be paid for under this Contract and shall decide all questions which may arise in relation to said work and construction thereof. The Engineer's estimates and decisions shall be final and conclusive,

except as herein otherwise expressly provided. In case any question shall arise between the parties hereto relative to said Contract or Technical Specifications, the determination or decision of the Engineer shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this Contract affected in any manner or to any extent by such question. The Engineer shall decide the meaning and intent of any portion of the Technical Specifications and of any Plans or Drawings where the same may be found obscure or be in dispute. Any differences or conflicts in regard to their work which may arise between the Contractor under this Contract and other Contractors performing work for the Owner shall be adjusted and determined by the Engineer.

The Engineer does not have unilateral authority and shall work collaboratively with the Owner.

142. ALL WORK SUBJECT TO CONTROL BY ENGINEER

A. In the performance of the work, the Contractor shall abide by all orders, directions and requirements of the Engineer or his designee, and shall perform all work to the satisfaction of the Engineer, and at such time and places, by such methods and in such manner and sequence as he may require. The Engineer shall determine the amount, quality, acceptability and fitness of all parts of the work. The Engineer shall interpret the Drawings, Technical Specifications, Contract, all other documents and the extra work orders. The Engineer shall also decide all other questions in connection with the work. The Contractor shall employ no plant, equipment, materials, methods or men to which the Engineer objects and shall remove no plant, materials, equipment or other facilities from the site of the work without the Engineer's permission. Upon request, the Engineer will confirm in writing any oral order, direction, requirement or determination.

B. Inspectors shall be authorized to inspect all work done and material furnished. Such inspection may extend to all or any part of the work, and to the preparation or manufacture of the materials to be used. The presence or absence of an Inspector shall not relieve the Contractor from any requirements of the Contract. In case of any dispute arising between the Contractor and the Inspector as to materials furnished or the manner of performing the work, the Inspector shall have the authority to reject material or suspend the work until the question at issue can be referred to and decided by the Engineer. The Inspector shall not be authorized to revoke, alter, enlarge, relax or release any requirement of these specifications, nor to approve or accept any portion of the work, nor to issue instructions contrary to the drawings and specifications. The Inspector shall in no case act as foreman or perform other duties for the Contractor, or interfere with the management of the work by the latter. Any advice which the Inspector may give the Contractor shall in nowise be construed as binding the Owner or the Engineer in any way nor releasing the Contractor from the fulfillment of the terms of the contract.

143. INTERPRETATION OF DRAWINGS AND TECHNICAL SPECIFICATIONS

A. Except the Contractor's executed set, all Drawings and Technical Specifications are the property of the Owner. The Owner will furnish the Contractor without charge three (3) paper sets of the Drawings and Technical Specifications and PDFs (to be shared via a file sharing service) of Drawings and Technical Specifications. Additional sets will be furnished upon request at a cost as determined by the Owner. Such Drawings and Technical Specifications are not to be used on other work and those sets in usable condition shall be returned to the Owner upon request at the completion or cessation of the work or termination of the contract.

B. The Contractor shall keep at the site of the work one copy of the Drawings and Technical Specifications, and shall at all times give the Owner and the Engineer and their representatives access thereto. Anything shown on the Drawings and not mentioned in the Technical Specifications, or mentioned in the Technical

Specifications and not shown on the Drawings, shall have the same effect as if shown or mentioned in both. In case of any conflict or inconsistency between the Drawings and Technical Specifications, the Specifications shall take precedence. Any discrepancy in the figures and the Drawings shall be immediately submitted by the Contractor to the Engineer for decision and the decision thereon by the Engineer shall be final. In case of differences between small and large scale drawings, the larger scale drawings shall take precedence.

144. ENGINEER'S CONTROL NOT LIMITED

The enumeration in this Contract of particular instances in which the opinion, judgment, discretion or determination of the Engineer shall control or in which work shall be performed to his satisfaction or subject to his approval or inspection, shall not imply that only matters similar to those enumerated shall be so governed and performed, but without exception all the work shall be so governed and performed.

145. CONTRACT AND CONTRACT DOCUMENTS

The Drawings, the Technical Specifications and Addendum (or Addenda), the Advertisement, the Information for and Notice To Bidders, and the Bid (Proposal) as accepted by the Owner as evidenced by the Owner's Notice to Award to the Contractor, which Notice is made a part of this Contract. Special Provisions and the General Provisions shall form a part of this Contract and the provisions thereof shall be as binding upon the parties hereto as if they were herein fully set forth. The table of contents, titles, headings, running headlines and marginal references to various provisions of the Contract Documents are in no way to affect, limit or cast light on the interpretation of the provisions to which they refer. Whenever the term "Contract Documents" is used, it shall mean and include this Contract, the enumerated Drawings, Special Provisions, General Provisions, the Technical Specifications, the Advertisement, the enumerated Addendum (or Addenda), Information for Bidders, the Bid (Proposal) as accepted by the Owner. The Owner shall interpret his own requirements. In case of any conflict or inconsistency between the provisions or this signed portion of the Contract and those of the Technical Specifications, the provisions of this signed portion of the Contract shall govern.

146. LIST OF DRAWINGS:

The list of Drawings for ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH can be found in the SPECIAL CONDITIONS, Section 372.

147. COOPERATION WITH UTILITIES

A. The Contractor shall arrange and cooperate with the various utility corporations or other parties interested in connection with the relocation and maintenance of all public fixtures when necessary and appurtenances or service connections within or adjacent to the limits of construction, as directed by the Engineer.

B. The Contractor will be responsible for any damage done to any utility poles or lines, curbing, basins, hydrants, water and sewer lines, conduits and other accessories and appurtenances of a similar nature which are fixed or controlled by the City Public Utility Company or Corporation. He shall perform any carry out his work in such a manner as not to interfere with or damage fixtures mentioned herein, or as shown on the Plans or discovered during construction.

148. MAINTENANCE OF FIRE LANES

Fire lanes designated by the Department of Public Safety must be accessible at all times for firefighting equipment, other emergency apparatus and traffic crossing.

149. "OR APPROVED EQUAL" CLAUSE

Whenever a material or article required is specified or shown on the Drawings by using the name of the proprietary product or of a particular manufacturer or vendor, any material or article which will perform adequately the duties imposed by the general design will be considered equal and satisfactory providing the material or article so proposed is of equal substance and function in the Engineer's and City's opinion. It shall not be purchased or installed without the Owner's written approval. In all cases new material shall be used on the project.

150. REPORTS, RECORDS AND DATA

The Contractor and each of his Subcontractors shall submit to the Owner such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as the Engineer may request concerning work performed or to be performed under this Contract.

151. CONFLICTING CONDITIONS

Any provision in any of the Contract Documents which may be in conflict or inconsistent with any of the articles in this Contract and General Provisions shall be void to the extent of such conflict or inconsistency.

152. SAFETY AND HEALTH REGULATIONS

These construction documents, and the joint and several phases of construction hereby contemplated, are to be governed, at all times, by applicable provisions of the Federal law(s), including, but not limited to, the latest amendments of the following:

A. Williams-Steiger Occupational Safety and Health Act of 1970, Public Law 91-596;

B. Part 1910 - Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations;

C. Part 1926 - Safety and Health Regulations for Construction, Chapter XVII of Title 29, Code of Federal Regulations.

153. PROTECTION OF LIVES AND PROPERTY

A. In order to protect the lives and health of their employees under the Contract, the Contractor shall comply with all pertinent provisions of the "Manual of Accident Prevention in Construction" issued by the Associated General Contractors of America, Incorporated, and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under this Contract.

B. The Contractor alone shall be responsible for the safety, efficiency and adequacy of their plant, appliances and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

C. The Contractor shall be solely responsible for the acts and omissions of their agents, employees and their Subcontractors and their agents and employees and shall hold the Engineers and the Owner harmless and defend the injuries to others or property of others which result from said acts or omissions.

154. CONTRACTOR TO LAY OUT THEIR OWN WORK

A. The Contractor shall be responsible to lay out all the contract work and shall be responsible for the accuracy of all lines, grades and measurements, and conformance to the Americans with Disabilities Act.

155. SUBSURFACE DATA

A. The Contractor shall be aware that some buildings in the City have basements and/or utility vaults under the sidewalks. The Contractor shall be solely responsible to verify the presence of building/utility vaults and use extreme care when working within or adjacent to sidewalks in front of buildings that may contain vaults. Any basement or utility vaults damaged by the Contractor while carrying out this Contract shall be repaired by the Contractor to the satisfaction of the Engineer at no additional charge to the Owner. The Contractor is solely responsible for the investigation of subsurface basement vaults. It is recommended that the Contractor perform a pre-existing conditions survey.

B. Pavement cores have not been obtained by the Design Engineer. Core logs are not included in the Contract Documents.

GENERAL CONDITIONS, PART II
NON-FEDERAL LABOR STANDARDS PROVISIONS
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

201. GENERAL CONDITIONS

The following Non-Federal Labor Standards Provisions, including the following provisions concerning maximum hours of work, minimum rates of pay, and overtime compensation, with respect to the categories and classifications of employees hereinafter mentioned are included in this Contract pursuant to the requirements of applicable State or local laws, but the inclusion of such provisions shall not be construed to relieve the Contractor or any Subcontractor from the pertinent requirements of any corresponding Federal Labor-Standards Provisions of this contract. In case the set forth in the Federal Labor Standards Provisions of this Contract for corresponding classifications, be the applicable minimum rates of pay for such classifications. The limitations, if any, in these employees engage on the work covered by this Contract may be required of permitted to work thereon shall not be exceeded.

202. OTHER STIPULATIONS

The Contractor shall comply with the applicable provisions of all Rhode Island labor laws as administered by the Rhode Island State Department of Labor, including particularly the provisions of the following:

A. Title 37, Chapter 13, Sections 1 to 14

B. Title 28, Chapter 16, Sections 1 and 2

C. Title 45, Chapter 32, Sections 43 and 44

The Contractor shall further comply with the applicable provisions of the Rhode Island Employment Security Act and the Rhode Island Temporary Disability Insurance Act, and shall report, upon the certified copies of payrolls as required by GENERAL CONDITIONS PART 1 – SECTION 109, all employer contributions made and all employee deductions taken in compliance with said Acts.

The Contractor shall further comply with the applicable provisions of Title 28, Chapter 5, Sections 1 to 43, of the General Laws of Rhode Island, 1956 the State Fair Employment Practices Act, as amended.

203. SCHEDULE OF SALARIES AND WAGES

The rates of payment of wages, obligations and charges for labor by the contractor shall be not less than Davis-Wage determinations available online at https://sam.gov/.

SPECIAL CONDITIONS
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

301. PROJECT AREA

The limits of CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH are Washington Street between Dorrance and Exchange Streets and East Approach between Washington Street and Exchange Terrace, in the City of Providence, County of Providence, State of Rhode Island.

The work associated with the infrastructure improvements includes, but is not limited to, all labor, material and equipment necessary to construct sidewalk and roadway improvements on Washington Street between Dorrance and Exchange Streets and East Approach between Washington Street and Exchange Terrace, in the City of Providence, RI. Included in the work is the installation of a new concrete sidewalk and roadway, granite curbing, curb ramps, and detectable warning systems; new retractable bollards and removable steel bollards; landscape and planting elements, removal and disposal of existing signs and installation of new signs and pavement markings; and all other incidentals necessary to execute the work complete in place and accepted within the limits of this contract to the satisfaction of the Engineer.

302. TIME FOR COMPLETION

The work which the Contractor is required to perform under this Contract shall be commenced at the time stipulated by the Owner in the Notice to Proceed to the Contractor and shall be fully completed, including all punch list items by December 31, 2024. The construction needs to occur in a continuous manner without gaps in the work, unless an excusable delay occurs, as defined in GENERAL PROVISIONS PART I, Section 112.

303. LIQUIDATED DAMAGES

Liquidated damages shall be as set forth in the INSTRUCTIONS TO BIDDERS, Section 20 and in APPENDIX A – TECHNICAL SPECIFICATIONS AND MEASUREMENT & PAYMENT.

304. RESPONSIBILITIES OF CONTRACTOR

Except as otherwise specifically stated in the Contract Documents and Technical Specifications, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, heat, power, transportation, superintendence, temporary construction of every nature, charges, levies, fee or other expenses and all other services and facilities of every nature whatsoever necessary for the performance of the Contract and to deliver all improvements embraced in the Contract for Site Preparation complete in every respect within the specified time.

305. COMMUNICATIONS

A. All notices, demands, requests, instructions, approvals, proposals, and claims must be in writing.

B. Any notice to or demand upon the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the Agreement (or at such other office as the Contractor may from time to time designate in writing to the Owner), or if deposited in the United States mail in a sealed, postage-prepaid

envelope, or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office.

C. All papers required to be delivered to the Owner shall, unless otherwise specified in writing to the Contractor, be delivered to the Department of Planning and Development, 444 Westminster Street, Providence, Rhode Island 02903, and any notice to or demand upon the Owner shall be sufficiently given if so delivered, or if deposited in the United States mail in a sealed, postage-prepaid envelope, or delivered with charges prepaid to any telegraph company for transmission to said Owner at such address, or to such other representatives of the Owner or to such other address as the Owner may subsequently specify in writing to the Contractor for such purpose.

D. Any such notice shall be deemed to have been given as of the time of actual delivery or (in the case of mailing) when the same should have been received in due course of post, or in the case of telegrams, at the time of actual receipt, as the case may be.

306. SIGNS

A. All signs erected shall be installed in accordance with the Plans and Contract Documents. Locations of signs to be installed either permanent or temporarily shall be placed to comply the U.S. Department Of Transportation, Federal Highway Administration Manual On Uniform Traffic Control Devices (MUTCD), latest edition with all revisions, and the Americans With Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973, specifically the ADA Standards For Accessible Design, latest edition, with all revisions, at a minimum and the Public Right-Of-Way Accessibility Guidelines (PROWAG) where possible.

B. All signs erected on a temporary basis shall be removed by the Contractor and the surface affected by the installation of the signs shall be restored matching the material altered to the satisfaction of the Engineer at no cost to the Owner.

307. PARTIAL USE OF SITE IMPROVEMENTS

The Owner, at its election, may give notice to the Contractor and place in use those sections of the improvements which have been completed, inspected and can be accepted as complying with the Technical Specifications and if in its opinion, each such section is reasonably safe, fit and convenient for the use and accommodation for which it was intended, provided:

A. The use of such sections of the improvements shall in no way impede the completion of the remainder of the work by the Contractor.

B. The Contractor shall not be responsible for any damages or maintenance costs due directly to the use of such sections.

C. The use of such sections shall in no way relieve the Contractor of his liability due to having used defective materials or to poor workmanship.

D. The period of guarantee stipulated under GENERAL CONDITIONS PART 1, Section 133, shall not begin to run until the date of the final acceptance of all work which the Contractor is required to construct under this Contract.

308. WORK BY OTHERS

The Contractor will consult and cooperate with the utility companies to permit their work to proceed coincidentally with the work under this contract so as not to delay completion of the project.

309. CONTRACT DOCUMENTS AND DRAWINGS

The Owner will furnish the Contractor with three (3) paper copies and a CD/DVD containing the Contract Documents, Plans and Addenda without charge.

310. DISPOSAL OF SALVAGED MATERIALS

A. All salvaged material such as granite curbing; manhole frames and covers; catch basin frames, grates, covers and traps; etc., not required to be installed in the work shall be removed and transported to the City of Providence, Department of Public Works storage yards located in the vicinity of 700 Allens Avenue, Providence, Rhode Island 02905.

B. All salvaged materials that are part of the existing water distribution system of the City of Providence Water Supply Board shall be removed and transported to the Water Supply Board Headquarters.

C. The above work shall be accomplished at no additional expense to the Owner but the cost of the work shall be included in the submitted unit price for the applicable items of work.

The Contractor shall be responsible for arranging salvaged materials delivery and obtaining signed receipt(s) from responsible personnel at the above agencies listing material types and quantities salvaged and delivered. Copies of receipt(s) shall be provided said agencies and the Local Public Agency on the date of delivery.

311. PROVISION FOR FLOW OF PRESENT DRAINAGE

Provision for the flow of all sewers, drains and watercourses that are met or altered during construction shall be provided by the Contractor and all the connections shall be restored without extra charge. All offensive matter shall be removed immediately with such precautions as may be directed. If required, the Contractor shall install temporary bypass connections for surface or pipe drainage facilities to provide uninterrupted or continuous service during the work of construction.

312. WORK TO BE ACCOMPLISHED IN ACCORDANCE WITH THE DRAWINGS AND TECHNICAL SPECIFICATIONS

The work, during its progress and at its completion, shall conform to the lines and grades shown on the Drawings and to the directions given by the Engineer from time to time, subject to such modifications or additions as they shall determine to be necessary during the execution of the work; and in no case, will any work be paid for in excess of such requirements. The work shall also be accomplished in accordance with the date provided in Section 302, hereof.

313. CONTRACTOR TO CHECK DIMENSIONS AND SCHEDULES

The Contractor will be required to check all dimensions and quantities shown on the Drawings or schedules given to him by the Engineer, and shall notify the Engineer of all errors therein which he may discover by examining and checking them. The Contractor shall not take advantage of any error or omissions in these Technical Specifications, Drawings or schedules. The Engineer will furnish all instructions should such errors or omissions be discovered, and the Contractor shall carry out such instructions as if originally specified.

314. PROTECTION OF TREES

The Contractor shall take special care to preserve and protect from injury all trees and other plant material to remain along the lines of construction. No such trees or plant material shall be removed or cut down, trimmed or otherwise cut without permission from the Engineer. Failure to comply may result in a fine by the City Forester.

315. REMOVAL OF WATER AND PROTECTION FROM FLOODING

The Contractor shall construct and maintain, at no additional expense to the Owner, all pumps, drains, well points or any other facility for the control and collection of groundwater and/or surface water and provide all pumps and piping for the removal of water from the trenches and excavations so that all trenches and excavations may be kept, at all times, free from water and so that all construction work may be performed in the dry. Any damage resulting from the failure of the dewatering operations of the Contractor and any damage resulting from the failure of the Contractor to maintain the areas of all work in a suitable dry condition, shall be repaired by the Contractor as directed by the Engineer, at no additional expense to the Owner. The Contractor's pumping and dewatering operations shall be carried out in such a manner as to prevent damage to existing structures and utilities and the contract work, and so that no loss of ground will result from these operations. Precautions shall be taken to protect new and existing work from flooding during storms or from other causes. Pumping shall be continuous where directed by the Engineer, to protect the work and/or maintain satisfactory progress. All pipe lines or structures not stable against uplift during construction or prior to completion shall be thoroughly braced or otherwise protected. Water from the trenches, excavations and drainage operations shall be disposed of in such a manner as will neither cause public nuisance, nor cause injury to public health nor to public or private property nor to the work completed, nor to the work in progress. No extra payment will be made for the removal of water, protection from flooding, drainage work, diversion of existing water courses and such other work; but compensation therefor shall be considered as having been included in the prices stipulated for the appropriate items of work as listed in the Bid.

316. HURRICANE PROTECTION

Should hurricane warnings be issued, the Contractor shall take every practicable precaution to minimize danger to persons, to the work and to adjacent property. These precautions shall include closing all openings, removing all loose materials, tools and/or equipment from exposed locations, and removing or securing scaffolding and other temporary work.

317. FIRST AID TO INJURED

The Contractor shall keep in his office, ready for immediate use, all articles necessary for giving first aid to injured employees. He shall also provide arrangements for the immediate removal and hospital treatment of any employee injured on the work who may require the same.

318. CONFORMANCE WITH DIRECTIONS

The Engineer may make alterations in the line, grade, plan, form, dimensions or materials of the work, or any part thereof, either before or after the commencement of construction. If such alterations diminish the quantity included in any item of work to be done and paid for at a Unit Price, the Contractor shall have no claim for damages or for anticipated profits and the work that may thus be dispensed with. If they increase the quantity included in any such item, such increase shall be paid for at the stipulated price, but no such alteration shall increase shall be paid for at the stipulated price, but no such alteration shall be made without the consent of the Owner.

319. PROTECTION AGAINST HIGH WATER AND STORM

A. The Contractor shall take all precautions to prevent damage to the work or equipment by high waters or by storms. The Engineer may prohibit the carrying out of any work at any time when, in his judgment, high waters or storm conditions are

unfavorable or not suitable, or at any time, regardless of the weather, when proper precautions are not being taken to safeguard previously constructed work or work in progress.

B. In case of damage caused by the failure of the Contractor to take adequate precautions, the Contractor shall repair or replace equipment damaged and shall make such repairs or rebuild such parts of the damaged work, as the Engineer may require, at no additional expense to the Owner.

320. SEQUENCE OF WORK

A. The Contractor shall be required to prosecute his work according to the Phasing Plans starting with Phase 1, then moving to Phase 2, and finishing with Phase 3.

B. The Contractor shall be required to prosecute his work in accordance with a schedule prepared by them in advance in accordance with additional requirements specified herein and approved by the Engineer. This schedule shall state the methods and shall forecast the times for doing each portion of the work. Before beginning any portion of the work, the Contractor shall give the Engineer advance notice and ample time for making the necessary preparations.

C. In areas where both Roadway and Sidewalk work are to be constructed, the curbing and sidewalk work is to be constructed prior to final paving of adjacent roadways.

D. In areas where the Roadway is to be Reconstructed, the Roadway is to be resurfaced within seven (7) calendar days after the original pavement surface is removed.

E. In areas where the Sidewalk is to be Reconstructed or Constructed, the Sidewalk is to be in place within seven (7) calendar days after the original sidewalk surface is removed or excavation for the new sidewalk has taken place.

F. Work on pavement stripes and traffic loops shall commence two (2) weeks after street has been resurfaced. If markings do not begin at this time, this could be cause for suspending resurfacing operations until pavement striping and loop operation is put into effect.

G. Refer to Section “30: SEQUENCE OF CONSTRUCTION and Section “374. SEQUENCE OF CONSTRUCTION/ MAINTENANCE AND MOVEMENT OF TRAFFIC/WORK RESTRICTIONS”

321. COMPETENT HELP TO BE EMPLOYED

The Contractor shall employ experienced foremen, craftsmen and other workmen competent in the work in, which they are to be engaged, and whenever the Engineer shall notify the Contractor in writing that any person employed on the project is, in his opinion, incompetent, unfaithful, disorderly, or otherwise unsatisfactory, or not employed in accordance with 'the provisions of this contract, such person shall be discharged from the project and shall not be again employed on it.

322. STREETS AND SIDEWALKS TO BE KEPT OPEN

A. The Contractor shall at all times keep the streets, highways, roads, private walks and sidewalks in which he may be at work, open for pedestrian and vehicular traffic at his own expense, unless otherwise authorized by the Engineer in writing. If, in the opinion of the Engineer, the interest of abutters and public requires it, the Contractor shall bridge or construct plank crossings over the trenches at street crossings, roads, or private ways, or provide such temporary means of crossing and guarding

as shall be acceptable to the Engineer. The Contractor shall conduct his work for this objective in such manner as the Engineer may direct from time to time. No sidewalk shall be obstructed where it is possible to avoid it. The closing of any traffic lanes shall be done only with the approval of the Providence Traffic Engineering Department.

B. The Contractor shall provide at his own expense, all necessary fire crossings at principal intersections or ways usually traveled by fire apparatus.

323. LIGHTS, BARRIERS, WATCHMEN AND INDEMNITY

A. The Contractor shall put up and maintain such barriers, lighting and warning lights, danger warning signals and signs that will prevent accidents during the construction work and protect the work and insure the safety of personnel and the public at all times and places, and the Contractor shall indemnify and protect the Owner and the Engineer in every respect from any injury or damage whatsoever caused by any act or neglect of the Contractor or his subcontractors, or their servants or agents.

B. In addition to the above, when and as needed, or when required by the Engineer, the Contractor shall post signs and employ watchmen for excluding at all times unauthorized persons from the work, for which the Contractor will not be paid additional compensation.

C. The Contractor shall be responsible for excluding at all times from lands within easement areas, all persons not directly connected with the work or authorized by the Owner to be in the work areas.

324. TRAFFIC CONTROL

A. Approval of any street closure, lane closure, sidewalk closure or detour must be coordinated with City of Providence Traffic Engineer before it is put into operation. All proper Traffic Engineering permits must be approved prior to work starting.

B. The Contractor shall make himself aware of all City regulations governing construction and their effect on vehicular and pedestrian traffic.

C. Whenever necessary, or whenever directed by the Engineer, the Contractor shall employ traffic control devices to insure a safe, orderly routing of traffic around or across the work. No separate payment shall be made for this work, but compensation, therefore, shall be considered as having been included in the prices stipulated for the appropriate items of work as listed in the bid.

D. Where deemed necessary by the Engineer, supplementary traffic control shall be provided by off-duty, City of Providence Police Officers.

E. The Contractor shall request for use of off-duty, City of Providence Police Officers for supplementary traffic control in accordance with the unit price for this work submitted as part of the Bid. Invoices shall be billed directly to the Owner.

F. The Contractor shall be solely responsible for the safe passage of traffic and shall indemnify and protect the Owner and the Engineer in every respect from any injury or damage whatsoever caused by any act or neglect of the Contractor of their Subcontractors, or their servants or agents.

325. NIGHT WORK

A. Night work, or work on Saturdays, Sundays and legal holidays may be required in order to perform certain construction operations without causing excessive interference with or disruption of traffic flow, water service, etc.

B. Night work or work on Saturdays, Sundays and legal holidays shall be done only with the approval of the Providence Traffic Engineering Department.

C. All water work operations requiring the closing or shutdown of existing water service facilities will be conducted at those times as directed by the Engineer that will minimize the interference with, or disruption of service.

D. All trenching, pipe laying, paving operations, etc., shall be conducted at times as directed by the Engineer that will minimize the interference with normal and emergency vehicular traffic flow.

E. No work shall be scheduled by the Contractor on nights, Saturdays, Sundays or legal holidays unless directed or approved in writing by the Owner. The Contractor will receive no extra payment for work at these times and compensation shall be considered as having been included in the prices stipulated for the appropriate items of work as listed in the Proposal.

F. Night work shall not be permitted on Thursday, Friday or Saturday nights.

G. All necessary lighting, safety precautions, and other requirements for night, Saturday, Sunday and holiday work shall be provided at no extra cost to the Owner.

H. The assumption is made that all work outside of milling, paving and pavement marking activity will be able to occur during daylight hours.

I. Work on Sundays and legal holidays is prohibited in the Project Area between June 1, 2023 and September 30, 2023

326. BUS LINE INTERFERENCE

Whenever it may be necessary to interfere with any bus lines, notice shall be given to the Rhode Island Public Transit Authority (RIPTA) owning the same, and reasonable time shall be given to said corporation to arrange the schedule for operation of same, as may be necessary. RIPTA shall be notified for any work impacting their bus routes or adjacent (within 200 to their shelters from the approach side and 100 feet to the exit side).

327. WORK IN COLD WEATHER

A. The Engineer will determine when conditions are unfavorable for work and may order the work or any portion of it suspended whenever, in his opinion, the conditions are not such as will insure first class work. In general, work shall be prosecuted throughout the year and the Contractor will be expected to keep work going and employment of labor as continuous as possible.

B. All methods and materials used for concrete or masonry work in cold weather shall be subject to the approval of the Engineer. The Contractor shall take the necessary precautions to protect the work from damage and for removing ice and frost from materials, including heating the water, sand and coarse aggregate and for protecting the newly laid masonry. This protection shall also include the covering of work with tarpaulins and the heating by salamanders or steam pipes or other suitable method. The Contractor will receive no extra payment or any labor, apparatus, tools or

materials necessary to comply with the above requirements, but compensation shall be considered to be included in the prices stipulated for the appropriate items of work as listed in the bid.

C. In the event of temporary suspension of work, or during inclement weather, or whenever the Engineer shall direct, the Contractor will, and will cause his Subcontractors to protect carefully his and their work and materials against damage or injury from the weather. If in the opinion of the Engineer, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his Subcontractors to so protect his work, such materials shall be removed and replaced at the expense of the Contractor.

D. In the event that the project is shut down during the winter months, the Contractor will be required to install, maintain and remove such temporary materials as may be required to protect completed work and to provide safe vehicular and pedestrian access. No separate payment shall be made to the Contractor for such temporary materials and labor.

328. BLASTING AND EXPLOSIVES

A. Blasting or use of explosives will not be permitted on this project.

B. Rock, boulders, ledge, concrete foundations, etc., shall be removed by the use of pneumatic tools; drilling and splitting mechanically or by hand; or by other means not requiring the use of explosives.

329. RESERVED MATERIALS

A. Materials found on the work suitable for any special use shall be reserved for that purpose without charge to the Owner.

B. Where permitted, the Contractor may use in the various parts of the work, without charge to the Owner, therefore, any materials taken from the excavations.

330. DISPOSAL OF MATERIALS. ACCESS TO HYDRANTS AND GATES AND MATERIALS TRIMMED- UP FOR CONVENIENCE OF PUBLIC TRAVEL OR ADJOINING TENANTS

The materials from the trench and excavations and those used in the construction of the work shall be deposited in such a manner so they will not endanger persons or the work, and so that free access may be had at any time to all hydrants and gates in the vicinity of the work. The materials shall be kept trimmed-up so as to be of as little inconvenience as possible to the public travel or the adjoining tenants. All excavated materials not approved for backfill and fill, all surplus material and all rock resulting from the excavations shall be removed and satisfactorily disposed of off the site by the Contractor at no additional expense to the Owner.

331. LENGTH OF TRENCH TO BE OPENED, MAINTAINING PREMISES FREE FROM OBSTRUCTIONS, CROSSOVERS, DIRECTIONAL SIGNS AND LIGHTS

A. The length of trench opened at any time from point where ground is being broken to completed backfill and also the amount of space in streets or public and private lands occupied by equipment, trench and supplies, shall not exceed the length or space considered reasonably necessary and expedient by the Engineer. In determining the length of open trench or spaces for equipment, materials, supplies and other necessities, the Engineer will consider the nature of the construction and equipment being used, inconvenience to the public or to private parties, possible dangers and other proper matters. All work must be constructed with a minimum of inconvenience and danger to the public and all other parties concerned.

B. Whenever any trench obstructs pedestrian and vehicular traffic in or to any, public street, private driveway or property entrance, or on private property, the Contractor shall take such means as may be necessary to maintain pedestrian and vehicular traffic and access. Until such time as the work may have attained sufficient strength to support backfill, or if for any other reason it is not expedient to backfill the trench immediately the Contractor shall construct and maintain suitable plank crossings and bridges to carry essential traffic in or to the street, driveway or property in question as specified or directed.

C. Suitable signs, lights and such required items to direct traffic shall be furnished and maintained by the Contractor.

D. The Contractor must keep streets and premises free from unnecessary obstructions, debris and all other materials. The Engineer may, at any time, order all equipment, materials, surplus from excavations, debris and all other materials lying outside that length of working space promptly removed and should the Contractor fail to remove such material within 24 hours after notice to remove the same, the Engineer may cause any part or all of such materials to be removed by such persons as he may employ, at the Contractor under the contract. In special cases, where public safety urgently demands it, the Engineer may cause such materials to be removed without prior notice.

332. INTERFERENCE WITH EXISTING STRUCTURES

A. Whenever it may be necessary to cross or interfere with existing culverts, drains, sewers, water pipes or fixtures, guardrails, fences, gas pipes or fixtures, or other structures needing special care, due notice shall be given to the Engineer and to the various public and private agencies or individuals responsible for the utility or structure that is interfered with. Whenever required, all objects shall be strengthened to meet any additional stress that the work herein specified may impose upon it, and any damage caused shall be thoroughly repaired. The entire work shall be the responsibility of the Contractor and the work shall be performed at no additional expense to the Owner.

B. The Contractor shall be responsible for all broken mains or utilities encountered during the progress of the work and shall repair and be responsible for correcting all damages to existing utilities and structures at no additional expense to the Owner. The Contractor shall contact the proper utility or authority to correct or make any changes due to utility or other obstructions encountered during the work, but the entire responsibility and expense shall be with the Contractor.

C. All damaged items of work or items required to be removed and replaced due to construction shall be replaced or repaired by the Contractor to the complete satisfaction of the property owners and/or the Engineer at no additional expense to the Owner.

333. MATERIALS

All materials furnished and used in the completed work shall be new, of best quality workmanship and design and recognized as standard in good construction practices. Whenever a specification number or reference is given, the subsequent amendments (if any) shall be included. The standards set forth in the selection of materials and supplies are intended to conform with those standards adopted by the Owner. Preference in manufacture shall be given to adopted standards and the Contractor shall further familiarize himself with the requirements of the Owner when the occasion or choice of materials or supplies so demands.

334. DEFECTIVE MATERIALS, INSPECTION AND TESTING OF MATERIALS FURNISHED, SAMPLES AND ORDERING LISTS

A. No materials shall be laid or used which are known, or may be found to be in any way defective. Any materials found to be defective at the site of the work or upon installation shall be replaced by the Contractor at his expense. Notice shall be given to the Engineer of any defective or imperfect material. Defective or unfit material found to have been laid shall be removed and replaced by the Contractor with sound and unobjectionable material without additional expense to the Owner.

The Contractor shall also be responsible to compensate the City, the City's construction administrator/manager, police details, and materials testing for errors, defective work or damage caused by the Contractor. This will be done by direct invoice to the Contractor or monies deducted through invoices.

B. All materials furnished by the Contractor are subject to thorough inspections and tests by the Engineer.

C. All ordering lists shall be submitted by the Contractor to the Engineer for approval and shall be approved before the ordering of the materials.

335. SPIRITUOUS LIQUORS

The Contractor shall neither permit nor suffer the introduction or use of spirituous liquors upon the work embraced in this contract.

336. FINISHING AND CLEANING UP

In completing the backfilling of the trenches, etc. the Contractor shall replace all surface material to the satisfaction of the Engineer, and shall then immediately remove all surplus material, and all tools and other property belonging to him, leaving the entire street or surroundings free and clean and in good order, at no additional expense to the Owner. The backfilling and removing of the surplus materials shall follow closely upon the completion of the work. The Contractor shall exercise special care in keeping rights-of-way and private lands, upon which work is to be performed, clean and free of debris at all times and to remove tools and other property belonging to the Contractor when they are not being used.

337. CLEAN-UP AT CONTRACTOR'S EXPENSE

In case the Contractor shall fail or neglect, after backfilling, to promptly remove all surplus materials, tools and other incidentals, or promptly do the required repaving when ordered, the Engineer may, after 24 hours' notice, cause the work to be done and the cost thereof shall be deducted from any monies then or thereafter due the Contractor.

338. RIGHTS OF ACCESS

Nothing herein contained or shown on the Drawings shall be construed as giving the Contractor exclusive occupancy of the work areas involved. The Owner or any other Contractor employed by the Owner, the various utilities companies, Contractors or Subcontractors employed by the Federal, State or Local governmental agencies or other utility firms or agencies involved in the general project or upon public rights-of-way, may enter upon or cross the area of work or occupy portions of it as directed or permitted. When the territory of one contract is the convenient means of access to the other, each Contractor shall arrange his work in such manner as to permit such access to the other and prevent unnecessary delay to the work as a whole.

339. LOADING

No part of the structures involved in this contract shall be loaded during construction with a load greater than is calculated to carry with safety. Should any accidents or damage occur through any violation of this requirement, the Contractor will be held responsible under his Contract and bond.

340. EXISTING UTILITIES OR CONNECTIONS

A. The Location of existing underground pipes, conduits and structures, as may be shown in the project drawings, has been collected from the best available sources and the Engineer and the Owner together with its agents does not guarantee, expressly or by implication, the data and information in connection with underground pipes, conduits, structures, electric and telephone ducts and lines, vaults and such other parts as to their completeness nor their locations as indicated. The Contractor shall assume that there are existing water, gas, electric, and other utility connections to each and every building en route, whether they appear on the Drawings or not. Any expense and/or delay occasioned by utilities and structures or damage thereto, including those not shown, shall be the responsibility of the Contractor, at no additional expense to the Owner.

B. Before proceeding with construction operations, the Contractor shall make such supplemental investigations, including exploratory excavations by hand digging, as he deems necessary to uncover and determine the exact locations of utilities and structures and shall have no claims for damages due to encountering subsurface structures or utilities in locations other than shown on the Drawings, or which are made known to the Contractor prior to construction operations. The Contractor shall be responsible and liable for all damages to the existing utilities and structures.

341. COMPLETENESS OF WORK

In addition to the specified or described portions, all other work and all other materials, equipment and labor of whatever description which are necessary or required to complete the work, or for carrying out the full intent of the Drawings and Technical Specifications, as interpreted by the Engineer, such work, labor, materials, and equipment shall be provided by the Contractor, and payment therefor shall be considered as having been included in the prices stipulated for the appropriate items of work as listed in the Bid.

342. VEHICLE CROSSINGS

As required or directed by the Engineer, the Contractor shall install in selected locations suitable plank, timber or steel crossings substantially bound and reinforced to sustain vehicular traffic across trench or other excavations. Crossings shall be constructed with side and usable approaches for use by the traveling public, private property owners or firefighting equipment. No separate payment will be made for this work, but the cost shall be included in the prices stipulated for the appropriate items of work as listed in the Bid.

343. CLEANING FINISHED WORK

After the work is completed, the sewers, manholes, and structures shall be carefully cleaned free of dirt, broken masonry, mortar, construction and other debris and left in first class condition ready for use. All temporary or excess materials shall be disposed of and the work left broom-clean to the satisfaction of the Engineer.

344. DUST CONTROL

At all times during the progress of the work under this contract and when directed, the Contractor shall furnish and apply calcium chloride at the sites of the work over the surfaces of all earth piles along excavations, earth stockpiles and surfaces of refilled trenches, and as directed by the Engineer. Payment will be made for furnishing and applying calcium chloride for dust control in accordance with the unit price for this work submitted as part of the Bid.

345. CARE OF THE WORK

The Contractor shall be responsible for all damages to persons or property that occur as a result of his fault or negligence in connection with the prosecution of the work and shall be responsible for the proper care and protection of all material delivered and work performed until completion and final acceptance, whether or not the same has been covered by partial payments made by the Owner.

The Contractor shall provide security personnel for all work that will otherwise be unattended during cure time. All work damaged during this cure time shall be removed and reconstructed at the Contractor's expense.

346. INDEMNITY

A. The Contractor will indemnify and hold harmless the Owner and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense; a) Is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom, and; b) Is caused in whole or in part by any negligent act or omission of the Contract any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

B. In any and all claims against the or Owner or any of their agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under GENERAL CONDITIONS PART I, Section 130 shall not be limited in any way by any limitation on the amount or type of damages, compensation acts, disability benefit acts or other employee benefit acts.

C. The obligation of the Contractor under paragraph GENERAL CONDITIONS PART I, Section 130 shall not extend to the liability of the Agency, their agents or employees arising out of a) the preparation or approval of maps, Drawings, opinions, reports, surveys, Change Orders, designs or Specifications or; b) the giving of or the failure to give directions or Instructions by the Agency their agents or employees provided such giving or failure to give is the primary cause of injury or damage.

347. CONSTRUCTION SCHEDULE

A. In addition to the other requirements specified and prior to issuance of the Notice to Proceed, the Contractor shall confer with the Owner and the Engineer for the purpose of drafting a construction schedule satisfactory to the Owner and the Engineer which is to include all the work of this contract. The Contractor shall perform the work of this contract to conform to the construction schedule as approved by the Owner, except the Owner reserves the right to amend and alter the construction schedule, as approved, at any time, in a manner which it deems to be in the best interests of the Owner to do so.

B. The Contractor shall arrange his work under this Contract to conform with the construction schedule as it shall be revised biweekly by the Contractor, at no additional expense to the Owner. The Contractor shall notify the Engineer immediately of any circumstances which may affect the performance of the work in accordance with the current construction schedule. Failure to maintain schedule will delay in processing pay applications.

348. OTHER WORK

The Owner reserves the right to do any other work which may connect with, or become a part of, or be adjacent to the work embraced by this Contract, at any time, by contract work or otherwise. The Contractor shall not interfere with or obstruct in any way the work of such other persons as the Owner may employ, and shall execute his own work in such manner as to aid in the executing of work by others as may, be required. No backfilling of trenches or excavations will be permitted until such work by the Owner is completed.

349. CHANGES AND MODIFICATIONS

The Owner reserves the right to delete or cancel any item or items or parts thereof as listed in the Bid, without recourse by the Contractor. The Owner also reserves the right to add to any item or part thereof as listed in the Bid. The compensation to be paid the Contractor for such additional extension, appurtenance or item shall be made under the applicable items as listed in the bid. Where no applicable items are provided in the bid for such additional extension, appurtenance or item, the compensation to be paid the Contractor shall be as set forth under GENERAL CONDITIONS, PART 1, Section 109. No further mobilization charges shall be considered for changes or modifications in the work.

350. LAYOUT OF WORK

A. The Contractor shall provide all materials, labor, equipment, etc., necessary to layout the work and shall be responsible for all lines, grades, elevations, measurements, etc. conforming to the Americans with Disabilities Act.

B. The Contractor shall employ a Professional Engineer or Land Surveyor, registered in the State of Rhode Island, for establishing all lines, levels, grades, elevations, measurements, dimensions, locations, etc. The Engineer or Land Surveyor proposed for this work must be approved by the Engineer and the Owner. In addition, as part of the layout of work, he shall be placed at the disposal of the Engineer and Owner, from time to time as required, for checking purposes.

C. The Contractor shall establish control points, at the direction of the Engineer suitable for the layout of all utility work, both public and private.

D. No separate payment will be made for this work, but the cost shall be included in the prices stipulated for the appropriate items of work as listed in the Bid.

E. To assist in the layout of the work, survey data prepared by the Engineer, which has been submitted to the Owner, will be made available to the Contractor.

351. PROTECTION OF LIVES AND HEALTH

A. In order to protect the lives and health of his employees under the Contract, the Contractor shall comply with all pertinent provisions of the U.S. Department of Labor, "Williams-Steiger Occupational Safety and Health Act of 1970", and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or Causing loss of time from work, arising out of and in the course of employment on work under the contract.

B. The Contractor alone shall be responsible for the safety, efficiency and adequacy of his plant, appliances and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

C. The Contractor shall be solely responsible for the acts and omissions of his agents, employees and his Subcontractors and their agents and employees and shall hold the Engineer and the Owner harmless and defend the Engineer, and the Owner

against damage or claims for damages arising out of injuries to others or property of others which result from said acts or omissions.

352. SUBSURFACE STRUCTURES AND UTILITIES

A. Available information of the location of existing substructures and utilities has been collected from various sources but the results of the investigations shown on the Drawings are not guaranteed to be accurate complete.

B. The Contractor shall make all supplemental investigations including exploratory excavations, by hand digging, as he seems necessary to uncover and determine the exact locations of utilities and structures and shall have no claims for damages due to encountering subsurface structures or utilities in locations other than shown on the Drawings, or which are made known to the Contractor prior to construction operations.

353. CONTRACTOR'S RESPONSIBILITY FOR DAMAGED STORM DRAINS:

The Contractor shall use care when working within or in the vicinity of existing drainage structures. Any drainage structures or pipes damaged while carrying out any work on this contract shall be the Contractor's responsibility. Any drainage structures or pipes damaged by the Contractor while carrying out this Contract shall be replaced or repaired by the Contractor to the satisfaction of the Owner at no additional charge to the Owner.

354. PROTECTION OF CONSTRUCTION FEATURES

The Contractor shall take adequate precautions to protect existing sidewalks, curbs, pavements, utilities, building vaults, adjoining property and such incidentals and to avoid damage thereto. The Contractor shall completely repair the damage caused by his operations at no additional expense to the Owner.

355. TEST PITS

At locations where new utilities are to connect to existing utilities, the Contractor shall not proceed with the work until a test pit has been dug to determine existing conditions such as inverts of sanitary or storm sewers; outside diameter of water pipes so that sleeves or couplings can be correctly purchased, etc.

356. LOCATION OF WORK

The Contractor's attention is directed to the fact that work under this contract is performed strictly within the Wards, within the City of Providence.

357. PRE-CONSTRUCTION CONFERENCE

A. Within ten (10) days after award of Contract, a preconstruction conference shall be held between the Owner, the Contractor, the Engineer and other City of Providence agencies having jurisdiction over the project area.

B. No work of any nature shall be performed by the Contractor until the pre-construction conference has been held, and all required permits have been obtained.

358. NOTIFICATION PRIOR TO CONSTRUCTION

Not less than ten (10) calendar days prior to the start of any work under this contract the Contractor shall send written notification of his intentions to the following:

DEPARTMENT OF PUBLIC WORKS
700 Allens Avenue
Providence, RI 02905
Leo Perrotta
Director
lperrotta@providenceri.gov
(401) 680-7500

DEPARTMENT OF PLANNING AND DEVELOPMENT
444 Westminster Street
Providence, RI 02903
Robert Azar
Deputy Director
razar@providenceri.gov
(401) 680-8524

Jess Lance, Acting Director of Special Projects
jlance@providenceri.gov
401-680-8519

Chris Martin, Principal Planner
crmartin@providenceri.gov
401-680-8523

RIPTA
705 Elmwood Avenue
Providence, RI 02907
(401) 781-9400
Greg Nordin
gnordin@providenceri.gov

RHODE ISLAND ENERGY
280 Melrose Street
Providence, RI 02907-2152
Marisa Albanese
marisa.albanese@rienergy.com
(401) 784-7090
Cc: Jim Paulette
Jim.paulette@rienergy.com

RIDOT
Two Capitol Hill
Providence, RI 02903
Robert Rocchio,
Chief Engineer
(401) 222-2023
Cc: Mike Sprague
Managing Engineer,
(401) 563-4221

VERIZON
85 High Street
Pawtucket, RI 02865
Peter DeCosta
State Highway Coordinator
(774) 409-3177

COX COMMUNICATIONS

9 J.P. Murphy Hwy.
West Warwick, RI 02893
David Velilla
Right Of Way Agent II
(401) 615-1284

PROVIDENCE WATER SUPPLY BOARD
125 Dupont Drive
Providence, RI 02907
Mr. Peter LePage, Sr., P.E.
Manager of Engineering
plepage@provwater.com
(401) 521-6300 Ext. 7242

DEPARTMENT OF TELECOMMUNICATIONS
1 Communications Place, West Exchange Street
Providence, RI 02903
Carolyn Bourbeau
Director of Telecommunications (401) 243-6000
cbourbeau@providenceri.gov

NARRAGANSETT BAY COMMISSION
1 Service Road
Providence, RI 02905
David Bowens
Engineering Manager
(401) 461-6540
dbowens@narrabay.com
Cc: Margaret Goulet
mgoulet@narrabay.com

This notification shall set forth the Contractor's proposed sequence of construction and shall give the approximate dates of when each street or phase of the work is expected to begin. The sequence of construction shall also state the expected completion dates of each street or phase of the work.

Copies of each notification shall be sent to the Engineering Division, Department of Public Works, 700 Allens Ave., Providence, Rhode Island 02905 (c/o Craig Hochman, chochman@providenceri.gov). The notifications shall reference the Project, include a description of the work to be performed, including street names, and shall indicate when the construction will start. Additionally, the Contractor shall request the name and telephone number of the person or department to be contacted when assistance is required, copies of all replies shall be forwarded to the Supervisor of Engineering, Department of Public Works, 700 Allens Ave., Providence, Rhode Island 02905.

359. NON-INTERFERENCE WITH ADJACENT PROPERTIES

All work under this Contract shall be performed in a manner which will minimize interference with the normal neighborhood operations.

360. FIRE PROTECTION AND PREVENTION

A. Federal laws (Occupational Safety and Health Act) and all State and municipal rules and regulations with respect to fire prevention, fire-resistant construction and fire protection shall be strictly adhered to and all work and facilities necessary therefore shall be provided and maintained by the Contractor in an approved manner.

B. All fire protection equipment such as water tanks, hoses, pumps, extinguishers, and other materials and apparatus shall be provided for the protection of the Contract work, temporary work and adjacent property. Trained personnel experienced in the operation of all fire protection equipment and apparatus shall be available on the sites whenever work is in progress and at such other times as may be necessary for the safety of the public and the work.

361. PLANIMETER

For estimating quantities in which the computation of areas by analytic and geometric methods would be comparatively laborious, it is stipulated and agreed that the planimeter shall be considered an instrument of precision adapted to the measurement of such areas.

362. DAILY REPORTS

The Contractor shall submit, on an approved form, daily activity reports for the duration of the project. The reports shall indicate all personnel currently employed on the work including each trade and every Subcontractor; all equipment and whether such equipment was idle for the particular day; a general description of all work accomplished; any authorized extra work (time and material reports shall be submitted on separate forms).

363. OTHER PROHIBITED INTERESTS

No official of the Owner who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this Contract or in any part hereof. No officer, employee, architect, attorney, engineer or inspector of or for the Owner who is authorized in such capacity and on behalf of the Owner to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

364. WATER

The Contractor shall provide and maintain at his own expense an adequate supply of water for his use for construction and domestic consumption, and to install and maintain necessary supply connections and piping for same, but only at such locations and in such manner as may be approved by the Owner. All water shall be carefully conserved. Before final acceptance, temporary connections and piping installed by the Contractor shall be removed in a manner satisfactory to the Owner.

365. ELECTRICITY

All electric current required by the Contractor shall be furnished at his own expense and all temporary connections for electricity shall be subject to approval of the Engineer. All temporary lines shall be furnished, installed, connected and maintained by the Contractor in a workmanlike manner satisfactory to the Engineer and shall be removed by the Contractor in like manner at his own expense prior to completion of the construction.

366. DRAWINGS

A. The Contractor shall use the dimensions of the Drawings as shown. Measurements shall not be by scale. Full size details have preference over scale details, and large-scale details and photographs have preference over small.

B. If discrepancies exist between Drawings and Technical Specifications, or if necessary measurements and work specified or shown is obviously incorrect or impossible to execute, and/or if figures fail to check, the Contractor shall bring these facts to the attention of the Engineer. The decision of the Engineer as to the intention of the Contract Documents shall be final. No work shall start until all such problems have been resolved.

367. PERMITS

CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS

A. Providence Department of Public Works (700 Allens Avenue)

1. Physical Alteration Permit

2. Sewer Permit

3. Road Opening Permit

B. Providence Traffic Engineering Department (60 Ernest Street)

1. Providence Traffic Engineering permits are required for Posting Emergency No Parking Signs at work zones prior to the beginning of the workday, detour permits and lane/sidewalk closing permits. Traffic Engineering permits are required when work zones occupy public sidewalk or road or a detour is required.

2. The Contractor is responsible for the scheduling of the permit applications as described on the Traffic Engineering website (http://www.providenceri.gov/public-works/traffic-engineering). Permit applications shall be sent to Providence Traffic Engineering at least two business days in advance of the requested start date on the permit. The Contractor shall obtain approval from the PDPW or their agent as to the number and time frame of Posting Emergency No Parking Signs prior to scheduling. Failure to obtain traffic engineering permits may result in shutting down the job site and other fines. There will be no compensation paid to the Contractor for job shut down relating to the failure to obtain permits and other fines.

3. The Traffic Engineering permit fees for this project shall be waived.

C. Narragansett Bay Commission (NBC) (1 Service Road)

NBC Regulations: Section 4.5 Sewer Alteration Permit

Any person(s) planning to initiate road construction which will modify or expose structures such as, but not limited to, manholes, catch basins, and sewers owned by the NBC must obtain a sewer alteration permit before performing any alterations to the NBC's facilities. The sewer alteration permit application must be obtained from the NBC and the applicant shall submit the completed application and any required information prior to issuance of a sewer alteration permit. The sewer alteration permit application information required includes, but is not limited to, the following:

1. Contact name, company name, address and phone number.
2. Description of the project along with a sketch or map identifying the location of the project and a drawing which indicates at least two points of reference with distance measurements corresponding to each structure or connection to be altered.
3. Method(s) which will be utilized to prevent debris from entering NBC sewers.

D. Coastal Resources Management Council (CRMC)

1. Maintenance Assent

E. Rhode Island Historical Preservation & Heritage Commission (RIHPHC)

1. Project Review/Approval

368. MISCELLANEOUS NOTICES

A. SIDEWALKS - CURING - All sections prone to pedestrian / vehicular movement shall be protected, as necessary, until proper curing has occurred. All vandalized sections shall be replaced at contractor's expense.

B. The Providence Department of Public Works does not allow pouring of cement concrete sidewalks between November 17 and April 15 of the next calendar year.

C. SIDEWALKS - SAWCUTTING - Cutting shall take place at existing control and expansion joints only.

369. COORDINATION WITH OTHER CONTRACTS

The Contractor is hereby notified that multiple construction projects may be ongoing throughout the construction period. The Contractor shall attend bi-weekly meetings or as required by the Owner, at a location to be determined (or virtually), to assure cooperation between all involved parties. Contracts that may require coordination shall be provided to the contractor upon award.

370. JOB SITE POSTERS

The contractor must comply with US Department of Labor requirements for job site posters per Exhibit A at the end of this Section.

371. LIST OF CONTRACT DRAWINGS

COVER SHEET
STANDARD SYMBOLS & LEGEND
STANDARD NOTES 1-2
JOB SPECIFIC SYMBOLS & LEGEND
JOB SPECIFIC NOTES
KEY PLAN
TYPICAL SECTION
GENERAL PLANS 1-3
LOCATION & GRADING PLANS 1-3
PROFILE PLANS 1-3
DRAINAGE & UTILITY PLANS 1-3
SIGNING PLANS 1-3
SIGN SUMMARY
STRIPING PLANS 1-3
TRAFFIC SIGNAL PLAN
LANDSCAPE PLANS 1-3
PHASING PLANS 1-3
CONSTRUCTION DETAILS 1-8

All work under this Contract shall be done in conformance with the RIDOT Standard Specifications for Road and Bridge Construction, 2004 Edition, Amended March 2018 GENERAL CONDITIONS PART 1, Section 104.0.7 a2, and the State and Federal Special Provisions

included in the contract documents. Standard Details for this project are City of Providence Standard Details, 2017 Edition, with all revisions. Refer to RIDOT Standard Details, 2019 Edition, with all revisions, for all other standard details.

ALL WORK UNDER THIS CONTRACT SHALL BE DONE IN CONFORMANCE WITH THE RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, WITH ALL REVISIONS, AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE CITY OF PROVIDENCE STANDARD DETAILS, 2017 EDITION, WITH ALL REVISIONS. REFER TO RIDOT STANDARD DETAILS, 2019 EDITION, WITH ALL REVISIONS, FOR ALL OTHER STANDARD DETAILS.

372. UTILITY AND MUNICIPAL NOTIFICATION AND COORDINATION:

A. The Contractor shall contact DIG SAFE at 1-888-DIG SAFE (1-888-344-7233) prior to construction.

B. The Contractor shall coordinate with the utility Companies and necessary municipal offices prior to the start of work.

C. Refer to SPECIAL CONDITIONS, Section 358 for utility company contacts.

373. SHOP DRAWINGS:

The Contractor must develop and submit shop drawings, product data, and/or catalogue cut-sheets in accordance with GENERAL CONDITIONS PART 1, Section 117. At a minimum, shop drawings shall be submitted for:

105.35 SCHEDULE OF VALUES

201.9902	REMOVE, STOCKPILE AND/OR RESET BRICK, CONCRETE, GRANITE PAVER SIDEWALK
202.0800	GRAVEL BORROW
206.9901	INLET SEDIMENT CONTROL DEVICE
212.2000	CLEANING AND MAINTENANCE OF EROSION CONTROLS
301.0300	CRUSHED STONE BASE COURSE
302.0100	GRAVEL BORROW SUBBASE COURSE
401.3000	CLASS 9.5 HMA
401.2100	MODIFIED CLASS 12.5 HMA
403.0300	ASPHALT EMULSION TACK COAT
410.1000	TEMPORARY PATCHING MATERIAL/TRENCHES
501.9901	CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
701.0412	REINFORCED CONCRETE PIPE M 170 CLASS III 12 INCH
701.9901	8 INCH DUCTILE IRON DRAIN PIPE
701.8151	CURB STOP BOX
702.0703	4' ROUND CATCH BASIN TYPE 'F' BRICK/SOLID BLOCK STANDARD 3.4.2
702.0713	PRECAST CONCRETE DROP INLET STANDARD 4.5.1
702.0517	FRAME AND GRATE STANDARD 6.3.2
702.9901	FRAME AND GRATE - ADA COMPLIANT
702.9906	GRANITE APRON STONE 30" OPENING - PVD STANDARD 7.3.7
702.9907	TRENCH DRAIN CATCH BASIN
903.9901	GRANITE BLOCK
903.9903	STEEL BOLLARD REMOVABLE
903.9905	RETRACTABLE BOLLARD

905.9901	4 INCH PORTLAND CEMENT SIDEWALK MONOLITHIC - PVD STANDARD 43.1.0
905.9902	8 INCH PORTLAND CEMENT CONCRETE DRIVEWAY AND CURB RAMP - PVD STANDARD 43.5.0
905.9904	CONCRETE PAVER SIDEWALK
905.9905	BRICK SIDEWALK
905.9906	CONCRETE PAVER CROSSWALK
906.9901	GRANITE CURB STRAIGHT - 7" WIDTH PVD STANDARD 7.3.0
906.9902	GRANITE CURB CIRCULAR - 7" WIDTH PVD STANDARD 7.3.0
906.9903	GRANITE WHEELCHAIR RAMP TRANSITION CURB - 7" WIDTH PVD STANDARD 7.3.3, 43.3.0, AND 43.3.1
906.9904	GRANITE RAMP STONE STRAIGHT - 7" WIDTH PVD STANDARD 7.3.9
906.9905	GRANITE RAMP STONE CIRCULAR - 7" WIDTH PVD STANDARD 7.3.9ITEM
919.9901	TEST PITS
942.0200	DETECTABLE WARNING PANEL STANDARD 48.1.0
942.9901	DIRECTIONAL TACTILE WAYFINDING BAR TILE
L01.0104	PLANTABLE SOIL
L13.9901	CHANTICLEER PEAR TREE
L13.9902	PLANTINGS
L13.9903	FURNISH AND INSTALLATION OF BENCHES
T15.0100	DIRECTIONAL REGULATORY AND WARNING SIGNS
T15.0200	REMOVE AND RELOCATE DIRECTIONAL REGULATORY AND WARNING SIGN
T15.1000	STREET SIGN ASSEMBLY STD. 24.6.1
T20.2004	4 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE
T20.2012	12 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE
T20.9904	EPOXY RESIN PAVEMENT MARKING WORD "BUS ONLY"

374. SEQUENCE OF CONSTRUCTION/ MAINTENANCE AND MOVEMENT OF TRAFFIC/WORK RESTRICTIONS:

A. Refer to Section “30 SEQUENCE OF CONSTRUCTION” and Section “320. SEQUENCE OF WORK”

B. The Contractor is required to clean any catch basins (pay item code 708.9041) before installing silt sacks to ensure that the silt sack functions correctly.

C. The Contractor shall note the allowable work durations for specific roadways.

D. Action Required by Contractor:

1. Approval of the work sequence and time schedule is required before the start of any construction or other work associated with this contract. The proposed construction and time schedule must consider and address the safe vehicle passage through the project.

2. The Contractor Is required to seek a permit from Traffic Engineering whenever occupying the public right of way. Two (2) business days notice are required on permits. Permit fees will be waived.

3. In addition to the requirements of the Standard Specifications for Road and Bridge Construction and the Special Requirements of other sections of these contract documents, the Contractor must adhere to the following requirements:

4. The Contractor is advised that the signs and other traffic control devices shown on the Plans are minimum requirements, and it is the Contractor’s responsibility to supplement these if necessary to ensure the public’s safety. All Maintenance and Protection of Traffic devices shall be in place and approved by the City of

Providence Division of Traffic Engineering prior to starting construction. All Maintenance and Protection of Traffic shall conform with the latest edition and revisions of the Manual on Uniform Traffic Control Devices (MUTCD). The Contractor must submit for approval a traffic control plan when implementing any changes to the details shown on the plans or when providing traffic control for situations differing from those shown on the plans, including subcontractor work.

5. Any deviations from the requirements stated here or detailed in the plans, as well as any deviation from the approved construction sequence and time schedule, must be submitted to the City of Providence Division of Traffic Engineering in writing for approval a minimum of 24 hours prior to implementation.

6. The construction operations of this project must be coordinated with the local community public safety officials. It is the Contractor's responsibility to coordinate the construction operations of this project with the local public safety officials. In case of an emergency, the Contractor will be required to move equipment to allow the passage of emergency vehicles. The safety of the residents of the area must be considered at all times.

7. The Contractor shall work continuously to restore traffic signal operation to its intended purpose when replacing the traffic signal equipment. A police detail is required to direct traffic at the intersection at all times the traffic signal is inoperative. At no time shall the Contractor leave the site before restoring full traffic signal operations or with the approval of the Engineer provide traffic control as directed by the Engineer.

8. The Contractor shall maintain one full travel lane (11 foot minimum) in each direction of travel at all times unless otherwise approved by the City of Providence Division of Traffic Engineering. Safe access and egress to side streets and all driveways must be maintained at all times unless otherwise directed by the City of Providence Division of Traffic Engineering. The Contractor shall open the roadway to all parking and vehicle and pedestrian traffic at the end of each work day/night.

9. Detours are permitted only upon written approval from the City of Providence Division of Traffic Engineering. The Contractor must submit a detour plan with written approval from the City of Providence Traffic Engineer.

10. The Contractor shall be responsible for maintaining appropriate construction related signing at all times. Any signs not appropriate for the lane closures, speed limits or any construction activity taking place at any given time shall be removed or covered to the satisfaction of the City of Providence Division of Traffic Engineering.

E. The following definitions will apply:

1. Travel Lane - A travel lane must be at least 11 feet wide and must be paved with a hard smooth surface. This surface may be existing pavement, existing base course, or new pavement. Gravel or dirt surfaces will not be acceptable.

2. Pedestrian Way - A pedestrian way must have an unobstructed clear width of five feet (per ADA requirements) and must have a hard, smooth surface, and must conform to all handicapped accessibility requirements. The surface may be existing pavement, new pavement, or plywood. All wooden walkways shall meet the Engineer's approval for surface smoothness and deflection. If there is a drop-off in excess of six inches from the edge of the pedestrian way, a handrail conforming to all applicable standards shall also

be provided. There shall be no additional compensation for the provision of Pedestrian Ways; all costs shall be considered incidental to the Contract.

F. Pedestrian ways to all building entrances including service entrances must be maintained at all times. The Contractor shall provide temporary access routes/ramps through construction areas to insure this access. The Contractor must provide for pedestrians to safely guide them away from broken and uneven pavement, open excavations, drop-offs, construction operations and other hazards at all times.

G. The Contractor shall backfill or place steel plates capable of supporting HS-20 vehicle loading over all trenches and excavations at the end of work each day except when otherwise directed by the City of Providence Division of Traffic Engineering. There shall be no additional compensation for backfilling, re-excavating and/or plating these trenches.

H. The Contractor shall install and maintain a Rhode Island Standard 26.2.0 barricade at each location where adjustments to grade and/or reconstruction of drainage and utility structures have been made until resurfacing work has been performed. Other types of protective devices may be used if approved by the City of Providence Division of Traffic Engineering.

375. LEGAL RELATIONS AND RESPONSIBILITIES TO PUBLIC UTILITIES AND FACILITIES:

A. In those areas where the Contractor's operations are adjacent or proximate to underground utilities such as gas, electric, water, telephone, fire alarm, sanitary and storm sewers, the provisions of Section 105.06 of the Rhode Island Standard Specifications for Road and Bridge Construction shall be followed.

B. During the process of the work, the Contractor shall cooperate with the Owners of the utilities and permit their representatives access to the work to determine if their utilities are being endangered in any way.

376. WORK ADJACENT TO GAS LINES, WATER LINES AND TELEPHONE DUCTS:

Extreme care, particularly when installing traffic signal poles, foundations, conduit, manholes, catch basins, drain pipes and handholes shall be exercised during construction in the vicinity of the gas lines, water lines and telephone ducts. Complete coordination with the utility companies shall be maintained.

377. BUILDING UTILITY SERVICES:

The Contractor is to assume building services connections (electric, gas, telephone, water, and sanitary) are present to all buildings. Locations are to be checked with appropriate utility companies. The Contractor shall follow the Dig Safe process in accordance with the State of Rhode Island specifications for road and bridge construction.

378. DAMAGE TO EXISTING UTILITIES:

The Contractor shall check and verify the exact location of all existing utilities and service connections with Dig Safe. Any damage to the utilities, which are detailed by Dig Safe, shall be the Contractor’s responsibility. Cost to repair such damage shall be borne by the Contractor.

379. LOCAL POLICE COMPENSATION:

It will be the responsibility of the Contractor to retain the services of local police for traffic control and protection for this project, in consultation with the project manager, per Special Provision 999.0001.

380. PARKING SPACE(S) LOSS

With work that requires the loss of any parking space (s), the Contractor will be responsible for obtaining temporary “No Parking” signs from the City of Providence Traffic Engineer and the posting of said signs per special provision 999.0002. The Contractor shall also be responsible for the removal of said temporary signs when the parking space(s) is opened.

381. STORAGE OF CONSTRUCTION MATERIALS AND/OR EQUIPMENT:

In addition to the requirements of Division I Part 100 Section 106.06 “Storage of Materials” of the Rhode Island Standard Specification for Road and Bridge Construction 2004 Edition, the Contractor shall submit for approval the location of Material & Equipment Storage to the Engineer. No materials shall be stockpiled in the Public Right-of-Way.

382. DISPOSAL OF SURPLUS MATERIALS:

All existing or other materials not required or needed for use on the project, and not required to be removed and stockpiled, shall become the property of the Contractor and shall be removed from the site during the construction period and legally disposed of. No separate payment will be made for this work, but all costs in connection therewith shall be included in the unit bid prices for this Contract.

383. LOCATION OF SIGNS:

The location of all new signs shall be marked in the field and approved by the City of Providence Division of Traffic Engineering prior to installation.

384. CONSTRUCTION REQUIREMENTS FOR TRAFFIC SIGNAL INSTALLATION:

A. The Contractor will be allowed to activate the new controllers once the City of Providence Division of Traffic Engineering has determined the minimum system elements have been installed.

B. A factory representative must be available within 24 to 48 hours to field test the equipment and make any corrections necessary to ensure proper operation as shown on the plans, if necessary and requested by the City of Providence.

C. When an intersection is completed and activated by the Contractor, the Engineer will perform a preliminary inspection. The Engineer will provide the Contractor with a report containing the results of the Preliminary Inspection along with a list of work items needed to satisfy this portion of the construction inspection. If the Contractor informs the Engineer that items on the list have been corrected and a second inspection indicates items have not been corrected, the Contractor will be back-charged for the second inspection and all subsequent inspections necessary prior to the next phase of the inspection. This does not apply to items that malfunction due to technical failure.

D. After the items identified during the Preliminary Inspection are mitigated to the satisfaction of the Engineer, the second part of the inspection, or Central to Field Integration Inspection, will be conducted. The Engineer will provide the Contractor with a report containing the results of the Central to Field Integration inspection along with a list of work items needed to satisfy this portion of the construction inspection. If the Contractor informs the Engineer that items on the list have been corrected and a second inspection indicates items have not been corrected, the Contractor will be back-charged for the second inspection and all subsequent inspections necessary for final acceptance except the final inspection. This does not apply to items that malfunction due to technical failure.

E. It will be the Contractor’s responsibility to extract signal timing values from the plans and install those timings on the controller. The signal timings must be checked and approved by the Engineer before the system is made fully operational.

F. All loop detectors (if applicable) shall be cut into the final pavement surface course in locations shown on the plans. Locations of the video detection zones shown on the plans are approximate. Final size and locations of the video detection zones shall be positioned in the field and tested in cooperation with the City of Providence Division of Traffic Engineering or its representative to ensure that detection zones are established to cover the approach width and that the detection system is functioning to the satisfaction of the City of Providence.

G. The proposed video detection cameras shall be located at the exact dimension called for on the plans, unless otherwise approved by the Engineer. Any existing traffic signal mounting hardware, brackets, arms, or safety chains that are damaged during construction or are deemed to be unsuitable for relocation (where called for on the plans) shall be replaced in kind and color by the Contractor at no additional cost.

385. SIDEWALK REMOVAL/INSTALLATION:

A. The Contractor shall take all necessary precautions to prevent damage to walls and fences abutting sidewalks and driveways designated for replacement. Where required, new sidewalks shall meet said walls and fences. Prior to sidewalk removal, a sawcut shall be provided in all sidewalks to be removed a distance, to be determined by the City of Providence Department of Public Works (6 inches minimum) from the face of adjacent buildings, retaining walls, and fences. The final 6 inches (minimum) of sidewalk will be removed with caution under the City of Providence Department of Public Works' supervision. There will be no additional payment for labor or equipment necessary to meet this "remove with caution" requirement.

B. Any brick, paver, or stamped concrete/asphalt sidewalk, crosswalk, or roadway disturbed by construction activity shall be repaired by the Contractor at no additional cost. Any brick, paver, or stamped concrete/asphalt sidewalk, crosswalk, or roadway damaged or to be restored shall match the same materials that exist, including concrete base if appropriate, unless otherwise indicated on the plans, or directed by the Engineer.

386. PAVING NOTES:

A. The locations of all utility gate boxes and heads shall be marked prior to paving and adjusted upwards after the leveling course has been installed.

B. The Contractor shall take extreme care to avoid tracking residue (pavement, tack coat, etc.) from newly paved areas onto adjacent areas especially stamped crosswalks. Any surfaces where residue is detected shall be replaced at the expense of the Contractor.

387. CURB RAMPS:

A. The final location of all curb ramps shall be coordinated in the field with the Engineer with proposed and/or existing locations of drainage structures, utility poles, light poles, and other appurtenances to ensure a clear pedestrian path. All proposed curb ramps shall be constructed in accordance with RI Standard 43.3.0 and per the details on the Plans.

B. The installation of curb ramp curb will include the granite transition stones as well as the flush granite curb at the base of the ramp. In addition, a sawcut of the end sections abutting the 2-foot curb returns to be removed will be necessary (where applicable), to install the curb ramp transition curbs.

C. Any existing curb ramps disturbed by conduit installation or other construction activities shall be replaced with a new curb ramp in accordance with RI Standard 43.3.0, 43.3.1, 43.3.2 and 48.1.0 including required curbing to match existing, if required.

388. DIFFERING SITE CONDITIONS, CHANGES, AND EXTRA WORK:

Any changes in the original scope of work shall be in accordance with GENERAL CONDITIONS PART I, Section 110.

389. SURVEY OF CURB RADII:

All curb geometry and dimensions shown in the details are approximate. The Contractor shall survey all curb dimensions and radii prior to removal of curb.

390. COORDINATION WITH RIPTA:

The Contractor shall coordinate with the Rhode Island Public Transportation Authority (RIPTA) to ensure that RIPTA remains operational at all times, as specified in the SPECIAL CONDITIONS, Section 326.

391. RHODE ISLAND ENERGY REQUIREMENTS:

GUIDELINES FOR BACKFILL AND COMPACTION AROUND GAS PIPES PERMANENT BACKFILL AND COMPACTION

DESCRIPTION

This work shall consist of backfilling and compacting all disturbed material at and around existing gas pipes and facilities. Size of pipe, material, length of exposed pipe, location of pipe, etc. will all follow the same set of Standards and Specifications stipulated by Rhode Island Energy. If design plans call for gas pipes to be exposed and supported (sheeting methods not used), then at the time of backfill, all disturbed material below the invert of the gas pipe shall be removed and replaced with suitable roadway or trench excavation material or bedding material.

The contractor will not be allowed to replace this disturbed material with the same existing material if it has now been mixed with adjacent silty subsoil (clays) and fines. Well-graded gravel and sands will be used to replace the unsuitable material when no excess suitable material is available on site. Soils with high humus or mineral content should not be used to for backfill because they can promote electrolytic or bacterial attack.

Backfilling the gas pipe should begin immediately after the work in that location is complete.

The region within 6" alongside and on top of the gas pipe shall be backfilled with padding sand (free of cinders, ash, and rock). In no case shall the material used for backfilling in this region contain any stones. Backfill shall consist of suitable materials (medium to coarse sands with little or no silts) placed in layers of not more than 8" to 12" after compaction.

Trench spoil material shall be suitable for backfilling above the padding material as long as rocks with a diameter larger than 3" are removed. The layers shall be mechanically compacted to the industry standard of 95% or until a density comparable to the unexcavated material is achieved. In some instances, flooding with water is an acceptable method of compaction but only if the back-fill material is clean, coarse, and adequate drainage is existent. The above specified backfill material is essential in order to attain the degree of compaction necessary to avoid future settlement.

Tracing Wire, if necessary, shall be installed 2” to 6” below Plastic gas pipes. Warning Tape shall be installed approximately 12” above the gas pipe.

A minimum of 2" temporary pavement shall be applied over the trench as soon as possible.

GUIDELINES FOR WORKING AROUND CORROSION CONTROL SYSTEM COMPONENTS DESCRIPTION

This guideline shall control work around existing Corrosion Control components. Replacement of test stations, anodes and test wire leads shall comply with Standards and Specifications stipulated by National Grid. If design plans call for work in the area of Corrosion Control components, care must be taken to prevent damage to such components.

GENERAL RHODE ISLAND ENERGY CONSIDERATIONS

The contractor shall perform replacement of damaged corrosion control test boxes, resetting of disturbed test boxes, and ensure a minimum of 12” of excess wire above the rim of the test box after set to finished grade. Wires shall not be pulled taught to achieve the 12” above the box, as this will cause stress on the wire connection at the main. Wires needing to be lengthened, damaged corrosion control components i.e. wires, or wire coating, shall require notification to the Corrosion Control Department (525-5610 or 474-5171) to initiate inspection/repair or replacement of the damaged components.

Backfilling exposed Corrosion Control wire components should begin immediately after the work in that location is complete. The region within 6" alongside and on top of the connector wires shall be backfilled with padding sand (free of cinders, ash, and rock). Test wire leads must be kept with enough slack to prevent stress on the points where the wires connect to the gas main. Trench spoil material shall be suitable for backfilling above the padding material as long as rocks with a diameter larger than 3" are removed. The 8” to 12” backfill layers shall be mechanically compacted to the industry standard of 95%.

EFFORTS TO REPAIR GAS LEAKS PRIOR TO FINAL CONSTRUCTION (NIC)

The Contractor shall notify Rhode Island Energy Gas (See section 358 for RI Energy contact) prior to any permanent paving, sidewalk or finishing operations for the purpose of a leak survey.

All efforts shall be made to minimize the time between road excavation/coldplane/reclamation so as to reduce gas leaks. The maximum time between road excavation/coldplane/reclamation is seven (7) calendar days.

392. CITY OF PROVIDENCE TECHNICAL SPECIFICATIONS:

In addition to the standard and job specific specifications included in these Contract Documents, the construction in this Contract shall be in accordance with the City of Providence “Technical Specifications” and details.

393. UTILITY PROBE INFORMATION:

No utility probes were performed.

394. TESTING AND CERTIFICATION OF MATERIALS:

A. The Contractor shall adhere to the RIDOT Materials Testing and Certification Schedule. Testing of materials will be per the RIDOT specifications unless determined otherwise by the Owner.

B. Documentation of conformance to the required testing or certification of compliance as outlined in the schedule for each bid item must be submitted and approved by the Engineer prior to request for payment. Partial or complete payment for a given bid item may be delayed or refused without testing/certification documentation approved by the Engineer.

C. Materials not meeting the requirements of the specifications will be rejected. Testing of materials will be completed by the Owner's testing agency. The Contractor is responsible to provide 48-hour advanced notice to the Owner and RIDOT Materials prior to fabrication of precast structures to be inspected at the plant or delivery of any materials to be tested under the Materials Testing and Certification Schedule. Materials sample sizes shall be per the RIDOT Master Schedule for the Preparation of a Project Schedule for Sampling, Testing, and Certification of Materials, February 2010.

D. Authorized representatives performing the testing shall have access to the Work at all times and at all locations where the work is in progress. The Contractor shall provide facilities for such access to enable the personnel to perform their functions properly. Concrete and bituminous mixes will be subject to inspection and testing at the mixing plants and at the locations of installation for compliance with quality requirements.

395. FIRST SOURCE ORDINANCE:

The attention of prospective bidders is called to the fact this project is to be bid upon and executed under the City of Providence, Code of Ordinances Chapter 21Art. III 1/2 First Source Agreements Sec. 21-91 through 21-96. This ordinance outlines requirements for hiring employees to work on this project. The attention of prospective bidders is called to the fact that reporting the efforts undertaken and progress towards achieving the requirements in this ordinance is a condition for payment. Compliance reporting shall be submitted with any contract payment requisition, in the format to be provided. This demonstration of compliance through such reports shall be a condition of the requisition for payment to be processed. Upon the contract being awarded to the successful bidder, a mandatory meeting will be scheduled to review the project requirements relative to the First Source Agreements and the process and protocols by which these goals will be achieved. At this meeting, specific forms and procedures for the documentation and achievement of these requirements by the successful bidder will be provided, discussed and agreed upon for the execution of the contract.

396. APPRENTICE REQUIREMENTS:

Attention of prospective bidders is called to the fact this project is to be bid upon and executed under the City of Providence, Code of Ordinances Chapter 21 Art. II Section 21-28.1 c (1) and (2) relating to utilizing apprentices in the contract. This ordinance outlines requirements for utilizing not less than 15% of total hours worked by apprentices. The attention of prospective bidders is called to the fact that reporting the efforts undertaken and progress towards achieving the requirements in this ordinance is a condition for payment. Compliance reporting shall be submitted with any contract payment requisition, in the format to be provided. This demonstration of compliance through such reports shall be a condition of the requisition for payment to be processed. Upon the contract being awarded to the successful bidder, a mandatory meeting will be scheduled to review the project requirements relative to apprenticeship requirements and the process and protocols by which these goals will be achieved. At this meeting, specific forms and procedures for the documentation and achievement of these requirements by the successful bidder will be provided, discussed and agreed upon for the execution of the contract.

397. AMERICANS WITH DISABILITIES ACT REQUIREMENTS:

All sidewalks being constructed have been designed to comply with the ADA (Americans with Disabilities Act) requirements. A minimum clearance of thirty-six (36) inches of width at a point of narrowing, excluding curb width, and forty-eight (48) inches of continuous width elsewhere is required. Prior to installing any new sidewalks, the contractor must verify, by field review with the Engineer, that these requirements have been met. Sidewalk construction shall not commence without prior approval of the Engineer in circumstances where these requirements cannot be attained.

398. SOIL EROSION AND SEDIMENT CONTROL (SESC) PLAN:

See Appendix D for the Soil Erosion and Sediment Control (SESC) Plan for this project.

The Contractor shall take special note of the Soil Erosion and Sediment Control (SESC) plan enclosed herein. The SESC details the anticipated erosion & sediment controls required for this project. The Contractor shall be responsible for completing and submitting the final SESC prior to the start of work for approval by the RIPDES program and/or CRMC, and for subsequently updating (as needed) and working in conformance with the same for the duration of the project. All applicable sections of the SESC must be signed by the contractor and applicable subcontractors prior to issuance of the Notice to Proceed.

As part of the SESC, the Contractor must designate a SESC contact person experienced in storm water management on large construction sites, who shall be available on site throughout the duration of the project, and who shall have authority to direct contractor's personnel and/or subcontractor's personnel in carrying out corrective actions requested by the RIDEM, CRMC, the Owner, and/or its designated representative. The Contractor's designated SESC contact person must be available to oversee all SESC related activities and to accompany the Owner's representative, as requested, when inspections are performed.

The costs associated with the administration of the SESC shall be considered incidental to the work and shall not be compensated for separately. The costs of implementing elements of the SESC for which there are individual payment items (e.g. hay bales, silt fence, etc.) shall be compensated under the specific payment items in accordance with the measurement and payment section of these specifications.

399. CONSTRUCTION DURATION/ RESTRICTIONS:

All work shall be completed by Winter shutdown, and shall be made safe for pedestrians, bicyclists and motorists.

APPENDIX
ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

Appendix A Technical Specification and Measurement & Payment

Appendix B Construction Details

Appendix C Schedule of Unit Prices

Appendix D Soil Erosion and Sediment Control (SESC) Plan

Appendix E ARPA Requirements Addendum

Appendix F Detailed Plan Set

APPENDIX A:
TECHNICAL SPECIFICATIONS AND MEASUREMENT & PAYMENT

TECHNICAL SPECIFICATIONS AND MEASUREMENT & PAYMENT

ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

1. INCIDENTAL ITEMS

These items shall be included in the cost of appurtenant work as incidental to the items listed to be included in the Bid Proposal.

a. Demobilization
b. Concrete for Curb Lock
c. Temporary Pavement Markings
d. As-builts
e. All other work that is necessary to complete the work not listed as specific items

ITEM 201.0401 REMOVE AND DISPOSE GRANITE CURB

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the removal and legal disposal of granite curbing on bridge decks.

METHOD OF MEASUREMENT. “Remove and Dispose Granite Curb" will be measured (along the front face of the section at the finished grade elevation) by the number of “Linear Feet” of curbing actually removed and disposed of in accordance with the Plans and/or as specified by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Remove and Dispose Granite Curb" will be paid for at the contract unit price per “Linear Foot” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment including sawcutting, and for all incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 201.0403 REMOVE AND DISPOSE SIDEWALKS
ITEM 201.0407 REMOVE AND DISPOSE PAVEMENT AND RIGID BASE
ITEM 201.0408 REMOVE AND DISPOSE RIGID PAVEMENT
ITEM 201.0409 REMOVE AND DISPOSE FLEXIBLE PAVEMENT

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the removal and legal disposal of sidewalks, pavement and rigid base, rigid pavement, and flexible pavement.

CONSTRUCTION METHOD. All pavement, base course, subbase, sidewalks, of whatever nature designated to be removed shall be so-removed and legally disposed of. The removal and disposal of sidewalks shall include those composed of bituminous concrete, Portland cement concrete, pavers, and rigid base, if necessary. When specified, ballast, gravel, bituminous material or other surfacing or pavement materials shall be removed and stockpiled as required. Otherwise, such material shall be legally disposed of. Where the remainder of the existing pavement or sidewalks are to remain undisturbed, a clean saw cut shall be made to separate the remaining pavement from that being removed.

The Contractor shall take care excavating next to existing curbing to remain in place. Existing curbing to remain shall be safeguarded by the Contractor at no expense to the Owner after the adjacent pavement surface has been removed by installing support for the curbing. Any curbing that dislodges shall be reset by the Contractor at no expense to the Owner.

METHOD OF MEASUREMENT. “Remove and Dispose Sidewalks”, "Remove and Dispose Pavement and Rigid Base", "Remove and Dispose Rigid Pavement", and "Remove and Dispose Flexible Pavement" will be measured by the number of “Square Yards” of such material actually removed and disposed of in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantities of “Remove and Dispose Sidewalks”, "Remove and Dispose Pavement and Rigid Base", "Remove and Dispose Rigid Pavement", and "Remove and Dispose Flexible Pavement" will be paid for at their respective contract unit prices per “Square Yard” as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials, and equipment including sawcutting (especially when required to protect abutting features), and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 201.0422 REMOVE AND DISPOSE DROP INLET
ITEM 201.0429 REMOVE AND DISPOSE CURB STOP BOX
ITEM 201.0458 REMOVE AND DISPOSE PIPE PLUGS ALL SIZES

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the removal and legal disposal of catch basins, manholes, drop inlets, curb stop boxes, and pipe plugs.

CONSTRUCTION METHOD. All drop inlets, curb stop boxes, and pipe plugs designated to be removed shall be so-removed and legally disposed of. The void left by excavating and removing such structures shall be immediately backfilled, replaced with its reciprocal item, or otherwise protected to the satisfaction of the Engineer.

METHOD OF MEASUREMENT. “Remove and Dispose Drop Inlet,” “Remove and Dispose Curb Stop Box,” and “Remove and Dispose Pipe Plugs All Sizes” will be measured per “Each”, based on the actual number of such structures actually removed and disposed of in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantities of “Remove and Dispose Drop Inlet,” “Remove and Dispose Curb Stop Box,” and “Remove and Dispose Pipe Plugs All Sizes” will be paid for at their respective contract unit prices per “Each” as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials, and equipment including sawcutting, excavation, backfill for the removal of drainage structures, and compaction, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 201.0450 REMOVE AND STOCKPILE GRANITE CURB

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the removal and stockpiling of granite curbing.

CONSTRUCTION METHOD. Granite curb as located on the plans and determined by the Engineer shall be removed and stockpiled on site for reuse. Excess granite curb as determined by the Engineer of all types not to be reused on the site shall be removed and transported to the Providence DPW Highway Garage. All curbing to be salvaged shall be cleaned of debris and concrete prior to delivery. Curbing delivered to the Providence DPW Highway Garage shall be offloaded and stacked in an orderly manner.

METHOD OF MEASUREMENT. “Remove and Stockpile Granite Curb" will be measured by the number of “Linear Feet” of curbing actually removed and salvaged in accordance with the Plans and/or as specified by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Remove and Stockpile Granite Curb" will be paid for at the contract unit price per “Linear Foot” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment including sawcutting, excavation, backfill, compaction, hauling, loading and unloading, and for all incidentals required to finish the work, complete and accepted by the Engineer.

Any broken curbing that has deteriorated, at no fault to the Contractor, will not be salvaged but disposed of and paid for under the appropriate bid item.

ITEM 201.0414 REMOVE AND DISPOSE PIPE – ALL SIZES

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the removal and legal disposal of all pipe.

METHOD OF MEASUREMENT. "Remove and Dispose Pipe – All Sizes" will be measured by the number of “Linear Feet” of pipe actually removed and disposed of in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of “Remove and Dispose Pipe-All Sizes" will be paid for at the contract unit price per “Linear Foot” as listed in the Proposal. The price so- stated constitutes full and complete compensation for all labor, materials, and equipment including sawcutting, excavation, backfill, and compaction, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 201.0610 REMOVE AND DISPOSE DIRECTIONAL, WARNING, REGULATORY, SERVICE, AND STREET SIGNS

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the removal and legal disposal of directional, warning, regulatory, service and street signs.

CONSTRUCTION METHOD. All pavement, base course, subbase, sidewalks, of whatever nature designated to be removed shall also be so-removed and legally disposed of. When specified, ballast, gravel, bituminous material or other surfacing or pavement materials shall be removed and stockpiled as required. Otherwise, such material shall be legally disposed of. Where the remainder of the existing pavement or sidewalks are to remain undisturbed, a clean saw cut shall be made to separate the remaining pavement from that being removed. Removal of signs shall also include the removal and disposal of the posts, included in this item.

Where signs and posts are located outside of normal limits of work, the Contractor shall restore the pavement and sidewalk surface in-kind as part of this item. Where signs and posts are located in Portland cement concrete, the sidewalk panels shall be replaced in full panels back to the nearest joint, as approved by the Engineer.

METHOD OF MEASUREMENT. "Remove and Dispose Directional, Warning, Regulatory, Service, and Street Signs" will be measured by the number of “Each” such signs actually removed and disposed of in accordance with the Plans and/or as directed by the Engineer. Posts that have multiple signs shall be counted per post. Signs that have multiple posts shall be counted as one singular unit. Signs on a post that is not to be removed, shall also be counted as one singular unit.

BASIS OF PAYMENT. The accepted quantity of "Remove and Dispose Directional, Warning, Regulatory, Service, and Street Signs" will be paid for at the contract unit price per “Each” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment including sawcutting, excavation, backfill, compaction, installation of concrete, bituminous concrete, and pavers where necessary, removal of all posts, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 201.9901 REMOVE AND SALVAGE FRAME AND GRATE OR FRAME AND COVER

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the removal and stockpiling of frames and grates and/or frames and covers.

CONSTRUCTION METHOD. All frame and grates and/or frame and covers designated to be removed shall be so-removed, cleaned, transported, and stockpiled at the Providence DPW Sewer Garage at 700 Allens Avenue. All frame and grates and/or frame and covers shall be cleaned of debris and concrete prior to delivery. All delivered shall be offloaded and stacked in an orderly manner. The void left by excavating and removing such structures shall be immediately backfilled, replaced with its reciprocal item, or otherwise protected to the satisfaction of the Engineer. Any damage caused to the frame and grates and/or frame and covers shall be borne by the Contractor and shall be replaced at the Contractor’s expense.

All improvements, equipment, and existing surfaces disturbed, damaged or removed in the performance of this item of work, unless indicated on the Plans, shall be replaced to the satisfaction of the Engineer at no expense to the Owner.

METHOD OF MEASUREMENT. "Remove and Salvage Frame and Grate or Frame and Cover," will be measured per "Each", based on the actual number of such structures actually removed and salvaged in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Remove and Salvage Frame and Grate or Frame and Cover," will be paid for at the contract unit price per "Each" as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment including sawcutting, excavation, backfill for the removal of drainage structures, compaction, removal, cleaning, transportation, handling, hauling, loading/unloading, stockpiling at the Providence DPW, coordination and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 201.9902 REMOVE, STOCKPILE AND/OR RESET BRICK, CONCRETE, GRANITE PAVER SIDEWALK

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the removal, stockpile, and resetting of brick, concrete, and granite pavers, as well as the installation of new brick and concrete paver sidewalks as shown in the Plans.

MATERIALS.
Pavers: New pavers shall conform to the requirements of ASTM C902, Class SX, Type I, Application PX. Pavers shall match the size, composition, material, color, and finish of the (predominant) existing pavers within the sidewalk being repaired or installed new, shall match the adjacent sidewalk, as directed and approved by the Engineer. The new pavers shall be the best compatible match to the existing/adjacent brick pavers, as approved by the Engineer.

Sample Review/Approval Procedure: The Contractor shall submit three (3) or more sets of samples (1 each from different batches that will provide the best match) of the pavers to the Engineer for review. The submitted samples shall demonstrate the final color, size, shape, texture, and finish that will be required on the project. The Engineer, in consultation with the City of Providence Department of Planning & Development and the Department of Public Works, will select/approve the most compatible of the samples. If none of the samples submitted are acceptable, the Contractor will be required to submit additional samples until acceptable samples are provided.

Delivery, Storage, and Handling: All materials for the work of this section shall be shipped, delivered, stored, handled, and set to prevent breakage, theft, contamination, or other damage. Manufactured materials shall be delivered and stored in their original containers, plainly marked with product and manufacturer's name.

Pavers with chips, cracking voids, or other defects shall not be used.

Portland Cement Concrete: Provide concrete subbase in accordance with Sections 501 and 601 of the RIDOT Standard Specifications for Road and Bridge Construction, latest edition. Thickness shall be four (4) inches for sidewalks and mid-block curb ramps, and eight (8) inches for driveways, crosswalks, commercial driveways, and curb ramps at corners. In instances where reset pavers are being reset on sidewalks in 4" of concrete, welded wire fabric 6x6 – W8.1xW8.1 shall be placed into the concrete subbase. Welded wire fabric 6x6-W8.1xW8.1 shall conform to Section M05.02.01 Wire Fabric. All welded wire fabric sheets shall be overlapped by at least one aperture. In instances where reset pavers are being reset on roadways in 8" of concrete, 2 layers of #4 reinforcing bar @12" O.C. both ways shall be placed into the concrete subbase. 2 layers of #4 reinforcing bar @ 12" O.C. Concrete and steel reinforcing shall conform to Section M.02 Portland cement concrete Section M.05. Metals. Top surfaces of slabs to receive reset pavers or brick to be screed finished. Core drill slab at 5 feet O.C. (2-inch diameter). Fill core with pea stone or an equally free draining material. Cover core holes with 12" x 12" filter fabric squares. All steel reinforcing shall be in accordance with section 810 of the standard specifications unless otherwise noted. All reinforcing

steel shall be ASTM a 615, grade 60. All reinforcing steel shall be galvanized. all wire ties and miscellaneous hardware used for the placement of galvanized reinforcing shall also be galvanized. galvanized coating for reinforcing steel shall conform to ASTM a767 class 1.

Setting Bed: Pavers shall be set on one (1.5) inch maximum of stonedust for sidewalks or a (1") bitumen sand setting bed for vehicular travel areas. Refer to M.01 table 1 and table 2.

Edge Restraints: Shall match existing, if applicable. If there are no existing edge restraints, the new edge restraints shall be made from steel. The edge restraints shall be powder coated black.

CONSTRUCTION METHODS. Construction methods shall conform to the applicable paragraphs of Subsection 905.03 of the RIDOT Standard Specifications for Road and Bridge Construction, latest edition, and the following additions.

Bricks and pavers to be salvaged shall be accomplished by using hand tools and light power equipment only. Pavement breakers, saws, and backhoes shall not be used for this operation. Any damage caused by careless excavation deemed so by the Engineer shall be replaced by the Contractor at its own expense. No machinery shall be put on top of the existing or new paver sidewalks.

Any sidewalks that consist of brick or pavers shall be excavated with care so that the materials are not damaged and may be reset. The Contractor shall remove and dispose of any broken or damaged pavers rejected by the Engineer and is considered incidental to the respective item. Care must be taken while removing and storing the existing pavers. The Contractor shall protect removed pavers from damage and store them in a safe manner. The stockpile location is to be an approved area as directed by the Engineer. Pavers not to be reused on the site shall be removed and transported to the Providence DPW Highway Garage. Existing pavers specified for reuse, or to be reserved for the Owner, which are disturbed, damaged, or removed in performing the work, shall be repaired or replaced with equivalent, new equipment and materials acceptable to the Engineer, at no expense to the Owner.

Any damage caused by excavation of a sidewalk shall be the sole responsibility of the Contractor. Care shall be taken when excavating any sidewalk or objects as to no disturb existing buildings, foundations, utilities, or any other existing structure etc.

The existing base/subbase shall be excavated to the depth required for placement of the concrete base..

After the approved gravel base has been thoroughly compacted and well graded, forms shall be placed such that wet concrete shall not be placed directly against loam, fencing, plants, or stones. Forms shall be of sufficient strength to hold their shape and to assure true alignment of the finished concrete. They shall extend to the full depth of the concrete. Forms shall be placed such that the pitch from the curb to the back of sidewalk is compliant and matches that of the slope of the proposed finished grade. Expansion joints are required at regular intervals, every 20 feet, and whenever the sidewalk meets another walk, driveway, lighting standard, or other rigid object. Expansion joints shall be 1/2-inch thick and of a pre-molded, bituminous-coated type, placed parallel to the contraction joints. They shall extend to the full depth of the concrete. l be placed such that the ramp meets all Federal, State, and local ADA requirements.

The Contractor shall be responsible for maintaining new concrete work and shall insure that no defects, markings, or damage by vandals or animals occurs. It shall be the responsibility of the Contractor to replace any damaged portions of the work at its own expense.

The Contractor shall provide all necessary temporary structures to insure easy accessibility to residences and businesses in all areas of his work. They shall provide lighted barricades at all hazardous locations and as directed by the Engineer.

Forms shall be removed in such a manner as to insure the new concrete against damage or injury. At no time will the forms be removed within 24 hours after placing of concrete, or not until the concrete has sufficiently hardened to prevent injury, whichever is greater. The Contractor shall fill voids left by the removal of the forms that were required to construct the new sidewalks and curb ramps with loam and seed.

For concrete and/or brick/Belgian block constructed within the vehicular travel way or driveway, a minimum of 24 hours curing time (from the last constructed) shall be required before vehicular use. The Contractor shall provide all signs, cones, and barricades necessary to protect the concrete. The Contractor shall notify Property owners or residents at least 24 hours prior to disturbing driveways.

After the concrete base has been poured and cured properly, the paver shall then be reset upon the concrete base. New pavers shall be mixed with salvaged pavers to disperse color deviation. All pavers are to be set on a one (1) inch bed of stone dust in a tight fitting, linear running bond pattern (or a pattern to match the existing sidewalk or abutting sidewalks), and any segments of pavers shall be cut in an approved manner. No gaps wider than ¼" shall be permitted between pavers or, where they meet curb, foundations, walls, other sidewalks, or utility structures. Where there is no such hard surface to contain the pavers, Exposed edges of pavers (i.e. adjacent to grass areas, crushed stone areas, etc.) shall be set on an edge restraint, which shall be installed and secured in accordance with the edging manufacturer's instructions. Any pavers that have a protective coating (wax or other) shall be completely power washed off. Stone dust shall be swept into all brick joints to completely fill all voids. The process shall be repeated until all joints are full. All brickwork shall be compacted with vibratory equipment on top of a stone dust protective layer that shall be removed after completion of compaction.

Special attention must be paid to attaining proper compaction of the materials beneath the pavers. The final surface created by the pavers must be uniform in height and have a change in level of less than one eighth of an inch (1/8"). All pavers found to exceed these tolerances shall be reset to the satisfaction of the Engineer.

The Contractor shall protect the sidewalks for the duration of the Contract. Any damage to adjacent properties, buildings, sidewalk, or lawn resulting from the Contractor's operations shall be repaired to the satisfaction of the Engineer at the Contractor's expense.

METHOD OF MEASUREMENT. "Remove, Stockpile, and Reset Brick, Concrete, and Granite Pavers," "Concrete Paver Sidewalk," and "Brick Sidewalk," as specified in this section will be measured by the number of "Square Yards" as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials and equipment, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Remove, Stockpile, and Reset Brick, Concrete, and Granite Pavers," "Concrete Paver Sidewalk," and "Brick Sidewalk" will be paid for at the contract unit price per "Square Yard" as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including furnishing and installing new pavers, sawcutting, excavation with tools, hand tools, and light machinery, as well as legal disposal, mechanical compaction, setting forms, placing Portland cement concrete, welded wire fabric, form removal and backfilling, core cutting, placing of peastone and filter fabric, concrete sand setting bed or bitumen sand setting bed, setting the pavers, filling the joints, installing edge restraints, water and clean-up, handling, hauling, loading and unloading, stockpiling in a safe manner and location, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

Any pavers damaged during the removal, stockpiling, or resetting process shall be replaced in kind at the Contractor's expense. Any bricks deemed unacceptable for reuse as determined by the Engineer shall be replaced in kind and be paid for under associated items.

Portland cement concrete setting bed will be paid for under these contract item(s).

ITEM 905.9904 CONCRETE PAVER SIDEWALK
ITEM 905.9905 BRICK SIDEWALK

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the installation of new concrete paver sidewalks and new brick sidewalks as shown in the Plans.

MATERIALS.
Pavers: New pavers shall conform to the requirements of ASTM C902, Class SX, Type I, Application PX. Pavers shall match the size, composition, material, color, and finish of the (predominant) existing pavers within the sidewalk being repaired or installed new, shall match the adjacent sidewalk, as directed and approved by the Engineer. The new pavers shall be the best compatible match to the existing/adjacent brick pavers, as approved by the Engineer.

Sample Review/Approval Procedure: The Contractor shall submit three (3) or more sets of samples (1 each from different batches that will provide the best match) of the pavers to the Engineer for review. The submitted samples shall demonstrate the final color, size, shape, texture, and finish that will be required on the project. The Engineer, in consultation with the City of Providence Department of Planning & Development and the Department of Public Works, will select/approve the most compatible of the samples. If none of the samples submitted are acceptable, the Contractor will be required to submit additional samples until acceptable samples are provided.

Delivery, Storage, and Handling: All materials for the work of this section shall be shipped, delivered, stored, handled, and set to prevent breakage, theft, contamination, or other damage. Manufactured materials shall be delivered and stored in their original containers, plainly marked with product and manufacturer's name.

Pavers with chips, cracking voids, or other defects shall not be used.

Portland Cement Concrete: Portland cement concrete shall be Class XX (AE) (4,000 psi) and shall conform to the requirements as set forth in Subsections 601.01.1; Classification, and 601.03.1; Proportioning, of the Standard Specifications, and the applicable requirements of SECTION M.02, PORTLAND CEMENT CONCRETE of the Standard Specifications.

Portland cement concrete shall meet the general requirements of Subsection M02.01.1 of the RIDOT Standard Specifications for Road and Bridge Construction, latest edition, with all revisions, shall conform both to the chemical and physical requirements of AASHTO M85 and be listed on the Department's Approved Materials List.

Concrete Subbase: Provide concrete subbase in accordance with Sections 501 and 601 of the RIDOT Standard Specifications for Road and Bridge Construction, latest edition. Thickness shall be four (4) inches for sidewalks and mid-block curb ramps, and eight (8) inches for driveways, crosswalks, commercial driveways, and curb ramps at corners. In instances where reset pavers are being reset on sidewalks in 4" of concrete, welded wire fabric 6x6 – W8.1xW8.1 shall be placed into the concrete subbase. Welded wire fabric 6x6-W8.1xW8.1 shall conform to Section M05.02.01 Wire Fabric. All welded wire fabric sheets shall be overlapped by at least one aperture. In instances where reset pavers are being reset on roadways in 8" of concrete, 2 layers of #4 reinforcing bar @12" O.C. both ways shall be placed into the concrete subbase. 2 layers of #4 reinforcing bar @ 12" O.C. Concrete and steel reinforcing shall conform to Section M.02 Portland cement concrete Section M.05. Metals. Top surfaces of slabs to receive reset pavers or brick to be screed finished. Core drill slab at 5 feet O.C. (2-inch diameter). Fill core with pea stone or an equally free draining material. Cover core holes with 12" x 12" filter fabric squares. All steel reinforcing shall be in accordance with section 810 of the standard specifications unless otherwise noted. All reinforcing steel shall be ASTM a 615, grade 60. All reinforcing steel shall be galvanized. all wire ties and miscellaneous hardware used for the placement of galvanized reinforcing shall also be galvanized. galvanized coating for reinforcing steel shall conform to ASTM a767 class 1.

Setting Bed: Pavers shall be set on one (1.5) inch maximum of stonedust for sidewalks or a (1") bitumen sand setting bed for vehicular travel areas. Refer to M.01 table 1 and table 2.

Edge Restraints: Shall match existing, if applicable. If there are no existing edge restraints, the new edge restraints shall be made from steel. The edge restraints shall be powder coated black.

CONSTRUCTION METHODS. Construction methods shall conform to the applicable paragraphs of Subsection 905.03 of the RIDOT Standard Specifications for Road and Bridge Construction, latest edition, and the following additions.

Bricks and pavers to be salvaged shall be accomplished by using hand tools and light power equipment only. Pavement breakers, saws, and backhoes shall not be used for this operation. Any damage caused by careless excavation deemed so by the Engineer shall be replaced by the Contractor at its own expense. No machinery shall be put on top of the existing or new paver sidewalks.

Any sidewalks that consist of brick or pavers shall be excavated with care so that the materials are not damaged and may be reset. The Contractor shall remove and dispose of any broken or damaged pavers rejected by the Engineer and is considered incidental to the respective item. Care must be taken while removing and storing the existing pavers. The Contractor shall protect removed pavers from damage and store them in a safe manner. The stockpile location is to be an approved area as directed by the Engineer. Pavers not to be reused on the site shall be removed and transported to the Providence DPW Highway Garage. Existing pavers specified for reuse, or to be reserved for the Owner, which are disturbed, damaged, or removed in performing the work, shall be repaired or replaced with equivalent, new equipment and materials acceptable to the Engineer, at no expense to the Owner.

Any damage caused by excavation of a sidewalk shall be the sole responsibility of the Contractor. Care shall be taken when excavating any sidewalk or objects as to no disturb existing buildings, foundations, utilities, or any other existing structure etc.

The existing base/subbase shall be excavated to the depth required for placement of the concrete base.

After the approved gravel base has been thoroughly compacted and well graded, forms shall be placed such that wet concrete shall not be placed directly against loam, fencing, plants, or stones. Forms shall be of sufficient strength to hold their shape and to assure true alignment of the finished concrete. They shall extend to the full depth of the concrete. Forms shall be placed such that the pitch from the curb to the back of sidewalk is compliant and matches that of the slope of the proposed finished grade. Forms shall Expansion joints are required at regular intervals, every 20 feet, and whenever the sidewalk meets another walk, driveway, lighting standard, or other rigid object. Expansion joints shall be 1/2-inch thick and of a pre-molded, bituminous-coated type, placed parallel to the contraction joints. They shall extend to the full depth of the concrete. l be placed such that the ramp meets all Federal, State, and local ADA requirements.

The Contractor shall be responsible for maintaining new concrete work and shall insure that no defects, markings, or damage by vandals or animals occurs. It shall be the responsibility of the Contractor to replace any damaged portions of the work at its own expense.

The Contractor shall provide all necessary temporary structures to insure easy accessibility to residences and businesses in all areas of his work. They shall provide lighted barricades at all hazardous locations and as directed by the Engineer.

Forms shall be removed in such a manner as to insure the new concrete against damage or injury. At no time will the forms be removed within 24 hours after placing of concrete, or not until the concrete has sufficiently hardened to prevent injury, whichever is greater. The Contractor shall fill voids left by the removal of the forms that were required to construct the new sidewalks and curb ramps with loam and seed.

For concrete and/or brick/Belgian block constructed within the vehicular travel way or driveway, a minimum of 24 hours curing time (from the last constructed) shall be required before vehicular use. The Contractor shall provide all signs, cones, and barricades necessary to protect the concrete. The Contractor shall notify Property owners or residents at least 24 hours prior to disturbing driveways.

After the concrete base has been poured and cured properly, the paver shall then be reset upon the concrete base. New pavers shall be mixed with salvaged pavers to disperse color deviation. All pavers are to be set on a one (1) inch bed of stone dust in a tight fitting, linear running bond pattern (or a pattern to match the existing sidewalk or abutting sidewalks), and any segments of pavers shall be cut in an approved manner. No gaps wider than ¼" shall be permitted between pavers or, where they meet curb, foundations, walls, other sidewalks, or utility structures. Where there is no such hard surface to contain the pavers, Exposed edges of pavers (i.e. adjacent to grass areas, crushed stone areas, etc.) shall be set on an edge restraint, which shall be installed and secured in accordance with the edging manufacturer's instructions. Any pavers that have a protective coating (wax or other) shall be completely power washed off. Stone dust

shall be swept into all brick joints to completely fill all voids. The process shall be repeated until all joints are full. All brickwork shall be compacted with vibratory equipment on top of a stone dust protective layer that shall be removed after completion of compaction.

Special attention must be paid to attaining proper compaction of the materials beneath the pavers. The final surface created by the pavers must be uniform in height and have a change in level of less than one eighth of an inch (1/8”). All pavers found to exceed these tolerances shall be reset to the satisfaction of the Engineer.

The Contractor shall protect the sidewalks for the duration of the Contract. Any damage to adjacent properties, buildings, sidewalk, or lawn resulting from the Contractor’s operations shall be repaired to the satisfaction of the Engineer at the Contractor’s expense.

METHOD OF MEASUREMENT. " Concrete Paver Sidewalk,” as specified in this section will be measured by the number of “Square Yards” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials and equipment, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Remove, Stockpile, and Reset Brick, Concrete, and Granite Pavers," “Concrete Paver Sidewalk,” and “Brick Sidewalk” will be paid for at the contract unit price per “Square Yard” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including furnishing and installing new pavers, excavation with tools, hand tools, and light machinery, as well as legal disposal, mechanical compaction, setting forms, placing Portland cement concrete, welded wire fabric, form removal and backfilling, core cutting, placing of peastone and filter fabric, concrete sand setting bed or bitumen sand setting bed, setting the pavers, filling the joints, installing edge restraints, water and clean-up, handling, hauling, loading and unloading, stockpiling in a safe manner and location, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

Any pavers damaged during the removal, stockpiling, or resetting process shall be replaced in kind at the Contractor’s expense. Any bricks deemed unacceptable for reuse as determined by the Engineer shall be replaced in kind and be paid for under associated items.

Portland cement concrete setting bed will be paid for under these contract item(s).

ITEM 201.9903 REMOVE AND RESET TRASH RECEPTACLE

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the removal and resetting of trash, rubbish, and/or recycling receptacles.

CONSTRUCTION METHODS. All receptacles shall be removed, stockpiled on site in an area away from construction activity, and reset when construction is complete in areas as shown on the Plans, or as directed by the Engineer. The stockpile location is to be an approved area for the storage or as directed by the Engineer. Any damage caused to the receptacles shall be borne by the Contractor and shall be replaced at the Contractor’s expense.

METHOD OF MEASUREMENT. "Remove and Reset Trash Receptacle" as specified in this section will be measured by “Each” such unit removed and reset in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Remove and Reset Trash Receptacle" will be paid for at the contract unit price per “Each” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment including handling, hauling, loading and unloading, the safe guard and protection of the receptacles, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 202.0100 EARTH EXCAVATION
ITEM 202.0201 ROCK EXCAVATION MECHANICAL
ITEM 202.0300 UNCLASSIFIED EXCAVATION

DESCRIPTION. The work under this item shall conform to the requirements of Section 202 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of earth, rock, and unclassified excavation.

CONSTRUCTION METHOD. The Contractor shall remove all soil, rock, and other material and utilize or dispose of these materials as required by the Plans and the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition.

METHOD OF MEASUREMENT. The types of excavation specified in this Section will be measured on a volume basis as computed from the area in its original position. "Earth Excavation", “Rock Excavation Mechanical”, and “Unclassified Excavation” as specified in this section will be measured by the number of “Cubic Yards” of such material actually removed and disposed of in accordance with the Plans and/or as directed by the Engineer. “Earth Excavation" shall include all excavation not included in other pavement and sidewalk items as shown in the Plans and Specifications. “Rock Excavation Mechanical” shall represent the difference between the cost of rock excavation and disposal and the cost of the earth excavation and disposal that would have taken place as shown in the plans. “Unclassified Excavation” shall include all excavation not included in other items or beyond the depth of excavation as shown in the Plans and Specifications.

BASIS OF PAYMENT. The accepted quantities of "Earth Excavation,” "Rock Excavation - Mechanical,” and "Unclassified Excavation" will be paid for at their respective contract unit prices per “Cubic Yard” as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials, and equipment, including excavation within the prescribed limits of the work, formation of embankments, grading, compaction, disposal of surplus materials, preparation of subgrade and shoulders, and all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 202.0450 UNSUITABLE SOILS

DESCRIPTION. The work under this item shall conform to the requirements of Section 202 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the removal and legal disposal of unsuitable soils.

CONSTRUCTION METHOD. The Contractor shall remove all soil and other material dispose of these materials as required by the Plans and the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition.

Voids created by the excavation and disposal of unsuitable soils shall be backfilled with common borrow in sidewalk areas and gravel borrow in roadway areas and will be paid for separately under their respective items.

METHOD OF MEASUREMENT. "Unsuitable Soils" as specified in this section will be measured by the number of “Cubic Yards” of such soil actually removed and disposed of in accordance with the Plans and/or as directed by the Engineer. “Unsuitable Soils” shall include all excavation beyond the depth of normal excavation as shown in the Plans and Specifications, when directed by the Engineer to remove such soils deemed unsuitable by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Unsuitable Soils" will be paid for at the contract unit price per “Cubic Yard” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 202.0800 GRAVEL BORROW

DESCRIPTION. The work under this item shall conform to the requirements of Section 201 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of filling excavated areas with common or gravel borrow.

CONSTRUCTION METHOD. The surface shall then be neatly graded. Backfill shall be compacted to 95 percent of maximum density as determined by AASHTO T180. No separate payment will be made for this work.

METHOD OF MEASUREMENT. "Common Borrow" and “Gravel Borrow” as specified in this section will be measured by the number of “Cubic Yards” actually placed and compacted in accordance with the Plans and/or as directed by the Engineer. “Common Borrow” shall be used in sidewalk areas and “Gravel Borrow” shall be used in roadway areas to fill voids beyond the normal depth of excavation.

BASIS OF PAYMENT. The accepted quantities of "Common Borrow" and “Gravel Borrow” will be paid for at their respective contract unit prices per “Cubic Yard” as listed in the Proposal. The prices so-stated constitutes full and complete compensation for all labor, materials, and equipment, including stockpiling, hauling, placing, compaction, and all incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 204.0100 TRIMMING AND FINE GRADING

DESCRIPTION. The work under this item shall conform to the requirements of Section 204 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of the trimming and fine grading of all shoulders, ditches, side slopes, sidewalks, and subgrade whether in excavation or embankment. In the case of the subgrade surface, the work also includes the compaction of the surface upon which the pavement structure shall be placed. All such work shall be to the dimensions and details indicated on the Plans or as directed by the Engineer.

CONSTRUCTION METHOD. The subgrade upon which the pavement structure and sidewalk are placed shall be graded and compacted to 95 percent of maximum density

METHOD OF MEASUREMENT. "Trimming and Fine Grading" will be measured by the number of “Square Yards” actually graded in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Trimming and Fine Grading" will be paid for at the contract unit price per “Square Yard” as listed on the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials and equipment and all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 206.9901 INLET SEDIMENT CONTROL DEVICE

DESCRIPTION. The work under this item shall conform to the requirements of Section 206 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. Work under this item includes the furnishing, installation, maintenance, and removal of a reusable fabric sack to be installed in drainage structures for the protection of wetlands and other resource areas and the prevention of silt and sediment from the construction site from entering the storm water collection system.

MATERIALS. The fabric sack shall be a material suitable for erosion control applications and shall be included on the Department’s Approved Materials List or be an approved equivalent. To be approved, proposed equivalents must include the following: a method for securing the device in place, interior handles

for use in removing the device for cleaning, and a permanent marking which indicates the level of sediment accumulation at which cleaning is required.

CONSTRUCTION METHOD.

a. Installation. Inlet Sediment Control Devices shall be installed in catch basins with drop inlets within the project limits and where required by the Engineer.

The device shall be manufactured to fit the opening of the drainage structure under regular flow conditions, and shall be mounted under the grate. The insert sack shall be secured from the surface such that the grate can be removed without the insert discharging into the structure. The sack (filter material) shall be installed, secured, maintained, and removed in accordance with the manufacturer's written instructions and as directed by the Engineer.

Devices shall remain in place until surface borne sediment has been stabilized after completion of final pavement and sidewalk placement, and the adjacent graded areas have become permanently stabilized by vegetative growth, and/or as directed by the Engineer. Devices shall be removed for the period of winter shutdown, provided that the contributing area has been temporarily stabilized to control/prevent alluvial flow. In areas where the devices remain in place during winter shutdown, the contractor is responsible for maintaining them in accordance with this specification, the manufacturer's written instructions, permit requirements, and project specific plan for soil erosion, sediment control and stormwater pollution prevention during the winter shutdown. Following the winter shutdown, the devices shall be reinstalled in accordance with this specification prior to resuming work. Where the devices remain in place during the winter, they shall be removed when the daily temperature is forecast to be at or below freezing.

The Contractor shall inspect the condition of the sacks after each rainstorm of greater than 0.25" as measured by the rain gauge selected for the project in the plan for soil erosion, sediment control and stormwater pollution prevention, or as measured at T.F. Green Airport if the project does not have another gauge selected, and during major rain events. Sacks shall be cleaned periodically, according to manufacturer's written instructions, to remove and legally dispose accumulated material as required. Sacks that become damaged, including damage to the handle(s) required for removing the sack from the basin, during construction operations shall be repaired or replaced immediately at no additional cost or time to the Owner.

When emptying the sack, the Contractor shall ensure the captured material does not enter the structure. Silt and other debris found in the drainage system at the end of construction shall be removed at the Contractor's expense. The silt and sediment from the sack shall be legally disposed of offsite. Under no condition shall silt and sediment from the insert be deposited on site or used in construction. All curb inlets shall be blocked to prevent stormwater from bypassing the device.

b. Removal. Inlet Sediment Control Devices, including all silt and debris, shall be removed in their entirety at the conclusion of the project or when the phase of the project upstream has been completed, as directed or approved by the Engineer and in accordance with the applicable provisions of Section 212 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition.

METHOD OF MEASUREMENT. "Inlet Sediment Control Device" will be measured by the number of units per "Each" actually furnished, installed, maintained and removed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Inlet Sediment Control Device" will be paid for at the contract unit price per "Each" as listed in the Proposal. The price so-stated constitutes full and complete compensation for all materials, labor and equipment, and all incidental costs required to complete the work, complete and accepted by the Engineer.

Payment for removal and disposal of the sediment from the insert will be made under the "Cleaning and Maintenance of Erosion Controls" bid item.

ITEM 212.2000 CLEANING AND MAINTENANCE OF EROSION CONTROLS

DESCRIPTION. The work under this item shall conform to the requirements of Section 212 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of cleaning and maintaining erosion controls. Maintenance consists of the repair and restoration to original configuration of damage sustained by erosion and pollution controls caused by "normal" rainfall events.

FAILURE TO COMPLY: Subsection 212.03.3; Failure to Maintain Erosion and Pollution Controls, of the Standard Specifications, requires that a daily charge be deducted from monies due the Contractor in the event the Engineer decides that erosion and pollution controls are not in place or have not been adequately maintained.

The City is under a Consent Decree with the RIDEM regarding stormwater discharges and management. Failure to maintain erosion and pollution controls may bring upon financial fines by the RIDEM. If the Contractor causes this fine, the Contractor will be responsible to pay the RIDEM.

The charge for this Contract is $500.00 per day. Furthermore, the Contractor will be required to clean the drainage structures that were not protected at no additional cost to the Owner.

CONSTRUCTION METHOD. Erosion and pollution controls shall be maintained by the Contractor to the satisfaction of the Engineer. Erosion and pollution controls must be able to prevent, under normal weather conditions, both the movement of soil materials and the intrusion of sediment-laden discharges into environmentally sensitive areas.

Construction shall not commence or continue until all specified erosion and pollution controls are in place, properly installed and accepted by the Engineer.

Erosion and pollution controls shall be routinely inspected by the Engineer. The Engineer shall immediately notify and direct the Contractor to take corrective action and make all necessary repairs whenever maintenance of the erosion and pollution controls is required. The Contractor shall commence with the requisite cleaning and maintenance measures no later than the next consecutive calendar day after receiving such a directive from the Engineer, and shall aggressively and expeditiously perform such cleaning and maintenance work until the original problem is remedied to the complete satisfaction of the Engineer. In the event of a holiday or weekend storm event, the Contractor must have resources available to restore and, if necessary, to replace any damaged erosion controls.

METHOD OF MEASUREMENT. "Cleaning and Maintenance of Erosion Controls" will be paid for at the contract unit price per “Lump Sum” for this project.

BASIS OF PAYMENT. The accepted quantity of "Cleaning and Maintenance of Erosion Controls" will be paid for at the contract “Lump Sum” price as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment for maintaining and cleaning any and all of the controls so designated, complete and accepted by the Engineer.

ITEM 301.0300 CRUSHED STONE BASE COURSE

DESCRIPTION. The work under this item shall conform to the requirements of Section 301 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of furnishing and installing crushed stone (1/2”-3/4” angular stone) base course.

MATERIALS. Crushed stone shall meet the requirements of Subsection M.01.09; Gradation of Aggregates, Table I, Column II prior to its final placement on the Project. The practice of culling deleterious or out of specification material after placement and/or grading in-place will not be allowed.

CONSTRUCTION METHOD. The surface shall be neatly graded. Backfill shall be compacted to 95 percent of maximum density as determined by AASHTO T180. No separate payment will be made for this work.

METHOD OF MEASUREMENT. "Crushed Stone Base Course" will be measured by the number of “Cubic Yards” actually placed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Crushed Stone Base Course" will be paid for at the contract unit price per “Cubic Yard” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, and all incidentals, including trimming and fine grading required to finish the work, complete and accepted by the Engineer.

ITEM 302.0100 GRAVEL BORROW SUBBASE COURSE

DESCRIPTION. The work under this item shall conform to the requirements of Section 302 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of furnishing and installing gravel borrow subbase course.

MATERIALS. Gravel Borrow shall meet the requirements of Subsection M.01.09; Gradation of Aggregates, Table I, Column I prior to its final placement on the Project. The practice of culling deleterious or out of specification material after placement and/or grading in-place will not be allowed.

CONSTRUCTION METHOD. The surface shall be neatly graded. Backfill shall be compacted to 95 percent of maximum density as determined by AASHTO T180. No separate payment will be made for this work.

METHOD OF MEASUREMENT. "Gravel Borrow Subbase Course" will be measured by the number of “Cubic Yards” actually placed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Gravel Borrow Subbase Course" will be paid for at the contract unit price per “Cubic Yard” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, and all incidentals, including trimming and fine grading required to finish the work, complete and accepted by the Engineer.

ITEM 401.3000 CLASS 9.5 HMA
ITEM 401.2100 MODIFIED CLASS 12.5 HMA

DESCRIPTION. The work under this item shall conform to the requirements of Section 401 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of HMA paving.

FAILURE TO COMPLY. In the event that the Engineer determines that the bituminous concrete surface course has not been completely constructed within 14 calendar days from the date of pavement patch excavation, a daily charge will be deducted from monies due the Contractor.

The charge for this Contract will be $500.00 per day, per location that the Contractor is not in Compliance with this specification.

CONSTRUCTION METHOD.

HMA Mixing Plant. Mixing plants shall be of sufficient capacity and coordinated to adequately handle the proposed production of HMA. The storage yard shall be maintained neat and orderly and the separate stockpiles shall be readily accessible for sampling.

a. Requirements for All Plants.

1. Equipment for Preparation of PGAB. Tanks provided for the storage of PGAB shall be equipped to heat and hold the material at the required temperatures. The heating shall be accomplished by steam coils, electricity, or other approved means such that no flame shall be in contact with the tank. The

circulating system for the PGAB shall be designed to assure proper and continuous circulation during the operating period. Provision shall be made for measuring storage tanks. An adequate sampling valve shall be provided to ensure the safe and proper sampling of the PGAB.

2. Cold Feed Bins. The plant shall include no fewer than three (3) storage bins of sufficient capacity to supply the mixer when it is operating at full capacity. Bins shall be arranged to assure separate and adequate storage of appropriate fractions of the mineral aggregates without contaminations. They shall also be so constructed that samples can be readily obtained. Separate dry storage shall be provided for filler or hydrated lime when used and the plant shall be equipped to feed such material into the mixer.

3. Cold Aggregate Feeder. The plant shall be provided with accurate mechanical means for uniformly feeding the aggregate into the drier so that uniform production and temperature will be obtained.

4. Drier. The plant shall include a drier or driers that continuously agitate the aggregate during the heating and drying process.

5. PGAB Control Unit. Satisfactory means, either by weighing or by metering, shall be provided to obtain the proper amount of PGAB in the mix within the tolerance specified. Means shall be provided for checking the quantity or rate of flow of PGAB into the mixer.

6. Thermometric Equipment. An armored thermometer of adequate range in temperature reading shall be fixed in the PGAB feed line at a suitable location near the charging valve at the mixer unit.

The plant shall also be equipped with either an approved dial-scale, mercury-actuated thermometer, an electric pyrometer, or other approved thermometric instrument so placed at the discharge chute of the drier as to register automatically the temperature of the exiting material.

The Engineer may require replacement of any malfunctioning or inconsistent thermometer by an approved temperature sensing and recording apparatus for better regulation of the temperature of the material.

7. Dust Collector. The plant shall be equipped with a dust collector constructed to waste or return uniformly all or any part of the material collected as directed.

8. Truck Scales. When required, the HMA shall be weighed on approved scales furnished by the Contractor or on public scales at the Contractor's expense. Such scales shall be tested at least every 60 days or whenever the Engineer deems necessary to assure their accuracy.

9. Scales. Scales shall be so located as to be easily readable from the operator's normal workstation; otherwise, a remote readout shall be supplied.

All plant scales, including truck scales, shall be certified at the expense of the Contractor by a competent and experienced scales technician as follows:

(a) Annually prior to use in State work.

(b) At intervals of not more than 60 calendar days.

(c) At any time ordered by the Engineer.

10. Safety Requirements. Adequate and safe access to sampling points shall be provided. Guarded ladders to other plant units shall be placed at all points where accessibility to plant operations is required. Accessibility to the top of truck bodies shall be provided by a platform or other suitable device, placed in an acceptable location near the testing laboratory, to enable the Engineer to obtain samples and mixture temperature data. All gears, pulleys, chains, sprockets, and other dangerous moving parts shall be thoroughly guarded and protected. A clear, clean, and unobstructed passage shall be maintained at all times in and around the truck loading area.

11. HMA Holding Bin. HMA may be stored in surge and storage systems designed for that purpose. Each surge and storage system must meet the requirements of AASHTO M156, unless otherwise permitted by the Engineer, and may be inspected by the Department to determine acceptance at specific holding times. Acceptance shall be based upon the ability of the holding bin to hold and discharge mixtures within the quality criteria specified by the mix design and the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition.

b. Requirements for Batching Plants.

1. Automatic Proportioning. The plant shall be equipped with automatic proportioning devices. Such devices shall include equipment for accurately proportioning the various components of the mixture by weight in the proper sequence. PGAB and aggregates shall be proportioned by weight. Additives, if required, may be proportioned by volume or weight. The plant shall be equipped to automatically control the sequence and timing of mixing operations. There shall be auxiliary interlock cutoff circuits to interrupt and stop the automatic cycling of the batching operations at any time an error in weighing occurs, when an aggregate bin becomes empty, or when there is a malfunction of any portion of the control system.

2. Recording Equipment. The plant shall be equipped with a digital recorder that will automatically print the following data on delivery tickets:

(a) Batch weights of each size aggregate. Weights printed may be individual or cumulative.

(b) Total weight of aggregates in batch. The weight printed for the last aggregate batched shall be the total weight of aggregates in the batch when cumulative weights are used.

(c) Weight of PGAB in batch.

(d) Weight of total batch.

(e) Total weight of batches in truck.

(f) Total weight of PGAB in all batches in truck.

(g) Date mixed.

(h) The time each batch or load began or the time each was completed.

When silos are utilized, the requirements for delivery tickets shall conform to Para. c; Requirements for Drum Dryer Mixing Plants, of this Subsection. In addition, automated batch plant printout tickets generated in accordance with Para. b of this Subsection shall be given to the plant inspector and maintained on file.

There shall be sufficient copies of delivery tickets to provide a copy for the plant inspector and a copy for the Resident Engineer for permanent project record. The following information shall also be included on delivery slips:

(i) Name of customer.

(j) Name of project and contract number.

(k) Name of driver and truck number.

(l) Class of HMA.

(m) Additives.

3. Equipment Failure. If at any time the automatic proportioning or recording devices become inoperable, the plant may be allowed to batch and mix HMA for a period of not more than 48 hours from

the time of the breakdown, if approved by the Engineer. Written permission of the Engineer will be required for periods of operation without automatic proportioning facilities longer than 48 hours.

4. Screens. Plant screens, capable of screening all aggregates to the specified sizes and proportions and having normal capacities in excess of the full capacity of the mixer, shall be provided.

5. Hot Aggregate Bins. Hot bin storage of sufficient capacity to ensure uniform and continuous operation shall be provided. The bins shall be arranged to ensure separate and adequate storage of appropriate fractions of the aggregate. Each bin shall be provided with overflow pipes, of such size and at such locations as to prevent backing up of material into other compartments or bins. Each bin shall be provided with its individual outlet gate, constructed so that when closed there shall be no leakage. The gates shall cut off quickly and completely. Bins shall be equipped with adequate tell-tale devices to indicate the position of the aggregates in the bins at the lower quarter points. Adequate and convenient facilities shall be provided for obtaining aggregate samples from each hot bin.

6. Aggregate Scales. Scales for any weigh box or hopper shall be of the spring-less dial type, having a full complement of index pointers and shall be of a standard make and design. They shall be accurate to 0.50 percent, have minimum graduations not greater than 0.50 percent and shall be readable and sensitive to 0.25 percent or less. The preceding percentages are based on total batch weight.

7. Batching Controls. Batching controls shall be electrically interlocked with the scales to prevent cycling or recycling of batching until scales tare zero.

The batching controls shall meet the following tolerances with respect to the various components weighed in each batch:

Combined Aggregate Components:	±1.5 percent of total batch weight
PGAB:	±0.1 percent of total batch weight

The total weight of the batch shall not vary more than plus or minus 2 percent from the theoretical design weight.

8. Time Locking Device. The mixer shall have an accurate time locking device to control the operation of a complete mixing cycle by locking the weigh box gate, after charging the mixer, until the closing of the mixer discharge gate at the completion of the cycle. It shall lock the PGAB feed throughout the dry mixing period and shall lock the mixer discharge gate throughout the dry and wet mixing periods. The dry mixing period is defined as the interval of time between the opening of the weigh box gate and the commencement of application of the PGAB. The wet mixing period is the interval of time between the commencement of application of the PGAB and the opening of the mixer discharge gate.

The control of the timing shall be flexible and capable of being set at intervals of not more than five seconds throughout the cycles up to three minutes. Changes in mixing time shall be made only when ordered by the Engineer.

9. Weigh Box or Hopper. The equipment shall include a means for accurately weighing each size of aggregate in a weigh box or hopper suspended on scales and of ample size to hold a full batch without hand raking or running over. The gate shall close tightly so that no material is allowed to leak into the mixer while a batch is being weighed.

10. PGAB Control. The equipment used to measure the PGAB shall be accurate to plus or minus 0.5 percent. The PGAB bucket shall be a non-tilting type with a loose sheet metal cover. The length of the discharge opening trough, bucket, or spray bar shall be not less than three-fourths the length of the mixer and it shall discharge directly into the mixer. The PGAB bucket, its discharge valve or valves and spray bar shall be adequately heated. Steam jackets, if used, shall be efficiently drained and all connections shall be so constructed that they will not interfere with the efficient operation of the PGAB scales. The capacity of the PGAB bucket shall be at least 15 percent in excess of the weight of PGAB required in any batch. The

plant shall have an adequately heated quick-acting, non-drip, charging valve located directly over the PGAB bucket.

The indicator dial shall have a capacity of at least 15 percent in excess of the quantity of PGAB used in a batch. The controls shall be constructed so that they may be locked at any dial setting and will automatically reset to that reading after the addition of PGAB to each batch. The dial shall be in full view of the mixer operator. The flow of PGAB shall be automatically controlled so that it will begin when the dry mixing period is over. All of the PGAB required for one batch shall be discharged in not more than 15 seconds after the flow has started. The size and spacing of the spray bar openings, trough, or PGAB bucket shall provide a uniform application of PGAB the full length of the mixer. The section of the PGAB line between the charging valve and the spray bar shall be provided with a valve and outlet for checking the meter when a metering device is substituted for a PGAB bucket.

11. Mixer. The batch mixer shall be capable of producing a uniform mixture within the job mix tolerances. If not enclosed, the mixer box shall be equipped with a dust hood to prevent loss of dust.

The clearance of blades from all fixed and moving parts shall not exceed one inch unless the maximum diameter of the aggregate in the mix exceeds 1¼-inches, in which case the clearance shall not exceed 1½-inches.

12. Access to the mixer platform shall be by adequate and safe stairways. A hoist or pulley system shall be provided to raise scale calibration equipment, sampling equipment, and other similar equipment from the ground to the mixer platform and return. There shall be adequate and unobstructed space on the mixer platform.

c. Requirements for Drum Dryer Mixing Plants.

1. Proportioning. Aggregates and PGAB shall be proportioned by dry weight of the aggregate. Additives, if required, may be proportioned by volume or weight. The cold aggregate feeder shall be synchronized with the PGAB delivery system. Satisfactory means shall be provided to ensure positive interlocking control between each cold bin, the cold aggregate feeder, and the PGAB delivery system. This interlocking control shall be such that production is interrupted if one or more cold bins becomes empty, or the flow of either aggregate or PGAB is obstructed.

2. Recording Equipment. The plant shall be equipped with a digital recording device approved by the Engineer by which the proportion of aggregate supplied by each cold bin, the flow rates by weight of dry aggregate and of PGAB, and the cumulative weights of dry aggregate and of PGAB incorporated in the mix are automatically printed. These printed records, showing the date and time of printing, shall be provided to the Engineer at the start and at the end of each production period and at any other times or intervals of time as requested.

The plant shall also have a computerized scale system consisting of a weight batcher and/or a truck scale. Delivery tickets shall be printed on an automatic digital recorder that will print the following information on delivery tickets:

(a) Date loaded.

(b) Net weight of mixture in truck. When a truck scale is used, the net weight of the mixture shall be automatically calculated by weighing the truck both empty and full.

(c) Time of each load.

There shall be sufficient copies of delivery tickets to provide a copy for the plant inspector and a copy for the Resident Engineer for permanent project record. The following information shall also be included on delivery slips:

(a) Name of customer.

(b) Name of project and contract number.

(c) Truck identification and name of driver.

(d) Class of HMA.

(e) Additives.

3. Equipment Failure. If at any time the automatic recording device or the computerized scale system becomes inoperable, the plant may be allowed to produce HMA for a period of not more than 48 hours from the time of the breakdown, if approved by the Engineer. Approval will not be granted unless a satisfactory arrangement is made by the Contractor to weigh the mix. Written permission of the Engineer will be required for periods of operation longer than 48 hours during which any required automatic system is not functioning properly.

4. Aggregate Storage. Sufficient storage space shall be provided for each stockpile of various sized aggregates that shall be kept separated until they have been introduced into the cold bins that feed the drier. A minimum of four cold feed bins shall be required.

5. Cold Feed System. The plant shall have a device at each cold bin to feed the aggregate accurately and uniformly. No gravity type feeders will be permitted. Each adjustment opening shall be provided with indicators graduated to allow proportioning. Each cold bin gate shall be interlocked in such a manner that production is interrupted if one or more cold bins becomes empty or the flow is obstructed.

A mineral filler bin, when required, shall be added to the standard plant cold feed bins, and shall feed the mineral filler at adjustable rates accurately and uniformly. The feeder shall be interlocked so that production is interrupted if the bin becomes empty or the flow is obstructed.

The weighing equipment for all aggregates including mineral filler shall consist of a continuous weighing device either as it is proportioned by the individual feeders or after all materials have been deposited on a common belt. Belt scales shall meet the requirements of N.B.S. Handbook 44 and shall be installed according to the scale manufacturer's recommendations.

The plant shall have an adjustable feed rate control for each aggregate cold bin feeder and mineral filler feeder. The plant shall proportion the total aggregate quantity to the drum mixer with such accuracy and uniformity that the variation of material per interval of time shall not exceed an amount equal to 1.5 percent of the total weight of HMA per interval of time.

An automatic aggregate sampling device shall be provided which will divert a representative combined aggregate sample, including mineral filler, into a hopper or container for the purpose of gradation testing. The container shall cut the full width and depth of the aggregate flow. The sampling point shall be after the aggregate is proportioned and prior to its mixing with PGAB.

6. PGAB Control Unit. The PGAB shall be proportioned by a meter accurate to 0.1 percent. A flow switch designed to interrupt production if the PGAB flow is discontinued shall be installed in the delivery line between the meter and the mixer.

The PGAB delivery system shall be coupled with the aggregate delivery system to automatically maintain the required proportions as the aggregate flow varies. The delivery tolerance for PGAB shall be ±0.2 percent of the total mixture weight.

7. Plant Calibration. The cold feed and PGAB delivery systems shall be calibrated to insure that the plant is operating within the allowable tolerances. A procedure acceptable to the Engineer and in accordance with the manufacturer's recommendations shall be followed. These calibrations shall be performed prior to the start of each paving season, and at any other time as directed by the Engineer.

8. Mixer Unit. The plant shall include a continuous mixer unit having an automatic burner control and capable of producing a uniform mixture within the job mix tolerances. The mixture shall be discharged into a HMA holding bin meeting the requirements of Para. a.11 of this Subsection.

The moisture content of the mixture upon discharge from the mixer shall not exceed 1.5 percent by weight.

Hauling Equipment. Trucks or other equipment used for hauling HMA shall have tight, clean, smooth metal beds that have been thinly coated with an approved release agent. No diesel fuel or other material is to be applied to any portion of the vehicle that comes into contact with the HMA. Any hauling equipment not complying with the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition will be immediately rejected along with its load of HMA. Each truck shall have a cover of canvas or other suitable material of such size as to protect the mixture from the weather. Truck beds shall be securely covered and, if necessary, insulated to ensure delivery of the mixture at the specified temperature. Cleaning of equipment, vehicles, and truck beds in areas to be paved is prohibited. Any HMA placed in areas where cleaning takes place is subject to rejection by the Engineer.

a. Material Transfer Vehicle (MTV). A material transfer vehicle (MTV) is required for the construction of all HMA friction, surface, intermediate, and base courses on all limited access highways. When friction course is used, both the friction course and the underlying layer must be placed using an MTV.

The MTV shall independently deliver HMA from the hauling equipment to the paving equipment. A paving hopper insert with a minimum capacity of 14 tons shall be installed in the hopper of conventional paving equipment when a MTV is used.

As a minimum, the MTV shall have a high capacity truck unloading system which will receive HMA from the hauling equipment; a storage system in the MTV with a minimum capacity of 15 tons of HMA, and a discharge conveyor with the ability to swivel to either side to deliver the mixture to the paver while allowing the MTV to operate from an adjacent lane. In addition, the paving operation must contain a remixing system to blend the mixture prior to placement. The speed of the paver and MTV shall be adjusted to coordinate with the availability of HMA. Failure to keep the MTV supplied with HMA may be cause to cease paving operations for that operation. However, more than 2 stoppages shall result in paving being ceased for that operation.

When an MTV is to be used on a project, the Contractor shall further investigate the possible movement of the fully or partially loaded MTV on the project. If there are any structures on the project that the fully or partially loaded MTV will traverse, the Contractor shall request an Overweight Permit Check from the Department. Such a request shall be made in writing, and shall include the axle configuration, weights, and the project limits. Operations shall not begin until this permission is received from the Department and one copy forwarded to the Engineer.

The following is a statewide list of limited access highways (included are travel lanes, auxiliary lanes, climbing lanes, acceleration and deceleration lanes, ramps, collector/distributor roads, service roads, and shoulders greater than 8 feet):

I-95	Connecticut State Line to Massachusetts State Line
I-195	I-95 to Massachusetts State Line
I-295	I-95 to Massachusetts State Line
US Route 1	Prosser Trail to Wakefield Cut-Off
RI Route 4	Route 1 to I-95
US Route 6	Route 102 to Route 101; Route 10 to I-295

RI Route 10	Park Avenue to Route 6
US Route 6/RI Route 10	Magnolia Street Bridge to I-95
RI Route 24	Route 114 to Massachusetts State Line
RI Route 37	Natick Avenue to Post Road
RI Route 78	Route 1 to Connecticut State Line
RI Route 99	Route 146 to Mendon Road
East Shore Expressway	I-195 to Wampanoag Trail
RI Route 114	East Shore Expressway to Forbes Street
RI Route 138	Route 1 to Admiral Kalbfus Road
RI Route 146	I-95 to Reservoir Road
RI Route 146	Route 146A to Massachusetts State Line
RI Route 403	Route 4 to Quonset Point
Airport Connector	I-95 to Post Road
Henderson Bridge	Waterman Street/So. Angell Street to Broadway Access Roadway

Pavers. Unless otherwise shown on the Plans, mixtures shall be spread by means of a mechanical self-powered paver capable of spreading the mixture true to line, grade, and crown as approved by the Engineer.

HMA pavers shall be self-contained, power-propelled units, provided with activated vibratory screed and solid vibratory screed extenders and capable of spreading and finishing courses of plant mixed HMA in lane widths applicable to the specified typical section and thickness shown on the Plans. Pavers used for shoulders and similar construction shall be capable of spreading and finishing courses of HMA in the widths, depths and cross slopes indicated on the Plans.

When laying mixtures, the paver shall be capable of being operated at forward speeds consistent with satisfactory laying of the mixture.

The paver shall be equipped with a receiving hopper having sufficient capacity for a uniform spreading operation. The hopper shall be equipped with a distribution system to place the mixture uniformly in front of the screed.

Unless otherwise permitted by the Engineer, auger extensions shall be used when the end of the screed extension is more than two feet from the end of the augers.

The screed and screed extenders shall continually vibrate while placing the mixture and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, or gouging the mixture. The screed shall be heated to maintain the HMA at the required placement temperature.

The paver shall be equipped with automatic screed controls with sensors for either or both sides of the paver, capable of sensing grade from an outside reference line, sensing the transverse slope of the screed and providing the automatic signals that operate the screed to maintain the desired grade and transverse slope. The sensor shall be capable of operating from a ski-type device or reference beam of not less than 25 feet in length. The sensor shall also have the capability of operating from a reference line

unless the ski-type device or reference beam can ride on an adjacent, newly placed lift of HMA. A reference line shall also be used for the first course placed over in-place, recycled material.

Reference lines for the control of horizontal alignment shall be provided by the Contractor subject to the approval of the Engineer.

When a reference line is used for automatic grade control, the Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment using a taut string line set to grade for reference.

The transverse slope controller shall be capable of maintaining the screed at the desired slope within plus or minus 0.1 percent. The paver shall be equipped with automatic feeder controls, properly adjusted to maintain a uniform depth of materials ahead of the screed.

a. Manual Operation. Manual operation will be permitted in the construction of irregularly shaped and minor areas, on plant mixed seal courses, or where otherwise directed.

Conditioning of Existing Surfaces. Surfaces of curbs, gutters, vertical faces of existing pavements, and all structures to be in contact with the HMA shall be given a thin, even coating of tack coat. Care shall be taken to avoid the splattering of surfaces that will not be in contact with the HMA.

When a tack coat is required, the type and grade and the application methods shall conform to the applicable provisions of both Section M.03; Materials And Section 403 of the Rhode Island Standard Specifications; Asphalt Emulsion Tack Coat, of these Specifications.

Spreading and Finishing. The mixture shall be laid upon an approved cleaned surface, spread and struck off to the grade and elevation established. HMA pavers shall be used to distribute the mixture either over the entire width or over such partial width as may be practicable.

The practices and guidelines for placing HMA as outlined in Asphalt Institute Publication MS-22, “Construction of Hot Mix Asphalt Pavements” shall be adhered to unless otherwise permitted by the Engineer.

Unnecessary walking on the un-compacted HMA mat shall not be allowed.

Before beginning a new lane, the screed shall be heated to the proper operating temperature and any clumps of cold material in the paver hopper shall be removed.

No trucks or other equipment shall be allowed on freshly placed HMA unless specifically permitted by the Engineer.

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, the mixture shall be placed as close to its final position as possible. It shall then be spread, raked, and luted by hand tools in a manner that will minimize segregation and result in the required compacted thickness.

Unless otherwise directed by the Engineer, any layer of HMA called for on side streets or driveways must be placed to a distance of at least three feet beyond the gutter line at the same time that layer is being placed on the adjacent project roadway.

a. HMA Designated for “Bridge Decks”. When HMA is being placed on a surface that is covered with a waterproofing membrane, the following precautions shall be observed:

1. No traffic other than paving equipment shall be allowed on the membrane.

2. The paver must be moved carefully on and off the membrane. Initial proper adjustment of the paver to the correct depth is very important to prevent tearing the membrane. The Contractor shall be

responsible for making any repairs to the membrane or to the HMA overlay necessary to correct damage caused by the paving operation, all at its expense.

3. Any and all tears of the membrane by the paver or trucks shall be repaired immediately to the satisfaction of the Engineer. Vehicle tires shall be clean of any rocks or materials that would puncture the membrane.

4. Truck drivers shall not make quick stops and starts, nor turn the wheels while parked, nor cross the deck at an angle.

Compaction. Immediately after the HMA has been spread, struck off, and surface irregularities adjusted, it shall be thoroughly and uniformly compacted by rolling.

The surface shall be rolled when the mixture is in the proper condition and when rolling does not cause undue displacement, cracking, and shoving.

Two rollers are required for all paving operations that exceed a daily total of 500 tons, except in the case of driveway, sidewalk, and bridge deck paving operations. The number, weight, and type of roller(s) shall be sufficient to compact the mixture to the required density before it reaches the minimum compaction temperature. Vibratory rollers used for compaction shall be operated in the vibratory mode. All rollers used for compaction shall have a minimum operating weight of ten tons or greater. The use of equipment that results in excessive crushing of the aggregate will not be permitted.

The speed of a roller shall not exceed five miles per hour.

Rollers shall not be parked on HMA. When reversing direction, the action shall be smooth, not abrupt. The drive wheel shall approach the new mix, not the tiller wheel.

When a vibratory roller is used for finish rolling, it shall be used in the static mode. Finish rolling shall continue until all roller marks are eliminated.

The motion of the rollers shall be slow enough at all times to avoid displacement of the hot mixture, and any displacement resulting from reversing the direction of the rollers, or from any other cause, shall be satisfactorily corrected. The wheels of steel-wheel rollers shall be kept moist and clean to prevent adhesion of the fresh material, but an excess of water will not be permitted.

If satisfactory density cannot be obtained in any lift, and if the Engineer determines it to be structurally inadequate and/or incapable of maintaining material integrity, the Contractor shall remove and replace any such area at its own expense.

Any mixture that becomes loose and broken, mixed with dirt, or is in any way defective shall be removed and replaced with fresh hot mixture, which shall then be compacted to conform to the surrounding area. Any area showing an excess or deficiency of PGAB shall be removed and replaced. Said removal and replacement shall be at the Contractor's expense.

For HMA not designated as with "Pay Adjustments" in-place density shall be a minimum of 92% of the theoretical maximum density obtained at the plant and will be determined using a nuclear density gauge or in-place cores.

If a class of HMA is designated as for "Bridge Decks", an oscillatory roller with a minimum operational weight of 8 tons shall be used. For HMA designated as for "Bridge Decks" and with "Pay Adjustments" the pay adjustments will only apply to binder content and air voids.

If a class of HMA is designated as for "Leveling", it shall be placed with a paver. A pneumatic roller with a minimum operational weight of 8 tons shall be used. For HMA designated as for "Leveling" and with "Pay Adjustments" the pay adjustments will only apply to binder content and air voids.

If a class of HMA is designated as for “Patching”, “Miscellaneous Work” or “Paved Waterways” it shall be placed by hand. A vibratory plate compactor or roller shall be used. A hand tamper may be used only if requested, and such request is approved by the Engineer.

a In-Place Density for classes of HMA designated as with “Pay Adjustments”

Compaction density will be measured using cores of in-place pavement. Cores not taken under the direction of and witnessed by the Engineer will not be used for acceptance. The location of all cores will be determined by the Engineer. Each lot and sublot for in-place density cores will be matched as near as practical to each production lot and sublot used at the plant.

All cores shall be extracted after completion of rolling operations and before the paved section is open to traffic. The Engineer will take immediate possession of the cores upon extraction. If the Contractor does not obtain cores before a sublot is open to traffic, no bonus (pay adjustment resulting in more than 0%) will be paid for the sublot but disincentives will still apply. The cores will be retained by the Engineer for 4 weeks after the results are reported to the Contractor.

The Contractor may extract its own cores for QC purposes to monitor in-place density and production quality; such cores will not be used for acceptance.

1. Mat Density

A standard sublot shall be 600 tons. A non-standard sublot shall be the quantity of HMA placed if there is less than 600 tons in the paving session or after the final standard sublot.

Under the direction and witness by the Engineer, two stratified, randomly selected cores (4” +0”/-0.25” diameter) shall be extracted from the mat by the Contractor for each standard sublot. One core shall be taken for sublots less than 450 tons. Table 6 will be used to determine the minimum number of cores extracted from the mat. The center of each core used to determine mat density will be at least one (1) foot away from the edge of pavement and any transverse or longitudinal joints or drainage structures.

Table 6 – Mat Density Core Quantities

Expected Daily Production Tonnage	Minimum Number of Mat Cores
450 or Less	1
451 - 750	2
751 - 1050	3
1051 – 1350	4
1351 – 1650	5
1651 – 1950	6
1951 - 2250	7
2251 - 2550	8
2551 - 2850	9
2851 - 3150	10

2. Joint Density

One joint density core shall be extracted for every 3000’ or less when a joint is formed. Joint cores shall be extracted so that the center is within two inches of the middle of the sloped portion of a notched-wedge joint or within one inch of the middle of a butt joint.

3. In-Place Density Pay Adjustments

In-place density will be measured and reported as a percent of theoretical maximum density.

The pay adjustments from Table 7 will be made for in-place mat density:

Table 7 – Mat Density Pay Adjustments

In-Place Mat Density	Pay Adjustment
95.0% and greater	+2%
94.0% to 94.9%	+1%
93.0% to 93.9%	0%
92.0% to 92.9%	-5%
91.0% to 91.9%	-15%
90.0% to 90.9%	-25%
89.0% to 89.9%	-35%
Below 89.0%	Remove and Replace

The pay adjustments from Table 8 will be made for in-place joint density:

Table 8– Joint Density Pay Adjustments

In-Place Joint Density	Pay Adjustment
93.0% and greater	+2%
92.0% to 92.9%	+1%
91.0% to 91.9%	0%
90.0% to 90.9%	-5%
89.0% to 89.9%	-15%
88.0% to 88.9%	-25%
87.0% to 87.9%	-35%
Below 87.0%	-100%

Note: All density values will be rounded to the nearest 0.1% before applying pay adjustments.

In the event material is required to be removed and replaced, the Engineer will determine the limits of the removal. The required in-place density will be 1% less for the first lift placed on gravel subbase.

4. Calculation of Pay Adjustments for In-Place Density

(a.) For Mat Density:

For each sublot, the bulk specific gravity (G_{mb}) of the mat density core(s) will be averaged and then compared to the corresponding plant theoretical maximum specific gravity (G_{mm}) to calculate the in-place density for each sublot. The average of the sublot densities in a lot will be used to determine the appropriate pay adjustment for that lot. Lot pay adjustments will be applied to the respective quantity of HMA in each lot.

(b.) For Joint Density:

For joint density pay adjustment purposes, a joint lot will be defined as 10 joint density results. However, if less than five joint density results are remaining after the final full joint lot is formed, they will be added to the previous joint lot. Five or more joint density results remaining after the final full joint lot will constitute a separate joint lot.

Calculation of in-place joint density will be determined using the G_{mb} of joint density cores and the project average plant G_{mm} of the respective mix. The average of the individual joint density results in a joint lot will be used to determine the appropriate pay adjustment for that joint lot. The calculation of material quantity used to construct the joints will be based on the joint core density, the specified thickness, a width of one (1) foot, and the length of the joint that each core represents. This quantity will be deducted from the total tonnage.

Joints. Placement of the HMA shall be as continuous as possible. Rollers shall not pass over the unprotected end of a freshly laid mixture unless authorized by the Engineer.

Both longitudinal and transverse joints in successive courses shall be staggered so as not to be one above the other. Longitudinal joints shall be staggered a minimum of 6 inches and shall be arranged so that the longitudinal joint in the top course being constructed shall be at the location of the line dividing

the traffic lanes. Any HMA that falls on the cold side of the mat during paving operations shall be raked onto the hot joint. Care shall be taken to ensure that the material pushed onto the hot side of the joint remains in the joint area and is not broadcast over the pavement.

Unless otherwise permitted by the Engineer, a notched wedge joint shall be used. Longitudinal drop-offs will not be allowed on both sides of a lane. Joints shall be constructed so that the height of the notch is the same as the nominal maximum aggregate size. The width of the sloped portion of the joint shall be at least 6" for each inch of lift thickness if the joint will be exposed to traffic, but in all cases, it shall be 12" minimum. Tack coat shall be applied to and shall completely cover the longitudinal notched wedge joint, using either a brush or the tack coat distribution truck. Transverse joints and joints at intersections shall be manually brushed with tack coat, leaving a completely covered face.

Pavement Samples. As directed, the Contractor shall cut samples from the compacted pavement for testing by the Engineer. Samples of the mixture shall be taken for the full depth of the course at the locations directed by the Engineer.

Where samples have been taken, new material shall be placed and compacted to conform to the surrounding area.

Surface Tolerances. At the Engineer's discretion, the surface may be tested at selected locations, using an approved 10-foot straightedge furnished by the Contractor. The variation of the surface from the testing edge of the straightedge between any two contacts with the surface shall at no point exceed 1/4-inch. All humps or depressions exceeding the specified tolerance shall be corrected by removing defective work and replacing it with new material as directed.

Thickness Requirements. The thickness of a pavement shall be that as shown on the Plans and shall not vary from the specified thickness by more than that specified in Subsection 401.04, below, except as otherwise provided for in resurfacing existing pavements.

Weather Limitations. HMA shall not be placed on any wet surface, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

For lifts with a target compacted lift thickness less than or equal to 1.5" both the air and surface temperature in the shade shall be 45° F or greater. For lifts with a target compacted lift thickness greater than 1.5" both the air and surface temperature in the shade shall be 40° F or greater. If an approved WMA (warm mix additive) is used both the air and surface temperature in the shade shall be 35° F or greater regardless of lift thickness. No HMA shall be placed on frozen ground.

For projects that do not specify pay adjustments all rolling shall be completed before the temperature of the mat falls below 165° F. The HMA mat (not including WMA modified pavement) shall be at least 265° F when placed.

Cold Weather Paving. If the existing pavement is removed before the winter shutdown, the Contractor shall not close the project for the season until a new HMA layer has been placed and striped with temporary epoxy pavement markings.

Drop-Offs.

a. Longitudinal Drop-Offs A longitudinal drop-off is the difference in elevation between the top of recently placed or milled HMA pavement and the top of adjacent ground (or pavement). Drop-offs on recently placed pavements shall conform to Section 401.03.7. Drop-offs on milled surfaces shall conform to the following:

1. For Posted Speeds of 35 mph or Less. Drop-offs greater than 2 inches shall be tapered to not steeper than a 1-to-1 slope to existing ground or pavement. Drop-offs 5 inches or greater shall be tapered to not steeper than a 4-to-1 horizontal to vertical slope to existing ground or pavement.

2. For Posted Speeds Greater than 35 mph. Longitudinal drop-offs will not be permitted within 2 feet of a travel lane. The first 2 feet adjacent to a travel lane must be at grade with the travel lane. However, should either the sequence of operation required by the Contract or the Contractor's approved sequence of operation result in overnight drop-offs greater than 3 inches occurring between 2 and 6 feet from the edge of a travel lane, then such drop-offs shall be tapered to not steeper than a 4-to-1 horizontal to vertical slope to existing ground or pavement.

All tapers shall be constructed with HMA conforming to the requirements of this section of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition.

Longitudinal drop-offs shall occur within one foot of a lane divider or at the edge of pavement.

Longitudinal drop-offs will not be paid for separately, but will be included in the contract unit price for HMA pavements as listed in the Proposal.

b. Transverse Drop-Offs. Transverse drop-offs occur as follows:

Pavement removal. A transverse drop-off occurs when pavement removal operations cease at the end of a working day. The drop-off is the difference in elevation between the bottom of the excavated pavement and the top of the existing pavement.

Pavement overlay. A transverse drop-off occurs when pavement overlay operations cease at the end of a working day. The drop-off is the difference in elevation between the top of the overlay pavement and the top of the existing pavement.

If traffic is allowed across either of these drop-offs during the period prior to the resumption of pavement removal or pavement overlay operations, tapers must be provided as follows:

1. For Posted Speeds of 35 mph or Less. Transverse drop-offs in place at the end of a working day shall be graded at a slope of 2 feet horizontal to 1 inch vertical.

2. For Posted Speeds Greater than 35 mph. Transverse drop-offs in place at the end of a working day shall be graded at a slope of 5 feet horizontal to 1 inch vertical.

All slopes shall be constructed with HMA conforming to the requirements of Section 401 of the Rhode Island Standard Specifications for Road and Bridge Construction.

The Contractor shall place "BUMP" signs in accordance with the MUTCD (Manual on Uniform Traffic Control Devices) at each drop-off for each direction of traffic. Prior to the resumption of pavement overlay operations the transition slope shall be removed as follows: The pavement overlay shall be sawcut back approximately 6 inches to expose a fresh, full thickness vertical face. This face shall be brush-painted or pressure sprayed with tack coat, after which the HMA paving may resume.

Transverse drop-offs will not be paid for separately, but will be included in the contract unit prices for HMA pavements as listed in the Proposal.

METHOD OF MEASUREMENT. "Class 9.5 HMA" and "Modified Class 12.5 HMA," will be measured by the number of "Tons" actually placed in accordance with the Plans and/or as directed by the Engineer. As an alternative, batch weights may be used for measurement so long as the automatic proportioning and recording equipment provisions of Subsection 401.03.1 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition, are satisfied. In such case, the cumulative weight of all the batches will be used for payment.

a. Determination of Thickness. The thickness of each course as well as of the total asphalt concrete pavement shall be that indicated on the Plans, or as ordered by the Engineer.

Prior to the determination of thickness, the roadway shall exhibit acceptable workmanship and all defects shall have been corrected. The thickness of the total asphalt concrete pavement will be determined

by cutting or coring holes to full depth. At least two cores will be taken from each lane mile, except that there will be a minimum of ten cores per project, all at the discretion of the Engineer. Cores will be measured in accordance with ASTM D3549; Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens. The depth measurement will be considered as applying for the full width of the lane. Measurements will be made at random locations determined by the Engineer and all information relative thereto will be recorded in the project records.

For the determination of thickness, a shoulder width of six feet or greater will be considered to be a separate lane of the roadway. A shoulder width of less than six feet will be considered part of the adjacent lane. The Contractor shall fill any holes cut or cored in the pavement by the Department with a compacted, dense bituminous hot mix material that is acceptable to the Engineer. If required by the Engineer, the Contractor shall maintain and control traffic while the pavement samples are being taken and while the holes are being filled and compacted. Payment will be made for the applicable traffic control item(s).

a. Adjustment of Tonnage Quantity. The following definitions shall apply:

1. Bituminous Base Course. Base course shall be as indicated on the Plans.

2. Surface Course. The surface course shall consist of bituminous concrete constructed on a prepared base in accordance with the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition and in conformity with the lines, grades, thickness, and typical cross sections shown on the Plans. For these measurements, the binder course shall be considered part of the surface course.

The pavement thickness will be considered acceptable if both of the following requirements are met:

(a) The total asphalt concrete tonnage delivered and placed does not exceed the tonnage calculated from the approved area measured from the final surface course width by the project length and the pavement thickness specified in the Contract Documents by more than 10 percent, and,

(b) When Specification Conformity Analysis (Federal Highway Administration Technical Advisory T5080.12; dated June 23, 1989) is applied to the entire roadway or sections thereof as determined by the Engineer, at least 80 percent of the total asphalt concrete pavement will have a thickness that meets the minimum pavement thickness. The minimum pavement thickness is that contained in the contract documents minus ½-inch, (e.g., a total pavement thickness of 7 inches will have a minimum pavement thickness requirement of 6.5 inches).

If the first requirement is not met, no payment will be made for all tonnage exceeding 10 percent, unless unusual field conditions are present and documented (e.g., pavement rutting).

If the second requirement indicates that the pavement thickness is deficient, the Contractor with permission of the Engineer shall place a correction course not less than one inch in depth after compaction, provided an acceptable grade and cross section can be achieved. Where an acceptable grade and cross section cannot be achieved through the above means, the Contractor shall reconstruct by cutting back and into the pavement a sufficient distance to permit the placement of an acceptable depth and place new material to achieve the proper depth, cross-section and profile. These areas where a corrective course is placed or reconstruction of the pavement is performed, will be measured again as though originally constructed; no compensation will be made to the Contractor for the material removed or removal of materials and disposal thereof or for restoration of affected supporting base or adjacent construction, or for traffic control, adjusting all utility appurtenances in the roadway or for correcting pavement striping. Compensation will be made for the additional pavement (Class I-1) correction course accepted in place.

Determination of the quantity to be used for adjusted payment or exclusion for payment will be based on tons per square yard per inch thickness as determined by Marshall Core (AASHTO T245) densities using the accepted job mix formula.

Sweeping and cleaning, as included in the items covered by this section, refers to the normal removal of dust, debris, etc. only. Any sweeping and cleaning necessary due to construction being held over for the winter season, in accordance with the approved construction schedule, will be paid for separately.

Work described in Subsection 401.03.5 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition, will be paid for at the contract unit prices for the material used.

BASIS OF PAYMENT. The accepted quantities of "Class 9.5 HMA" and "Modified Class 12.5 HMA," will be paid for at their respective contract unit prices per “Ton” as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials and equipment, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 403.0300 ASPHALT EMULSION TACK COAT

DESCRIPTION. The work under this item shall conform to the requirements of Section 403 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of furnishing, delivering and applying a liquid asphalt tack coat.

CONSTRUCTION METHOD. Traffic other than that necessary to supply the paver with bituminous concrete shall not be permitted to drive on the portions of roadway that have been tacked. The Contractor shall re-tack any portions of the work that may be necessary as directed by the Engineer, at no additional cost to the Owner.

All vertical surfaces shall be adequately tacked, even if required to do so by hand, before paving operations. Any surfaces where tack coat has been over applied (i.e. utility castings, curbing, sidewalks, crosswalks, etc.) shall be complete cleaned and removed by the Contractor, at no additional cost to the Owner.

METHOD OF MEASUREMENT. "Asphalt Emulsion Tack Coat" will be measured by the number of “Square Yards” actually spread in the designated area(s) and at the specified rate, all in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Asphalt Emulsion Tack Coat" will be paid for at the contract unit price per “Square Yard” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, and all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 410.1000 TEMPORARY PATCHING MATERIAL/TRENCHES

DESCRIPTION. The work under this item shall conform to the requirements of Section 410 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of patching utility and drainage trenches.

CONSTRUCTION METHOD. The Contractor shall repair all trenches within the project limits.

Repair shall consist of placing asphalt patching material in a workmanlike manner. The existing pavement shall be neatly cut on both sides. The gravel backfill shall be compacted to the required density and the subgrade left free of loose asphalt, debris, and excess moisture. The bituminous patch material shall be placed in a properly compacted 2-inch lift unless otherwise detailed on the Plans. When completed, the patch shall be left flush with the existing roadway pavement.

METHOD OF MEASUREMENT. "Temporary Patching Material/Trenches" will be measured by the number of “Tons” of such material actually placed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Temporary Patching Material/Trenches" will be paid for at the contract unit price per “Ton” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment including sawcutting, excavation, backfill, compaction, trimming and fine grading, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 501.9901 CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

DESCRIPTION. This item of work shall consist of constructing Portland cement concrete pavement with reinforcement on a prepared subbase in reasonably close conformity with the dimensions and details indicated herein and on the plans, all in accordance with these specifications. The work under this item shall conform to the requirements of Section 501 and 808 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition.. Concrete shall be early yield and include all necessary formwork and preparation to set the proposed concrete slabs.

MATERIALS. Materials shall meet the requirements of Part 500, 600, and 800 and SECTION M.02; PORTLAND CEMENT CONCRETE and SECTION M.05; METALS of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition, and the following:

Concrete Class HP 3/4” (5000 psi @28 days)
Tie Bar Steel Grade 60 - #5
Transverse Steel Grade 60 - #5
Longitudinal Steel Grade 60 - #5

*Tie bar steel is placed perpendicular to the travel lane centered along the lane line.

CONSTRUCTION METHODS. Construction methods shall meet the requirements of Section 501.03 Construction Methods of the Standard Specifications.

METHOD OF MEASUREMENT. “Continuously Reinforced Portland Cement Concrete Pavement” shall be measured by the “Square Yard” actually provided in accordance with the Plans and/or as directed by the Engineer. The thickness of the reinforced concrete slab is to be 10” with a 4” crushed stone base (1/2”-3/4” angular stone).

BASIS OF PAYMENT. The accepted quantities of “Continuously Reinforced Portland Cement Concrete Pavement” will be paid for at the contract unit bid price per “Square Yard” as listed in the Proposal. The payment constitutes full compensation for all labor, materials and equipment, including reinforcing steel, dowels, joint material, sawcutting, thickness verification, and other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 701.0412 REINFORCED CONCRETE PIPE M 170 CLASS III 12 INCH
ITEM 701.9901 8 INCH DUCTILE IRON DRAIN PIPE
ITEM 701.9902 12 INCH DUCTILE IRON DRAIN PIPE

DESCRIPTION. The work under this item shall conform to the requirements of Section 701 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of furnishing and laying pipe.

CONSTRUCTION METHOD. All construction methods shall be in accordance with Section 701.03 and M.04.01.09 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition and the contract details.

METHOD OF MEASUREMENT. "Reinforced Concrete Pipe M 170 Class III 12 Inch," “8 Inch Ductile Iron Drain Pipe,” and “12 Inch Ductile Iron Drain Pipe” will be measured in “Linear Feet” of continuous runs of such pipe actually installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Reinforced Concrete Pipe M 170 Class III 12 Inch," “8 Inch Ductile Iron Drain Pipe,” and “12 Inch Ductile Iron Drain Pipe” will be paid for at the contract unit price per “Linear Foot” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all trench excavation (except for Trench Excavation-Rock, Trench Rock Excavation-Mechanical, and excavation of unsuitable material below grade) to a depth equal to the invert of the proposed pipes when bedding material is not required, or to a depth sufficient to receive the appropriate layer of bedding material, of whatever class, when such material is required; for the shaping of either the bottom of the trench or the top of bedding material, whichever the case may be, to receive the bell of the pipe; for all dewatering, including pumping, draining, or bailing; for laying, setting and jointing all pipe, including connections to existing drainage structures or pipes; for placing and compacting backfill; for furnishing, placing and subsequently removing all temporary timber or steel sheeting, bracing or shoring; for the legal disposal of all excess or unsuitable excavated materials; and for all other work and incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 701.8151 CURB STOP BOX

DESCRIPTION. The work under this item shall conform to the requirements of Section 701 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of furnishing and installing curb stop boxes.

CONSTRUCTION METHOD. Curb stop boxes shall be installed vertically, centered over the operating nut, and the elevation of the top shall be adjusted to final grade. Boxes shall be continuously and adequately supported during backfilling to maintain vertical alignment. Bricks shall be placed at the base of the flange to properly support the box. Backfill around curb stop boxes and anywhere excavation is made in the street shall be compacted in 12-inch lifts.

Installation of casting risers will not be permitted on this project.

Castings damaged by the Contractor’s operations shall be replaced by the Contractor at no additional cost to the Owner.

METHOD OF MEASUREMENT. "Curb Stop Box" will be measured by the number of “Each” such units actually installed in accordance with the Plans and/or as directed by the Engineer, and each such structure shall be counted once, regardless of how many times the Contractor adjusts such casting.

BASIS OF PAYMENT. The accepted quantity of "Curb Stop Box" will be paid for at the contract unit price per “Each” such unit as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment for furnishing and placing said units including furnishing a new curb stop box, removal and disposal of the old curb box, sawcutting, excavation, backfill, compaction, setting the curb stop box to the finished grade, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

The cost to set the new curb stop box to the finished grade shall be included in this item; no payments will be made under separate item for this work. No compensation will be made for castings that have not been correctly set to the proper finished grade elevation, complete and accepted by the Engineer.

ITEM 702.0703 4’ ROUND CATCH BASIN TYPE 'F' BRICK/SOLID BLOCK STD 3.4.2
ITEM 702.0713 PRECAST CONCRETE DROP INLET WITH APRON STONE STD 4.5.1
ITEM 702.9907 TRENCH DRAIN CATCH BASIN

DESCRIPTION. The work under these items shall conform to the requirements of Section 702 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of furnishing and installing brick/solid block manholes, catch basins and precast concrete drop inlets with apron stones, and trench drain catch basins.

MATERIALS. The "Trench Drain Catch Basin" shall be PowerDrain – S300K Iron Edge Channel System with Longitudinal Grate (ADA) as manufactured by ACO Drain, or approved equal.

Concrete setting shall be Class XX and installed 12" on either side and underneath the drain per manufacturer's specifications. End cap shall be furnished and installed to connect to drain pipe outlet.

CONSTRUCTION METHODS. The "Trench Drain Catch Basin" shall be installed per manufacturer's specifications

METHOD OF MEASUREMENT. "4' Round Catch Basin Type 'F' Brick/Solid Block Std 3.4.2", and "Precast Concrete Drop Inlet Std 4.5.1" will be measured by the number per "Each" such unit actually installed in accordance with the Plans and/or as directed by the Engineer.

"Trench Drain Catch Basin" will be measured by the number per "Linear Foot" measured from either end of the grate/pre-cast trench structure actually installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantities of "4' Round Catch Basin Type 'F' Brick/Solid Block Std 3.4.2", and "Precast Concrete Drop Inlet Std 4.5.0" will be paid for at the respective contract unit prices per "Each" such unit and "Trench Drain Catch Basin" will be paid for at the respective contract unit prices per "Linear Foot as listed in the Proposal". The prices so-stated constitute full and complete compensation for all labor, materials, and equipment for providing said structures including excavation (except rock excavation), placing and compacting backfill, steps, ½-inch thick cement mortar coating on both the inside and outside wall surfaces (except for precast structures), the legal disposal of all surplus excavated and/or unsuitable material, backfill, gravel borrow, compaction, concrete connecting collars (including STD. 1.3.0), placing Class XX concrete for trench drains, ancillary tools and fittings for trench drains, frame and grates/covers for trench drains, and all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 702.0517 FRAME AND GRATE STD 6.3.2
ITEM 702.9901 FRAME AND GRATE (ADA)

DESCRIPTION. The work under this item consists of furnishing and installing Heavy Duty Frame and Grates, at various locations throughout the project limits. The work shall conform to relevant requirements of Section 702 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition, unless specified otherwise in this special provision.

CONSTRUCTION METHOD. . Frame and Grates in the sidewalk areas shall meet ADA requirements for hole openings. ADA Grates shall be USF 41369 Frame and 6602 Grate as manufactured by U.S. Foundry & Mfg. Corp., or approved equal. The contractor shall submit shop drawings/catalog cuts for approval by the Engineer. This item shall be installed according to the manufacturer's specifications.

Castings damaged by the Contractor's operations shall be replaced by the Contractor at no additional cost to the Owner.

METHOD OF MEASUREMENT. "Frame and Grate STD 6.3.2," and "Frame and Grate (ADA)" will be measured by the number of "Each" such assemblies actually installed in accordance with the Plans and/or as directed by the Engineer, and each such structure shall be counted once, regardless of how many times the Contractor adjusts such casting.

BASIS OF PAYMENT. The accepted quantity of "Frame and Grate STD 6.3.2," and "Frame and Grate (ADA)" will be paid for at the contract unit price per "Each" such assembly as listed in the Proposal. The price so stated constitutes full and complete compensation for all materials, tools, labor and equipment, including furnishing the new casting, removal and disposal of the old casting, sawcutting, excavation, backfill, compaction, temporary bituminous concrete, bricks and mortar required to set the frame properly, concrete collar, and all other incidentals required to finish the work complete in place and accepted by the Engineer.

The cost to set the new casting to the finished grade shall be included in this item; no payments will be made under separate item for this work. No compensation will be made for castings that have not been correctly set to the proper finished grade elevation, complete and accepted by the Engineer.

ITEM 702.9906 GRANITE APRON STONE 30" OPENING – PVD STD 7.3.8P

DESCRIPTION. The work under this item shall conform to the requirements of Section 702 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of furnishing and installing granite apron stones with 30" openings.

CONSTRUCTION METHOD. All construction methods shall be in accordance with Section 906.03.1, M.02, M.03, and M.09 of the Standard Specifications and the contract details.

METHOD OF MEASUREMENT. "Granite Apron Stone 30" Opening – Providence Standard 7.3.8" will be measured by the number per "Each" actually furnished and installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantities of "Granite Apron Stone 30" Opening – Providence Standard 7.3.8" will be paid for at the contract unit prices per "Each" as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials, and equipment for furnishing and placing said units including sawcutting, excavation, backfill, compaction, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 704.0300 RECONSTRUCT CATCH BASIN/VERTICAL WALLS
ITEM 704.0400 RECONSTRUCT MANHOLE/VERTICAL WALLS

DESCRIPTION. The work under this item shall conform to the requirements of Section 704 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of reconstructing catch mason and manhole vertical walls.

CONSTRUCTION METHOD. All construction methods shall be in accordance with Section 704.03 and M.04.03 of the Standard Specifications and the contract details.

Manholes and catch basins shall be reconstructed in the following sequence: First, the structures shall be thoroughly cleaned. Next, the cast iron frames and covers (or grates) are carefully removed and stockpiled on the site for subsequent reuse. Then, the tops of the structure immediately below the castings are removed. Subsequently, a portion of the vertical walls of the structure is removed to a depth sufficient for the reconstructed unit to make the transition to the lines, grades, and dimensions indicated on the Plans, or as directed by the Engineer.

Any excavation required around the existing drainage structure shall be carried out in such manner as to cause the least disturbance to both the surrounding area and those portions of the existing structure that are to remain.

Actual reconstruction of the drainage structures shall then commence in accordance with the details indicated on the Plans or as directed by the Engineer. Construction methods to be employed in this effort shall conform to the applicable requirements as set forth in Subsection

702.03.1 of Rhode Island Standard Specifications for Road and Bridge Construction, latest edition.

Castings damaged by the Contractor's operations shall be replaced by the Contractor at no additional cost to the Owner.

METHOD OF MEASUREMENT. "Reconstruct Catch Basin/Vertical Walls" and "Reconstruct Manhole/Vertical Walls" will be measured per "Vertical Linear Foot" from the vertical height in linear feet of drainage structure walls actually reconstructed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantities of "Reconstruct Catch Basin/Vertical Walls" and "Reconstruct Manhole/Vertical Walls" will be paid for at the contract unit price per "Vertical Linear Foot" as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials and equipment, including reconstructing drainage structures including removing, stockpiling and resetting castings, excavation and backfill, compaction, temporary bituminous concrete, bricks and mortar required to set the casting, examining and cleaning the existing basin before and after reconstruction, the legal disposal of all surplus excavated and/or unsuitable materials, and all other incidentals required to finish the work, complete and accepted by the Engineer.

The cost to set the casting to the finished grade shall be included in this item; no payments will be made under separate item for this work.

ITEM 706.9000 PLUG AND CAP PIPE ALL SIZES

DESCRIPTION. The work under this item shall conform to the requirements of Section 706 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of plugging and capping all sized pipe.

CONSTRUCTION METHOD. The plugs described above shall be placed in all lines where indicated or directed when such lines are broken into during construction. All such plugs shall produce watertight joints.

Plugs and caps installed in pressure lines shall be properly strapped and blocked to withstand the anticipated backpressure.

Vitrified clay and cement or brick masonry shall be properly and securely set in place, blocked, and protected to preclude infiltration or exfiltration due to hydrostatic pressure.

METHOD OF MEASUREMENT. "Plug and Cap Pipe All Sizes" will be measured by the number of "Each" such unit actually installed regardless of the size or type.

BASIS OF PAYMENT. The accepted quantity of "Plug and Cap Pipe All Sizes" will be paid for at the contract unit price per "Each" such unit as listed in the Proposal. The price so-stated is full and complete compensation for all labor, materials and equipment required to provide said plugs or caps and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 707.0900 ADJUST MANHOLES TO GRADE
ITEM 707.1100 ADJUST CATCH BASINS TO GRADE
ITEM 707.1900 ADJUST FRAME AND COVER/GRATE TO GRADE

DESCRIPTION. The work under this item shall conform to the requirements of Section 707 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of adjusting all manholes and catch basins to the proposed grade.

CONSTRUCTION METHOD. When structures are to be adjusted in paved areas, cutting and matching pavement will be required. Cutting and matching pavement shall be performed in accordance with Section 932 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. When paved areas are open to traffic, the exposed vertical faces of adjusted structures shall be painted with iridescent orange reflective paint if less than or equal to 1-3/4 inches. An asphalt ramp shall be provided in cases where the exposed vertical face exceeds 1-3/4 inches.

Castings shall be carefully removed and stored and the walls of the structure adjusted to the proper line and grade by the removal or addition of bricks and mortar. Walls shall be plastered with ½-inch cement mortar where required.

Castings shall be reset to the proper line and grade in a bed of mortar. Prior to the placement of the final bituminous concrete course and following the secondary bituminous concrete course binder, an area of 1 foot outside the top of the frame shall be removed to a depth of 9 inches below the surface course. This area shall then be compacted and replaced with a Class A (AE) concrete collar to the level of the secondary bituminous course.

The Contractor shall maintain access to all catch basins and utility manholes at all times.

Installation of casting risers will not be permitted on this project.

Castings damaged by the Contractor's operations shall be replaced by the Contractor at no additional cost to the Owner.

METHOD OF MEASUREMENT. "Adjust Catch Basins," "Adjust Manholes," and "Adjust Frame and Cover/Grate to Grade" will be measured by the number of "Each" type structure actually adjusted in accordance with the Plans and/or as directed by the Engineer, and each such structure shall be counted once, regardless of how many times the Contractor adjusts such casting.

BASIS OF PAYMENT. The accepted quantities of "Adjust Catch Basins," "Adjust Manholes," and "Adjust Frame and Cover/Grate to Grade" will be paid for at their respective contract unit prices per "Each" such structure as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials, and equipment including furnishing the new casting, removal and disposal of the old casting, sawcutting, excavation, backfill, compaction, temporary bituminous concrete, bricks and mortar required to set the frame properly, concrete collar, and for all other incidentals required to finish the work, complete and accepted by both the Engineer and the representative of the particular utility company involved.

No compensation will be made for castings that have not been correctly set to the proper finished grade elevation, complete and accepted by the Engineer.

ITEM 708.9040 CLEANING AND FLUSHING PIPE ALL SIZES
ITEM 708.9041 CLEANING CATCH BASINS ALL TYPES AND SIZES
ITEM 708.9042 CLEANING MANHOLES ALL TYPES AND SIZES

DESCRIPTION. The work under this item shall conform to the requirements of Section 708 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of cleaning and flushing of all sized pipe and all catch basins and manholes.

METHOD OF MEASUREMENT. "Cleaning and Flushing Pipe - All Sizes" will be measured in "Linear Feet" from center-to-center of drainage structures for all pipe lines actually cleaned, regardless of the sizes of said pipe, in accordance with the Plans and/or as directed by the Engineer. "Cleaning Manholes" and "Cleaning Catch Basins" will be measured by the number of "Each" such drainage structures actually cleaned, regardless of size or type, in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantities of "Cleaning and Flushing Pipe - All Sizes" will be paid for at the contract unit price per “Linear Foot” as listed in the Proposal and the accepted quantities of "Cleaning Manholes" and "Cleaning Catch Basins" will be paid for at the respective contract unit prices per “Each” such structure as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials, and equipment required to conduct this operation by normal methods, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 713.8268 ADJUST CURB STOP BOXES TO GRADE
ITEM 713.8269 ADJUST WATER GATE BOXES TO GRADE
ITEM 713.8300 ADJUST GAS GATE BOXES TO GRADE

DESCRIPTION. The work under this item shall conform to the requirements of Section 713 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of adjusting curb stop, water gate boxes, and gas gate boxes to the proposed grade.

CONSTRUCTION METHOD. Utility gate boxes and curb stops shall be carefully loosened from the surrounding material and adjusted to the designated new grades. In this regard, the use of gate box adapters will be allowed. The Contractor shall then carefully place approved granular material around the gate boxes and curb stops and hand tamp this material until it is well compacted. When paved areas are open to traffic, the exposed vertical faces of exposed utility structures shall be painted with iridescent reflective orange paint if less than or equal to 1-3/4 inches. An asphalt ramp shall be provided in cases where the exposed vertical face exceeds 1-3/4 inches.

The Contractor shall maintain access to the curb stops and utility gate boxes at all times.

When an existing gate box or curb stop is determined by the Engineer to be un-adjustable, a new gate box or curb stop shall be furnished and installed in accordance with the applicable provisions of Section 712; Water And Gas Gate Boxes, of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition.

Installation of casting risers will not be permitted on this project.

Castings damaged by the Contractor’s operations shall be replaced by the Contractor at no additional cost to the Owner.

METHOD OF MEASUREMENT. "Adjust Curb Stop Boxes,” "Adjust Water Gate Boxes,” and "Adjust Gas Gate Boxes" will be measured by the number of “Each” such units actually adjusted in accordance with the Plans and/or as directed by the Engineer, and each such structure shall be counted once, regardless of how many times the Contractor adjusts such casting.

BASIS OF PAYMENT. The accepted quantities of "Adjust Curb Stop Boxes,” "Adjust Water Gate Boxes,” and "Adjust Gas Gate Boxes" will be paid for at their respective contract unit prices per “Each” such unit as listed in the Proposal. Each and every adjustment authorized by the Engineer will be paid for. The prices so-stated constitute full and complete compensation for all labor, materials, and equipment including furnishing the new casting, removal and disposal of the old casting, sawcutting, excavation, backfill, compaction, temporary bituminous concrete, concrete collar, and for all other incidentals required to finish the work, complete and accepted by both the Engineer and the representative of the particular utility company involved.

No compensation will be made for castings that have not been correctly set to the proper finished grade elevation, complete and accepted by the Engineer.

ITEM 903.9901 GRANITE BLOCK
ITEM 903.9902 GRANITE BLOCK (FURNISH TO STOCKPILE)

DESCRIPTION. The work included in this section includes the furnishing of fully fabricated Granite dimensional cut stone components and the installation of all furnished components as required for the full completion of various Granite Cut stone installations as indicated by the Contract Drawings and these specifications at the locations and to the dimensions shown on the plans in accordance with these specifications and/or directed by the Engineer.

MATERIALS. The materials shall be in accordance with the applicable sections of the RIDOT Standard Specifications for Road and Bridge Construction, 2004 Edition, with all revisions, unless otherwise specified below. Granite shall comply with ASTM standards C-97, C-99, C-170, C-241, C-615, C-880 and National Building Granite Quarries Association, Inc. (NBGQA) Specifications for architectural granite.

Granite Block. The Contractor may elect to utilize salvaged granite material in condition for consideration for use. Approval is at the discretion of the Owner and salvaged material is submitted at risk. Salvaged material may facilitate construction durations and reduce overall project schedule. CW-1 and GS-1 may be considered as salvaged material with other Granite Cut Stone elements fabricated from new granite.

All granite shall be of good quality as graded by the National Building Granite Quarries Association, Inc., free of cracks, seams, fissures or starts which may impair its structural integrity or function.

The Granite provided for all capstone shall architectural grade, naturally occurring, fine to medium grain textured, light to medium gray in color without pronounced or detracting veining flecking, quartz pockets, or discoloration. Some granite types that may meet this criteria are Woodbury Gray, Chelmsford Gray.

Granite shall be of the sizes and dimensions indicated in the final approved shop drawings.

Supplier: All granite shall be obtained from quarries in the United States or Canada with adequate capacity and facilities to meet the specified requirements. Cutting and finishing shall be done by a firm equipped to process the material promptly on order and in strict accord with specifications. The supplier shall provide written, photographic of otherwise documented evidence to this effect to the Owner and Owners Representative.

Quarries shall show evidence by way of written or otherwise documented environmentally responsible practices, and shall have a method for the diversion of stone scrap or cuttings from the waste stream thru recycling or re-purposing, and shall have a system that minimizes the use of potable water in cutting through the recycling and reuse of water.

Suitable Suppliers and Fabricators Include:

1. Plymouth Quarries
   410 Whiting Street
   Hingham, MA 02043
   781.335.3686
   www.plymouthquarries.com

2. Granites of America
   15 Branch Avenue
   Smithfield RI 02917
   401.232.2040
   www.granitesofamerica.com

3. JC Stone
   539 Rockland Avenue
   Jefferson, ME 04348
   207.549.4729

Finish. All vertical faces shall be split face and the top and chamfered faces shall be thermal finish.

Attachment. Incidental field drilling shall be allowed if determined necessary to establish the anchorage where best suited. All cutting and drilling of bore holes, and holes for dowels and anchors shall be considered incidental to the cost of fabricating and installing the stones, regardless of where work is performed. Fabricate and drill all holes to the greatest extent possible in controlled shop conditions off-site. Anchoring System: Per Section 03600 and 03604 bonding adhesive used to bond specified 316 stainless steel metal threaded rods, dowels, bolts, etc. to sound granite cut stone components.

Submittals. The Contractor shall provide qualifications for the following:

Stone Quarry/ Stone Fabrication Facility. Provide the Company Name, location, years in business (minimum of ten (10) years of related experience) with photographic samples or other proof of a minimum of five (5) projects featuring similar types of projects or related work with regard to scale, size, shape fit and finish. Provide a minimum of five (5) references, with full contact information. The Manufacturer must be certified according to the National Building Granite Quarries Association.

Mason/Stone Installer: Provide Company Name, location, years in business (minimum of 10 years of related experience) with photographic samples or other proof of projects featuring similar types of projects or related work with regard to scale, size, shape fit and finish. Provide a minimum of five (5) references, with full contact information.

Foreman: Provide the name and credentials of the person assigned to oversee the implementation process, including the on-site activities. The foreman shall be an experienced installer who has completed Stone Work, fabrication and installations similar in material, design, and extent to that indicated for this Project and whose work has resulted in constructions with a record of successful in-service performance. Provide a minimum of five (5) previous projects for which the Foreman was directly responsible.

Sufficient samples (Minimum of one (1) 12” long piece of the proposed granite shall be submitted to the Owner’s Representative to show the texture, finish, and anticipated range of color to be supplied.

The granite supplier shall submit copies of all full shop drawings to the Owner’s Representative for approval where applicable. These drawings shall show all sizes, dimensions, layout, finishes, bedding, bonding, stone jointing and anchoring details, and identifying names and numbers of each piece of granite in non-staining paint. Coordinate layout for cutting and drilling of dowels/drift pins and miscellaneous conduit penetrations and anchor bolt locations.

Submit Product Data Sheets and Material Test Reports on material proposed for use. Submit reports from a qualified testing agency indicating and interpreting test results for compliance based on comprehensive testing of materials.

Concrete Footings: Concrete shall be Class A concrete in accordance with Rhode Island Standard Specifications for Road and Bridge Construction, 2004 edition, and all the applicable compilation of approved specifications.

CONSTRUCTION METHODS. General: Lay out all stone pieces that intersect or connect to other elements, either in the shop or in the field, for review of fitment and composition. Maintain all desired relationships as shown on the plans. Plan and allow for ‘flex’ length cap stone pieces that may be required to be field-cut to fit.

Template capstone sizes and shapes for factory fabrication and drilling of anchor bolt holes where conditions permit.

Careless handling of the granite will not be allowed. Damaged pieces will be rejected and shall not be installed.

Cut, grind, re-butt or otherwise field cut both ends of adjoining stones in the field as directed by the Engineer and as necessary to comply with the drawings.

Specific: Granite Placement. Before placing granite, the Contractor shall verify that all conditions are ready for placement of granite. Verify that all lay-out and grade information is accurate and complete.

Coordinate the installation of granite sculpture base utilizing wood templates provided by the monument sculptor/Owner. Conduct a minimum of one (1) site meeting to review locations, heights an placement prior to final installation of the memorial sculpture.

Insure that during all granite installation and before placement of any vertical of any concrete, all reinforcement, and any embedded items is coordinated, complete and that required inspections have been performed.

All setting shall be performed by competent granite setters under qualified supervision and in accordance with the approved shop drawings. Set stones level unless otherwise noted. Shim as necessary. Set granite pieces to obtain the reveals and angles and orientations shown in the plans.

Stones with chips, cracks, stains or defects that might be visible shall not be installed. Granite to be set shall be clean and dry. Granite shall be set to the described line and grade. Joints shall be at the specified thickness as Indicated on the plans. Direct contact bearing between granite pieces shall be prohibited.

Set granite stones as shown on drawings.

All work involving epoxy, cement base coating and protective coating to adhere strictly to the manufacturer's current printed recommendations as to temperatures at time of application. No use of epoxy materials allowed when either the temperature of the Granite stone or the ambient temperature is below 50 degrees F, 24 hours before, during, or for a period of 48 hours after the completion of the installation. Temporary heat may be used to meet the specified requirements. All epoxy, shall be new and used within the shelf life limitations set forth by the manufacturer.

Surfaces shall be clean and sound. Surfaces may be dry, damp or wet, but free of standing water. Remove dust, laitance, grease, curing compounds, impregnations, waxes, foreign particles and disintegrated materials by abrasion methods such as sandblasting. Correctly size, drill and clean holes as per approved anchor bolt system Manufacturer's recommendations.

Utilize anchor bolts, threaded dowels and pins as per plans.

Mortar joints between capstones as noted on plans. All exposed surfaces shall be kept free from mortar at all times. Injection holes, slots, and sites for anchors and dowels shall be neatly filled completely during the setting of the granite. After pointing the joints, carefully clean all joints and stone faces. Pointed joints shall have a smooth, shallow concave surfaces.

Relieve all exterior corners and ease edges of permanently exposed Granite.

METHOD OF MEASUREMENT. "Granite Block" shall be measured by "Each" such block actually installed in accordance with the Plans and/or as directed by the Engineer. "Granite Block Furnish To Stockpile" shall be measured by "Each" such block actually furnish and delivered to the Owner free of damage and/or imperfections.

BASIS OF PAYMENT. The accepted quantity of "Granite Block" will be paid for at the contract unit price per "Each" as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including excavation, shallow and standard Class A concrete footings, attachments, placing and compacting backfill, resetting of pavers around blocks set in existing sidewalks, and for all incidentals required to finish the work, complete and accepted by the Engineer.

The accepted quantity of “Granite Blocks Furnish to Stockpile” will be paid for at the contract unit price per “Each” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including coordination, delivery, hauling, handling, unloading, the safe protection of blocks, and for all incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 903.9903 STEEL BOLLARD REMOVABLE
ITEM 903.9904 STEEL BOLLARD REMOVABLE (FURNISH TO STOCKPILE)

DESCRIPTION. This item of work shall consist of furnishing and installing steel bollards at the locations and to the dimensions shown on the plans in accordance with these specifications and/or directed by the Engineer.

MATERIALS. The materials shall be in accordance with the applicable sections of the RIDOT Standard Specifications for Road and Bridge Construction, 2004 Edition, with all revisions, unless otherwise specified below. Bollard shall comply with the Department of Defense (DoD) approved and listed on Anti-Ram Vehicle Barrier List

Steel Bollard. The bollard shall be a removable steel crash-rated bollard with flat top. The bollard shall be Reliance Foundry’s ‘R-1009-04-R’ ASTM M30 Crash Rated Bollard. The bollard shall be removable. Reliance Foundry Co. ltd. Phone: 604-547-0460 or 1-877-789-3245. Fax: 604-590-8875. Website: https://www.reliance-foundry.com/bollard . Email: info@reliance-foundry.com .

The bollard shall measure 72” in height (39-1/2” above grade) and have a base section measuring 8-5/8” in diameter.

Finish. All components shall be paint coated. Color coating color shall be black. All coating and painting shall be applied by the manufacturer in the manufacturer’s factory.

Attachment. The bollard footing shall consist of Class XX concrete and shall conform to the applicable requirements of Sections 601 and M.02 of the RIDOT Standard Specifications for Roads and Bridges, 2004 Edition, with all revisions.

Submittals. The Contractor shall submit detailed shop drawings describing bollard dimensions, materials, color, finish, handling, and installation procedures for the approval of the Engineer. Contractor shall manufacturer’s field touch-up, cleaning, and maintenance instructions. Contractor shall submit a copy of the manufacturer’s warranty.

Concrete Footings: Concrete shall be Class XX concrete in accordance with Rhode Island Standard Specifications for Road and Bridge Construction, 2004 edition, and all the applicable compilation of approved specifications.

CONSTRUCTION METHODS. The Steel bollard shall be installed at locations as shown on the Plans and in accordance with manufacturer’s directions. Concrete foundations shall be constructed to the dimensions on drawings. Coordinate construction of the cement concrete foundation with the installation of the surrounding pavement.

Contractor shall Examine paving or other substrates for compliance with manufacturer’s requirements for placement and location of embedded items, condition of substrate, and other conditions affecting installation of bollards. Proceed with installation only after unsatisfactory conditions have been corrected.

Assemble steel bollards in conformance with the approved shop drawings.

Do not install damaged, cracked, chipped, deformed, or marred bollards. Field touch-up minor imperfections in accordance with manufacturer’s instructions. Replace bollards that cannot be field repaired.

Steel bollards shall be installed level and plumb at locations indicated on the plans or directed by the Engineer.

Protect steel bollards from paint spatter, concrete splashes, and other construction damage by wrapping in plastic sheeting or heavy kraft paper and taping in place. Do not remove until adjacent work is completed.

Protect steel bollards and hardware from chipping during troweling operations. Repair any damage to painted finish

Bollards shall be wrapped and stored in a secure location until needed for installation. Any bollards damaged as the result of the Contractor's negligent actions shall be replaced by the Contractor at no cost to the owner.

Extreme care shall be taken during the handling to avoid damage to the bollards. Slings or other non-invasive devices shall be used. Chains will NOT be allowed. The Contractor shall be responsible for the replacement of all bollards that become damaged during handling at no additional cost to the Owner. All construction shall be performed to the satisfaction of the Engineer.

Immediately prior to Substantial Completion, clean bollards in accordance with manufacturer's instructions to remove dust, dirt, adhesives, and other foreign materials.

Touch up damaged finishes according to manufacturer's instructions.

METHOD OF MEASUREMENT. "Steel Bollard" shall be measured by "Each" such bollard installed in accordance with the Plans and/or as directed by the Engineer. "Steel Bollard Furnish to Stockpile" shall be measured by "Each" such bollard actually furnish and delivered to the Owner free of damage and/or imperfections.

BASIS OF PAYMENT. The accepted quantity of "Steel Bollard" will be paid for at the contract unit price per "Each" as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including excavation, shallow and standard Class XX concrete footings, attachments, placing and compacting backfill and for all incidentals required to finish the work, complete and accepted by the Engineer.

The accepted quantity of "Steel Bollard Furnish to Stockpile" will be paid for at the contract unit price per "Each" as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including coordination, delivery, hauling, handling, unloading, the safe protection of bollards, and for all incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 903.9905 RETRACTABLE BOLLARD
ITEM 903.9906 RETRACTABLE BOLLARD FURNISH TO STOCKPILE

DESCRIPTION. This item of work shall consist of furnishing and installing retractable bollards at the locations and to the dimensions shown on the plans in accordance with these specifications and/or directed by the Engineer.

MATERIALS. The materials shall be in accordance with the applicable sections of the RIDOT Standard Specifications for Road and Bridge Construction, 2004 Edition, with all revisions, unless otherwise specified below. Bollard shall comply with ASTM A36, ASTM A312, ASTM A500, ASTM A536, and ASTM B26 standards.

Retractable Bollard. The bollard shall be a coated stainless steel double locking retractable bollard with flat top. The bollard shall be Reliance Foundry's 'R-8472' Double Locking Retractable Bollard. Reliance

Foundry Co. ltd. Phone: 604-547-0460 or 1-877-789-3245. Fax: 604-590-8875. Website: https://www.reliance-foundry.com/bollard . Email: info@reliance-foundry.com .

The bollard shall measure 35-1/2" in height and have a base section measuring 4-1/2" in diameter.
The pipe shall be ASTM A312, grade TP 316. The plate shall be ASTM A959, grade TP 316. The lock shall have a receiver with key.

Finish. All components shall be polyester powder coated over epoxy primer. Color shall be Black textured semi-gloss and the reflective stripe shall be yellow.

Attachment. The bollard footing shall consist of Class A concrete and shall conform to the applicable requirements of Sections 601 and M.02 of the RIDOT Standard Specifications for Roads and Bridges, 2004 Edition, with all revisions.

Submittals. The Contractor shall submit detailed shop drawings describing bollard dimensions, materials, color, finish, handling, and installation procedures for the approval of the Engineer. Contractor shall manufacturer's field touch-up, cleaning, and maintenance instructions. Contractor shall submit a copy of the manufacturer's warranty.

Concrete Footings: Concrete shall be Class A concrete in accordance with Rhode Island Standard Specifications for Road and Bridge Construction, 2004 edition, and all the applicable compilation of approved specifications.

CONSTRUCTION METHODS. The Retractable bollard shall be installed at locations as shown on the Plans and in accordance with manufacturer's directions. Concrete foundations shall be constructed to the dimensions on drawings. Coordinate construction of the cement concrete foundation with the installation of the surrounding pavement.

Contractor shall Examine paving or other substrates for compliance with manufacturer's requirements for placement and location of embedded items, condition of substrate, and other conditions affecting installation of bollards. Proceed with installation only after unsatisfactory conditions have been corrected.

Assemble retractable bollards in conformance with the approved shop drawings.
Do not install damaged, cracked, chipped, deformed, or marred bollards. Field touch-up minor imperfections in accordance with manufacturer's instructions. Replace bollards that cannot be field repaired.

Retractable bollards shall be installed level and plumb at locations indicated on the plans or directed by the Engineer.

Protect retractable bollards from paint spatter, concrete splashes, and other construction damage by wrapping in plastic sheeting or heavy kraft paper and taping in place. Do not remove until adjacent work is completed.

Protect retractable bollards and hardware from chipping during troweling operations. Repair any damage to painted finish.

Bollards shall be wrapped and stored in a secure location until needed for installation. Any bollards damaged as the result of the Contractor's negligent actions shall be replaced by the Contractor at no cost to the owner.

Extreme care shall be taken during the handling to avoid damage to the bollards. Slings or other non-invasive devices shall be used. Chains will NOT be allowed. The Contractor shall be responsible for the replacement of all bollards that become damaged during handling at no additional cost to the Owner. All construction shall be performed to the satisfaction of the Engineer.

Immediately prior to Substantial Completion, clean bollards in accordance with manufacturer's instructions to remove dust, dirt, adhesives, and other foreign materials.

Touch up damaged finishes according to manufacturer's instructions.

METHOD OF MEASUREMENT. "Retractable Bollard" shall be measured by "Each" such bollard installed in accordance with the Plans and/or as directed by the Engineer. "Retractable Bollard Furnish to Stockpile" shall be measured by "Each" such bollard actually furnish and delivered to the Owner free of damage and/or imperfections.

BASIS OF PAYMENT. The accepted quantity of "Retractable Bollard" will be paid for at the contract unit price per "Each" as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including excavation, shallow and standard Class A concrete footings, attachments, placing and compacting backfill and for all incidentals required to finish the work, complete and accepted by the Engineer.

The accepted quantity of "Steel Bollard Furnish to Stockpile" will be paid for at the contract unit price per "Each" as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including coordination, delivery, hauling, handling, unloading, the safe protection of bollards, and for all incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 905.9901 4 INCH PORTLAND CEMENT SIDEWALK MONOLITHIC – PVD STD 43.1.0

ITEM 905.9902 8 INCH PORTLAND CEMENT CONCRETE DRIVEWAY – PVD STD 43.5.0

DESCRIPTION. The work under this item shall conform to the requirements of Section 905 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of constructing new Portland cement concrete sidewalks and driveways as shown in the Plans.

FAILURE TO COMPLY. In the event the Engineer determines that new sidewalks have not been constructed within 14 consecutive calendar days after excavation as required herein, a daily charge will be deducted from monies due the Contractor.

The charge for this Contract will be $500.00 per day, per location for each calendar day that each location is not in compliance.

CONSTRUCTION METHOD. All construction methods shall be in accordance with Section 905 and 600 of the Standard Specifications except where otherwise described in this Specification.

Construction shall adhere to the details in these Contract Documents.
All sidewalks shall be 4000 PSI 28 day compressive strength concrete at a depth of four (4) inches.
All driveways shall be 4000 PSI 28 day compressive strength concrete at a depth of eight (8) inches.
All curb ramps shall be 4000 PSI 28 day compressive strength concrete at a depth indicated in the Plans.

METHOD OF MEASUREMENT. "4 Inch Portland Cement Sidewalk Monolithic – Providence Standard 43.1.0" and "8 Inch Portland Cement Concrete Driveway – Providence Standard 43.5.0" will be measured by the number of "Square Yards" of pavement actually placed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantities of "4 Inch Portland Cement Sidewalk Monolithic – Providence Standard 43.1.0" and "8 Inch Portland Cement Concrete Driveway – Providence Standard 43.5.0" will be paid for at the contract unit prices per "Square Yard" as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials and equipment, including expansion joint material, reinforcement, installing welded wire mesh, and incidentals to produce, place, and protect the concrete as herein specified, in addition to any requirements in the Specifications for the particular use, except that a reduction in payment will be made for each Lot of Concrete not fully accepted, and for all other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 906.0700 REMOVE, HANDLE, HAUL, TRIM AND RESET CURB AND EDGING, STRAIGHT AND/OR CIRCULAR, ALL TYPES

DESCRIPTION. The work under this item shall conform to the requirements of Section 906 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of removing, handling, hauling, trimming, and resetting all types of curb and edging, straight and/or circular.

CONSTRUCTION METHOD. The existing curbing or edging shall be carefully removed to minimize damage to said units and adjacent pavement or sidewalks. The curbing or edging will then be handled, hauled, and/or stockpiled as required. The ends for jointing will be cut and squared or cut and angled for curb ramp transition curb. All curb or edging must be thoroughly cleaned prior to resetting.

If the curb or edging is to be reset in either its original or new location, excavation shall be made to the dimensions shown on the Plans or as directed by the Engineer. All soft or unsuitable materials shall be removed and replaced with gravel borrow material which shall be thoroughly compacted to prevent future settlement of the reset curb or edging.

The curb or edging shall be reset such that the front top arris line conforms to the required line and grade. The gravel base upon which the curb or edging is to be reset shall be placed in layers not exceeding six (6) inches in depth. Each such layer shall then be compacted to 95 percent of maximum density by means of a vibratory compactor of a size and type approved by the Engineer.

Curbing and edging shall be laid with joints as narrow as possible for stone curb. The individual stones shall be trimmed and cut as necessary so that no more than 1/8-inch opening shall show for the full width of the top and eight (8) inches down from the front. Joints greater than 1/8-inch shall be filled and joined by cement mortar.

After the curbing or edging has been reset, any remaining excavation areas shall be backfilled with approved granular material and thoroughly compacted back and front to grade. Methods of compaction shall preserve the line and grade of the reset curbing or edging.

The Contractor shall replace with new curb/edging any existing curbing or edging that is to be reset which is lost, damaged, or destroyed as a result of either its construction operations or failure to properly store and protect said units, all at no additional cost to the Owner.

METHOD OF MEASUREMENT. "Remove, Handle, Haul, Trim and Reset Curbing and Edging, Straight and/or Circular, All Types" will be measured by the number of “Linear Feet” of such curbing reset in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Remove, Handle, Haul, Trim and Reset Curbing and Edging, Straight and/or Circular, All Types,” for each kind and type specified, will be paid for at the contract unit price per “Linear Foot” as listed in the Proposal. The price so-stated shall constitute full and complete compensation for all labor, materials, and equipment, including sawcutting, removal and disposal of existing pavement structure, excavation for removal and setting unless otherwise noted that resetting excavation, all handling, hauling and stockpiling, cleaning all sections to be reset, cutting and trimming as necessary to provide the maximum 1/8-inch opening across the top and down the front of the curbing, gravel borrow including compaction and fine grading, the resetting of the curb or edging to line and grade, backfilling, compacting, and all other incidentals required to finish the work, complete in place and accepted by the Engineer.

Portland cement concrete for curb lock will be included as incidental to the respective item and shall not be measured and paid for separately.

ITEM 906.9901 GRANITE CURB STRAIGHT – 7” WIDTH PVD STD 7.3.0
ITEM 906.9902 GRANITE CURB CIRCULAR – 7” WIDTH PVD STD 7.3.0
ITEM 906.9903 GRANITE WHEELCHAIR RAMP TRANSITION CURB - 7" WIDTH PVD STD 7.3.3, 43.3.0, AND 43.3.1
ITEM 906.9904 GRANITE RAMP STONE STRAIGHT - 7" WIDTH PVD STD 7.3.9
ITEM 906.9905 GRANITE RAMP STONE CIRCULAR - 7" WIDTH PVD STD 7.3.9

DESCRIPTION. The work under this item shall conform to the requirements of Section 906 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of furnishing and installing granite curbing, transition curbing, curb returns, and ramp stones, as shown in the Plans.

METHOD OF MEASUREMENT. "Granite Curb Straight - 7" Width Providence Standard 7.3.0," "Granite Curb Circular - 7" Width Providence Standard 7.3.0” will be measured by the number of “Linear Feet” actually installed in accordance with the Plans and/or as directed by the Engineer.

"Granite Wheelchair Ramp Transition Curb - 7" Width Providence Standard 7.3.3, 43.3.0, and 43.3.1," "Granite Ramp Stone Straight - 7" Width Providence Standard 7.3.9," and "Granite Ramp Stone Circular - 7" Width Providence Standard 7.3.9" will be measured by the number of “Each” such units actually installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantities of "Granite Curb Straight - 7" Width Providence Standard 7.3.0," "Granite Curb Circular - 7" Width Providence Standard 7.3.0” will be paid for at their respective contract unit prices per “Linear Foot” as listed in the Proposal. The prices so-stated shall constitute full and complete compensation for all labor, materials and equipment, including sawcutting, excavation, backfill, compaction, and all other incidentals required to finish the work, complete and accepted by the Engineer.

The accepted quantities of "Granite Wheelchair Ramp Transition Curb - 7" Width Providence Standard 7.3.3, 43.3.0, and 43.3.1," "Granite Ramp Stone Straight - 7" Width Providence Standard 7.3.9," and "Granite Ramp Stone Circular - 7" Width Providence Standard 7.3.9" will be paid for at their respective contract unit prices per “Each” as listed in the Proposal. The prices so-stated shall constitute full and complete compensation for all labor, materials and equipment, including sawcutting, excavation, backfill, compaction, and all other incidentals required to finish the work, complete and accepted by the Engineer.

Portland cement concrete for curb lock will be included as incidental to the respective item and shall not be measured and paid for separately.

ITEM 914.9901 UNIFORMED OFFICER WITH VEHICLE

DESCRIPTION. This work shall consist of furnishing qualified uniformed officers, as required to direct or control traffic through or around the work or as ordered. Uniformed officers shall have legal authority to enforce traffic laws on the roadways within the work zone. Uniformed officers may be utilized for their specific authority for operations, such as assistance in speed control and traffic law enforcement, as necessary, and as approved by the Engineer.

MATERIALS. Vehicles for use with uniformed officers shall be official police vehicles with appropriate police markings and blue flashing lights that are visible from 360º around the vehicle and to oncoming traffic. Given the variability of markings and light arrangements of police vehicles, the final determination of acceptable police vehicles shall be made by the Engineer. Police vehicles with roof mounted lights are preferable when available. Police vehicles used at night shall have dimmable blue flashing lights appropriate for nighttime operations. Two-way radios for uniformed officers and flaggers shall be dependable, providing clear communication at all times between radio operators.

CONSTRUCTION: Uniformed officers furnished by the Contractor shall have had formal training in the Safe & Effective Use of Law Enforcement in Work Zones (Federal Highway Administration (FHWA)) course or Law Enforcement Course (The American Traffic Safety Services Association (ATSSA)) or equivalent course. This training is to be arranged and provided for by the law enforcement agency prior to such assignment. Upon request by the Engineer, the officer shall provide verification of training within 48 hours. Uniformed officers shall be attired with regulation duty uniforms, headgear, high-visibility apparel in accordance with the MUTCD, and shall wear an exposed badge.

Uniformed officers shall work well alone and as a member of a group, since traffic control operations are a team effort. Therefore, uniformed officers shall also possess strong communication skills, as relaying traffic information to others (uniformed officers, flaggers, construction personnel, the public, etc.) is essential. The Contractor shall be responsible for providing specific instructions to uniformed officers regarding their duties and responsibilities, both to the public and to their fellow workers on the job. They shall have authority to direct the movement of construction vehicles as well as vehicles of the traveling public, and shall do all that is reasonable to expedite that movement. Uniformed officers shall have police powers granted by the authorities having legal jurisdiction in the work area. The Contractor shall designate a person as the responsible party to coordinate the traffic control procedures. This person shall be responsible to collect and report the time of actual traffic control to the Engineer. When more than one Uniformed Officer with vehicle is required for traffic control, effective communication shall be maintained between stations. If effective communication cannot be maintained by voice or hand signals, two-way radios shall be used. Necessary safety precautions shall be taken when two-way radios are used in the vicinity of blasting operations.

METHOD OF MEASUREMENT. “Uniformed Officers with Vehicles” will be measured by the actual numbers of “Hours” authorized, as determined by the Engineer. The Contractor's schedule for utilizing uniformed officers with vehicles shall be agreed upon cooperatively with the Engineer. The Contractor may furnish additional traffic control personnel at their expense but only those agreed upon by the Engineer will be measured for payment. In no case shall uniformed officers be paid less than the flagger rate as specified in the Contract.

BASIS OF PAYMENT. The “Hours” authorized for “Uniformed Officers with Vehicles” will be paid for at the invoice value. The invoice may include salary, fringe benefits, and overtime for the rank of officer appropriate to perform the required duties, and a reasonable vehicle use charge for uniformed officers with vehicle.

ITEM 919.9901 TEST PITS

DESCRIPTION. The work under this item shall conform to the requirements of Section 919 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of excavating exploratory test pits.

CONSTRUCTION METHOD. Test pit excavations include all of the following items, the construction methods for which are specified elsewhere in these Specifications:

1) Sawcutting
2) Breaking up and disposal of existing pavements.
3) Test pit excavation, data collection, engineering
4) Backfill and compaction, where required.
5) Loam and seeding, where required.
6) Replacement paving, which shall match as nearly as possible the existing pavement in thickness.

METHOD OF MEASUREMENT. "Test Pits" shall be measured by the number of “Each” such individual pits actually excavated, regardless of whether or not utilities were located or water table elevations were determined.

BASIS OF PAYMENT. The accepted quantity of "Test Pits" will be paid for at the contract unit price per “Each” such excavation as listed in the Proposal. The price so-stated constitutes full and complete

compensation for labor, materials, and equipment, including sawcutting and matching pavement, removal and legal disposal of existing pavements, excavation, pumping and bailing, backfill, compaction, loaming and seeding, replacement of pavement, where required, hand exploration, taking of measurements, recording exiting utility information, reporting, and for all other incidentals required to finish the work, complete and accepted by the Engineer. NO payments will be made for this item until the test pit information/as-builts are submitted and accepted by the Engineer.

ITEM 932.0200 FULL DEPTH SAWCUT OF BITUMINOUS PAVEMENT
ITEM 932.0210 FULL DEPTH SAWCUT OF BITUMINOUS PAVEMENT AND RIGID BASE
ITEM 932.0230 FULL DEPTH SAWCUT OF PORTLAND CEMENT CONCRETE SIDEWALK/DRIVEWAY

DESCRIPTION. The work under this item shall conform to the requirements of Section 932 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of cutting back and matching cuts in both Portland cement and bituminous concrete pavements to the required depths of the specified course, or courses, at the locations indicated on the Plans or as directed by the Engineer.

CONSTRUCTION METHOD. The method of cutting shall be approved by the Engineer prior to the commencement of construction operations. The sections of existing pavement to be removed, surface course, base course, or combination thereof, shall be cut along the neat lines shown on the Plans or as directed by the Engineer. A vertical cut shall be made along the designated lines. The pavement to be removed shall then be chipped and removed. The edge of the cut joint shall be thoroughly cleaned by sweeping and blowing with compressed air. The clean edge shall then be protected by adequate measures until the new pavement is placed and matched thereto. If sawcut lines are not maintained to the satisfaction of the Engineer, they shall be re-cut and prepared as directed at no additional cost to the Owner.

Any existing pavement, surface course, base course, or combination thereof, beyond the neat lines called for on the Plans that is damaged or destroyed by the Contractor's operations shall be either repaired or replaced at no additional cost to the Owner.

If, as a result of paving operations, a cold joint occurs, the Contractor will install the joints as directed by the Engineer.

All spoils and slurries created by sawcutting shall be thoroughly cleaned by power washing, or other necessary means, by the Contractor, no more than 48 hours after the sawcut was made. All cleaning shall be considered incidental to any item that contains sawcutting and no additional payment will be made for cleaning.

METHOD OF MEASUREMENT. "Full Depth Sawcut of Bituminous Pavement," "Full Depth Sawcut of Bituminous Pavement and Rigid Base," and "Full Depth Sawcut of Portland Cement Concrete Sidewalk/ Driveway" will be measured by the length in “Linear Feet” of cuts actually made on designated courses of pavement in accordance with the Plans and/or as directed by the Engineer. Only the saw cuts shown in the plans saw cuts not included in the basis of payment of other items, or saw cuts as directed by the Engineer shall be measured for payment under these respected items.

BASIS OF PAYMENT. The accepted quantities of "Full Depth Sawcut of Bituminous Pavement," "Full Depth Sawcut of Bituminous Pavement and Rigid Base," and "Full Depth Sawcut of Portland Cement Concrete Sidewalk/ Driveway" will be paid for at their respective contract unit prices per “Linear Foot” as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials and equipment and all other incidentals required to finish the work, complete and accepted by the Engineer.

No additional payment will be made for installation of cold joints if such joints are caused by the Contractor's sequence of paving operations.

ITEM 936.0110 MOBILIZATION

DESCRIPTION. The work under this item shall conform to the requirements of Section 936 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition This work consists of those efforts necessary for the movement of the Contractor's personnel and equipment to the project site and for the establishment of all the Contractor's field offices, buildings and other facilities required for the performance of the Contract.

BASIS OF PAYMENT. "Mobilization" will be paid for at the contract “Lump Sum” price as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials and equipment and other incidentals required to establish the Contractor's facilities at the site and, at the conclusion of the contract, for the complete removal thereof. No payment will be made for demobilization. The lump sum amount for Mobilization may not exceed five percent (5%) of the total contract amount, not including Police Traffic Control.

ITEM 937.0200 MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION

DESCRIPTION. The work under this item shall conform to the requirements of Section 937 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition, the Manual on Uniform Traffic Control Devices (MUTCD), latest edition, including all addenda, and/or as directed by the Engineer. This work consists of furnishing, erecting, removing, maintaining, storing, covering and uncovering, relocating and re-erecting, washing, adjusting, and/or repairing all temporary construction signs, sign mountings, portable barricades, traffic cones, barrels, barriers, delineators and other traffic warning devices when and where so-directed by the Engineer or as shown in the Plans and Specification.

FAILURE TO COMPLY. If, in the judgement of the Engineer, the Contractor fails to adequately and safely maintain traffic control devices along any portion of the project, or, if the Contractor fails to move and/or relocate traffic control devices to meet changes in traffic conditions, construction operations, or conditions affecting the safety of the public, the following liquidated damages and penalty will be assessed.

a. For each day the Engineer determines that the Contractor has failed to comply with the provisions of this Section, the daily charge of $500 per day will be deducted from monies then due the Contractor.

b. In addition, for any month that the Engineer determines that the Contractor has failed to comply with the provisions of this Section, the monthly progress payment for said month shall be reduced by an amount equal to the ratio of the number of days the Contractor was not in compliance with the provisions of this Section to the total number of days in the month in question times said regular monthly progress payment.

In the event that emergency repair work has not been initiated within a 90-minute time frame, the sum of three (3) times the daily charge set forth in Special Provision Code 937.1000 will be deducted from monies then due the Contractor for each day until said repair work is undertaken.

If emergency repair work is performed by a party other than the Contractor or one of its first-tier subcontractors, and if the other party is not compensated for its work within 60 days following completion of the repair work, the Engineer reserves the right to withhold monies then due the Contractor in order to provide payment to the other party.

CONSTRUCTION METHOD. Temporary Traffic Control devices shall cover all work related to the furnishing, installation, maintenance, and movement of traffic protective devices on the project. The Contractor shall provide a sufficient number of signs and other warning devices as required by the nature of the work as determined by the MUTCD and/or the Engineer. Devices that do not meet or exceed MUTCD standards will not be considered an acceptable means for temporarily controlling traffic.

When, in the opinion of the Engineer, the sign or device shall be so severely damaged as to warrant replacement, the Contractor shall provide a new device that shall be deemed to be included in this item.

The Contractor shall keep all signs, barricades, and other protective devices in proper position, clean, and legible at all times. Care shall be taken so that weeds, shrubbery, construction materials and equipment, and spoil are not allowed to obscure any sign, lights, or barricade. Signs that do not apply to existing conditions shall be removed or adjusted so that the legend is not visible to approaching traffic. All signs and markers shall indicate actual conditions existing and shall be moved, removed, or changed immediately, as conditions require. When construction is not in progress, all unnecessary signs will be adequately covered.

No work is to be undertaken until the Contractor has established construction signs and/or safety devices around and about the project zone periphery. To that end, the Contractor shall not commence operations until they have verified that semi-permanent signs (i.e. 'Road Under Construction') and/or daily signing, (i.e. 'Detour') have been appropriately established to the satisfaction of the Engineer. The Contractor shall be responsible for establishing supplemental signage, and/or safety devices, as deemed necessary in order to further provide for the safety of the pedestrian and the motoring public, as well as for affording the opportunity to move the construction process forward without interruption. Under this clause, the Contractor shall work closely with the Engineer in order to coordinate the signing activities in a timely and reasonable manner. Said devices shall conform to the Temporary Traffic Control section of the most recent version of the Manual on Uniform Traffic Control Devices (MUTCD). Further, due to the nature of this work, the Contractor shall be required, from time to time, to erect, move, relocate, repair, and/or to remove at days end, any site sign in order to either expedite their work or to otherwise accommodate the safety and/or delineate the project zone and/or its active or inactive detour status and route line, and this work shall be done either at their discretion and/or at the request of the Engineer. Signs erected for detours shall be placed at each turn or point of decision all the entire detour to its terminus, in both directions. Non-compliance with any such request, as herein described, shall be grounds for the Engineer to halt work until such remedial measures have been taken, and any such loss of time by the Contractor shall be at their own expense. Any devices provided which are lost, stolen, destroyed, or deemed unacceptable while their use is required on the project shall be replaced without additional compensation.

The Lump Sum for this item shall include full compensation for all labor, equipment, materials, and incidentals needed to complete the following:

1. Fabricating, furnishing, erecting, maintaining, removing and relocating the traffic management devices for the overall project during construction activities, complete-in-place, as directed by the Engineer.
2. Providing additional traffic management devices to provide a clear and visible traffic control through the project area, if required.
3. The Contractor shall be required to reposition the traffic control devices as many times as necessary to ensure the safe passage of vehicular traffic and pedestrians. Supplemental signs and traffic control devices directing traffic around and/or through the work zones shall be supplied as operations require or as directed by the Engineer. Payment for these traffic control measures shall be included, as part of this item and no additional payment will be made.
4. At a minimum, traffic control shall include the following:
    a. Temporary Traffic Control Signs including detour signs as required.
    b. Channelizing Devices including drum barricades and/or traffic cones.
    c. Type III Barricades.
    d. Temporary Barriers.
    e. Temporary Pedestrian Bypass.

If traffic control devices are installed temporarily or permanently in a way that damages pavements, sidewalks, etc. whether called for on the plans or not, the Contractor shall restore the pavements and sidewalks to their original state satisfactory to the Engineer, at no additional cost to the Owner.

Other work, whether direct or incidental, associated with the traffic control not specifically identified herein.

METHOD OF MEASUREMENT. "Maintenance and Movement Traffic Protection" does not require a measurement for payment.

BASIS OF PAYMENT.

Payment for Full Compliance. "Maintenance and Movement of Traffic Protective Devices" will be paid for at the contract “Lump Sum” price as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including removing the devices from their initial locations, handling, maintaining, transporting and relocating said devices to storage or to subsequent intermediate locations at which they are to be used for traffic control, and all other incidentals required to finish the work, complete and accepted by the Engineer.

Monthly progress payments under this item will be made at a rate determined by dividing the contract lump sum price by the number of months allocated for completion of the contract, such that traffic control meets or exceeds stipulations shown in the Plans, Specifications, or as directed by the Engineer. Said number of months shall be equal to the difference between the contract completion date and the date of the Notice to Proceed.

Payment for authorized contract time extensions will be made at the calculated monthly rate as defined above.

If the contract is completed prior to the authorized completion date, the final monthly payment will consist of the remaining balance of the contract lump sum price.

No payment will be made for unauthorized contract time extensions

ITEM 942.0200 DETECTABLE WARNING PANEL STD 48.1.0

DESCRIPTION. The work under this item shall conform to the requirements of Section 942 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of providing and installing a panel with truncated domes in an arrayed pattern that is compliant with Americans with Disabilities Act (ADA) warning and directional systems for the visually impaired at locations indicated on the Plans or as directed by the Engineer.

MATERIALS. The detectable warning panel shall be of dimension and color contrast within ADA standards and the discretion of the Engineer. The panels shall be black cast iron conforming to AASHTO M105 and AASHTO M306. The panels shall have integrally cast domes and shall be manufactured with integral embedment lugs for the express installation into fresh unset Portland cement concrete. Panels shall also utilize a fastening system with stainless steel screws, which allow the panels to be replaced by unscrewing the panels and replacing without re-pouring of the cement concrete sidewalk. All peripheral materials are to conform to the specifications of the panel manufacturer and shall be acceptable to the Engineer. The panels shall be slip resistant and be in conformance with the latest ADA requirements. The panel shall be covered with a five year limited warranty covering defects in workmanship and materials. The Contractor shall minimize the number of seams between panels by selecting the longest panel lengths.

Panels shall be IronDome Replaceable Tactile Warning Surface Unit with 6-bolt locations manufactured by ADA Solutions, Inc, or an approved equal.

Submittals. The Contractor shall submit detailed shop drawings describing bollard dimensions, materials, color, finish, handling, and installation procedures for the approval of the Engineer. Contractor shall manufacturer’s field touch-up, cleaning, and maintenance instructions. Contractor shall submit a copy of the manufacturer’s warranty.

CONSTRUCTION METHOD. Panels shall be set flush into fresh unset concrete at the required line and grade to match the running grade and cross slope of the ADA accessible ramp or blended transition that warranted the installed panel. The contractor shall ensure that the alignment of the panel will match line and grade of the ramp such that the panel is flush with the ramp, and there is no physical conflict with other castings, fittings, structures, foundations or appurtenance thereof. Detectable warning panels on curves shall either be manufactured to match the radius of the curve or the panels shall be cut in the field to fit the curve.

In brick sidewalks, the detectable warning panel shall be set in mortar.

METHOD OF MEASUREMENT. "Detectable Warning Panel" will be measured by the number of "Square Feet" of panel actually installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Detectable Warning Panel Standard 48.1.0" will be paid for at the contract unit price per "Square Foot" as listed in the Proposal. The price so-stated shall constitute full and complete compensation for all labor, materials, equipment, including sawcutting panels, and other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 942.9901 DIRECTIONAL TACTILE WAYFINDING BAR TILE

DESCRIPTION. The work under this item shall conform to the requirements of Section 942 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of providing and installing a directional wayfinding bar tile that is compliant with Americans with Disabilities Act (ADA) warning and directional systems for the visually impaired at locations indicated on the Plans or as directed by the Engineer.

MATERIALS. The Directional tactile wayfinding bar tile shall be of dimension and color contrast within ADA standards and the discretion of the Engineer. The panels shall be black cast iron conforming to AASHTO M105 and AASHTO M306. The directional wayfinding bar shall be Compliance Solutions Canada's 'Advanced Tactile Systems 12"x12" Cast-in-place Cast Iron Wayfinding Plate' or approved equal.

Compliance solutions Canada Inc.
5863 Leslie Street Suite 507
Toronto Ontario
Canada M2H1J8
905-761-5354

The tiles shall be in accordance with ASTM A-48, class grey cast iron. Tiles shall be in the color Onyx Black. The tile shall be 12" x 12".

CONSTRUCTION METHOD. During all surface preparation and installation procedures, ensure adequate safety guidelines are in place and that they are in accordance with the applicable industry and government standards.

The specifications and related materials shall be in strict accordance with the contract documents and the guidelines set by their respective manufacturers. Not recommended for asphalt applications.

Coordinate with the Contractor or Engineer to ensure that the surfaces being prepared and fabricated to receive the plates are constructed correctly and adequately for plate installation. Review manufacturer and contract drawings with the Contractor prior to the construction and refer any and all discrepancies to the Engineer.

When preparing to set the plate, ensure that the area to receive the plates has been finished to its final elevation. The mortar shall be poured and finished true and smooth to the required dimensions and slope prior to the plate placement.

Lift the TWSI plate and gently place into position onto the wet mortar. The plate shall be placed true and square to the surrounding pavers in accordance with the contract drawings. Press into the mortar. The Cast Iron TWSI Plates shall be tamped or vibrated into the fresh mortar to ensure that the field level of the plate is flush to the adjacent surface.

Immediately after placement, the plate elevation is to be checked to adjacent pavers. The elevation and slope should be set consistent with contract drawings to permit water drainage to curb as the design dictates. Ensure that the field surface of the plate is flush with the surrounding pavers so that no ponding is possible on the plate, and to eliminate tripping hazards between adjacent finishes.

While mortar is workable, create a 6mm recess around the perimeter of the plate. Use a 9mm radius edging tool to create a finished edge of mortar.

Clean the surface of the tile of any mortar.

During and after the TWSI Plate installation, it is imperative that there is no walking, leaning or external force placed on the plate that may rock the plate causing a void between the underside of TWSI Plate and mortar.

Following TWSI Plate placement, review installation tolerances to contract drawings and adjust plate before the mortar sets.

METHOD OF MEASUREMENT. "Directional Tactile Wayfinding Bar Tile" will be measured by the number of "Square Feet" of panel actually installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Directional Tactile Wayfinding Bar Tile" will be paid for at the contract unit price per "Square Foot" as listed in the Proposal. The price so-stated shall constitute full and complete compensation for all labor, materials, including mortar, equipment, including sawcutting panels, and other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM 999.9901 OWNERS ALLOWANCE

DESCRIPTION. The intent of this section is not for work or materials typically incidental to other work items performed and/or rendered under this contract, or for work and/or materials which are otherwise called for under these specifications, and/or for work which is indicated on the plans, but for work and materials which are unique in nature and rendered as a direct request of the Engineer or other approved contingencies, whether for items listed in the proposal or not. This item may also be used for work completed by others on private utility castings. These items of work shall be completed only when and as directed by the Engineer. The Contractor may not proceed with any work under this section without the written notice of the Engineer to complete the work under the "Miscellaneous Work Allowance" item.

METHOD OF MEASUREMENT. All work under this item shall be paid for by one or more or a combination of the following methods at the City's discretion:

1. Bid Proposal Unit Prices
2. Unit prices previously bid
3. An agreed lump sum
4. An agreed upon allowance
5. The actual cost of time and materials
6. Or any other agreed upon measurement and payment prior to work commencing.

BASIS OF PAYMENT. Payment for work completed under this item shall be as specified above, in full or in part, as pre-approved by the Engineer.

ITEM L01.0104 PLANTABLE SOIL

DESCRIPTION. The work under this item shall conform to the requirements of Section L.01 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of furnishing and placing plantable soil to a 4-inch depth on designated areas in close conformity to the lines and grades as shown on the Plans or as directed by the Engineer. Plantable soil shall be either furnished by the Contractor from sources outside the project limits, "Plantable Soil Furnished and Spread," or material removed and stockpiled by the Contractor under the excavation items, "Plantable Soil Re-handled and Spread."

MATERIALS. Plantable Soil shall be clean and free of any undesirable material and conform to the applicable requirements of Section M.18; Landscaping Materials of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition.

METHOD OF MEASUREMENT. "Plantable Soil" will be measured by the number per "Square Yard" of soil installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Plantable Soil" will be paid for at the contract unit price per "Square Yard" as listed in the Proposal. The price so-stated shall constitute full and complete compensation for all labor, materials, equipment, and other incidentals required to finish the work, complete and accepted by the Engineer. The plantable soil shall be furnished by the Contractor from sources outside the project limits.

ITEM L13.9901 CHANTICLEER PEAR TREE

DESCRIPTION. This work consists of planting Chanticleer pear trees as indicated on the plans or as directed by the Engineer.

Submittals: Certifications and/or labels of proposed plant materials or substitutions, listing common, scientific names, sizing, and quantities of each.

CONSTRUCTION METHODS.

Planting

a. **Verification.** Determine the full extent of Work required, including, but not limited to the potential need for storing and maintaining plants temporarily and re-handling plants prior to final installation. Inspect all areas to be planted before starting any landscape work and report any defect, such as incorrect grading, incorrect subgrade elevations, or drainage problems, etc., to the Engineer prior to beginning work. Do not proceed with installation until all unsatisfactory conditions have been corrected. Commencement of Work indicates the Contractor's acceptance of site conditions and filled subgrade material in areas to be planted, and the Contractor assumes responsibility for work.

b. **Layout.** Determine location of underground utilities and layout plants so as to avoid possible damage to such structures. Plant pits and bed locations as shown graphically and/or verbally on plans, shall be staked on ground by contractor and approved by the Engineer prior to excavation. Notify the Engineer at a minimum of 48 hours in advance prior to scheduling any field inspections. Should discrepancies exist between plant quantities in Planting Schedule and Planting Plan, quantities shown on the Planting Plan shall govern. Adjustments in locations and outline shall be made as directed in field. Labor, equipment, and new smooth stakes are to be furnished by the Contractor for this purpose.

c. **Excavation.** Planting beds and pits shall conform to the approved staked locations and outlines. Holes dug for plantings shall in all cases be large enough to include the complete root system of the plant (tree, shrub, and groundcover) to be received and also sufficient amounts of approved backfill around the periphery of the rootball. All sod, weeds, roots, cobbles, and stones and other objectionable materials excavated from the plant holes, which is unsuitable for backfill shall be removed from the site immediately and legally disposed of.

d. **Plant Hole Size.** The minimum plant hole size, unless otherwise specified, shown on the plans or directed by the Engineer shall be as follows:

    1. Trees and Shrubs - The planting hole shall be twice the diameter of the rootball in width and no deeper than 2 inches less than the distance from the bottom of the rootball to the root collar (i.e. a 12 inch tall ball will require a 10 inch deep hole). Any excavation in excess of that required shall be replaced and compacted to eighty-five percent (85%) of maximum

density.

2. Groundcover - The planting hole shall be twice the diameter of the rootball in width and equal to the depth from the bottom of the rootball to the level at which it was grown in the nursery. Any excavation in excess of that required shall be replaced and compacted to eighty-five percent (85%) of maximum density.

e. Any rocks or underground obstructions shall be removed to a depth necessary for planting as specified, unless alternate locations for the planting are approved by the Engineer. If removal of obstructions results in a deeper hole than specified for planting, backfill material shall be added and compacted to eighty-five percent (85%) of maximum density to the correct depth.

f. Backfill Mix. Add loam and compost to existing suitable soil excavated from the planting hole to create mix for planting pits. Backfill Mix shall be at least twenty-five percent 75%) loam and twenty-five percent (25%) compost.

Setting Plants

a. Plants shall be handled in such a manner that the soil of the rootball will not be loosened from the roots. Carefully place plant into the prepared hole. Set plants plumb, place one third of the manufacture's recommended Water Retention Agent around the rootball, and fill in around the rootball to one half the depth of the hole with backfill mix. Thoroughly tamp the backfill mix to eighty-five percent (85%) of maximum density.

b. Fill remaining area of planting hole with water. Once the water has completely drained, loosen burlap and peel down at least the top two-thirds. Wire baskets to be cut off and removed. Roots that have been wrapped around the ball within the burlap shall be made to lay in as natural a manner as possible. Cut broken or frayed roots cleanly. Prune girdling roots.

c. Fill remaining area of hole with backfill mix, place two-thirds of the manufacture's recommended Water Retention Agent around the rootball, and thoroughly tamp to eighty-five percent (85%) of maximum density. Form a saucer around the edge of through backfill hole by constructing a berm. The finish height of the compacted berm shall be 4 inches higher than the surrounding grade. No excess soil shall be allowed to remain within the plant saucer. Fill saucer with water.

Pruning of New Plant Material

After planting, prune only dead, broken or deformed branches and in such manner as to preserve natural character of plant.

Perform all pruning with sharp tools, with cuts flush and clean. Do not apply paint or asphalt emulsion tree wound compound on cut area.

Trees which have had their leaders cut, or so damaged that cutting is necessary, will not be accepted. There shall be no abrasion of bark, nor fresh cuts of limbs over ½ inch.

Watering

The plants shall be watered immediately following planting.

Soak the plants thoroughly again within a twenty-four hour period after the initial planting.
Additional watering shall be made at least once every week, or as directed by the Engineer based on weather conditions, until final acceptance of the plant material.

Fertilizing

During backfill operations, place fertilizer in upper foot of back fill around perimeters at a rate of two ounces per foot of diameter of plant pit, or as recommended by manufacturer.

Mulching Plants

Application of mulch should only occur after planting operations have been completed and initial watering has taken place. Mulch shall be applied no later than forty-eight hours after planting.

Mulch shall be applied to a maximum of 3 inches in depth for all individual trees and planting beds, as indicated graphically or verbally on the drawings.

Where mulch abuts seeded lawn areas or other finish grade materials, edge of planting bed shall be cut smooth and cleanly. Mulch shall be placed carefully so as not to spill into adjacent areas. Any excess or spilled mulch shall be promptly removed from the project area. The cost of the mulch is incidental to new plantings.

Guying and Staking

Immediately after planting, stake trees as indicated on the drawings or as directed by Engineer.

Place two stakes outside of the planting pit exercising care not to damage the soil berm.

Guy all trees with a caliper of 2 inches or greater and all evergreen trees greater than 4 feet. Guy webbing shall be attached at a point no higher than one-half the height of the tree or lower than one-third the height of the tree.

Guy trees to each stake near top of stake and intertwine webbing at tree trunk. The guy webbing shall lay flat against the trunk. Draw guy webbing tight enough to remove slack but shall not cause deflation or strain to the plant.

Install tree staples at locations indicated on drawings. Install per manufacturers recommendations.

Trunk Wrapping

Remove all trunk wrap and trunk protection devices prior to staking and guying operations unless otherwise directed by the Engineer.

Anti-dessicant Spraying

Spray anti-dessicant as directed by the manufacturer’s recommendation and as approved by the Engineer.

Tags and Labels

Leave all tree tag and label seals unbroken and visible on plant material until final inspection. Remove all seals immediately after final inspection.

Plant Care

Contractor shall provide plant care for the duration of the Maintenance and Establishment periods.

During the 60 day Maintenance Period, plants shall be inspected for watering needs at least twice each week using moisture meters supplied by the Contractor. In addition, during the portion of the Establishment Period occurring between May 1 and November 1, the plants shall be inspected weekly using moisture meters.

Plant care shall consist of keeping the plants in a healthy growing condition. Plant care shall include watering, weeding, pruning, re-mulching, and removal of dead material, resetting plants to proper grades or upright position, and maintaining the planting saucer. Treatment of invasive species shall be as described below.

Trees and shrubs shall be pruned, if necessary, following planting and in accordance with the American Nurserymen's Association Standards for Class I, fine pruning, to preserve the natural character of the plant. All dead wood or suckers and all broken or badly bruised branches shall be removed. Do not cut leaders.

Any decline in the condition of new plantings shall require the Contractor to take immediate action to identify potential problems and undertake corrective measures. If required, the Contractor shall engage professional arborists and/or horticulturists to inspect plant materials and to identify problems and recommend corrective procedures. The Engineer shall be immediately advised of such actions. Inspection and recommendation reports shall be submitted to the Engineer.

Absolutely no debris may be left on the site. The Contractor shall repair any damage to site as directed by the Engineer, at no additional cost.

Invasive Plant Control

Planting beds shall be monitored for growth of invasive species, in particular, Japanese Knotweed. All invasive plants shall be either manually removed such that the entire root system is removed or shall be treated with herbicide during the most effective time period. Herbicide application for invasive control in planting beds shall be incidental to the planting items.

Maintenance Period: 60 Days

The Maintenance Period shall begin immediately after each plant is planted and shall continue for a minimum of 60 days following the completion of all planting installations, or until the Conditional Acceptance of all planting work, whichever is a longer period of time. The Maintenance Period shall include the following on a weekly basis: Weeding, raking of fallen leaves, deadheading, removal, and replacement of dead plants, watering, fertilizing, application of additional mulch, etc. as needed. The contractor shall submit a weekly maintenance log to the engineer with no less than (15) images showing representative plants areas.

At the end of the Maintenance Period, the Contractor will request inspection by the Engineer at least 10 days before the anticipated date of inspection.

At the time of inspection, if the plant materials and workmanship are acceptable to the Engineer, the Engineer shall issue a written Certificate of Conditional Acceptance to the Contractor. The date of the inspection shall establish the end of the Maintenance Period and the commencement of the two-year Establishment Period for planting work.

If in the Engineer's opinion, plant materials and/or workmanship are deficient, acceptance will not be granted, and the Maintenance Period for all the plants shall be extended until plant replacements are made or other deficiencies are corrected. All dead and unsatisfactory plants shall be removed promptly from the project. Replacement plants shall conform in all respects to the Specifications for the original plants and shall be planted in the same manner.

Establishment Period: One Year

The purpose of the Establishment Period is to nurture plants through at least one full growing season. The Contractor shall be responsible for maintaining and replacing plants at any time throughout the 1-year period per the request of the Engineer. The contractor shall have (10) days to replace plant(s) after it has been brought to their attention.

Planted areas shall be kept free of weeds and debris, and plantings shall be re-mulched as necessary. Invasive plants shall be removed and/or treated as specified herein for the duration of the year. The contractor shall have (10) days to provide maintenance after it has been brought to their attention.

Inspection shall be as follows:

Plants shall be inspected one full growing season following the Conditional Acceptance during August-September. All plants shall be inspected by the Engineer at the end of the growing season of the year following the Conditional Acceptance. Plants shall be alive and in satisfactory growth at that time. The Contractor is responsible for arranging inspection early enough in the season to allow adequate time to procure and install replacement material. Plants found to be unacceptable shall be removed promptly from the site and replaced immediately or during the next normal planting season. Contractor is responsible for replacing any plants found unacceptable prior to this inspection. Upon acceptance of the work of replacement planting, the Engineer shall issue a written Certificate of Final Acceptance for all plants installed under this Section to the Contractor.

Stakes and guying, if any, shall be removed from all plants before Final Acceptance.

Warranty Period: One Year

The purpose of the Warranty Period is to warranty plants for one full year after the Establishment Period. The Contractor shall be responsible for replacing plants at any time throughout the 1-year period per the request of the Engineer. The Warranty Period shall begin immediately after Certificate of Final Acceptance is provided and shall continue for 365 days.

If in the Engineer's opinion, plant materials and/or workmanship are deficient, the contractor shall replace the plants during the Warranty Period until plant replacements are made or other deficiencies are corrected. All dead and unsatisfactory plants shall be removed promptly from the project. Replacement plants shall conform in all respects to the Specifications for the original plants and shall be planted in the same manner.

Decision of Engineer as to necessity to replace any plant materials or repair any defects on workmanship, or cause of any destruction or loss, impairment or failure to flourish, shall be conclusive and binding upon Contractor. Replacements shall be of same species and size as specified on Plant List. All plant replacements shall be inspected, sealed, furnished, planted, and mulched as specified herein at Contractor's expense.

METHOD OF MEASUREMENT. “Chanticleer Pear Tree” will be measured by the number per “Each” tree actually planted in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of “Chanticleer Pear Tree” will be paid for at the contract unit price per “Each” as listed in the Proposal. The price so-stated shall constitute full and complete compensation for all labor, materials, equipment, and other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM L13.9902 PLANTINGS

DESCRIPTION. This Work under this Item consists of furnishing new plant material: planting, watering, mulching, staking and guying trees, shrubs, perennials, and ground covers of the type and sizes indicated on the Plans, in accordance with these Specifications and/or as directed by the Owner’s Representative or Engineer.

The principal work of this section includes, but may not be limited to, the following:

1. Transplanting Operations
2. Layout and Excavation of Plant Holes
3. Planting and Backfilling
4. Watering
5. Pre-emergent Weed Control
6. Mulching
7. Fertilizing
8. Tags and Labels

9. Maintenance of trees and shrubs
10. Plant Replacement Guarantee

The work shall follow standards ANSI Z-60.1 - Nursery Stock, latest edition (American Association of Nurserymen, Inc.), SPN: "Standardized Plant Names," latest edition, by the American Joint Committee on Horticultural Nomenclature, AOAC: Association of Official Agricultural Chemist.", and Pruning Standards: ANSI A300 Practices for Trees, Shrubs &Other Woody Plant Maintenance: Secretariat, National Arborist Association, P. O. Box 1094 Amherst, MA.

The Contractor shall Sub-contract planting work to a firm specializing in such work unless the Contractor is fully experienced and qualified. The Landscape Contractor shall have five years continuous experience and expertise in management, handling and installation of ornamental plant material in large scale landscape construction projects. Site foreman shall have at least five years' experience and shall be on-site during all times of transplanting and plant installation.

The Landscape Contractor shall be responsible to coordinate with plant material suppliers in sufficient time to ensure that all of the plants as specified in the contract plant list are available in sufficient quantity for installation.

An arborist, licensed by the State of Rhode Island, is required for transplanting work.

At least one shrub of each variety is to be tagged with a waterproof tag bearing legible designation of botanical and common names, and all other standard products shall be delivered sealed and unbroken.

Do not make substitutions without written approval. If specified landscape material is not available, obtain approval for substitution from the Owner's Representative.

Where formal planting arrangements and adjacent street trees of the same variety are shown, select stock with uniform height and spread, and label with numbers to assure symmetry in planting.

The Owner's Representative reserves the right to inspect all plant materials for compliance with specifications, and to reject unsatisfactory or defective work at any time during progress of work

Protect all products from weather or other damaging or deteriorating conditions.

Plants which have been damaged or have deteriorated in transit or storage are not acceptable

Keep plants moist, fresh, and protected against exposure to sun, wind, and freezing temperatures whether in the receiving yard, in transit, while being handled, or at the job site awaiting planting.

Deliver shrubs and groundcover after preparations for planting have been completed and plant immediately.

Planting Dates: The Landscape Contractor should provide a proposed planting schedule. Schedule dates for landscape work during normal seasons for such work. Once accepted, revise dates only as approved in writing, after documentation of reasons for delays.

Planting Window:	Spring – April 30 to June 30
	Fall - August 15 to October 15

Those species known to be fall digging hazards shall be dug during the spring season only. Fall planting of these species shall be permitted only with certification, from the nursery, of the time of digging and at the discretion of the Owner's Representative.

Correlate planting schedule with specified maintenance periods to provide maintenance to date of acceptance.

Coordination with Lawns: Plant shrubs, and groundcover after final grades are established and prior to planting of lawns, unless otherwise acceptable to Owner's Representative. If planting of trees and shrubs occurs after lawn work, protect lawn areas and promptly repair damage to lawns resulting from planting operations.

SPECIAL CONDITIONS
Should discrepancies exist between plant quantities or plant sizes as shown in the Planting Schedule and on the Planting Plan, quantities and sizes shown on the Planting Plan shall govern. Contractor shall install all plants as shown on the plan at no additional cost to the Owner.

WARRANTY
Provide a warranty for plant material for a minimum of one year including one continuous growing season. Commence warranty on date identified in the Certificate of Final Acceptance.

Warranty: Include coverage of plants from death or unhealthy conditions.

Replacements: Plants of same size and species as specified, planted as soon as possible in the next growing season, with a new warranty and an extended maintenance service commencing on date of replacement.

MAINTENANCE
Maintenance of all plant material to be performed by installer includes:

- Watering, mulching, staking of transplanted trees
- Watering, weeding, cultivating and mulching of shrub materials
- Replacing of dead plant material
- Resetting plants to proper grades, or to upright position

MATERIALS.

LOAM:
Certified Clean, the Loam shall contain not less than 5 1/2 percent nor more than 10 percent organic matter as determined by the loss on ignition of oven-dried samples. The loam shall have an acidity range of 5.5 pH to 7.6 pH.

Loam shall be free of debris and other extraneous matter. It shall be uncontaminated by salt water, foreign matter and substances harmful to plant growth. The electrical conductivity (EC2)

of a 1:2 soil-water suspension shall be equal to or less than 1.0 milliohms/cm. (Test minus sieve #10 material). Soils shall not have levels of extractable aluminum greater than 200 parts per million.

No loam shall be delivered to the site until the review and approval of loam test results by the Engineer, but such approval shall not constitute final acceptance. The Engineer will reject any material delivered to the site which, after on-site, post-delivery testing, does not meet these specifications.

ANTIDESSICANT
Anti-desiccant shall be an emulsion which permits transpiration while retarding excessive loss of moisture from plants.

Deliver in manufacturer's fully identified containers and mix according to manufacturer's direction. Use "Wiltproof" or approved equal.

FERTILIZER:
Complete fertilizer in granular form, from commercial sources bearing manufacturer's analysis; 10-10-10 ratio of N-P-K.

Significant quantities of trace elements such as iron, boron, etc. shall be contained in the fertilizer.

Fifty percent (50%) of available nitrogen shall be in a slow release form as found in certain urea form products or natural organic forms or a combination of both.

Salt index shall not exceed 35.

PRE-EMERGENT WEED CONTROL:
Pre-Emergent weed control for application in mulch areas shall be granular and have the active ingredient "Trifluralin 5.0%". All application rates and product use shall be in accordance with manufactures guidelines.

MULCH:
Pine Bark Mulch shall be derived from evergreen tree bark aged to a minimum of six months and no more than eighteen months. The bark shall be shredded so that the resulting pieces are no more than 1/2 inch thick and no longer than 3 inches. The mulch shall be ninety-eight percent (98%) organic matter with a pH of 3.5 to 4.5. The mulch shall be free of stringy material and shall not contain an excess of fine particles. The mulch shall be brown in color, free of leaves, twigs, sod, weeds, shavings and other foreign materials which are injurious to health plant growth.

WATER:
Clean, fresh potable water free from injurious chemicals and other toxic substances harmful to plant life. No brackish water will be permitted.

The Owner's Representative may reject any water delivered to the site which, after on-site, post-delivery testing, does not meet these specifications.

PLANT MATERIALS:
Plant materials shall conform in size, grade and quality to the "American Association of Nurserymen Standards for Nursery Stock." As approved by the United States of America standards institute, in effect at the time of bidding.

Plants of other kinds than those named in the Plant Schedule on the Drawings shall not be accepted without written approval of the Owner's Representative.

Unless otherwise approved by Owner's Representative, all plants shall be nursery-grown in accordance with good horticultural practices and shall have been grown under climatic conditions similar to those in the locality of the project for at least two years. They shall have been transplanted or root pruned at least nine months previous to moving to the site.

Plants shall be dug, handled and transported so as to prevent damage of any sort including but not limited to breakage of branches or limbs, scraped or bruised trunk or broken rootball. Plants shall be protected from desiccation during digging, storage and transportation by watering, covering and application of anti-desiccants as necessary to ensure their continued health and viability.

All plant material shall comply with the state and federal law with respect to inspection for plant disease and insect infestation.

Replacement plants larger in size than existing may be used if approved by the Owner's Representative provided use of larger plants does not increase Contract price.

If use of larger plants is approved, increase ball of earth of spread of roots in proportion to size of plant.

Submittals: Certifications and/or labels of proposed plant materials or substitutions, listing common, scientific names, sizing, and quantities of each.

CONSTRUCTION METHODS.
Layout: Determine location of underground utilities and layout plants so as to avoid possible damage to such structures. Plant shown graphically and/or verbally on plans, shall be staked on ground by contractor and approved by the Owner's Representative prior to excavation. Should discrepancies exist between plant quantities in Planting Schedule and Planting Plan, quantities shown on the Planting Plan shall govern. Adjustments in locations and outline shall be made as directed in field. Labor, equipment, and new smooth stakes are to be furnished by the Contractor for this purpose.

Excavation: Planting locations shall conform to the approved staked locations and outlines. Holes dug for plantings shall in all cases be large enough to include the complete root system of the plant (tree, shrub, and groundcover) to be received and also sufficient amounts of approved backfill around the periphery of the root ball. All sod, weeds, roots, cobbles, and stones and other objectionable materials excavated from the plant holes, which is unsuitable for backfill shall be removed from the site immediately and legally disposed of.

Plant Hole Size: The minimum plant hole size, unless otherwise specified, shown on the plans or directed by the Engineer shall be as follows:

1. Trees and Shrubs - The planting hole shall be twice the diameter of the root ball in width and no deeper than 2 inches less than the distance from the bottom of the root ball to the root collar (i.e. a 12 inch tall ball will require a 10 inch deep hole). Any excavation in excess of that required shall be replaced and compacted to eighty-five percent (85%) of maximum density.

2. Groundcover - The planting hole shall be twice the diameter of the root ball in width and equal to the depth from the bottom of the root ball to the level at which it was grown in the nursery. Any excavation in excess of that required shall be replaced and compacted to eighty-five percent (85%) of maximum density.

Any rocks or underground obstructions shall be removed to a depth necessary for planting as specified, unless alternate locations for the planting are approved by the Engineer. If removal of obstructions results in a deeper hole than specified for planting, backfill material shall be added and compacted to eighty-five percent (85%) of maximum density to the correct depth.

Backfill Mix: Add loam to suitable soil excavated from the planting hole to create mix for planting pits. Backfill mix shall be at least thirty-three percent (33%) loam.

SETTING PLANTS

Plants shall be handled in such a manner that the soil of the root ball will not be loosened from the roots. Carefully place plant into the prepared hole. Set plants plumb and fill in around the root ball to one-half the depth of the hole with backfill mix. Thoroughly tamp the backfill mix to eighty-five percent (85%) of maximum density.

Fill remaining area of planting hole with water. Once the water has completely drained loosen burlap and peel down at least the top one-third. If required wire baskets to be cut off and removed. Roots that have been wrapped around the ball within the burlap shall be made to lay in as natural a manner as possible. Cut broken or frayed roots cleanly.

Fill remaining area of hole with backfill mix and thoroughly tamp to eighty-five percent (85%) of maximum density. Form a saucer around the edge of through backfill hole by constructing a berm. The finish height of the compacted berm shall be 4 inches higher than the surrounding grade. No excess soil shall be allowed to remain within the plant saucer. Fill saucer with water.

PRUNING OF NEW PLANT MATERIAL

After planting, prune only dead, broken or deformed branches and in such manner as to preserve natural character of plant.

Perform all pruning with sharp tools, with cuts flush and clean. Do not apply paint or asphalt emulsion tree wound compound on cut area.

Trees which have had their leaders cut, or so damaged that cutting is necessary, will not be accepted. There shall be no abrasion of bark, nor fresh cuts of limbs over ½ inch.

WATERING

The plants shall be watered immediately following planting.

Soak the plants thoroughly again within a twenty-four hour period after the initial planting.

Additional watering shall be made at least once every three weeks, or as directed by the Engineer based on weather conditions, until final acceptance of the plant material.

FERTILIZING
During backfill operations, place fertilizer in upper foot of back fill around perimeters at a rate of two ounces per foot of diameter of plant pit, or as recommended by manufacturer.

MULCHING PLANTS

Application of mulch should only occur after planting operations have been completed and initial watering has taken place. Mulch shall be applied no later than forty-eight hours after planting.

Prior to the placement of mulch, the contractor shall apply a pre-emergent weed control with the entire area to be mulched. Pre-emergent weed control shall be applied by a commercial applicator, licensed by the State of Rhode Island at a rate in accordance with the manufacturer's instructions.

Mulch shall be applied a minimum of 3 inches in depth for all individual trees and planting beds, as indicated graphically or verbally on the drawings.

Where mulch abuts seeded lawn areas or other finish grade materials, edge of planting bed shall be cut smooth and cleanly. Mulch shall be placed carefully so as not to spill into adjacent areas. Any excess or spilled mulch shall be promptly removed from the project area. The cost of the mulch is incidental to new plantings.

ANTIDESSICANT SPRAYING
Spray anti-desiccants as directed by the manufacturer's recommendations if so directed by the Owner's Representative and or Engineer.

TAGS AND LABELS
Leave all tree tag and label seals unbroken and visible on plant material until final inspection. Remove all seals immediately after final inspection.

MAINTENANCE
Contractor is responsible for protection and maintenance of all work prior to final acceptance. No plants will be accepted unless they show a healthy growth and satisfactory condition.

Maintenance work for all plantings shall be as listed in Section 1.08.

PLANT REPLACEMENT GUARANTEE
Guarantee that, upon completion and final acceptance tree, shrub and groundcover planting conforms to requirements of contract documents and that all plants except transplant materials are healthy and will remain so for a period of one year. Such period shall commence with date of final acceptance.

At any time within period of guarantee, Contractor shall replace any planting which for any reason, other than vandalism, has died or is in a dying condition, or which has failed to flourish in such a manner or to such a degree that its usefulness or appearance has been impaired.

The Engineer will not maintain plantings until after guarantee period. Contractor shall not have any claim that materials have failed to flourish as a result of Engineer's maintenance operations, or lack of maintenance, and shall abide by terms stated herein for guarantee and replacement of plant materials.

Decision of Owner's Representative as to necessity to replace any plant materials or repair any defects on workmanship, or cause of any destruction or loss, impairment or failure to flourish, shall be conclusive and binding upon Contractor. Replacements shall be of same species and size as specified on Plant List. All plant replacements shall be inspected, sealed, furnished, planted and mulched as specified herein at Contractor's expense.

"Vandalism," is intended to mean any acts, whether intentional or accidental, by other persons occurring following final acceptance, which clearly result in breakage or other damage to individual plants or plant beds, and which may reasonable be considered to be beyond Contractor's reasonable control, as determined by the Owner's Representative.

METHOD OF MEASUREMENT. "Plantings" will be measured by the number per "Each" tree actually planted in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Chanticleer Pear Tree" will be paid for at the contract unit price per "Each" as listed in the Proposal. The price so-stated shall constitute full and complete compensation for all labor, materials, equipment, and other incidentals required to finish the work, complete and accepted by the Engineer.

ITEM L13.9903 FURNISH AND INSTALLATION OF BENCHES

DESCRIPTION. This item of work shall consist of furnishing and installing benches at the locations and to the dimensions shown on the plans in accordance with these specifications and/or directed by the Engineer.

MATERIALS. The materials shall be in accordance with the applicable sections of the RIDOT Standard Specifications for Road and Bridge Construction, 2004 Edition, with all revisions, unless otherwise specified below.

Bench. The bench shall be a ductile iron bench. The bench shall be Victor Stanley's 'C-10' bench.
Victor Stanley, Inc.
P.O. Drawer 330
Dunkirk, MD 20754 USA
Toll Free: (800) 368-2573 (USA & Canada)
Tel: (301) 855-8300 Fax: (410) 257-7579
E-mail: sales@victorstanley.com
Web site: http://www.victorstanley.com

Bench shall have ductile iron end frames - 2" x 3" nominal (38mm x 64mm) slats; and a 1-5/16" (33mm) tubular steel rung used for additional support.

Bench shall be 6 feet in length with arm rests and Ipe slats.

Finish. All fabricated metal components shall be steel shotblasted, etched, phosphatized, preheated, and electrostatically powder-coated with TGIC polyester powder coatings. Products shall be fully cleaned and pretreated, preheated and coated while hot to fill crevices and build coating film. Coated parts shall then fully cured to coating manufacturer's specifications. The thickness of the resulting finish averages 8-10 mils (200-250 microns). Finish shall be in the color Black and shall be hot-dip galvanized before powder coated.

Attachment. The bench shall be secured to a footing that shall consist of Class A concrete and shall conform to the applicable requirements of Sections 601 and M.02 of the RIDOT Standard Specifications for Roads and Bridges, 2004 Edition, with all revisions by using 3/8" anchor bolts.

Submittals. The Contractor shall submit detailed shop drawings describing bollard dimensions, materials, color, finish, handling, and installation procedures for the approval of the Engineer. Installer must submit evidence of a successful installation history with comparable materials and designs specified.

Concrete Footings: Concrete shall be Class A concrete in accordance with Rhode Island Standard Specifications for Road and Bridge Construction, 2004 edition, and all the applicable compilation of approved specifications.

CONSTRUCTION METHODS. The bench shall be installed at locations as shown on the Plans and in accordance with manufacturer's directions. Concrete foundations shall be constructed to the dimensions

on drawings. Coordinate construction of the cement concrete foundation with the installation of the surrounding pavement.

Assemble benches in conformance with the approved shop drawings. It is not recommended to locate anchor bolts until bench is in place

Benches shall be installed level and plumb at locations indicated on the plans or directed by the Engineer.

Protect benches from paint spatter, concrete splashes, and other construction damage by wrapping in plastic sheeting or heavy kraft paper and taping in place. Do not remove until adjacent work is completed.

Protect benches and hardware from chipping during troweling operations. Repair any damage to painted finish.

Benches shall be wrapped and stored in a secure location until needed for installation. Any bollards damaged as the result of the Contractor's negligent actions shall be replaced by the Contractor at no cost to the owner.

Extreme care shall be taken during the handling to avoid damage to the benches. Slings or other non-invasive devices shall be used. Chains will NOT be allowed. The Contractor shall be responsible for the replacement of all bollards that become damaged during handling at no additional cost to the Owner. All construction shall be performed to the satisfaction of the Engineer.

METHOD OF MEASUREMENT. "Benches" shall be measured by "Each" such bench installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Benches" will be paid for at the contract unit price per "Each" as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including excavation, shallow and standard Class A concrete footings, attachments, placing and compacting backfill and for all incidentals required to finish the work, complete and accepted by the Engineer.

ITEM T05.1030 ADJUST HANDHOLE TO GRADE

DESCRIPTION. The work under this item shall conform to the requirements of Section T.05 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of adjusting handholes to the proposed grade.

METHOD OF MEASUREMENT. "Adjust Handhole to Grade" will be measured by the number of such units actually adjusted in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Adjust Handhole to Grade" will be paid for at the contract unit prices per each as listed in the Proposal. Each and every adjustment authorized by the Engineer will be paid for. The prices so-stated constitute full and complete compensation for all labor, materials, and equipment including excavation, backfill, compaction, adapter collar and for all other incidentals required to finish the work, complete and accepted by both the Engineer and the representative of the particular utility company involved.

ITEM T11.9905 MODIFY TRAFFIC SIGNAL EQUIPMENT

DESCRIPTION. The work under this item shall conform to the requirements of Section T.11 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of removing and stockpiling pedestrian signal pole, heads and push buttons (including foundations and plugging/capping pipes), removing and relocating pedestrian signal pole and heads (including foundation,

conduit, breaking into existing hand holes, rewiring, installation), and furnish and installation of new APS pedestrian push buttons.

CONSTRUCTION METHOD. All equipment designated to be removed shall be so-removed, cleaned, transported, and stockpiled at the Providence DPW at 700 Allens Avenue. All equipment shall be cleaned of debris and concrete prior to delivery. All delivered shall be offloaded and stacked in an orderly manner. The void left by excavating and removing such structures shall be immediately backfilled, replaced with its reciprocal item, or otherwise protected to the satisfaction of the Engineer. Any damage caused to the equipment shall be borne by the Contractor and shall be replaced at the Contractor's expense.

All improvements, equipment, and existing surfaces disturbed, damaged or removed in the performance of this item of work, unless indicated on the Plans, shall be replaced to the satisfaction of the Engineer at no expense to the Owner.

METHOD OF MEASUREMENT. "Modify Traffic Signal Equipment" will be measured as an "Allowance" for the number of such units actually installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of "Modify Traffic Signal Equipment" will be paid for at the contract unit prices per "Allowance" as listed in the Proposal. Each and every adjustment authorized by the Engineer will be paid for. The prices so-stated constitute full and complete compensation for all labor, materials, and equipment including saw cutting, excavation, backfill, compaction, removing and stockpiling and/or resetting signal equipment, and for all other incidentals required to finish the work, complete and accepted by both the Engineer and the representative of the particular utility company involved.

ITEM T15.0100 DIRECTIONAL, REGULATORY, AND WARNING SIGNS
ITEM T15.0200 REMOVE AND RELOCATE DIRECTIONAL, REGULATORY, AND WARNING SIGNS
ITEM T15.1000 STREET SIGN ASSEMBLY STD 24.6.1

DESCRIPTION. The work under this item shall conform to the requirements of Section T.15 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition and the Manual on Uniform Traffic Control Devices (MUTCD). This work consists of furnishing and installing directional, regulatory, and warning signs, along with specified signposts. This work also includes the removal and relocation of existing directional, regulatory, and warning signs, the installation of street signs, and LED warning signs.

CONSTRUCTION METHOD.

1) Preparation of Aluminum Sheets. Prior to application of reflective sheeting, the aluminum sign sheets shall be treated in strict accordance with the following procedure:

    a. The sign panel shall be degreased by total immersion in a saturated vapor of trichloroethylene. Trademark printing shall be removed with lacquer thinner or controlled alkaline cleaning system.

    b. Preliminary cleaning shall be followed by a surface etch in a 6-to-8 percent phosphoric acid solution at 100OF followed by spraying with a cold-water rinse and immersion for one minute in circulating hot water at not less than 180OF. The surface etch shall provide a clean, non-shine or non-glare finish suitable for the application of sheeting.

    c. The sign panel shall be dried by the use of a forced hot air drier.

    d. No metal shall be handled, except by device or clean canvas gloves, between all cleaning and etching operations and the application of paint or reflective sheeting. There shall be

no opportunity for metal to come in contact with grease, oils, or other contaminants after cleaning, etching, and prior to the application of paint or reflective sheeting.

2) Sign Face. The design, color, type, size, and dimensions of the sign faces shall conform to the Plans and to the applicable requirements of the latest edition and revisions of the Manual on Uniform Traffic Control Devices. Alphabet designs of upper and lower-case letters and spacing of letters shall conform to the Standard Alphabets for Highway Signs, published by the U.S. Department of Transportation, Federal Highway Administration.

   The Engineer reserves the right to make any changes in sign texts prior to sign manufacture at no additional expense to the Owner. Drawings showing dimensions, sizes, shapes, and spacing of letters and arrows for all directional signs shall be submitted to the Engineer within 30 days following the award of the Contract.

3) Application of Reflective Sheeting and Finish.

   a. Method. Application of reflective sheeting shall be by the mechanical squeeze roller applicator method in accordance with the recommendations of the manufacturer.

   b. Splices. At splices, pressure-sensitive, adhesive-coated sheeting shall be overlapped not less than 3/16-inch. Heat-activated, adhesive-coated sheeting may be spliced with overlap not less than 3/16-inch or butted, gap not to exceed 1/32-inch. Only butt splices shall be permitted on signs screen processed with transparent color. Sheeting applied to extruded sections shall extend over top edges and down side legs a minimum of 1/16-inch.

   c. Finish. Reflective sheeting splices and sign edges shall be sealed and signs clear coated with materials supplied and in accordance with the manufacturer's instructions.

4) Locations. The approximate locations of the signs are shown on the Plans, but exact locations shall be determined in the field by the Engineer. Posts shall be erected plumb. Signs shall be erected to face 2 degrees away from the direction of approaching traffic so that there will be no specular glare from the reflective sheeting.

   Street signs shall be mounted horizontally on the posts in accordance with standard commercial processes as approved by the Engineer.

   Side-of-road signs shall be mounted at locations indicated on the Plans. The height of the sign shall be determined in accordance with the Plans; the Manual on Uniform Traffic Control Devices; or as directed by the Engineer.

5) Post Holes. Postholes shall be excavated to the depth and in the position shown on the Plans, or as indicated by the Engineer. A tolerance of plus or minus three (3) inches will be permitted in the depth of the holes for wood posts. The exposed portions of the posts shall be set plumb and true to line and grade, and holes shall be backfilled with sound earth and tamped in six (6) inch layers in such a way as not to displace the posts.

   Postholes to be excavated through an existing concrete or asphalt surface shall be backfilled with earth as prescribed above to within four (4) inches of the original grade. After this is completed, four (4) inches of concrete shall be placed in the hole and the surface leveled and finished with the original grade.

   When signposts, except U-channels, are to be installed within areas where new concrete or asphalt pavement is to be placed, the following method shall be used. At the post location, a four (4) inch diameter PVC sleeve that is one (1) inch longer than the depth of the Portland Cement Concrete (PCC) sidewalk or PCC base shall be installed around the breakaway sign anchor. A box form will then be installed where the side dimension of the box form shall be four (4) inches larger than the greatest dimension of the required post, but no less than eight (8) inches, and its depth shall be six (6) inches. The box form shall be firmly anchored and shall be placed such that the top of the box

is at the finished grade of the pavement. The pavement shall be installed around the box form. The required posthole shall then be excavated within the area of the box form, and the post will be installed, with the proper backfilling, as described above. All concrete box forms shall conform to Subsections 905.03.3(c), (d) and (g) of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition.

6) Remove and Relocate Signs. The sign panels and posts shall be relocated as a complete unit. If any hardware or posts are damaged or faulty, then posts and hardware shall be utilized from the sign assemblies removed and disposed. All costs for the replacement of damaged or faulty hardware and/or posts shall be included in this item of work.

7) Street Signs. Street sign blade dimension, and text sizes, shall be as follows:

    a. Height and Letter Sizes. All faces with 6-inch caps and 4-inch suffix copy will trim to a 9-inch height and shall be used

        All street signs mounted overhead will have 8-inch caps and 5-inch suffix caps, and will be 18 inches in height, regardless of posted speed.

        All suffix copy shall be placed directly to the upper right hand of the street name designation.

    b. Length and Letter Series. Pre-screened street name sign faces in 30, 36, 42, and 48-inch lengths for capital legend will be in accordance with the following guidelines:

        The majority of pre-screened faces will be 30 inches or 36 inches in length and the legends shall be "D" series letters unless otherwise authorized by the Engineer.

        If legends in the "D" series letter size have a primary copy of 6 inches and are of such lengths as to require faces longer than 36 inches, the "C" series letter size shall be used, and the sign shall be made to the shortest of the allowable sizes (i.e., 36 inches, 42 inches, or 48 inches).

        If legends in the "D" series letter size have a primary copy of 4 inches and are of such lengths as to require faces longer than 30 inches, the "C" series or "B" series letter size (the boldest which space allows) shall be used, and the sign shall be made to the shortest of the allowable sizes (i.e., 30 inches, 36 inches or 42 inches).

        Overhead mounted sign blades shall have a minimum length of 36 inches and a maximum length of 72 inches. Legend shall be series “D.” Spacing may be reduced by up to 25 percent if the text does not fit on the 72-inch sign blade. If the legend exceeds the 72-inch length with the reduction in spacing, then series “C” text may be used. Lateral spacing from the edge of the sign to the edge of the text shall not be less than 8 inches.

8) Parking Signs. (T.15.03.8)

    a. Posts. Posts shall be driven to a depth of 4 feet. The post shall be placed such that the sign is at an angle of not less than 30 degrees or more than 45 degrees with a line parallel to the flow of traffic. The edge of the sign shall be 18 inches from the face of curb unless space does not permit, in which case the edge of sign shall be 12 inches from the face of curb. At no time will the sign be placed closer than 12 inches to the face of curb.

    b. Panel. The sign panel shall be attached to the post using two, 5/16-inch by 2½-inch galvanized bolts with two 0.070 washers per bolt.

9) Signs Mounted on Mast Arms. All signs attached to traffic signal mast arms shall include galvanized steel safety chains.

The mounting bracket used for the overhead street signs will be held in place with stainless steel bands and must be adjustable such that the sign blade is perpendicular to the direction of traffic. The mounting shall hold the sign rigidly in place and resist movement in all directions. Sign blades 60 inches and greater in length shall be held in place with two brackets.

10) Signs located on bridge structures will be surface mounted.

METHOD OF MEASUREMENT. "Directional, Regulatory, and Warning Signs" will be measured by the number of “Square Feet” actually furnished and installed in accordance with the Plans and/or as directed by the Engineer.

“Remove and Relocate Directional, Regulatory and Warning Signs,” and “Street Sign Assembly STD 24.6.1” will be measured by the number of “Each” such units actually displaced and replaced in accordance with the Plans and/or as directed by the Engineer. Posts that have multiple signs shall be counted per post. Signs that have multiple posts shall be counted as one singular unit. Signs on a post that is not to be removed, shall also be counted as one singular unit.

BASIS OF PAYMENT. The accepted quantities of "Directional, Regulatory and Warning Signs" will be paid for at their respective contract unit prices per “Square Foot” as listed in the Proposal. The prices so-stated constitutes full and complete compensation for all labor, tools, materials and equipment, including posts, hardware, excavation and backfilling, and all other incidentals required to finish the work, complete in place and accepted by the Engineer.

The accepted quantities of “Remove and Relocate Directional, Regulatory and Warning Signs,” and “Street Sign Assembly STD 24.6.1,” will be paid for at their respective contract unit prices per “Each” as listed in the Proposal. The prices so-stated shall constitute full and complete compensation for all labor, tools, materials and equipment, including installing stockpiled materials as necessary, and all other incidentals required to finish the work, complete in place and accepted by the Engineer.

ITEM T20.2012 12 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE

DESCRIPTION. The work under this item shall conform to the requirements of Section T.20 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition. This work consists of furnishing and applying epoxy resin pavement markings.

METHOD OF MEASUREMENT. “12 Inch Epoxy Resin Pavement Markings White,” will be measured by the number of “Linear Feet” (excluding skips and spaces) actually installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantities of “12 Inch Epoxy Resin Pavement Markings White,” will be paid for at the contract unit prices per “Linear Foot” as listed in the Proposal. The prices so-stated shall constitute full and complete compensation for all labor, tools, materials and equipment, layout, cleaning and sweeping, furnishing and applying the pavement markings, including protection of newly applied markings from traffic, and all other incidentals required to finish the work, complete in place and accepted by the Engineer.

Epoxy Retroreflection Values. Payment shall be as follows:

a. Minimum 350 / 225 (white/yellow): 100% contract unit price.
b. Minimum 330 / 205 (white/yellow): 90% contract unit price.
c. Minimum 310 / 185 (white/yellow): 80% contract unit price.
d. Minimum 300 / 175 (white/yellow): 75% contract unit price.
e. Below 300 / 175 (white/yellow): 0% contract unit price.

ITEM T20.9904 EPOXY RESIN PAVEMENT MARKING WORD “BUS ONLY”

DESCRIPTION. All provisions of Section T.20 of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition shall apply unless modified by this specification. Work under this item consists of furnishing and applying and/or removing the following items of pavement marking, at the width, and locations indicated on the Plans, all in accordance with these Specifications or as directed by the Engineer.

MATERIALS. All applicable sections of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition, shall apply.

CONSTRUCTION: All applicable sections of the Rhode Island Standard Specifications for Road and Bridge Construction, latest edition, shall apply. The pavement marking words “BUS ONLY” shall comply with the dimensions shown in Figure 1.

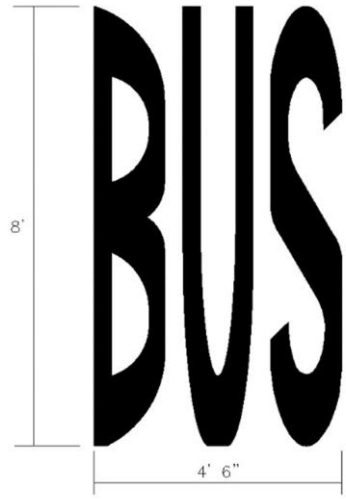


Figure 1

The Contractor shall place Epoxy Resin Pavement Marking Word “Bus Only” in accordance with the MUTCD (Manual on Uniform Traffic Control Devices), latest edition.

METHOD OF MEASUREMENT. “Epoxy Resin Pavement Marking Word “BUS ONLY” will be measured by the number per “Each” actually furnished and installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT. The accepted quantity of “Epoxy Resin Pavement Marking Word “BUS ONLY” will be paid for at the contract unit price per “Each” as listed in the Proposal. The price so-stated constitutes full and complete compensation for all materials, labor and equipment, including protection of newly applied markings from traffic, and all incidental costs required to complete the work.

APPENDIX B:
CONSTRUCTION DETAILS

CONSTRUCTION DETAILS

ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

CITY OF PROVIDENCE – STANDARD DETAILS

INDEX

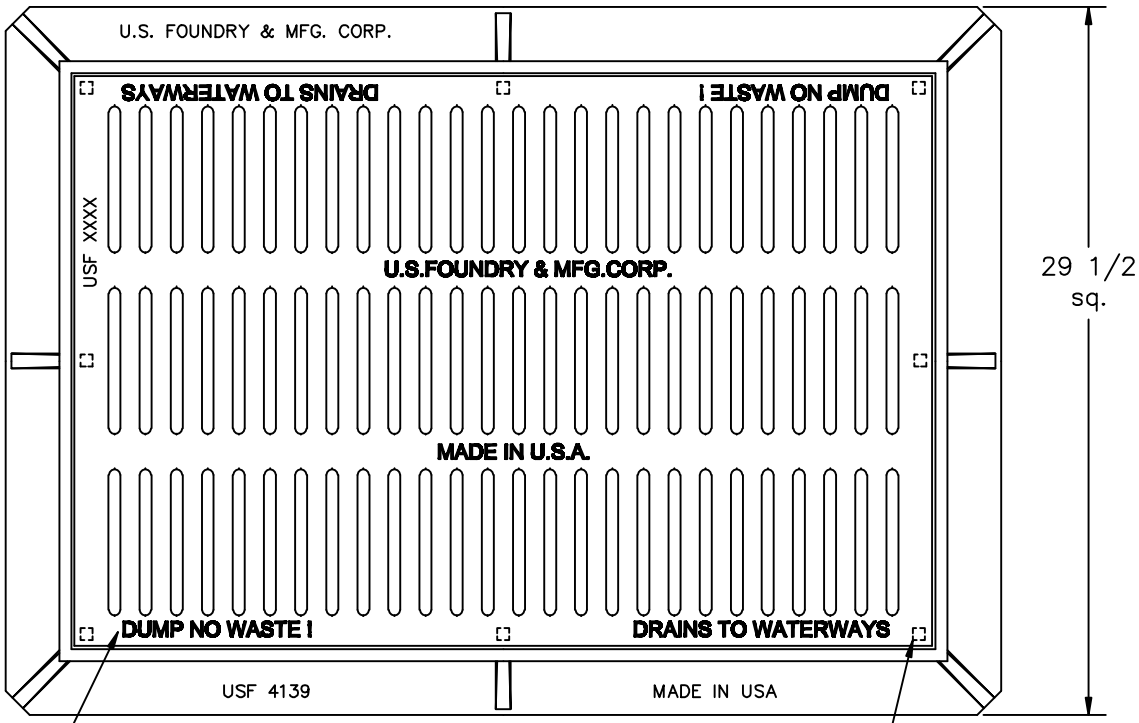
Detail No.	**Issue Date**	**Title**
FG		Frame and Grate ADA Compliant
TDCB		Trench Drain Catch Basin

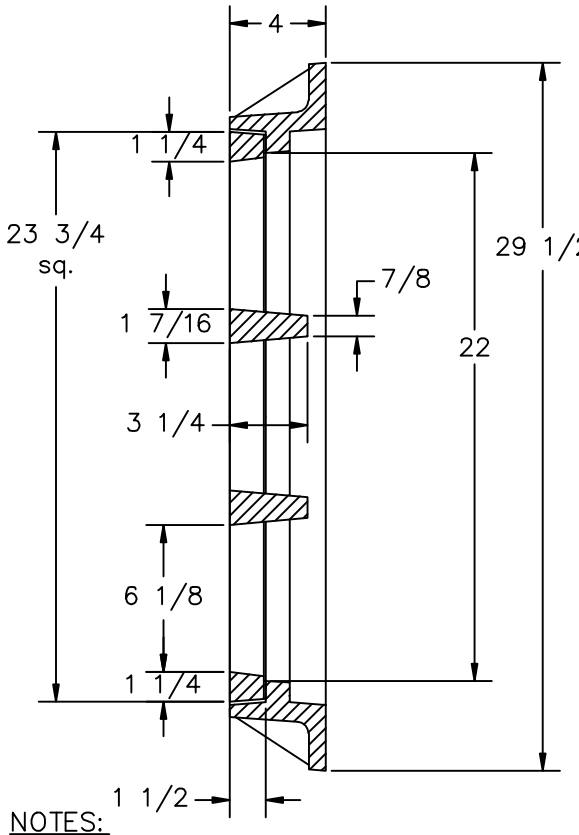
Details appearing in this document have been adopted as City of Providence Standard. Refer to Rhode Island Department of Transportation (RIDOT) for all other standard details:
http://www.dot.ri.gov/documents/doingbusiness/RIDOT_Std_Details.pdf

Refer to City of Providence Standard Details

Refer to RIDOT Default Standard Item List for Traffic Engineering standard items.
http://www.dot.ri.gov/documents/doingbusiness/DefaultStdItemsList%20011415.pdf

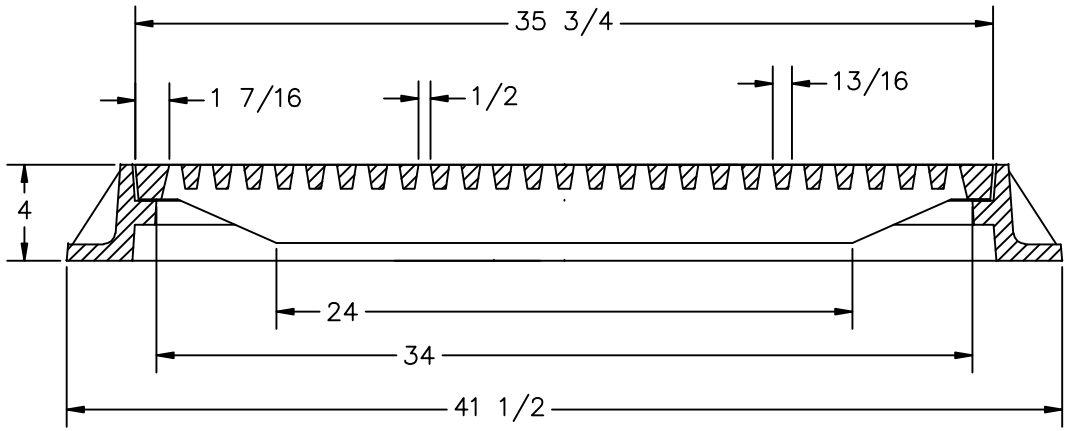
Refer to RIDOT Standard Specifications for Road and Bridge Construction for standard specifications:
http://www.dot.ri.gov/documents/doingbusiness/Bluebook.pdf





NOTES:

1– GRATE DESIGNED FOR ADA REQUIREMENTS..
2– OPEN AREA: 233. sq. in.
3– FRAME IS REVERSIBLE.
4– CLASSIFICATION: HEAVY DUTY



U.S. FOUNDRY & MFG. CORP.
MEDLEY, FLORIDA

DESCRIPTION:
USF 4139 FRAME & 6002 GRATE

MATERIAL: ASTM–A48 GRAY IRON CLASS: 35B
FRAME WEIGHT: 165 GRATE WEIGHT: 190

UNLESS OTHERWISE NOTED WEIGHT IS IN POUNDS AND APPROXIMATED

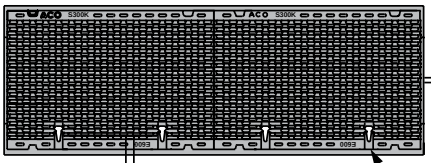
DWN. BY:	SCALE:	ITEM No:	DWG. No:	DWG DATE:
HJF	1/8"= 1"	8040163		04–20–05

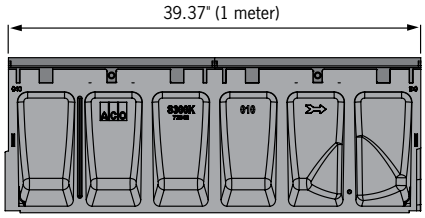
REV:	DATE:	DESCRIPTION:	REV BY:	CHK. BY:	REV:
2	08–23–05	WAS 8070411 DWG #. IS NOW 8040163	HJF		2

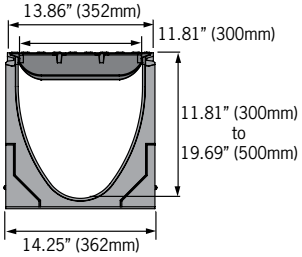
PowerDrain - S300K iron edged channel system with longitudinal grate (ADA)

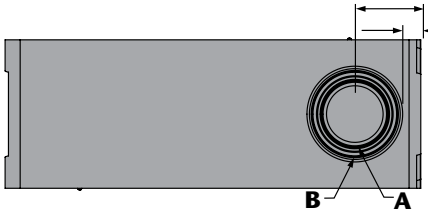
ACO Specification Information

One meter channel



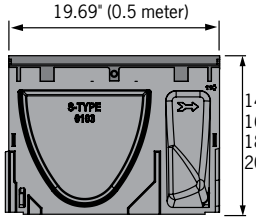


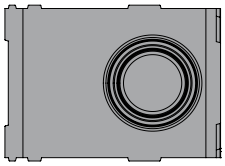




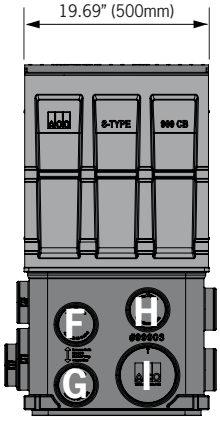
Knock-outs included on every 5th channel

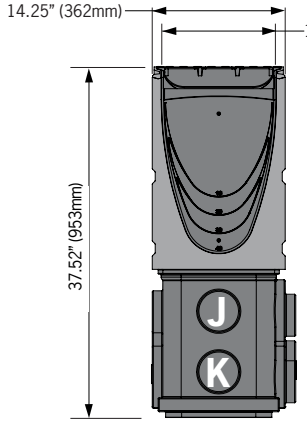
Half meter channel

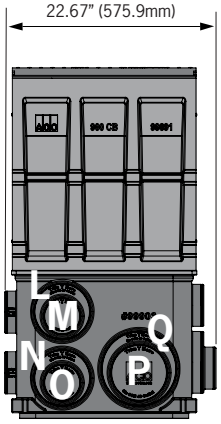


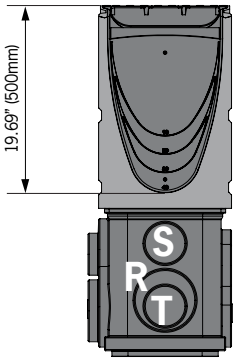


Type 903D In-line catch basin









Total capacity = 15.59 gallons

Outlet flow rates

Outlet	Product	Outlet size (Sch. 40)	Invert Depth	GPM	CFS
A	Bottom outlet - SK3-00	6" round	11.81"	421	0.94
A	Bottom outlet - SK3-040	6" round	19.69"	544	1.21
B	Bottom outlet -SK3-00	8" round	11.81"	748	1.67
B	Bottom outlet - SK3-040	8" round	19.69"	966	2.15
C	End outlet - SK3-00	6" round	11.81"	364	0.81
C	End outlet - SK3-40	6" round	19.69"	500	1.11
D	End outlet - SK3-10	8" round	13.78"	681	1.52
D	End outlet - SK3-40	8" round	19.69"	863	1.92
E	End outlet - SK3-20	10" round	15.75"	1116	2.49
E	End outlet - SK3-40	10" round	19.69"	1304	2.91
F	Type SK3-903D	4" round	29.80"	287	0.64
G	Type SK3-903D	4" round	36.29"	319	0.71
H	Type SK3-903D	4" round	28.22"	279	0.62
I	Type SK3-903D	6" round	36.29"	707	1.57
J	Type SK3-903D	4" round	28.37"	280	0.62
K	Type SK3-903D	4" round	34.87"	312	0.70
L	Type SK3-903D	6" round	29.15"	626	1.40
M	Type SK3-903D	4" round	28.59"	281	0.63
N	Type SK3-903D	6" round	36.28"	707	1.57
O	Type SK3-903D	4" round	35.72"	316	0.70
P	Type SK3-903D	6" round	35.72"	701	1.56
Q	Type SK3-903D	8" round	36.28"	1237	2.76
R	Type SK3-903D	6" round	34.78"	690	1.54
S	Type SK3-903D	4" round	27.65	276	0.61
T	Type SK3-903D	4" round	34.36	310	0.69

Note: These are the pipe flow rates at the specified outlet, **NOT** channel flow rates.*Catch basin flow rates are without trash bucket - using trash bucket reduces flow.

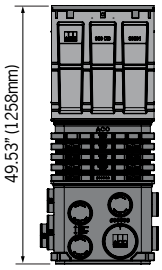
Type 904D In-line catch basin

Notes:
1. Riser can be cut dow in 1" (25mm) increments.

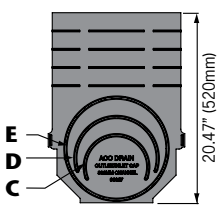
2. Maximum capacity including riser 27.82 gallons.

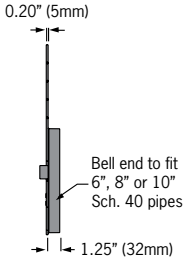
3. Add 12" (300mm) to all heights if using riser.

4. Outlet flow rates will be higher due to increased depth - contact ACO Sales Office for more details.



End Cap





PowerDrain - S300K iron edged channel system with longitudinal grate (ADA)

Description	Part No.	Invert Inches[2]	Invert mm[2]	Weight lbs.
SK3-00 Neutral channel - 39.37" (1m)[1]	**72141**	**11.81**	**300**	**258.2**
SK3-1 Sloped channel - 39.37" (1m)	**72101**	12.01	305	258.2
SK3-2 Sloped channel - 39.37" (1m)	**72102**	12.20	310	259.4
SK3-3 Sloped channel - 39.37" (1m)	**72103**	12.40	315	260.7
SK3-4 Sloped channel - 39.37" (1m)	**72104**	12.60	320	261.9
SK3-5 Sloped channel - 39.37" (1m)[1]	**72105**	12.80	325	263.1
SK3-6 Sloped channel - 39.37" (1m)	**72106**	12.99	330	264.4
SK3-7 Sloped channel - 39.37" (1m)	**72107**	13.19	335	265.6
SK3-8 Sloped channel - 39.37" (1m)	**72108**	13.39	340	266.8
SK3-9 Sloped channel - 39.37" (1m)	**72109**	13.58	345	268.0
SK3-10 Sloped channel - 39.37" (1m)[1]	**72110**	13.78	350	269.3
SK3-010 Neutral channel - 39.37" (1m)[1]	**72142**	**13.78**	**350**	**269.3**
SK3-0103 Neutral channel - 19.69" (0.5m)[1]	**72145**	**13.78**	**350**	**141.9**
SK3-11 Sloped channel - 39.37" (1m)	**72111**	13.98	355	270.5
SK3-12 Sloped channel - 39.37" (1m)	**72112**	14.17	360	271.7
SK3-13 Sloped channel - 39.37" (1m)	**72113**	14.37	365	273.0
SK3-14 Sloped channel - 39.37" (1m)	**72114**	14.57	370	274.2
SK3-15 Sloped channel - 39.37" (1m)[1]	**72115**	14.76	375	275.4
SK3-16 Sloped channel - 39.37" (1m)	**72116**	14.96	380	276.7
SK3-17 Sloped channel - 39.37" (1m)	**72117**	15.16	385	277.9
SK3-18 Sloped channel - 39.37" (1m)	**72118**	15.35	390	279.1
SK3-19 Sloped channel - 39.37" (1m)	**72119**	15.55	395	280.4
SK3-20 Sloped channel - 39.37" (1m)[1]	**72120**	15.75	400	281.6
SK3-020 Neutral channel - 39.37" (1m)[1]	**72144**	**15.75**	**400**	**281.6**
SK3-0203 Neutral channel - 19.69" (0.5m)[1]	**72147**	**15.75**	**400**	**148.9**
SK3-21 Sloped channel - 39.37" (1m)	**72121**	15.94	405	282.8
SK3-22 Sloped channel - 39.37" (1m)	**72122**	16.14	410	284.1
SK3-23 Sloped channel - 39.37" (1m)	**72123**	16.34	415	285.3
SK3-24 Sloped channel - 39.37" (1m)	**72124**	16.54	420	286.5
SK3-25 Sloped channel - 39.37" (1m)[1]	**72125**	16.73	425	287.7
SK3-26 Sloped channel - 39.37" (1m)	**72126**	16.93	430	289.0
SK3-27 Sloped channel - 39.37" (1m)	**72127**	17.13	435	290.2

Description	Part No.	Invert Inches[2]	Invert mm[2]	Weight lbs.
SK3-28 Sloped channel - 39.37" (1m)	**72128**	17.32	440	291.4
SK3-29 Sloped channel - 39.37" (1m)	**72129**	17.52	445	292.7
SK3-30 Sloped channel - 39.37" (1m)[1]	**72130**	17.72	450	293.9
SK3-030 Neutral channel - 39.37" (1m)[1]	**72146**	**17.72**	**450**	**293.9**
SK3-0303 Neutral channel - 19.69" (0.5m)[1]	**72149**	**17.72**	**450**	**156.1**
SK3-31 Sloped channel - 39.37" (1m)	**72131**	17.91	455	295.1
SK3-32 Sloped channel - 39.37" (1m)	**72132**	18.11	460	296.4
SK3-33 Sloped channel - 39.37" (1m)	**72133**	18.31	465	297.6
SK3-34 Sloped channel - 39.37" (1m)	**72134**	18.50	470	298.8
SK3-35 Sloped channel - 39.37" (1m)[1]	**72135**	18.70	475	300.1
SK3-36 Sloped channel - 39.37" (1m)	**72136**	18.90	480	301.3
SK3-37 Sloped channel - 39.37" (1m)	**72137**	19.09	485	302.5
SK3-38 Sloped channel - 39.37" (1m)	**72138**	19.29	490	303.7
SK3-39 Sloped channel - 39.37" (1m)	**72139**	19.49	495	305.0
SK3-40 Sloped channel - 39.37" (1m)[1]	**72140**	19.69	500	306.2
SK3-040 Neutral channel - 39.37" (1m)[1]	**72148**	**19.69**	**500**	**306.2**
SK3-0403 Neutral channel - 19.69" (0.5m)[1]	**72150**	**19.69**	**500**	**164.3**
SK3-903D In-line catch basin - 19.69" (0.5m)[3]	**94572**	37.40	950	165.4
SK3-904D In-line catch basin - 19.69" (0.5m)[4]	**94582**	49.53	1258	175.4
Series 600 Optional plastic riser	**99902**	-	-	10.0
Foul air trap - fits both 910 & 610 basins	**90854**	-	-	1.2
12" channel Universal end cap	**96827**	19.69	500	2.5
12" channel Installation device	**97479**	-	-	4.9
Grate removal tool	**01318**	-	-	0.3

Notes:
1. This channel offers bottom knockout feature: 6" & 8" round.
2. Inverts shown are male end; for female invert depth subtract 5mm (≈0.2") from male invert (except neutral channels where it will be same as male invert). To calculate overall channel depth, add 25.4mm (1.0") to invert depth.
3. Catch basin assembly includes polymer concrete top, PowerLok grate, trash bucket and plastic base.
4. Catch basin assembly includes polymer concrete top, PowerLok grate, deep trash bucket, plastic riser and plastic base.
5. Water intake per meter channel is 126.4 in^2 (815.48 cm^2)

Specifications

General
The surface drainage system shall be ACO Drain PowerDrain S300K complete with longitudinal ADA compliant gratings secured with 'PowerLok' locking as manufactured by ACO, Inc. or equal approved.

Materials
The trench system bodies shall be manufactured from polymer concrete with minimum properties as follows:

Compressive strength:	14,000 psi
Flexural strength:	4,000 psi
Water absorption	0.07%
Frost proof	YES
Salt proof	YES
Dilute acid and alkali resistant	YES

The nominal clear opening shall be 12" (300mm) with overall width of 13.86" (352mm). Pre-cast units shall be manufactured with either an invert slope of 0.5% or with neutral invert and have a wall thickness of at least 0.67" (16mm). Each unit will feature a partial radius in the trench bottom and a male to female interconnecting end profile. Units shall have horizontal cast in anchoring keys on the outside wall to ensure maximum mechanical bond to the surrounding bedding material and pavement surface. The ductile iron edge rail will be integrally cast in by the manufacturer to ensure maximum homogeneity between polymer concrete body and edge rail. Each edge rail shall be at least 1/4" (6mm) thick.

Grates
Grates come in longitudinal ductile iron. Ductile iron to ASTM 536-84 - Grade 65-45-12. After removal of grates there shall be uninterrupted access to the trench to aid maintenance.

Installation
The trench drain system shall be installed in accordance with the manufacturer's installation instructions and recommendations.

ACO, Inc.
Northeast Sales Office
9470 Pinecone Dr.
Mentor, OH 44060
Tel: (440) 639-7230
Toll free: (800) 543-4764
Fax: (440) 639-7235

West Sales Office
825 W. Beechcraft St.
Casa Grande, AZ 85122
Tel: (520) 421-9988
Toll Free: (888) 490-9552
Fax: (520) 421-9899

Southeast Sales Office
4211 Pleasant Road
Fort Mill, SC 29708
Toll free: (800) 543-4764
Fax: (803) 802-1063

Follow us on

Electronic Contact:
info@ACODrain.us
www.ACODrain.us

SPEC INFO ACO

APPENDIX C:
SCHEDULE OF UNIT PRICES

SCHEDULE OF UNIT PRICES

ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH

The Bid provided here represents the Bidder's NOT TO EXCEED proposal to the Owner as identified in these Contract Documents. The Contractor agrees to perform all of the work contained within the Contract, at the discretion of the City, in accordance with all terms and specifications contained herein at the proposed unit prices.

The Contractor shall insert unit prices for each item in ink, in both words and figures, and is to show a total bid price (unit price times the estimated quantities). In the event a discrepancy between the written words and figures, the written words shall govern. In the event an error in the bidders total bid price, the corrected total bid obtained by the summation of the products of the unit prices multiplied by the respective quantities shall stand as the bidder's total bid price.

Unbalanced bidding is expressly prohibited and all unit bid prices will be compared for reasonable conformance with the Engineer's Estimate. The City has the right to reject award of any bid, or part thereof, to protect the public interest if it is apparent that a bid is (1) mathematically unbalanced, (2) the bidder front-end loads its bid as to amount to an advanced payment, (3) there are extreme variations from the engineer's estimate or other bids received, (4) if in the opinion of the City, the unit prices create a reasonable doubt that that apparent low bidder will actually result in the lowest cost to the Department, and/or (5) if the overall competitive bidding process has been jeopardized.

The estimated quantities shown here are based solely upon a reasonable assessment of the project parameters, thus the Contractor is advised that the actual quantities may vary substantially as field conditions may necessitate. Regardless of the amount of actual quantities, however, the quoted unit prices shall always apply.

There is no separate labor charge under this bid: unit prices shall include full compensation for all labor, materials, tools and equipment, and all incidentals necessary to complete the work as specified herein.

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 201.0401: REMOVE AND DISPOSE GRANITE CURB THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**10**	**LF**	$ _____
ITEM 201.0403: REMOVE AND DISPOSE SIDEWALKS THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**210**	**SY**	$ _____
ITEM 201.0407: REMOVE AND DISPOSE PAVEMENT AND RIGID BASE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**2,430**	**SY**	$ _____
ITEM 201.0408: REMOVE AND DISPOSE RIGID PAVEMENT THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**640**	**SY**	$ _____
ITEM 201.0409: REMOVE AND DISPOSE FLEXIBLE PAVEMENT THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**20**	**SY**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 201.0414: REMOVE AND DISPOSE PIPE – ALL SIZES THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**15**	**LF**	$ _____
ITEM 201.0422: REMOVE AND DISPOSE DROP INLET THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____
ITEM 201.0429: REMOVE AND DISPOSE CURB STOP BOX THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____
ITEM 201.0450: REMOVE AND STOCKPILE GRANITE CURB THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**270**	**LF**	$ _____
ITEM 201.0458: REMOVE AND DISPOSE PIPE PLUGS ALL SIZES THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**5**	**EA**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 201.0610: REMOVE AND DISPOSE DIRECTIONAL, WARNING, REGULATORY, SERVICE, AND STREET SIGNS THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**10**	**EA**	$ _____
ITEM 201.9901: REMOVE AND SALVAGE FRAME AND GRATE OR FRAME AND COVER THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**10**	**EA**	$ _____
ITEM 201.9902: REMOVE, STOCKPILE AND/OR RESET BRICK, CONCRETE, GRANITE PAVER SIDEWALK THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**580**	**SY**	$ _____
ITEM 201.9903: REMOVE AND RESET TRASH RECEPTACLE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**2**	**EA**	$ _____
ITEM 202.0100: EARTH EXCAVATION THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **CUBIC YARD**	**120**	**CY**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 202.0201: ROCK EXCAVATION MECHANICAL THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **CUBIC YARD**	**20**	**CY**	$ _____
ITEM 202.0300: UNCLASSIFIED EXCAVATION THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **CUBIC YARD**	**10**	**CY**	$ _____
ITEM 202.0450: UNSUITABLE SOILS THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **CUBIC YARD**	**10**	**CY**	$ _____
ITEM 202.0800: GRAVEL BORROW THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **CUBIC YARD**	**170**	**CY**	$ _____
ITEM 204.0100: TRIMMING AND FINE GRADING THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**3,220**	**SY**	$ _____
ITEM 206.9901: INLET SEDIMENT CONTROL DEVICE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**12**	**EA**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 212.2000: CLEANING AND MAINTENANCE OF EROSION CONTROLS THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LUMP SUM**	**1**	**LS**	$ _____
ITEM 301.0300: CRUSHED STONE BASE COURSE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **CUBIC YARD**	**310**	**CY**	$ _____
ITEM 302.0100: GRAVEL BORROW SUBBASE COURSE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **CUBIC YARD**	**600**	**CY**	$ _____
ITEM 401.3000: CLASS 9.5 HMA THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **TON**	**20**	**TN**	$ _____
ITEM 401.2100: MODIFIED CLASS 12.5 HMA THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **TON**	**40**	**TN**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 403.0300: ASPHALT EMULSION TACK COAT THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**140**	**SY**	$ _____
ITEM 410.1000: TEMPORARY PATCHING MATERIAL/ TRENCHES THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **TON**	**70**	**TN**	$ _____
ITEM 501.9901: CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**2,750**	**SY**	$ _____
ITEM 701.0412: REINFORCED CONCRETE PIPE M 170 CLASS III 12 INCH THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**5**	**LF**	$ _____
ITEM 701.8151: CURB STOP BOX THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 701.9901: 8 INCH DUCTILE IRON DRAIN PIPE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**10**	**LF**	$ _____
ITEM 701.9902: 12 INCH DUCTILE IRON DRAIN PIPE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**15**	**LF**	$ _____
ITEM 702.0703: 4' ROUND CATCH BASIN TYPE 'F' BRICK/SOLID BLOCK STANDARD 3.4.2 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____
ITEM 702.0713: PRECAST CONCRETE DROP INLET WITH APRON STONE STANDARD 4.5.1 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____
ITEM 702.0517: FRAME AND GRATE STANDARD 6.3.2 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**2**	**EA**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 702.9901: FRAME AND GRATE - ADA COMPLIANT THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**10**	**EA**	$ _____
ITEM 702.9906: GRANITE APRON STONE 30" OPENING – PVD STD 7.3.8 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____
ITEM 702.9907: TRENCH DRAIN CATCH BASIN THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LF**	**12**	**LF**	$ _____
ITEM 704.0300: RECONSTRUCT CATCH BASIN/ VERTICAL WALLS THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **VERTICAL LINEAR FOOT**	**40**	**VLF**	$ _____
ITEM 704.0400: RECONSTRUCT MANHOLE/ VERTICAL WALLS THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **VERTICAL LINEAR FOOT**	**5**	**VLF**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 706.9000: PLUG AND CAP PIPE ALL SIZES THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**10**	**EA**	$ _____
ITEM 707.0900: ADJUST MANHOLE TO GRADE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____
ITEM 707.1100: ADJUST CATCH BASINS TO GRADE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**10**	**EA**	$ _____
ITEM 707.1900: ADJUST FRAME AND COVER/ GRATE TO GRADE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**2**	**EA**	$ _____
ITEM 708.9040: CLEANING AND FLUSHING PIPE ALL SIZES THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**100**	**LF**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 708.9041: CLEANING CATCH BASINS ALL TYPES AND SIZES THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**14**	**EA**	$ _____
ITEM 708.9042: CLEANING MANHOLES ALL TYPES AND SIZES THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**3**	**EA**	$ _____
ITEM 713.8268: ADJUST CURB STOP BOX TO GRADE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____
ITEM 713.8269: ADJUST WATER GATE BOXES TO GRADE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**2**	**EA**	$ _____
ITEM 713.8300: ADJUST GAS GATE BOXES TO GRADE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 903.9901: GRANITE BLOCK THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**28**	**EA**	$ _____
ITEM 903.9902: GRANITE BLOCK (FURNISH TO STOCKPILE) THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**2**	**EA**	$ _____
ITEM 903.9903: STEEL BOLLARD REMOVABLE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**17**	**EA**	$ _____
ITEM 903.9904: STEEL BOLLARD REMOVABLE (FURNISH TO STOCKPILE) THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**2**	**EA**	$ _____
ITEM 903.9905: RETRACTABLE STEEL BOLLARD THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**13**	**EA**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 903.9906: RETRACTABLE STEEL BOLLARD (FURNISH TO STOCKPILE) THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**2**	**EA**	$ _____
ITEM 905.9901: 4 INCH PORTLAND CEMENT SIDEWALK MONOLITHIC - PVD STANDARD 43.1.0 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**490**	**SY**	$ _____
ITEM 905.9902: 8 INCH PORTLAND CEMENT CONCRETE DRIVEWAY AND CURB RAMP - PVD STANDARD 43.5.0 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**40**	**SY**	$ _____
ITEM 905.9904: CONCRETE PAVER SIDEWALK THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**60**	**SY**	$ _____
ITEM 905.9905: BRICK SIDEWALK THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**50**	**SY**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 906.0700: REMOVE, HANDLE, HAUL, TRIM, RESET CURB EDGING, STRAIGHT, CIRCULAR ALL TYPES THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**240**	**LF**	$ _____
ITEM 906.9901: GRANITE CURB STRAIGHT – 7" WIDTH PVD STANDARD 7.3.0 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**2,025**	**LF**	$ _____
ITEM 906.9902: GRANITE CURB CIRCULAR – 7" WIDTH PVD STANDARD 7.3.0 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**190**	**LF**	$ _____
ITEM 906.9903: GRANITE WHEELCHAIR RAMP TRANSITION CURB – 7" WIDTH PVD STANDARD 7.3.3, 43.3.0, AND 43.3.1 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**2**	**EA**	$ _____
ITEM 906.9904: GRANITE RAMP STONE STRAIGHT – 7" WIDTH PVD STANDARD 7.3.9 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**6**	**EA**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 906.9905: GRANITE RAMP STONE CIRCULAR – 7" WIDTH PVD STANDARD 7.3.9 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____
ITEM 914.9901: UNIFORMED OFFICER WITH VEHICLE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **ALLOWANCE**	**1**	**ALL**	$ _____
ITEM 919.9901: TEST PITS THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**20**	**EA**	$ _____
ITEM 932.0200: FULL DEPTH SAWCUT OF BITUMINOUS PAVEMENT THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**105**	**LF**	$ _____
ITEM 932.0210: FULL DEPTH SAWCUT OF BITUMINOUS PAVEMENT AND RIGID BASE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**135**	**LF**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 932.0230: FULL DEPTH SAWCUT OF PORTLAND CEMENT CONCRETE SIDEWALK/ DRIVEWAY THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**60**	**LF**	$ _____
ITEM 936.0110: MOBILIZATION THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LUMP SUM**	**1**	**LS**	$ _____
ITEM 937.0200: MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LUMP SUM**	**1**	**LS**	$ _____
ITEM 942.0200: DETECTABLE WARNING PANEL STANDARD 48.1.0 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE FOOT**	**845**	**SF**	$ _____
ITEM 942.9901: DIRECTIONAL TACTILE WAYFINDING BAR TILE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE FOOT**	**240**	**SF**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 999.9901: OWNERS ALLOWANCE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE FOOT**	**1**	**ALL**	$ _____
ITEM L01.0104: PLANTABLE SOIL THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE YARD**	**45**	**SY**	$ _____
ITEM L13.9901: CHANTICLEER PEAR TREE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**3**	**EA**	$ _____
ITEM L13.9902: PLANTINGS THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**117**	**EA**	$ _____
ITEM L13.9903: FURNISH AND INSTALLATION OF BENCHES THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**5**	**EA**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM T05.1030: ADJUST HANDHOLE TO GRADE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**3**	**EA**	$ _____
ITEM T11.9905: MODIFY TRAFFIC SIGNAL EQUIPMENT THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **ALLOWANCE**	**1**	**ALL**	$ _____
ITEM T15.0100: DIRECTIONAL REGULATORY AND WARNING SIGNS THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **SQUARE FOOT**	**75**	**SF**	$ _____
ITEM T15.0200: REMOVE AND RELOCATE DIRECTIONAL REGULATORY AND WARNING SIGN THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____
ITEM T15.1000: STREET SIGN ASSEMBLY STD. 24.6.1 THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**2**	**EA**	$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM T20.2012: 12 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **LINEAR FOOT**	**210**	**LF**	$ _____
ITEM T20.9904: EPOXY RESIN PAVEMENT MARKING WORD "BUS ONLY" THE SUM OF: _____ DOLLARS AND _____ CENTS ($ _____) PER **EACH**	**1**	**EA**	$ _____

TOTAL BID:

_____DOLLARS

AND _____ CENTS

($ _____)

Amount in Figures

APPENDIX D:
SOIL EROSION AND SEDIMENT CONTROL (SESC) PLAN

Soil Erosion and Sediment Control Plan
For:
Washington Street and East Approach Improvement Project

Washington Street and East Approach

Providence, RI 02903

Owner:	City of Providence Principal Planner 444 Westminster Street Providence, RI 02903 cmartin@providenceri.gov (401) 680-8523
Operator: *TO BE DETERMINED UPON CONTRACT AWARD*	T.B.D Name Address City, State, Zip Code Telephone Number Email Address
Estimated Project Dates:	Start Date: Spring 2023 Completion Date: Summer 2023
SESC Plan Prepared By:	BETA Group, Inc. Francis Marinaccio, PE 701 George Washington Highway Lincoln, RI 02865 (401) 333-2382 FMarinaccio@beta-inc.com
SESC Plan Preparation Date:	October 2022
SESC Plan Revision Date:	

OPERATOR CERTIFICATION

Upon contract award, the OPERATOR must sign this certification statement before construction may begin.

I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that it is the responsibility of the owner/operator to implement and amend the Soil Erosion and Sediment Control Plan as appropriate in accordance with the requirements of the RIPDES Construction General Permit.

_____

Operator Signature: Date

Contractor Representative: T.B.D
Contractor Title: Title
Contractor Company Name: Company Name (if applicable)
Address: Mailing Address
Phone Number: Phone Number
Email Address: Email

TABLE OF CONTENTS

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INTRODUCTION

The purpose of erosion, runoff, and sedimentation control measures is to prevent pollutants from leaving the construction site and entering waterways or environmentally sensitive areas during and after construction. This SESC Plan has been prepared prior to the initiation of construction activities to address anticipated worksite conditions. The control measures depicted on the site plan and described in this narrative should be considered the minimum measures required to control erosion, sedimentation, and stormwater runoff at the site. Since construction is a dynamic process with changing site conditions, it is the operator's responsibility to manage the site during each construction phase so as to prevent pollutants from leaving the site. This may require the operator to revise and amend the SESC Plan during construction to address varying site and/or weather conditions, such as by adding or realigning erosion or sediment controls to ensure the SESC Plan remains compliant with the RIPDES Construction General Permit. Records of these changes must be added to the amendment log attached to the SESC Plan, and to the site plans as "red-lined" drawings. Please Note: **Even if practices are correctly installed on a site according to the approved plan, the site is only in compliance when erosion, runoff, and sedimentation are effectively controlled throughout the entire site.**

It is the responsibility of the site owner and the site operator to maintain the SESC Plan at the site, including all attachments, amendments and inspection records, and to make all records available for inspection by RIDEM during and after construction. (RIPDES CGP - Part III.G)

The site owner, the site operator, and the designated site inspector are required to review the SESC Plan and sign the Party Certification pages (Section 8). The primary contractor (if different) and all subcontractors (if applicable) involved in earthwork or exterior construction activities are also required to review the SESC Plan and sign the certification pages before construction begins.

Any questions regarding the SESC Plan, control measures, inspection requirements, or any other facet of this document may be addressed to the RIDEM Office of Water Resources, at 401-222-4700 or via email: water@dem.ri.gov.

SOIL EROSION AND SEDIMENT CONTROL PLAN GUIDENCE

SECTION 1: SITE DESCRIPTION

1.1 Project/Site Information

Project/Site Name:

- Improvements to Washington Street and East Approach
- The work to be performed as part of this project includes sidewalk and roadway improvements on Washington Street between Dorrance and Exchange Streets and East Approach between Washington Street and Exchange Terrace, in the City of Providence, RI. Included in the work is the installation of new concrete sidewalk and road, curb ramps, and detectable warning systems; new retractable bollards and concrete bollards; removal and disposal of existing signs and installation of new signs and installation of pavement markings.

Project Street/Location:

- Washington Street and East approach from Dorrance Street to Exchange Street/Terrace
- See Attachment A for the General Location Map.

Provide construction site estimates of the total area of the site and the total area of the site that is expected to undergo soil disturbance.

The following are estimates of the construction site area:

- Total Project Area 0.89 acres
- Total Project Area to be Disturbed 0.89 acres

☐ Yes ☒ No The Limits of Disturbance have been marked in the field

1.3 Natural Heritage Area Information

RIPDES CGP - Part III.H
Each project authorized under the RIPDES Construction General Permit must determine if the site is within or directly discharges to a Natural Heritage Area (NHA). DEM Natural Heritage Areas include known occurrences of state and federal rare, threatened and endangered species. Review RIDEM NHA maps to determine if there are natural heritage areas on or near the construction site that may be impacted during construction. For more information you may contact the RIDEM Rhode Island Natural Heritage Program mailto:plan@dem.ri.gov

Are there any Natural Heritage Areas being disturbed by the construction activity or will discharges be directed to the Natural Heritage Area as a result of the construction activity?

☐ Yes ☒ No

If yes, describe or refer to documentation which determines the likelihood of an impact on this area and the steps that will be taken to address any impacts.

- INSERT TEXT HERE

1.4 Historic Preservation/Cultural Resources

The National Historic Preservation Act, and any state, local, and tribal historic preservation laws apply to construction activities. As with endangered species, some permits may specifically require you to assess the potential impact of your stormwater discharges on historic properties. However, whether or not this is stated as a condition for permit coverage, the National Historic Preservation Act and any applicable state or tribal laws apply to you. Contact the Rhode Island Historic Preservation Officer

(http://www.preservation.ri.gov/) or your Tribal Historic Preservation Officer (http://grants.cr.nps.gov/THPO_Review/index.cfm) for more information.

Are there any historic properties, historic cemeteries or cultural resources on or near the construction site?

☐ Yes ☒ No

Describe how this determination was made and summarize state or tribal review comments:

- According to the State of Rhode Island Historical Preservation & Heritage Commission (RIHPHC) Historic Property Search the following properties within the project limits are listed on the RI National Register:
  - N/A

If yes, describe or refer to documentation which determines the likelihood of an impact on this historic property, historic cemetery or cultural resource and the steps taken to address that impact including any conditions or mitigation measures that were approved by other parties.

- The proposed improvements for this project include the restoration of the existing curb, redevelopment of the existing traffic flow pattern, as well as various hardscape improvements and drainage improvements within the public right-of-way. Because there will be no work performed on private property, there will not be any impact to any properties, historic or other.

SECTION 2: EROSION, RUNOFF, AND SEDIMENT CONTROL

RIPDES Construction General Permit – Part III.J.1 – Erosion, Runoff, and Sediment Controls

The purpose of erosion controls is to prevent sediment from being detached and moved by wind or the action of raindrop, sheet, rill, gully, and channel erosion. Properly installed and maintained erosion controls are the primary defense against sediment pollution.
Runoff controls are used to slow the velocity of concentrated water flows. By intercepting and diverting stormwater runoff to a stabilized outlet or treatment practice or by converting concentrated flows to sheet flow erosion and sedimentation are reduced.
Sediment controls are the last line of defense against moving sediment. The purpose is to prevent sediment from leaving the construction site and entering environmentally sensitive areas.
This section describes the set of control measures that will be installed before and during the construction project to avoid, mitigate, and reduce impacts associated with construction activity. Specific control measures and their applicability are contained in Section Four: Erosion Control Measures, Section Five: Runoff Control Measures, and Section Six: Sediment Control Measures of the *RI SESC Handbook*. The *RI SESC Handbook* can be found at the following address:
http://www.dem.ri.gov/soilerosion2014final.pdf

2.1 Avoid and Protect Sensitive Areas and Natural Features

Per RI Stormwater Design and Installation Standards Manual 3.3.7.1:
Areas of existing and remaining vegetation and areas that are to be protected as identified in the Section 1.6 of the SESC Plan must be clearly identified on the SESC Site Plans for each Phase of Construction. Prior to any land disturbance activities commencing on the site, the Contractor shall physically mark limits of disturbance (LOD) on the site and any areas to be protected within the site, so that workers can clearly identify the areas to be protected.

Constraints are identified to ensure a comprehensive understanding of the project and surrounding areas. The first goal in the low impact development (LID) site planning and design process is to avoid disturbance of natural features. This includes identification and preservation of natural areas that can be used in the protection of water resources. It is important to understand that minimizing the hydrologic alteration of a site is just as important as stormwater treatment for resource protection. Therefore, describe all site features and sensitive resources that exist at the site such as, view barriers,, steep slopes (>15%)that if disturbed will require additional erosion controls, areas with the potential to receive run-on from off-site areas, wetlands, surface waters, and their riparian buffers, specimen trees, natural vegetation, forest areas, stream crossings, historic properties, historic cemeteries or cultural resources that are to be preserved. ***This includes those site features that should be avoided within the designated limits of disturbance.*** *These areas are often identified on a constraints map or in a separate constraints report. For additional discussion on this topic refer to Appendix F. Site Constraint Map of the RI SESC Handbook.*

Describe and illustrate on SESC Site Plans Sensitive Areas and Natural Features and how each will be protected during construction activity. Examples of areas to be protected include vegetated buffers, forests, stands of trees on the perimeter and within the site, large diameter trees, areas designated for infiltration (QPAs), bioretention, rain gardens, and OWTS leachfields. Protection for stands of trees and individual trees to be preserved must be specified and such protection must comply with the RI SESC Handbook and extend to the drip line.

Describe and illustrate on SESC Site Plans based on Constraints Map, the areas that will be disturbed with each phase of construction and the control measures (signs, fences, etc.) that will be used to protect those areas that should not be disturbed. ***This includes marking for limits of disturbance at the perimeter and areas within the limits of disturbance.*** *Acceptable measures include but are not limited to construction fencing (plastic mesh, snow fence, chain link fence etc.) appropriate for the site, boundary markers using construction tape, flagged stakes, etc. for low density use, sediment barriers such as silt fence, compost socks with flagging where also required for sediment control, and signage. The narrative*

portion of the plan and SESC Site Plans must highlight measures to prevent soil compaction in areas designated as Qualified Pervious Areas (QPAs) and infiltration practices to protect infiltration capacity.

Feature Requiring Protection	Construction Phase #	Method of Protection	Sheet #

2.2 Minimize Area of Disturbance

Per RI Stormwater Design and Installation Standards Manual 3.3.7.2:

Will >5 acres be disturbed in order to complete this project?

☐ Yes ☒ No

If yes, phasing must be utilized at this site.

Will <5 acres be disturbed or will disturbance activities be completed within a six (6) month window?

☒ Yes ☐ No

If yes, phasing is not required as long as all other performance criteria will be met and phasing is not necessary to protect sensitive or highly vulnerable areas.

Phasing is not required for this project.

Based on the answers to the above questions will phasing be required for this project?

☐ Yes ☒ No

If yes, and phasing is required, describe phasing plan as prompted below.

N/A

If No, provide substantive reasons why this was determined to be infeasible.

PHASING PLAN
For each phase of the construction project, provide site estimates of the total area of the project phase, and the total area of the project phase that is expected to undergo soil disturbance.

The following are estimates of each phase of the construction project:
(Copy and paste this section for projects with multiple phases)

Phase No. or Identifier	1
Total Area of Phase	0.89 acres
Area to be Disturbed	0.89 acres

Description of Construction Sequencing for Phase 1
Proper sequencing of construction activities is essential to maximize the effectiveness of erosion, runoff, and sediment control measures. Construction sequencing of construction activities for each phase must address the following elements:

1. *Installation of control measures identifying limits of disturbance and areas internal to the site that require protection before start of land disturbance.*

2. *Installation of all erosion, runoff, and sediment controls and temporary pollution prevention measures that are required to be in place and functional before any earthwork begins. This shall be done in accordance with the RI SESC Handbook and/or the RI Department of Transportation Standard Specifications for Road and Bridge Construction (as amended). Upon acceptable completion of site preparation and installation of erosion, runoff, and sediment controls and temporary pollution prevention measures, site construction activities may commence.*
3. *The phasing plan shall address the use of phasing to manage and limit increases in runoff rates and volumes during construction. Designated phases and timing of construction should also address the impacts to important or sensitive habitats.*
4. *Upon commencement of site construction activities, the operator shall initiate appropriate stabilization practices on all disturbed areas as soon as possible, but not more than fourteen (14) days after the construction activity in that area has temporarily or permanently ceased. Such temporary or permanent soil stabilization measures must be installed prior to initiating land disturbance in subsequent phases.*
5. *Routine inspection and maintenance and/or modification of erosion, runoff, and sediment controls and temporary pollution prevention measures while earthwork is ongoing is required.*
6. *Final site stabilization of any disturbed areas after earthwork has been completed and removal of temporary erosion, runoff, and sediment controls and temporary pollution prevention measures.*
7. *Activation of post-construction stormwater treatment conveyances and practices.*

The proposed drainage improvement will be installed first, the existing sidewalk will be removed and replaced with new granite curbing and concrete sidewalks, loam restoration will follow, and the pavement markings will be removed and restriped. The Contractor may alter the sequence of work.

2.3 Minimize the Disturbance of Steep Slopes

Per RI Stormwater Design and Installation Standards Manual 3.3.7.3:

Are steep slopes (>15%) present within the proposed project area?

☐ Yes ☒ No

If yes, steep slopes must be identified on SESC Site Plans.
If yes, also list the specific control measures that will be used to control surface runoff and reduce erosion potential on steep slopes during construction including references to SESC Site Plans where the locations of such control measures are shown. Examples include limiting the number of steep slopes that are disturbed at one time, implementing land grading techniques such as reverse slope benches, diversions, stair steps, and terraced landforms, installation of retaining walls for stabilization of challenging slopes, prevention of soil movement, and slope protection, applying materials for temporary and permanent protection of slopes to prevent erosion such as stone aggregates, rip-rap, erosion control blankets, appropriate spacing of sediment barriers as a function of barrier size, slope, and slope length, geotextile, cellular confinement systems, mattresses (gabions and others), and articulating blocks.

This project does not require steep slope stabilization

2.4 Preserve Topsoil

Per RI Stormwater Design and Installation Standards Manual 3.3.7.4:

Site owners and operators must preserve existing topsoil on the construction site to the maximum extent feasible and as necessary to support healthy vegetation, promote soil stabilization, and increase stormwater infiltration rates in the post-construction phase of the project.

Will existing topsoil be preserved at the site?

☒ Yes ☐ No

If Yes, describe how topsoil will be preserved at the site by describing the techniques that will be implemented to achieve appropriate depths of topsoil (4 inch minimum) and identify the locations where topsoil will be restored on SESC Site Plans.

Land disturbance will be minimal due to the nature of the work. All construction activity will be accomplished using the bituminous concrete and concrete roadways and. Loam and seeded areas will be planted behind the back of sidewalk to match into existing grades. See the Plan Set for the limits of work and limit of regrading.

If No, provide substantive reasons why this was determined to be infeasible.

N/A

Soil compaction must be minimized by maintaining limits of disturbance throughout construction. In instances where site soils are compacted the site owner and operator must restore infiltration capacity of the compacted soils by tilling or scarifying compacted soils and amending soils as necessary to ensure a minimum depth of topsoil is available in these areas. In areas where infiltrating stormwater treatment practices are located compacted soils must be amended such that they will comply the design infiltration rates.

Identify the methods that will be used to restore and amend topsoil at the site. Include references to plan notes and SESC Site Plan sheet numbers where this information is made available for the site operator.

See the Plan Set for the limits of work and limit of regrading. Loam and seed areas will be restored as specified by RIDOT.

2.5 Stabilize Soils

Per RI Stormwater Design and Installation Standards Manual 3.3.7.5:
Upon completion and acceptance of site preparation and initial installation of erosion, runoff, and sediment controls and temporary pollution prevention measures, the operator shall initiate appropriate temporary or permanent stabilization practices during all phases of construction on all disturbed areas as soon as possible, but not more than fourteen (14) days after the construction activity in that area has temporarily or permanently ceased.

Any disturbed areas that will not have active construction activity occurring within 14 days must be stabilized using the control measures depicted in the SESC Site Plans, in accordance with the *RI SESC Handbook*, and per manufacturer product specifications.

Only areas that can be reasonably expected to have active construction work being performed within 14 days of disturbance will be cleared/grubbed at any one time. It is NOT acceptable to clear and grub the entire construction site if portions will not be active within the 14-day time frame. Proper phasing of clearing and grubbing activities shall include temporary stabilization techniques for areas cleared and grubbed that will not be active within the 14-day time frame.

All disturbed soils exposed prior to October 15 of any calendar year shall be seeded by that date if vegetative measures are the intended soil stabilization method. Any such areas that do not have adequate vegetative stabilization, as determined by the site operator or designated inspector, by November 15, must be stabilized through the use of non-vegetative erosion control measures. If work continues within any of these areas during the period from October 15 through April 15, care must be taken to ensure that only the area required for that day's work is exposed, and all erodible soil must be restabilized within 5 working

days. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed (i.e. construction of a motocross track).

Describe controls (i.e., temporary seeding with native vegetation, hydroseeding, mulching, application of rolled erosion control products, etc.) including design specifications and details that will be implemented to stabilize exposed soils where construction activities have temporarily or permanently ceased.

Temporary Vegetative Control Measures

- Not Applicable

Temporary Non-Vegetative Control Measures

- Not Applicable

Permanent Vegetative Control Measures

- Not Applicable

Permanent Non-Vegetative Control Measures

- Not Applicable

2.6 Protect Storm Drain Outlets

Per RI Stormwater Design and Installation Standards Manual 3.3.7.7:
Temporary or permanent outlet protection must be used to prevent scour and erosion at discharge points through the protection of the soil surface, reduction in discharge velocities, and through the promotion of infiltration. Outlets often have high velocity, high volume flows, and require strong materials that will withstand the forces of stormwater. Storm drain outlet control measures also offer a last line of protection against sediment entering environmentally sensitive areas.

All stormwater outlets that may discharge sediment-laden stormwater flow from the construction site must be protected using the control practices depicted on the approved plan set and in accordance with the *RI SESC Handbook*.

Describe controls, including design specifications and details, which will be implemented to protect outlets discharging stormwater from the project.

Will temporary or permanent point source discharges be generated at the site as the result of construction of sediment traps or basins, diversions, and conveyance channels?

☐ Yes ☒ No

If Yes, describe the method(s) of outlet protection specified for each instance where a point source discharge will be generated. In addition, specifically reference SESC Site Plan Sheet Numbers which identify where the outlets will be constructed at the site and the corresponding control measures that will be utilized for their protection including any associated specifications required for their installation and maintenance.

If No, discuss rationale for not including these elements in the SESC Plan.

New point sources of discharge will not be generated at the site.

2.7 Establish Temporary Controls for the Protection of Post-Construction Stormwater Treatment Practices

Per RI Stormwater Design and Installation Standards Manual 3.3.7.8:
Temporary measures shall be installed to protect permanent or long-term stormwater control and treatment measures as they are installed and throughout the construction phase of the project so that they will function properly when they are brought online.

Examples of temporary control measures that can be used to protect permanent stormwater control measures include: establishing temporary sediment barriers around infiltrating practices, ensuring proper material staging areas and equipment routing (i.e. do not allow construction equipment to compact areas where infiltrating practices will be installed), and by conducting final cleaning of structural long term practices after construction is completed.

List and describe all post-construction stormwater treatment practices that will be installed during the construction process. Next, outline how these measures will be protected during the construction phase of the project to ensure that they will function appropriately once they are brought online.

Will long-term stormwater treatment practices be installed at the site?

☒ Yes ☐ No

If Yes, describe the specific long-term stormwater treatment practices that will require protection from sedimentation and compaction. In addition, specifically reference SESC Site Plan Sheet Numbers which identify the location of these practices and the corresponding control measures that will be utilized for their protection including any associated specifications required for their installation and maintenance.

Temporary sediment controls will be established during construction to minimize the erosion of sediment on the project site. All disturbed areas will be restored with loam and seed post construction. Also permanent drainage structures and the site will be cleaned before final acceptance.

If No, discuss rationale for not including these elements in the SESC Plan.

2.8 Divert or Manage Run-on from Up-gradient Areas

Per RI Stormwater Design and Installation Standards Manual 3.3.7.10:
Is stormwater from off-site areas anticipated to flow onto the project area or onto areas where soils will be disturbed?

☐ Yes ☒ No

If Yes, describe the specific runoff control measures (i.e., check dams, water bars, diversions, perimeter dikes, lined waterways, vegetated waterways, temporary line channels, sediment barriers, pipe slope drains, etc.) that will be utilized at the site including references to the SESC Site Plan Sheet Numbers, design specifications and details. See the RI SESC Handbook,Section Five: Runoff Control Measures for additional guidance.

Pre-Construction and Construction sub-watershed maps are included for each phase in this SESC Plan submittal.

Structural control measures will be used to limit stormwater flow from coming onto the project area, and to divert and slow on-site stormwater flow that is expected to impact exposed soils for the purpose of minimizing erosion, runoff, and the discharge of pollutants from the site.

Control measures shall be installed as depicted on the approved plan set and in accordance with the *RI SESC Handbook* or the *RI Department of Transportation Standard Specifications for Road and Bridge Construction*. **Run-on and Run-off Management**				
Construction Phase #	On-site or Off-site Run-on?	Control measure	Identified on Sheet #	Detail(s) is/are on Sheet #
N/A	N/A	N/A	N/A	N/A

If No, discuss rationale for not including these elements in the SESC Plan.

Compost Filter Sock will be used to establish perimeter controls and sediment barriers, where necessary and shown in the Plans.

2.9 Retain Sediment Onsite through Structural and Non-Structural Practices

Per RI Stormwater Design and Installation Standards Manual 3.3.7.12:
Once the erosion control measures and the run-on diversions are identified and located on the plans, the next step to site planning is sediment control and sediment management. Sediment barriers, inlet protection, construction entrances, stockpile containment, temporary sediment traps, and temporary sediment basins must be integrated into the SESC Plan if applicable. Refer to the RI SESC Handbook Section Six: Sediment Control Measures for additional guidance.

Per RI Stormwater Design and Installation Standards Manual 3.3.7.9:
SEDIMENT BARRIERS must be installed along the perimeter areas of the site that will receive stormwater from disturbed areas. This also may include the use of sediment barriers along the contour of disturbed slopes to maintain sheet flow and minimize rill and gully erosion during construction. Installation and maintenance of sediment barriers must be completed in accordance with the maintenance requirements specified by the product manufacturer or the *RI SESC Handbook*.

Will sediment barriers be utilized at the toe of slopes and other downgradient areas subject to stormwater impacts and erosion during construction?

☐ Yes ☒ No

If Yes, Describe the rationale for selecting control measures to serve as sediment barriers at the toe of slopes and other down gradient areas subject to stormwater impacts during construction. Describe the specific sediment barriers that will be used at the site in the table provided.

N/A

If No, discuss rationale for not including these elements in the SESC Plan.

There will be no major disturbances of soil during construction. Therefore, for minor disturbances Inlet protection devices will suffice for sediment control.

Describe rationale for whether or sediment barriers are required at regular intervals along slopes in order to minimize the creation of concentrated flow paths (i.e. rilling, gully erosion) and to encourage sheet flow. Keep in mind that sediment barriers can be placed at the toe, top, face, and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow. The description of the selected control measures must focus on sediment barrier spacing as a function of slope length and steepness. Refer to the RI SESC Handbook, Section Six: Sediment Control Measure, Straw Wattles, Compost Tubes, and Fiber Rolls Control Measure for additional information on acceptable spacing distances.

Will sediment barriers be utilized along the contour of slopes to maintain sheet flow and minimize rill and gully erosion during construction?

☐ Yes ☒ No

If Yes, list the specific sediment barriers that will be used at the site in the table provided. Describe the rationale for the locations and spacing frequency selected by the designer based on slope length and steepness. For additional guidance refer to the RI SESC Handbook or sediment barrier manufacturer's specifications.

SEDIMENT BARRIERS			
Construction Phase #	Sediment Barrier Type	Sediment Barrier is Labeled on Sheet #	Detail is on Sheet #

If No, discuss rationale for not including these elements in the SESC Plan.

There will be no major disturbances of soil during construction. Therefore, for minor disturbances Inlet protection devices will suffice for sediment control.

Per RI Stormwater Design and Installation Standards Manual 3.3.7.6:
INLET PROTECTION will be utilized to prevent soil and debris from entering storm drain inlets. These measures are usually temporary and are implemented before a site is disturbed. ALL stormwater inlets &/or catch basins that are operational during construction and have the potential to receive sediment-laden stormwater flow from the construction site must be protected using control measures outlined in the *RI SESC Handbook*.

For more information on inlet protection refer to the *RI SESC Handbook*, Inlet Protection control measure.

Maintenance

The operator must clean, or remove and replace the inlet protection measures as sediment accumulates, the filter becomes clogged, and/or as performance is compromised. Accumulated sediment adjacent to the inlet protection measures should be removed by the end of the same work day in which it is found or by the end of the following work day if removal by the same work day is not feasible.

Describe controls, including design specifications and details, which will be implemented to protect all inlets receiving stormwater from the project during the entire duration of the project. For more information on inlet protection refer to the RI SESC Handbook Inlet Protection control measure.

Do inlets exist adjacent to or within the project area that require temporary protection?

☒ Yes ☐ No

If Yes, describe the method(s) of inlet protection, including maintenance requirements and complete the table provided.

The following lists the proposed storm drain inlet types selected from Section Six of the *RI SESC Handbook*. Each row is unique for each phase and inlet protection type.

INLET PROTECTION			
Construction Phase #	Inlet Protection Type	Inlet Protection is labeled on Sheet #	Detail(s) is/are on Sheet #
1	Catch Basin Silt Sacks & CFS	Sheet 9, 10 and 11	Sheet 31

If No, discuss rationale for not including these elements in the SESC Plan.

N/A

CONSTRUCTION ENTRANCES will be used in conjunction with the stabilization of construction roads to reduce the amount of sediment tracking off the project. This project has avoided placing construction entrances on poorly drained soils where possible. Where poorly drained soils could not be eliminated, the detail includes subsurface drainage.

Any construction site access point must employ the control measures on the approved SESC site plans and in accordance with the *RI SESC Handbook*. Construction entrances shall be used in conjunction with the stabilization of construction roads to reduce the amount of mud picked up by construction vehicles. All construction access roads shall be constructed prior to any roadway accepting construction traffic.
The site owner and operator must:

1. Restrict vehicle use to properly designated exit points.

2. Use properly designed and constructed construction entrances at all points that exit onto paved roads so that sediment removal occurs prior to vehicle exit.

3. When and where necessary, use additional controls to remove sediment from vehicle tires prior to exit (i.e. wheel washing racks, rumble strips, and rattle plates).

4. Where sediment has been tracked out from the construction site onto the surface of off-site streets, other paved areas, and sidewalks, the deposited sediment must be removed by the end of the same work day in which the track out occurs. Track-out must be removed by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal.

Will construction entrances be utilized at the proposed construction site?

☐ Yes ☒ No

If Yes, indicate location(s) of vehicle entrance(s) and exit(s), and stabilization practices used to prevent sediment from being tracked off-site in the table provided. See also RI SESC Handbook, Section Six, Construction Entrances Measure.

CONSTRUCTION ENTRANCE			
Construction Phase #	Soil Type at the Entrance	Entrance is located on Sheet #	Detail is on Sheet #
N/A	N/A	N/A	N/A

If No, discuss rationale.

The paved streets adjacent to the project site will be swept as needed to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

STOCKPILE CONTAINMENT will be used onsite to minimize or eliminate the discharge of soil, topsoil, base material or rubble, from entering drainage systems or surface waters. All stockpiles must be located within the limit of disturbance, protected from run-on with the use of temporary sediment barriers and provided with cover or stabilization to avoid contact with precipitation and wind where and when practical. Stock pile management consists of procedures and practices designed to minimize or eliminate the discharge of stockpiled material (soil, topsoil, base material, rubble) from entering drainage systems or surface waters.

For any stockpiles or land clearing debris composed, in whole or in part, of sediment or soil, you must comply with the following requirements:

1. Locate piles within the designated limits of disturbance.
2. Protect from contact with stormwater (including run-on) using a temporary perimeter sediment barrier.
3. Where practicable, provide cover or appropriate temporary vegetative or structural stabilization to avoid direct contact with precipitation or to minimize sediment discharge.
4. NEVER hose down or sweep soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance, storm drain inlet, or surface water.
5. To the maximum extent practicable, contain and securely protect from wind.

Describe materials expected to be stockpiled or stored on-site and procedures for storage of materials to minimize exposure of the materials to stormwater and to eliminate the discharge of stockpiled material from entering drainage systems and surface waters. Refer to the RI SESC Handbook, Stockpile and Staging Area Management Control Measure for additional guidance. Complete the table provided.

STOCKPILE CONTAINMENT				
Construction Phase #	Run-on measures necessary? (yes/no)	Stabilization or Cover Type	Stockpile Containment Measure	Sheet #
N/A	N/A	N/A	N/A	N/A

CONSTRUCTED SEDIMENT STRUCTURES

If each common drainage location receives water from an area with less than one (1) acre disturbed at a time, this section can be deleted and no sediment traps or basins are required. However, it is important to remember that there is still a requirement to retain sediment on-site. Therefore, if it is in the best professional judgment of the designer, that there is a condition or circumstance which may require structural controls (per Section 3.3.7.13 of the RI Stormwater Design and Installation Standards Manual), this section can be used.

TEMPORARY SEDIMENT TRAPS will be utilized onsite. There will be no disturbed drainage areas greater than one acre that will be exposed for longer than six months. Design and sizing calculations in accordance with the *RI SESC Handbook*, Section Six are found in _____ of this SESC Plan. A summary of the calculations are provided below:

For Disturbed Areas 1 to 5 Acres – Those areas with a common drainage location that serves an area between one (1) and five (5) acres disturbed at one time, a temporary sediment trap must be provided where attainable and where the sediment trap is only intended to be used for a period of six (6) months or less. For longer term projects with a common drainage location that serves between one (1) and five (5) acres disturbed at one time, a temporary sediment basin must be provided where attainable. Temporary sediment trapping practices must be designed in accordance with the RI SESC Handbook and must be sized to have a total storage volume capable of storing one (1) inch of runoff from the contributing area or one hundred and thirty four (134) cubic yards per acre of drainage area. A minimum of fifty percent (50%) of the total volume shall be storage below the outlet (wet storage). See RISDISM 3.3.7.12 for requirements and RI SESC Handbook, Section Six: Temporary Sediment Traps Measure for design details.

Are temporary sediment traps required at the site?

☐ Yes ☒ No

If Yes, complete the table provided. If an area greater than one acre will be exposed for longer than 6 months and a sediment trap is proposed, explain why the sediment basin was not attainable.

SEDIMENT TRAPS				
Construction Phase #	Exposed Area (acres)	Trap #	Sheet #	Detail found on Sheet#
N/A	N/A	N/A	N/A	N/A

Trap #	Wet Storage Volume (cu.ft)	Dry Storage Volume (cu.ft.)	Cleanout Depth (ft)	Provide Reference to Location of Supporting Design and Sizing Calculations
N/A	N/A	N/A	N/A	N/A

All traps will be functional and installed prior to disturbance in the contributing drainage area. Access for sediment removal is provided on the plans with cleanout depth requirements. The removed sediment will be utilized onsite or disposed of properly off-site.

If No, discuss rationale.

Not required for this project.

TEMPORARY SEDIMENT BASIN(S) will be utilized onsite. Every effort must be made to prevent erosion and control it near the source.

If the following criterion does not apply to your proposed construction project, then this section may be eliminated from the plan.

For Disturbed Areas of 1 to 5 Acres – Those areas with a common drainage location that serves an area between one (1) and five (5) acres disturbed at one time for longer than six (6) months.

For Disturbed Areas > 5 Acres – Those areas with a common drainage location that serves an area with greater than five (5) acres disturbed at one time, a temporary (or permanent) sediment basin must be provided where attainable until final stabilization of the site is complete. Temporary sediment basins must be designed in accordance with the RI SESC Handbook. The volume of wet storage shall be at least twice the sediment storage volume and shall have a minimum depth of two (2) feet. Sediment storage volume must accommodate a minimum of one year of predicted sediment load as calculated using the sediment volume formula in the RI SESC Handbook. In addition to sediment storage volume and wet storage volume, the sediment basin shall provide adequate residence storage volume to provide a minimum 10 hours residence time for a ten (10) -year frequency, twenty four (24) hour duration, Type III distribution storm. To the maximum extent practicable, outlet structures must be utilized that withdraw water from the surface of temporary sedimentation basins for the purpose of minimizing the discharge of pollutants. Exceptions may include periods of extended cold weather, where alternative outlets are required during frozen periods. If such a device is infeasible for portions of or the entire construction period justification must be made in the SESC Plan. Describe the reasons sediment basins are required for this project. They may include physical conditions, land ownership, construction operations etc. For design details see RI SESC Handbook Section Six: Temporary Sediment Basins Measure.

Are temporary sediment basins required at the site?

☐ Yes ☒ No

If No, discuss rationale.

Not required for this project.

If Yes, complete the table provided.

There will be disturbed areas greater than 5 acres and/or disturbed areas greater than one acre but exposed for longer than six months. The basins have been located to intercept runoff only from disturbed areas and minimize interference with other construction activities and construction of utilities. They have been located outside of any natural buffers. The dam height is less than six feet and holds less than fifteen (15) acre-ft. Modeling, Design and Sizing calculations in accordance with the *RI SESC Handbook*, Section Six are found in _____ of this SESC Plan. The designs were also prepared to satisfy Section 3.3.7.13 of the Stormwater Manual and will control Temporary Increases in Stormwater Velocity, Volume, and Peak Flows. A summary of the assumptions and calculations are provided below:

TEMPORARY SEDIMENT BASINS				
Construction Phase #	Exposed Area (acres)	Basin #	Sheet #	Detail found on Sheet#
N/A	N/A	N/A	N/A	N/A

Provide the following tables for each temporary sediment basin. Each basin shall be designed to contain sediment and runoff from the 10-year Type III distribution storm.

SEDIMENT BASIN #1 Pre-Development					
Pre-Construction Cover Type	Contributing Area (acres)	Soil Type	Curve Number	Tc (minutes)	10- Year Type III (cfs, at time t, acre feet)
N/A	N/A	N/A	N/A	N/A	N/A
				Total Pre-Construction Volume (cuft):	**Insert Text**
During Construction					
Construction Cover Type	Contributing Area	Erosion Rates	Curve Number	Tc (minutes)	10-Year Type III (cfs, at time t, acre feet)
N/A	N/A	N/A	N/A	N/A	N/A
				Total Runoff Volume During Construction (cuft):	**Insert Text**
Basin #1					
Pre-Construction Peak Discharge (cfs)	Wet Storage Volume (cuft)	Sediment Storage Volume (cuft)	Residence Storage Volume (cuft)	Outlet Max Discharge Rate (cfs)	Emergency Spillway Discharge Capacity (cfs)
N/A	N/A	N/A	N/A	N/A	N/A

Discuss if baffles will be required in order to create effective flow length. The details should contain sediment storage markers.

Describe the surface outlets. Identify whether or not these devices will be infeasible to use during periods of extended cold weather. If periods of extended cold weather are anticipated to be an issue, provide the operator with instructions for discharging from the basin using an alternate method during this period of time. In addition, instruct the operator to document the justification for not using a surface outlet device during frozen periods in the inspection reports associated with these instances.

All sediment basins will be functional and installed prior to disturbance in the contributing drainage area. Access for sediment removal is provided on the plans with cleanout depth specifications. The removed sediment will be utilized onsite or properly disposed of off-site.

2.10 Properly Design Constructed Stormwater Conveyance Channels

Conveyances are required to be designed for inlets to temporary sediment basins. The construction site planner must use best professional judgment to determine if additional conveyance design is required for run-on control or in any other location where velocity control is required.

Are temporary stormwater conveyance practices required in order to properly manage runoff within the proposed construction project?

☐ Yes ☒ No

If Yes, describe the specific control measures that will be used at the site. Provide or attach design calculations associated with each proposed conveyance measure, demonstrating that each one is designed and sized to handle the peak flow from a 10-year, 24-hour, Type III design storm. Note where within the site plans each specified conveyance is depicted, including specifications and construction details.

N/A

The conveyance will be maintained as depicted on SESC Site Plans and in accordance with the *RI SESC Handbook* and if applicable.

If No, discuss rationale for not including conveyance measures in the SESC Plan.

Not required for this project.

2.11 Erosion, Runoff, and Sediment Control Measure List

Complete the following table for each Phase of construction where Erosion, Runoff, and Sediment Control Measures are located. This table is to be used as part of the SESC Plan Inspection Report – please fill out accordingly.

It is expected that this table and corresponding Inspection Reports will be amended as needed throughout the construction project as control measures are added or modified.

Phase No. #		
Location/Station	**Control Measure Description/Reference**	**Maintenance Requirement**
Example 1: Eastern Parcel – Slope No. 4 Adjacent to I-95. Straw Wattles	Straw Wattle. Section Six, Sediment Control Measures, Straw Wattles, Compost Tubes and Fiber Rolls - *RI SESC Handbook*.	Inspection should be made after each storm event or 1/week and repair or replacement should be made promptly as needed. Cleanout of accumulated sediment behind the wattle if sediment accumulates to at least ½ the distance between the top of wattle and ground surface.
Example 2: Western Parcel – Green Street Construction Entrance	Stone Stabilized Pad. Section Six: Sediment Control Measures – Construction Entrances *–RI SESC Handbook*.	The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto pave surfaces. Provide periodic top dressing with additional stone or additional length as conditions demand. Roads adjacent to entrance shall be clean at the end of each day. If maintenance alone is not enough to prevent excessive track out, increase length of entrance, modify construction access road surface, or install washrack or mudrack.
INSERT TEXT		

Insert a new table for each additional construction phase.

SECTION 3: CONSTRUCTION ACTIVITY POLLUTION PREVENTION

Per RI Stormwater Design and Installation Standards Manual 3.3.7.14:

The purpose of construction activity pollution prevention is to prevent day to day construction activities from causing pollution.
This section describes the key pollution prevention measures that must be implemented to avoid and reduce the discharge of pollutants in stormwater. Example control measures include the proper management of waste, material handling and storage, and equipment/vehicle fueling/washing/maintenance operations.
Where applicable, include *RI SESC Handbook* or the *RI Department of Transportation Standard Specifications for Road and Bridge Construction* (as amended) specifications.

3.1 Existing Data of Known Discharges from Site

Per RIPDES Construction General Permit – Part III.I:
List and provide existing data (if available) on the quality of any known discharges from the site. Examples include discharges from existing stormwater collection systems, discharges from industrial areas of the site, etc.

Are there known discharges from the project area?

☐ Yes ☒ No

Describe how this determination was made:
- This determination was made through a review of the existing survey of the project area.

If yes, list discharges and locations:
- N/A

Is there existing data on the quality of the known discharges?

☐ Yes ☒ No

If yes, provide data:
- N/A

3.2 Prohibited Discharges

Per RI SESC Handbook – Part D
The following discharges are prohibited at the construction site:
- Contaminated groundwater, unless specifically authorized by the DEM. These types of discharges may only be authorized under a separate DEM RIPDES permit.
- Wastewater from washout of concrete, unless the discharge is contained and managed by appropriate control measures.
- Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials.
- Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance. Proper storage and spill prevention practices must be utilized at all construction sites.
- Soaps or solvents used in vehicle and equipment washing.
- Toxic or hazardous substances from a spill or other release.

All types of waste generated at the site shall be disposed of in a manner consistent with State Law and/or regulations.

Will any of the above listed prohibited discharges be generated at the site?

☐ Yes ☒ No

If Yes, provide a list of those that will be generated at the site and provide a discussion of how they will be managed, including references to the specific SESC Site Plans where such control measures are specified.

N/A

If No, discuss rationale.

No prohibited discharges will be generated at the site.

3.3 Proper Waste Disposal

Per RI SESC Handbook – Part D
Building materials and other construction site wastes must be properly managed and disposed of in a manner consistent with State Law and/or regulations.

- A waste collection area shall be designated on the site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a waterbody or storm drain.
- All waste containers shall be covered to avoid contact with wind and precipitation.
- Waste collection shall be scheduled frequently enough to prevent containers from overfilling.
- All construction site wastes shall be collected, removed, and disposed of in accordance with applicable regulatory requirements and only at authorized disposal sites.
- Equipment and containers shall be checked for leaks, corrosion, support or foundation failure, or other signs of deterioration. Those that are found to be defective shall be immediately repaired or replaced.

Is waste disposal a significant element of the proposed project?

☐ Yes ☒ No

If Yes, identify potential building materials and other construction wastes and document how these wastes will be properly managed and disposed of at the construction site (i.e., trash disposal, sanitary wastes, recycling, and proper material handling). Include references to the specific SESC Site Plans where such control measures are specified.

N/A

If No, discuss rationale.

Waste disposal is not an element of the project.

3.4 Spill Prevention and Control

Per RI SESC Handbook – Part D
All chemicals and/or hazardous waste material must be stored properly and legally in covered areas, with containment systems constructed in or around the storage areas. Areas must be designated for materials delivery and storage. All areas where potential spills can occur and their accompanying drainage points must be described. The owner and operator must establish spill prevention and control measures to reduce the chance of spills, stop the source of spills, contain and clean-up spills, and dispose of materials contaminated by spills. The operator must establish and make highly visible location(s) for the storage of

spill prevention and control equipment and provide training for personnel responsible for spill prevention and control on the construction site.

Are spill prevention and control measures required for this particular project?

☒ Yes ☐ No

If Yes, describe all areas where potential spills can occur, and their accompanying drainage points, and describe the spill prevention and control plan to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and control. Provide the method of establishing and making highly visible the location(s) for the storage of spill prevention equipment. Refer to the RI SESC Handbook, Spill Prevention and Control Plan for guidance.

- A potential spill can occur throughout the project site. The Pawcatuck River is the final destination of all drainage points.
- The following good housekeeping practices will be followed onsite during the construction project:
  - An effort will be made to store on-site only enough products and materials required to do the job.
  - All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
  - Products will be kept in their original containers with the original manufacturer's label.
  - Substances will not be mixed with one another unless recommended by the manufacturer.
  - Whenever possible, all of a product will be used up before disposing of the container.
  - Manufacturers' recommendations for proper use and disposal will be followed.
  - The site superintendent will inspect daily to ensure proper use and disposal of materials onsite.
- These practices are used to reduce the risks associated with hazardous materials:
  - Products will be kept in original containers unless they are not re-sealable.
  - Original labels and material safety data will be retained; they contain important product information.
  - If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.
- In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:
  - Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
  - Materials and equipment necessary for spill cleanup will be kept in a storage area onsite. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
  - All spills will be cleaned up immediately after discovery.
  - The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
  - Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size.
  - The spill prevention plan will be adjusted to include measures to prevent this type of spilt from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
  - The site superintendent responsible for the day-to-day site operations will be the spill prevention and cleanup coordinator. He will designate at least three other site personnel who will receive spill prevention and cleanup training. The individual will each become

responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the office trailer onsite.

If No, discuss rationale.

N/A

3.5 Control of Allowable Non-Stormwater Discharges

Per RIPDES Construction General Permit – Part III.J.2.e:
Discharges not comprised of stormwater are allowed under the RIPDES Construction General Permit but are limited to the following: discharges which result from the washdown of vehicles where no detergents are used; external building wash-down where no detergents are used; the use of water to control dust; firefighting activities; fire hydrant flushing; natural springs; uncontaminated groundwater; lawn watering; potable water sources including waterline flushing; irrigation drainage; pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled materials have been removed) and where detergents are not used; and foundation or footing drains where flows are not contaminated with process materials such as solvents, or contaminated by contact with soils where spills or leaks of toxic or hazardous materials has occurred. If any of these discharges may reasonably be expected to be present and to be mixed with stormwater discharges, they must be specifically listed here.

Are there allowable non-Stormwater discharges present on or near the project area?

☐ Yes ☒ No

If yes, list the sources of allowable non-Stormwater discharge(s) associated with construction activity. For each of the allowable non-stormwater discharge(s) identified, describe the controls and measures that will be implemented at those locations to minimize pollutant contamination of these discharges and to separate them from temporary discharges of stormwater during construction.

List of allowable non-stormwater discharge(s) and the associated control measure(s):

N/A

If any existing or proposed discharges consist of contaminated groundwater, such discharges are not authorized under the RIPDES Construction General Permit. These discharges must be permitted separately by seeking coverage to treat and discharge under a separate RIPDES individual permit or under the RIPDES Remediation General Permit. Contact the RIDEM Office of Water Resources RIPDES Permitting Program at 401-222-4700 for application requirements and additional information.

Are there any known or proposed contaminated discharges, including anticipated contaminated dewatering operations, planned on or near the project area?

☐ Yes ☒ No

If yes, list the discharge types and the RIPDES individual permit number(s) or RIPDES Remediation General Permit Authorization number(s) associated with these discharges.

- N/A

3.6 Control Dewatering Practices

Per RI SESC Handbook – Part D

Site owners and operators are prohibited from discharging groundwater or accumulated stormwater that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation, unless such waters are first effectively managed by appropriate control measures.

Examples of appropriate control measures include, but are not limited to, temporary sediment basins or sediment traps, sediment socks, dewatering tanks and bags, or filtration systems (e.g. bag or sand filters) that are designed to remove sediment. Uncontaminated, non-turbid dewatering water can be discharged without being routed to a control.

At a minimum the following discharge requirements must be met for dewatering activities:

1. Do not discharge visible floating solids or foam.

2. To the extent feasible, utilize vegetated, upland areas of the site to infiltrate dewatering water before discharge. In no case will surface waters be considered part of the treatment area.

3. At all points where dewatering water is discharged, utilize velocity dissipation devices.

4. With filter backwash water, either haul it away for disposal or return it to the beginning of the treatment process.

5. Replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.

6. Dewatering practices must involve the implementation of appropriate control measures as applicable (i.e. containment areas for dewatering earth materials, portable sediment tanks and bags, pumping settling basins, and pump intake protection.)

Is it at all likely that the site operator will need to implement construction dewatering in order to complete the proposed project?

☐ Yes ☒ No

If Yes, describe all areas where construction dewatering may be required and the proposed control measures that will be used to treat and manage dewatering fluids including all proposed discharge points. Proposed control measures must comply with the RI SESC Handbook. Include references to all relevant

SESC Site Plans.

- N/A

If No, discuss rationale.

Not applicable for this project.

3.7 Establish Proper Building Material Staging Areas

Per RI SESC Handbook – Part D

All construction materials that have the potential to contaminate stormwater must be stored properly and legally in covered areas, with containment systems constructed in or around the storage areas. Areas must be designated for materials delivery and storage. Designated areas shall be approved by the site owner/engineer. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in the discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

Describe construction materials expected to be stored on-site and procedures for storage of materials to minimize exposure of the materials to stormwater. Include references to all relevant SESC Site Plans.

Storage of materials on site will not be allowed for this project.

3.8 Minimize Dust

Per RI SESC Handbook – Part D
Dust control procedures and practices shall be used to suppress dust on a construction site during the construction process, as applicable. Precipitation, temperature, humidity, wind velocity and direction will determine amount and frequency of applications. However, the best method of controlling dust is to prevent dust production. This can best be accomplished by limiting the amount of bare soil exposed at one time. Dust Control measures outlined in the *RI SESC Handbook* shall be followed. Other dust control methods include watering, chemical application, surface roughening, wind barriers, walls, and covers.

Describe dust control practices that will be used to suppress dust and limit its generation (i.e. applying water, limiting the amount of bare soil exposed at one time etc.).

- Water for dust control will be applied prior to or during high wind conditions (forecasted or actual wind conditions of 20 mph or greater) to all areas of exposed erodible soil. Water shall be spray-applied to avoid ponding or erosion, either by truck (in roadway area) or manually (in off road areas)

- In addition, the contractor shall limit the amount of bare soil exposed at one time

3.9 Designate Washout Areas

Per RI SESC Handbook – Part D
At no time shall any material (concrete, paint, chemicals) be washed into storm drains, open ditches, streets, streams, wetlands, or any environmentally sensitive area. The site operator must ensure that construction waste is properly disposed of, to avoid exposure to precipitation, at the end of each working day.
Will washout areas be required for the proposed project?

☒ Yes ☐ No

If Yes, describe location(s) and control measures that will be used to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, washout areas for concrete mixers, paint, stucco, etc. The recommended location(s) of washout areas should be identified, or at a minimum the locations where these washout areas should not be sited should be called out.

The Contractor shall determine locations, if any, of washout areas and append this document.

If No, discuss rationale.

N/A

3.10 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

Per RI SESC Handbook – Part D
Vehicle fueling shall not take place within regulated wetlands or buffer zone areas, or within 50-feet of the storm drain system. Designated areas shall be depicted on the SESC Site Plans, or shall be approved by the site owner.

Vehicle maintenance and washing shall occur off-site, or in designated areas depicted on the SESC Site Plans or approved of by the site owner. Maintenance or washing areas shall not be within regulated wetlands or buffer zone areas, or within 50-feet of the storm drain system. Maintenance areas shall be

clearly designated, and barriers shall be used around the perimeter of the maintenance area to prevent stormwater contamination.

Construction vehicles shall be inspected frequently for leaks. Repairs shall take place immediately. Disposal of all used oil, antifreeze, solvents and other automotive-related chemicals shall be according to applicable regulations; at no time shall any material be washed down the storm drain or in to any environmentally sensitive area.

Describe equipment/vehicle fueling and maintenance practices that will be implemented to prevent pollutants from mixing with stormwater (e.g., secondary containment, drip pans, spill kits, etc.) Provide recommended location(s) of fueling/maintenance areas, or, at minimum, locations where fueling/maintenance should be avoided.

- All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

- The Contractor shall determine locations, if any, for vehicle fueling and maintenance activities, provided that said liocations are more than fifty (50) feet from any storm drainage inlet structure.

3.11 Chemical Treatment for Erosion and Sediment Control

Per RI SESC Handbook – Appendix J
Chemical stabilizers, polymers, and flocculants are readily available on the market and can be easily applied to construction sites for the purposes of enhancing the control of erosion, runoff, and sedimentation. The following guidelines should be adhered to for construction sites that plan to use treatment chemicals as part of their overall erosion, runoff, and sedimentation control strategy.

The U.S. Environmental Protection Agency has conducted research into the relative toxicity of chemicals commonly used for the treatment of construction stormwater discharges. The research conducted by the EPA focused on different formulations of chitosan, a cationic compound, and both cationic and anionic polyacrylamide (PAM). In summary, the studies found significant toxicity resulting from the use of chitosan and cationic PAM in laboratory conditions, and significantly less toxicity associated with using anionic PAM. EPA's research has led to the conclusion that the use of treatment chemicals for erosion, runoff, and sedimentation control requires proper operator training and appropriate usage to avoid risk to aquatic species. In the case of cationic treatment chemicals additional safeguards may be necessary.

Application/Installation Minimum Requirements

If a site operator plans to use polymers, flocculants, or other treatment chemicals during construction the SESC plan must address the following:

1. Treatment chemicals shall not be applied directly to or within 100 feet of any surface water body, wetland, or storm drain inlet.

2. Use conventional erosion, runoff, and sedimentation controls prior to and after the application of treatment chemicals. Use conventional erosion, runoff, and sedimentation controls prior to chemical addition to ensure effective treatment. Chemicals may only be applied where treated stormwater is directed to a sediment control (e.g. temporary sediment basin, temporary sediment trap or sediment barrier) prior to discharge.

3. Sites shall be stabilized as soon as possible using conventional measures to minimize the need to use chemical treatment.

4. Select appropriate treatment chemicals. Chemicals must be selected that are appropriately suited to the types of soils likely to be exposed during construction and to the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system or treatment area. **Soil testing is essential. Using the wrong form of chemical treatment will result in some form of performance failure and unnecessary environmental risk.**

5. Minimize discharge risk from stored chemicals. Store all treatment chemicals in leak-proof containers that are kept under storm-resistant cover and surrounded by secondary containment structures (e.g., spill berms, decks, spill containment pallets), or provide equivalent measures, designed and maintained to minimize the potential discharge of treatment chemicals in stormwater or by any other means (e.g., storing chemicals in covered areas or having a spill kit available on site).

6. Use chemicals in accordance with good engineering practices and specifications of the chemical provider/supplier. You must also use treatment chemicals and chemical treatment systems in accordance with good engineering practices, and with dosing specifications and sediment removal design specifications provided by the supplier of the applicable chemicals, or document specific departures from these practices or specifications and how they reflect good engineering practice.

Will chemical stabilizers, polymers, flocculants or other treatment chemicals be utilized on the proposed construction project?

☐ Yes ☒ No

If Yes, create a Treatment Chemical Application Plan and describe how the owner or SESC Plan preparer/designer intends to educate the designated operator prior to the application of such treatment chemicals.

Treatment Chemical Application Plan Required Elements

Insert information listed below:

1. *List Manufacturer's name and product name for each treatment chemical proposed for use at the site.*
2. *Attach a copy of applicable Material Safety Data Sheets (MSDSs) or Safety Data Sheets (SDS) for each proposed treatment chemical.*
3. *Provide the results of third party toxicity testing of the materials proposed for use at the site.*
4. *Provide a certification from the site owner and operator that all proposed treatment chemicals are the same as those used in the toxicity tests and will not be altered in any way.*
5. *Provide an explanation as to why conventional erosion, runoff, and sediment control measures, alone or in combination, will not be sufficient to prevent turbidity impacts and sedimentation in downstream receptors.*
6. *Provide a plan prepared in consultation with the chemical treatment manufacturer(s) or authorized manufacturer's representative which includes the following:*
    a. *Identification of the areas of the site where treatment chemicals will be applied and the name, location, and distance to all downstream receptors that have the potential to be impacted from the discharges from the treatment areas.*
    b. *List the expected start and end dates or specific phases of the project during which each treatment chemical will be applied.*
    c. *Provide test results for representative soils from the site, and any recommendations from the manufacturer based on the soil tests, indicating the type of treatment chemical and the recommended application rate.*
    d. *List the frequency, method, and rates of application which are designed to ensure that treatment chemical concentrations will not exceed 50% of the IC25 or NOEC toxicity values, whichever is less, for each treatment chemical proposed.*

e. Provide the frequency of inspection and maintenance of the treatment chemical application system.
f. List the method proposed for the collection, removal, and disposal or stabilization of settled particles to prevent re-suspension.
g. Describe the training that will be provided to all persons who will handle and use treatment chemicals at the construction site. Training must include appropriate, product-specific training and proper dosing requirements for each product.

- It is not anticipated that a treatment chemical application will be required to control erosion, runoff, and sedimentation.

- The Contractor shall provide a treatment chemical application plan for review and approval, if it is determined that treatment chemicals are required during construction.

Treatment Chemical SESC Plan Weekly Inspection Report Documentation Requirements

1. Document the type and quantity of treatment chemicals applied.
2. List the date, duration of discharge, and estimated discharge rate.
3. Provide an estimate of the volume of water treated.
4. Provide an estimate of the concentration of treatment chemicals in the discharge, with supporting calculations.

3.12 Construction Activity Pollution Prevention Control Measure List

Complete the following table for each Phase of construction where Pollution Prevention Control Measures will be implemented. This table is to be used as part of the SESC Plan Inspection Report – please fill out accordingly.

It is expected that this table will be amended as needed throughout the construction project.

Phase No. #		
Location/Station	**Control Measure Description/Reference**	**Maintenance Requirement**
Roads	Public roads within the construction site shall be cleaned at the end of each day	Street sweep if construction site sediment or debris is visible.
Site Widd	Pick up& proper handling and disposal of construction trash and debris	All loose trash and debris must be disposed of properly as the end of each working day..

Insert a new table for each additional construction phase.

SECTION 4: CONTROL MEASURE INSTALLATION, INSPECTION, and MAINTENANCE

4.1 Installation

Per RI SESC Handbook – Part D:
Complete the installation of temporary erosion, runoff, sediment, and pollution prevention control measures by the time each phase of earth-disturbance has begun. All stormwater control measures must be installed in accordance with good judgment, including applicable design and manufacturer specifications. Installation techniques and maintenance requirements may be found in manufacturer specifications and/or the *RI SESC Handbook*.

Include references to SESC Site Plans where installation requirements are located.

Referenced information can be found in the Plan Set on Sheets 9-11, and 31.

4.2 Monitoring Weather Conditions

Per RI SESC Handbook – Part D:

Anticipating Weather Events - Care will be taken to the best of the operator's ability to avoid disturbing large areas prior to anticipated precipitation events. Weather forecasts must be routinely checked, and in the case of an expected precipitation event of over 0.25-inches over a 24-hour period, it is highly recommended that all control measures should be evaluated and maintained as necessary, prior to the weather event. In the case of an extreme weather forecast (greater than one-inch of rain over a 24-hour period), additional erosion/sediment controls may need to be installed.

Storm Event Monitoring For Inspections - At a minimum, storm events must be monitored and tracked in order to determine when post-storm event inspections must be conducted. Inspections must be conducted and documented at least once every seven (7) calendar days and within twenty-four (24) hours after any storm event, which generates at least 0.25 inches of rainfall per twenty-four (24) hour period and/or after a significant amount of runoff or snowmelt.

In order for an operator to successfully satisfy this requirement list the weather gauge station that will be utilized to monitor weather conditions on the construction site. See www.wunderground.com or www.weather.gov for available stations.

The weather gauge station and website that will be utilized to monitor weather conditions on the construction site is as follows:

- There is a weather gauge station in Providence (KRIPROVI8) that may be used to monitor weather conditions. The station can be found on:

  www.weatherunderground.com

4.3 Inspections

Per RI SESC Handbook – Part D:
Minimum Frequency - Each of the following areas must be inspected by or under the supervision of the owner and operator at least once every seven (7) calendar days and within twenty-four (24) hours after any storm event, which generates at least 0.25 inches of rainfall per twenty-four (24) hour period and/or after a significant amount of runoff or snowmelt:

a. All areas that have been cleared, graded, or excavated and where permanent stabilization has not been achieved;

b. All stormwater erosion, runoff, and sediment control measures (including pollution prevention control measures) installed at the site;

c. Construction material, unstabilized soil stockpiles, waste, borrow, or equipment storage, and maintenance areas that are covered by this permit and are exposed to precipitation;

d. All areas where stormwater typically flows within the site, including temporary drainage ways designed to divert, convey, and/or treat stormwater;

e. All points of discharge from the site;

f. All locations where temporary soil stabilization measures have been implemented;

g. All locations where vehicles enter or exit the site.

Reductions in Inspection Frequency - If earth disturbing activities are suspended due to frozen conditions, inspections may be reduced to a frequency of once per month. The owner and operator must document the beginning and ending dates of these periods in an inspection report.

Qualified Personnel – The site owner and operator are responsible for designating personnel to conduct inspections and for ensuring that the personnel who are responsible for conducting the inspections are "qualified" to do so. A "qualified person" is a person knowledgeable in the principles and practices of erosion, runoff, sediment, and pollution prevention controls, who possesses the skills to assess conditions at the construction site that could impact stormwater quality, and the skills to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of the permit.

Recordkeeping Requirements - All records of inspections, including records of maintenance and corrective actions must be maintained with the SESC Plan. Inspection records must include the date and time of the inspection, and the inspector's name, signature, and contact information.

General Notes

- A separate inspection report will be prepared for each inspection.
- The Inspection Reference Number shall be a combination of the RIPDES Construction General Permit No - consecutively numbered inspections. ex/ Inspection reference number for the **4**th inspection of a project would be: RIR10#####-**4**
- Each report will be signed and dated by the Inspector and must be kept onsite.
- Each report will be signed and dated by the Site Operator.
- The corrective action log contained in each inspection report must be completed, signed, and dated by the site operator once all necessary repairs have been completed.
- It is the responsibility of the site operator to maintain a copy of the SESC Plan, copies of all completed inspection reports, and amendments as part of the SESC Plan documentation at the site during construction.

Failure to make and provide documentation of inspections and corrective actions under this part constitutes a violation of your permit and enforcement actions under 46-12 of R.I. General Laws may result.

4.4 Maintenance

Per RI SESC Handbook – Part D:
Maintenance procedures for erosion and sedimentation controls and stormwater management structures/facilities are described on the SESC Site Plans and in the *RI SESC Handbook*.
Site owners and operators must ensure that all erosion, runoff, sediment, and pollution prevention controls remain in effective operating condition and are protected from activities that would reduce their effectiveness. Erosion, runoff, sedimentation, and pollution prevention control measures must be maintained throughout the course of the project.
Note: It is recommended that the site operator designates a full-time, on-site contact person responsible for working with the site owner to resolve SESC Plan-related issues.

4.5 Corrective Actions

Per RI SESC Handbook – Part D:
If, in the opinion of the designated site inspector, corrective action is required, the inspector shall note it on the inspection report and shall inform the site operator that corrective action is necessary. The site operator must make all necessary repairs whenever maintenance of any of the control measures instituted at the site is required.

In accordance with the *RI SESC Handbook*, the site operator shall initiate work to fix the problem immediately after its discovery, and complete such work by the close of the next work day, if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance.

When installation of a new control or a significant repair is needed, site owners and operators must ensure that the new or modified control measure is installed and made operational by no later than seven (7) calendar days from the time of discovery where feasible. If it is infeasible to complete the installation or repair within seven (7) calendar days, the reasons why it is infeasible must be documented in the SESC Plan along with the schedule for installing the control measures and making it operational as soon as practicable after the 7-day timeframe. Such documentation of these maintenance procedures and timeframes should be described in the inspection report in which the issue was first documented. If these actions result in changes to any of the control measures outlined in the SESC Plan, site owners and operators must also modify the SESC Plan accordingly within seven (7) calendar days of completing this work.

SECTION 5: AMENDMENTS

Per RIPDES Construction General Permit – Part III.F:

This SESC Plan is intended to be a working document. It is expected that amendments will be required throughout the active construction phase of the project. **Even if practices are installed on a site according to the approved plan, the site is only in compliance when erosion, runoff, and sedimentation are effectively controlled throughout the entire site for the entire duration of the project.**

The SESC Plan shall be amended within seven (7) days whenever there is a change in design, construction, operation, maintenance or other procedure which has a significant effect on the potential for the discharge of pollutants, or if the SESC Plan proves to be ineffective in achieving its objectives (i.e. the selected control measures are not effective in controlling erosion or sedimentation).

In addition, the SESC Plan shall be amended to identify any new operator that will implement a component of the SESC Plan.

All revisions must be recorded in the Record of Amendments Log Sheet, which is contained in Attachment G of this SESC Plan, and dated red-lined drawings and/or a detailed written description must be appended to the SESC Plan. Inspection Forms must be revised to reflect all amendments. Update the Revision Date and the Version # in the footer of the Report to reflect amendments made.

All SESC Plan Amendments, except minor non-technical revisions, must be approved by the site owner and operator. Any amendments to control measures that involve the practice of engineering must be reviewed, signed, and stamped by a Professional Engineer registered in the State of RI.

The amended SESC plan must be kept on file at the site while construction is ongoing and any modifications must be documented.

Attach a copy of the Amendment Log.

Reference RI Model SESC Plan ATTACHMENT G

See Attachment G: Amendment Log

SECTION 6: RECORDKEEPING

RIPDES Construction General Permit – Parts III.D, III.G, III.J.3.b.iii, & V.O
It is the site owner and site operator's responsibility to have the following documents available at the construction site and immediately available for RIDEM review upon request:

- A copy of the fully signed and dated SESC Plan, which includes:
  - A copy of the General Location Map
    INCLUDED AS ATTACHMENT A
  - A copy of all SESC Site Plans
    INCLUDED AS ATTACHMENT B
  - A copy of the RIPDES Construction General Permit *(To save paper and file space, do not include in DEM/CRMC submittal, for operator copy only)*
    INCLUDED AS ATTACHMENT C
  - A copy of any regulatory permits (RIDEM Freshwater Wetlands Permit, CRMC Assent, RIDEM Water Quality Certification, RIDEM Groundwater Discharge Permit, RIDEM RIPDES Construction General Permit authorization letter, etc.)
    INCLUDED AS ATTACHMENT D
  - The signed and certified NOI form or permit application form *(if required as part of the application, see RIPDES Construction General Permit for applicability)*
    INCLUDED AS ATTACHMENT E
  - Completed Inspection Reports w/Completed Corrective Action Logs
    INCLUDED AS ATTACHMENT F
  - SESC Plan Amendment Log
    INCLUDED AS ATTACHMENT G

SECTION 7: PARTY CERTIFICATIONS

RIPDES Construction General Permit – Part V.G

All parties working at the project site are required to comply with the Soil Erosion and Sediment Control Plan (SESC Plan including SESC Site Plans) for any work that is performed on-site. The site owner, site operator, contractors and sub-contractors are encouraged to advise all employees working on this project of the requirements of the SESC Plan. A copy of the SESC Plan is available for your review at the following location: Kennedy Plaza, or may be obtained by contacting the site owner or site operator.

The site owner and site operator and each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement.

I acknowledge that I have read and understand the terms and conditions of the Soil Erosion and Sediment Control (SESC) Plan for the above designated project and agree to follow the control measures described in the SESC Plan and SESC Site Plans.

Site Owner:
City of Providence
Chris Martin, Principal Planner
444 Westminster Street
Providence, RI 02903
(401) 680-8523, cmartin@providenceri.gov

_____
signature/date

Site Operator:
T.B.D
Insert Name & Title
Insert Address
Insert City, State, Zip Code
Insert Telephone Number, Insert Fax/Email

_____
signature/date

Designated Site Inspector:
BETA Group, Inc.
Francis Marinaccio, PE, Project Engineer
701 George Washington Highway
Lincoln, RI 02865
(401) 333-2382, FMarinaccio@beta-inc.com

_____
signature/date

SubContractor SESC Plan Contact:
Insert Company or Organization Name
Insert Name & Title
Insert Address
Insert City, State, Zip Code
Insert Telephone Number, Insert Fax/Email

_____
signature/date

Insert more contact/signature lines as necessary

LIST OF ATTACHMENTS

Attachment A - General Location Map

Attachment B - SESC Site Plans

Attachment C - Copy of RIPDES Construction General Permit and Authorization to Discharge *(To save paper and file space, do not include in DEM/CRMC submittal, for operator copy only)*

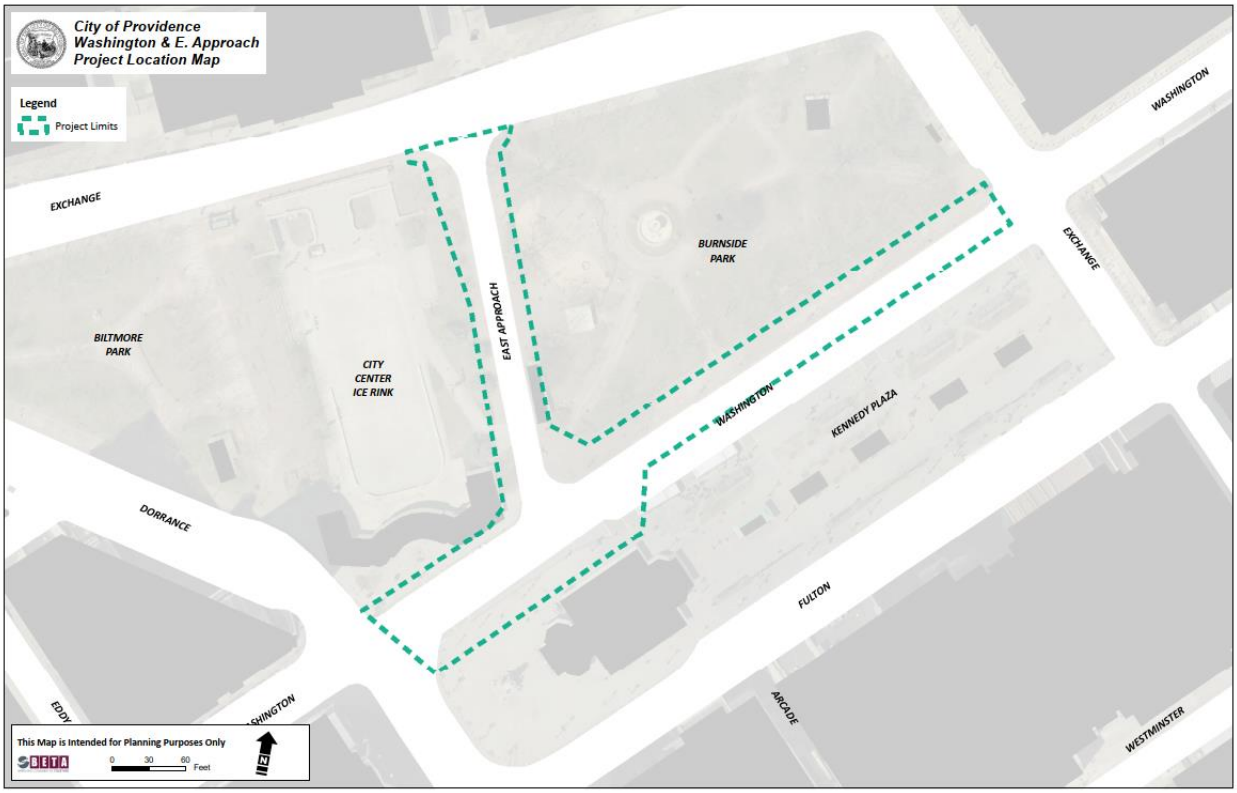
Attachment D - Copy of Other Regulatory Permits

Attachment E - Copy of RIPDES NOI *(if required as part of application, see RIPDES Construction General Permit for applicability)*

Attachment F - Inspection Reports w/ Corrective Action Log

Attachment G - SESC Plan Amendment Log

Attachment A - General Location Map



Attachment B - SESC Site Plans

Please see the Plan Set: IMPROVEMENTS TO WASHINGTON STREET AND EAST APPROACH

Attachment C - Copy of RIPDES Construction General Permit and Authorization to Discharge *(To save paper and file space, do not include in DEM/CRMC submittal, for operator copy only)*

Not applicable for this project.

Attachment D - Copy of Other Regulatory Permits

Not applicable for this project.

Attachment E - Copy of RIPDES NOI *(if required as part of application, see RIPDES Construction General Permit for applicability)*

Not applicable for this project.

Attachment F - Inspection Reports w/ Corrective Action Log

SESC Plan Inspection Report

Project Information			
Name	CHURCH STREET SIDEWALK IMPROVEMENT PROJECT		
Location	Church Street, Westerly, RI 02808		
DEM Permit No.	**N/A**		
Site Owner	**Name** Town of Westerly	**Phone** (401) 348-2562	**Email** kzalaski@westerlyri.gov
Site Operator	**Name**	**Phone**	**Email**

Inspection Information			
Inspector Name	**Name**	**Phone**	**Email**
Inspection Date		**Start/End Time**	
Inspection Type ❑ **Weekly** ❑ **Pre-storm event** ❑ **During storm event** ❑ **Post-storm event** ❑ **Other**			

Weather Information
Last Rain Event **Date:** **Duration (hrs):** **Approximate Rainfall (in):**
Rain Gauge Location & Source: KWST (Westerly Airport) or KOQU (Quonset)
Weather at time of this inspection:

Check statement that applies then sign and date below:

☐ **I, as the designated Inspector, certify that this site has been inspected as required by regulation and I have determined that maintenance and corrective actions are not required at this time.**

☐ **I, as the designated Inspector, certify that this site has been inspected as required by regulation and I have made the determination that the site requires corrective actions. The required corrective actions are noted within this inspection report.**

	Print Name	**Signature**	**Date**
Inspector:			

The Site Operator acknowledges by his/her signature, the receipt of this SESC Plan inspection report and its findings. He/she acknowledges that all recommended corrective actions must be completed and documentation of all such corrective actions must be made in this inspection report per applicable regulations.

	Print Name	**Signature**	**Date**
Operator:			

Project: Inspection Date:

Site-specific Control Measures

Number the structural and non-structural stormwater control measures identified in the SESC Plan and on the SESC Site Plans and list them below (add as necessary). Bring a copy of this inspection form and any applicable SESC Site Plans with you during your inspections. This list will assist you to inspect all control measures at your site.

FILL THIS TABLE USING THE SESC PLAN TABLES 2.11 & 3.12.

	Location/Station	Control Measure Description	Installed & Operating Properly?	Assoc. Photo/ Figure #	Corrective Action Needed (Yes or No; if 'Yes', please detail action required)
1	Site-wide	Compost Filter Sock	❑Yes ❑No		
2	STA 10+22	Compost Filter Sock	❑Yes ❑No		
3	STA 22+83	Compost Filter Sock	❑Yes ❑No		
4			❑Yes ❑No		
5			❑Yes ❑No		
6	**Attention Operator:**	**You must modify this inspection form as the project progresses, control measure locations change, and amendments to the SESC Plan are instituted in the field.**	❑Yes ❑No		
7			❑Yes ❑No		
8			❑Yes ❑No		
9			❑Yes ❑No		
10			❑Yes ❑No		
11			❑Yes ❑No		
12			❑Yes ❑No		
13			❑Yes ❑No		

Project: Inspection Date:

	Location/Station	Control Measure Description	Installed & Operating Properly?	Assoc. Photo/ Figure #	Corrective Action Needed (Yes or No; if 'Yes', please detail action required)
14			❑Yes ❑No		
15			❑Yes ❑No		
16			❑Yes ❑No		
17			❑Yes ❑No		
18			❑Yes ❑No		
19			❑Yes ❑No		
20			❑Yes ❑No		
21			❑Yes ❑No		
22			❑Yes ❑No		
23			❑Yes ❑No		
24			❑Yes ❑No		
25			❑Yes ❑No		
26			❑Yes ❑No		
27			❑Yes ❑No		
28			❑Yes ❑No		
29			❑Yes ❑No		

Project: Inspection Date:

	Location/Station	Control Measure Description	Installed & Operating Properly?	Assoc. Photo/ Figure #	Corrective Action Needed (Yes or No; if 'Yes', please detail action required)
30			❑Yes ❑No		

(add more as necessary)

Project: Inspection Date:

General Site Issues

*Below are some general site issues that should be assessed during inspections. Please **customize** this list as needed for conditions at the site.*

	Compliance Question		Assoc. Photo/ Figure #	Corrective Action Needed (If 'Yes', please detail action required and include location/station)
1	Have all control measures been installed as specified in the RISESC Handbook and prior to any earth disturbing activities?	❑Yes ❑No ❑ N/A		
2	Are appropriate limits of disturbance (LOD) established?	❑Yes ❑No ❑ N/A		
3	Are controls that limit runoff from exposed soils by diverting, retaining, or detaining flows (such as check dams, sediment basins, etc.) in place?	❑Yes ❑No ❑ N/A		
4	Are all temporary conveyance practices installed correctly and functioning as designed?	❑Yes ❑No ❑ N/A		
5	Has maintenance been performed as required to ensure continued proper function of all temporary conveyances practices?	❑Yes ❑No ❑ N/A		
6	Were all exposed soils seeded by October 15th?	❑Yes ❑No ❑ N/A		
7	Have soils been stabilized where earth disturbance activities have permanently or temporarily ceased on any portion of the site and will not resume for more than 14 days?	❑Yes ❑No ❑ N/A		
8	In instances where adequate vegetative stabilization was not established by November 15th, have non-vegetative erosion control measures must be employed?	❑Yes ❑No ❑ N/A		
9	If work is to continue from October 15th through April 15th, are steps taken to ensure that only the day's work area will be exposed and all erodible soil is stabilized within 5 working days?	❑Yes ❑No ❑ N/A		
10	Have inlet protection measures (such as fabric drop inlet protection, curb drop inlet protection, etc.) been properly installed?	❑Yes ❑No ❑ N/A		
11	Has the operator cleaned and maintained inlet protection measures when needed?	❑Yes ❑No ❑ N/A		
12	Has the operator removed accumulated sediment adjacent to	❑Yes ❑No ❑ N/A		

Project: Inspection Date:

	Compliance Question		Assoc. Photo/ Figure #	Corrective Action Needed (If 'Yes', please detail action required and include location/station)
	inlet protection measures within 24 hours of detection?			
13	Has the operator properly installed outlet protection (such as riprap, turf mats, etc.) at all temporary and permanent discharge points?	❑Yes ❑No ❑ N/A		
14	Are all outlet protection measures functioning properly in order to reduce discharge velocity, promote infiltration, and eliminate scour?	❑Yes ❑No ❑ N/A		
15	Have all discharge points been inspected to ensure the prevention of scouring and channel erosion?	❑Yes ❑No ❑ N/A		
16	Have sediment controls been installed along perimeter areas that will receive stormwater from earth disturbing activities?	❑Yes ❑No ❑ N/A		
17	Is the operator maintaining sediment controls in accordance with the requirements in the *RI SESC Handbook*?	❑Yes ❑No ❑ N/A		
18	Have temporary sediment barriers been installed around permanent infiltration areas (such as bioretention areas, infiltration basins, etc.)?	❑Yes ❑No ❑ N/A		
19	Have staging areas and equipment routing been implemented to avoid compaction where permanent infiltration areas will be located?	❑Yes ❑No ❑ N/A		
20	Are surface outlet structures (such as skimmers, siphons, etc.) installed for each temporary sediment basin? [Exception: frozen conditions]	❑Yes ❑No ❑ N/A		
21	Have all temporary sediment basins or traps been inspected and maintained as required to ensure proper function?	❑Yes ❑No ❑ N/A		
22	Does the project include the use of polymers, flocculants, or other chemicals to control erosion, sedimentation, or runoff from the site?	❑Yes ❑No ❑ N/A		
23	Are all chemicals being managed in accordance with Appendix J of the *RISESC Handbook* and current best management practices?	❑Yes ❑No ❑ N/A		
24	Has the site operator taken steps to **prohibit** the following pollutant discharges on the site?			

Project: Inspection Date:

	Compliance Question		Assoc. Photo/ Figure #	Corrective Action Needed (If 'Yes', please detail action required and include location/station)
a	Contaminated groundwater.	❑Yes ❑No ❑ N/A		
b	Wastewater from washout of concrete; unless properly contained, managed, and disposed of.	❑Yes ❑No ❑ N/A		
c	Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction products.	❑Yes ❑No ❑ N/A		
d	Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.	❑Yes ❑No ❑ N/A		
e	Soaps or solvents used in vehicle and equipment washing.	❑Yes ❑No ❑ N/A		
f	Toxic or hazardous substances from a spill or other release.	❑Yes ❑No ❑ N/A		
25	Is the operator using properly constructed entrances/exits to the site so sediment removal occurs prior to vehicles exiting?	❑Yes ❑No ❑ N/A		
26	If needed, are additional controls (such as rumble strips, rattle plates, etc.) in place to remove sediment from tires prior to exiting?	❑Yes ❑No ❑ N/A		
27	Is sediment track-out being removed by the end of the same workday in which it occurs (via sweeping, shoveling, or vacuuming)?	❑Yes ❑No ❑ N/A		
28	Are all wastes generated at the site being managed and properly disposed of by the end of each workday?	❑Yes ❑No ❑ N/A		
29	Are all chemicals and hazardous waste materials stored properly in covered areas and surrounded by containment control systems?	❑Yes ❑No ❑ N/A		
30	Has the operator established highly visible locations for the storage of spill prevention and control equipment on the construction site?	❑Yes ❑No ❑ N/A		
31	Are allowable non-stormwater discharges being managed properly with adequate controls?	❑Yes ❑No ❑ N/A		
32	Is the site operator properly managing groundwater or stormwater that is removed from excavations, trenches, or similar points of accumulation?	❑Yes ❑No ❑ N/A		

Project: Inspection Date:

	Compliance Question		Assoc. Photo/ Figure #	Corrective Action Needed (If 'Yes', please detail action required and include location/station)
33	Are proper procedures and controls in place for the storage of materials that may discharge pollutants if exposed to stormwater?	❑Yes ❑No ❑ N/A		
	Are stockpiles located within the limits of disturbance?	❑Yes ❑No ❑ N/A		
	Are stockpiles being protected from contact with stormwater using a temporary sediment barrier?	❑Yes ❑No ❑ N/A		
	Where needed, has cover or appropriate temporary vegetative or structural stabilization been utilized for stockpiles?	❑Yes ❑No ❑ N/A		
	Is the operator effectively managing the generation of dust through the use of water, chemicals, or minimization of exposed soil?	❑Yes ❑No ❑ N/A		
	Are designated washout areas (such as wheel washing stations, washout for concrete, paint, stucco, etc.) clearly marked on the site?	❑Yes ❑No ❑ N/A		
	Are vehicle fueling and maintenance areas properly located to prevent pollutants from impacting stormwater and sensitive receptors?	❑Yes ❑No ❑ N/A		
	(Other)			

(add more as necessary)

Project: Inspection Date:

General Field Comments:

Project: Inspection Date:

Photos:

(Associated photos – each photo should be dated and have a unique identification # and written description indicating where it is located within the project area. If a close up photo is required, it should be preceded with a photo including both the detail area and some type of visible fixed reference point. Photos should be annotated with Station numbers and other identifying information where needed.)

Photo #:	Station:
(insert Photo here)	Description:

Photo #:	Station:
(insert Photo here)	Description:

Photo #:	Station:
(insert Photo here)	Description:

Photo #:	Station:
(insert Photo here)	Description:

Photo #:	Station:
(insert Photo here)	Description:

Photo #:	Station:
(insert Photo here)	Description:

(add more as necessary)

Project: Inspection Date:

Corrective Action Log

TO BE FILLED OUT BY SITE OPERATOR

Describe repair, replacement, and maintenance of control measures, actions taken, date completed, and note the person that completed the work.

	Location/Station	Corrective Action	Date Completed	Person Responsible
Operator Signature:			**Date:**	

Project: Inspection Date:

Attachment G - SESC Plan Amendment Log

Project:

Amendment Log

TO BE FILLED OUT BY SITE OPERATOR

Describe amendment(s) to be made to the SESC Plan, the date, and the person/title making the amendment. ALL amendments must be approved by the Site Owner.

#	Date	Description of Amendment	Amended by: Person/Title	Site Owner Must Initial
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Add more lines/pages as necessary

Project:

APPENDIX E:
ARPA REQUIREMENTS ADDENDUM

APPENDIX E

ARPA CONSTRUCTION FOR WASHINGTON STREET AND EAST APPROACH (# 38713)

ARPA Requirements Addendum

Federal and State Contract and Purchasing Requirements

The following terms and conditions apply to all contractors, vendors, or subrecipients of the City of Providence and all subrecipients of subrecipients of the City of Providence and all contractors or vendors hired by the subrecipient, according to the City's Award Terms and Conditions; by ARPA and its implementing regulations; and as established by the Treasury Department.

1. Equal Opportunity.

Contractor shall comply with Executive Order 11246, "Equal Employment Opportunity," as amended by EO 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

2. Minority and Women Business Enterprises (if applicable to this Contract)

Contractor hereby agrees to comply with the following when applicable: The requirements of Executive Orders 11625 and 12432 (concerning Minority Business Enterprise), and 12138 (concerning Women's Business Enterprise), when applicable. Accordingly, the Contractor hereby agrees to take affirmative steps to assure that women and minority businesses are utilized when possible as sources of supplies, equipment, construction, and services. Affirmative steps shall include the following:

a) Including qualified women' s business enterprises and small and minority businesses on solicitation lists;

b) Assuring that women's enterprises and small and minority businesses are solicited whenever they are potential sources;

c) When economically feasible, dividing total requirements into smaller tasks or quantities so as to permit maximum participation by small and minority business, and women's business enterprises;

d) Where the requirement permits, establishing delivery schedules which will encourage participation by women's business enterprises and small and minority business;

e) Using the services and assistance of the Small Business Administration, and the U.S. Office of Minority Business Development Agency of the Department of Commerce; and

f) If any subcontracts are to be let, requiring the prime Contractor to take the affirmative steps in a through e above.

For the purposes of these requirements, a Minority Business Enterprise (MBE) is defined as an enterprise that is at least 51 percent owned and controlled in its daily operation by members of the following groups: Black, Hispanic, Asian or Pacific Islander, Native American, or Alaskan Natives. Women Business Enterprise (WBE) is defined as an enterprise that is at least 51 percent owned and controlled in its daily operation by women.

3. Suspension and Debarment. (Applies to all purchases.)

(A) This contract is a covered transaction for purposes of 2 CFR pt. 180 and 2 CFR pt. 3000. As such, the Contractor is required to verify that none of Contractor's principals (defined at 2 CFR § 180.995) or its affiliates (defined at 2 CFR § 180.905) are excluded (defined at 2 CFR § 180.940) or disqualified (defined at 2 CFR § 180.935).

(B) The Contractor must comply with 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

(C) This certification is a material representation of fact relied upon by the City of PROVIDENCE. If it is later determined that the contractor did not comply with 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C, in addition to remedies available to the City, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

(D) The Contractor agrees to comply with the requirements of 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The Contractor further agrees to include a provision requiring such compliance in its lower tier covered transactions.

4. Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352, as amended. (Applies to all purchases.)

Contractor certifies that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Contractor shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

Purchases over $100,000 - Contractors must sign the certification on the last page of this addendum

5. Access to Records. (Applies to all purchases.)

A. The Contractor agrees to provide the City of PROVIDENCE, the U.S. Department of Treasury, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions. The Contractor agrees to permit any of the foregoing parties to reproduce by any means or to copy excerpts and transcriptions as reasonably needed and agrees to cooperate with all such requests.

B. The Contractor agrees to provide the Treasury Department or authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

C. No language in this contract is intended to prohibit audits or internal reviews by the Treasury Department or the Comptroller General of the United States.

6. Rights to Inventions Made Under a Contract or Agreement.

Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any applicable implementing regulations.

7. Contract Work Hours and Safety Standards Act (40 U.S.C. 327 through 333) (applies only to purchases over $100,000, when laborers or mechanics are used.)

Where applicable, all contracts in excess of $100,000 that involve the employment of mechanics or laborers shall include a provision for compliance with 40 U.S.C. 3702 and 3704 of the Contract Work Hours and Safety Standards Act, as supplemented by Department of Labor regulations (29 CFR part 5). Under Section 3702 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard workweek of 40 hours. Work in excess of the standard workweek is permissible provided that the worker is compensated at a rate of not less than 11/2 times the basic rate of pay for all hours worked in excess of 40 hours in the workweek. The requirements of 40 U.S.C. 3704 are applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

8. Clean Air Act & Federal Water Pollution Control Act (applies to purchases of more than $150,000.)

A. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

B. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251et seq.

C. The Contractor agrees to report each violation of the Clean Air Act and the Water Pollution Control Act to the City of PROVIDENCE

D. and understands and agrees that the City will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

E. Contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance.

9. Prohibition on certain telecommunications and video surveillance services or equipment (Huawei and ZTE)

Contractor is prohibited from obligating or expending loan or grant funds to:

1. Procure or obtain;

2. Extend or renew a contract to procure or obtain; or

3. Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

I. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

II. Telecommunications or video surveillance services provided by such entities or using such equipment.

III. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

10. Buy USA - Domestic Preference for certain procurements using federal funds.

Contractor should, to the greatest extent practicable under a federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award. For purposes of this section:

1. "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

2. "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer- based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

11. Procurement of Recovered Materials: (applies only if the work involves the use of materials)

A. In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:

I. Competitively within a timeframe providing for compliance with the contract performance schedule;

II. Meeting contract performance requirements; or

III. At a reasonable price.

B. Information about this requirement, along with the list of EPA - designated items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive procurement-guideline-cpg-program.

C. The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

12. Publications.

Any publications produced with funds from this award must display the following language: "This project [is being] [was] supported, in whole or in part, by federal award number [enter project FAIN] awarded to [name of Recipient] by the U.S. Department of the Treasury."

13. Increasing Seat Belt Use in the United States.

Pursuant to Executive Order 13043, 62 FR 19217 (Apr. 18, 1997), Contractor is encouraged to adopt and enforce on-the-job seat belt policies and programs for your employees when operating company-owned, rented or personally owned vehicles.

14. Reducing Text Messaging While Driving.

Pursuant to Executive Order 13513, 74 FR 51225 (Oct. 6, 2009), Contractor is encouraged to adopt and enforce policies that ban text messaging while driving, and establish workplace safety policies to decrease accidents caused by distracted drivers.

15. Iran Divestment Act.

Pursuant to the North Carolina General Assembly (S.L. 2015-118; SB455), The Iran Divestment Act is to implement the authority granted to states by federal law to impose state-level sanctions against companies that engage in certain investment activities in the energy sector of Iran.

Additional Federal Regulations Applicable to ARPA (is hereby incorporated by reference):

1. Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 C.F.R. Part 200, other than such provisions as Treasury may determine are inapplicable to this Award and subject to such exceptions as may be otherwise provided by Treasury. Subpart F – Audit Requirements of the Uniform Guidance, implementing the Single Audit Act, shall apply to this award.

2. Universal Identifier and System for Award Management (SAM), 2 C.F.R. Part 25, pursuant to which the award term set forth in Appendix A to 2 C.F.R. Part 25 is hereby incorporated by reference

3. Reporting Subaward and Executive Compensation Information, 2 C.F.R. Part 170, pursuant to which the award term set forth in Appendix A to 2 C.F.R. Part 170 is hereby incorporated by reference.

4. OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Non-procurement), 2 C.F.R. Part 180, including the requirement to include a term or condition in all lower tier covered transactions (contracts and subcontracts described in 2 C.F.R. Part 180, subpart B) that the award is subject to 2 C.F.R. Part 180 and Treasury's implementing regulation at 31 C.F.R. Part 19.

5. Recipient Integrity and Performance Matters, pursuant to which the award term set forth in 2 C.F.R. Part 200, Appendix XII to Part 200 is hereby incorporated by reference.

6. Governmentwide Requirements for Drug-Free Workplace, 31 C.F.R. Part 20.

7. New Restrictions on Lobbying, 31 C.F.R. Part 21.

8. Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (42 U.S.C. §§ 4601-4655) and implementing regulations.

9. Generally applicable federal environmental laws and regulations.

Statutes and regulations prohibiting discrimination applicable to ARPA awards include, without limitation, the following:

1. Title VI of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d et seq.) and Treasury's implementing regulations at 31 C.F.R. Part 22, which prohibit discrimination on the basis of race, color, or national origin under programs or activities receiving federal financial assistance;

2. The Fair Housing Act, Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§ 3601 et seq.), 4 which prohibits discrimination in housing on the basis of race, color, religion, national origin, sex, familial status, or disability;

3. Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of disability under any program or activity receiving federal financial assistance;

4. The Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101 et seq.), and Treasury's implementing regulations at 31 C.F.R. Part 23, which prohibit discrimination on the basis of age in programs or activities receiving federal financial assistance; and

Title II of the Americans with Disabilities Act of 1990, as amended (42 U.S.C. §§ 12101 et seq.), which prohibits discrimination on the basis of disability under programs, activities, and services provided or made available by state and local governments or instrumentalities or agencies thereto.

APPENDIX F:
DETAILED PLAN SET

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI		2022	1	42

INDEX

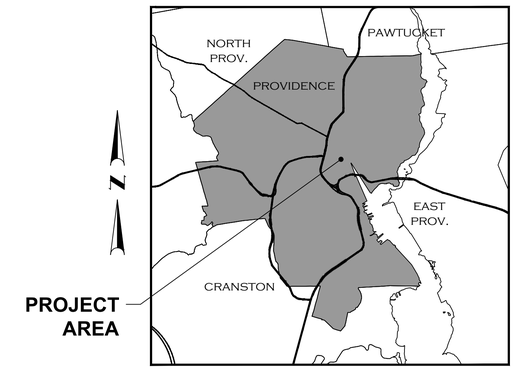
STATE OF RHODE ISLAND

CITY OF PROVIDENCE

PLAN AND SECTIONS OF PROPOSED

IMPROVEMENTS TO

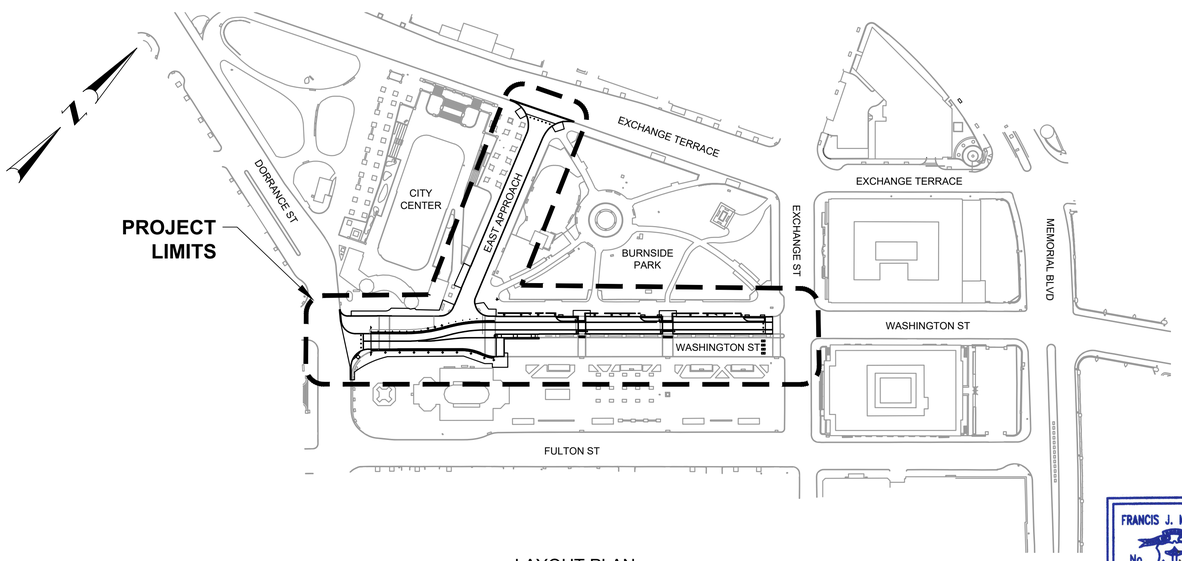
WASHINGTON STREET AND EAST APPROACH



LOCATION MAP
SCALE: 1" = 8000'

CITY OF PROVIDENCE
COUNTY OF PROVIDENCE
CONTRACT No. _____ F.A.P. No. _____

PAVEMENT STRUCTURE
4" GRAVEL SUBBASE
4" CRUSHED STONE BASE
10" CONTINUOUSLY REINFORCED PCC PAVEMENT
0.20 MILES



LAYOUT PLAN
NOT TO SCALE

SCALES OF DRAWINGS

Plans	1 inch	= 20	feet	
Profiles	1 inch	= 20	feet	Horizontal
Profiles	1 inch	= 4	feet	Vertical
Cross Sections	1 inch	= 4	feet	Horizontal
Cross Sections	1 inch	= 4	feet	Vertical

BASE OF LEVELS
Vertical: North American Vertical Datum of 1988 (NAVD 88)
Horizontal: North American Datum of 1983 (NAD83)
Rhode Island State Plane (RI83F)

R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS

- ALL WORK UNDER THIS CONTRACT SHALL BE DONE IN CONFORMANCE WITH THE RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, AMENDED MARCH 2018, WITH ALL REVISIONS, AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE CITY OF PROVIDENCE STANDARD DETAILS, 2017 EDITION, WITH ALL REVISIONS. REFER TO RIDOT STANDARD DETAILS, 2019 EDITION, WITH ALL REVISIONS, FOR ALL OTHER STANDARD DETAILS.
- ALL WORK SHALL CONFORM TO THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION WITH ALL REVISIONS.
- ALL WORK SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT OF 1990 (ADA) AND SECTION 504 OF THE REHABILITATION ACT OF 1973, SPECIFICALLY THE ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION, WITH ALL REVISIONS, AT A MINIMUM AND THE PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) WHERE POSSIBLE.

FRANCIS J. MARINACCIO
No. 11875
REGISTERED PROFESSIONAL ENGINEER
CIVIL
11-04-22

RHODE ISLAND REGISTERED LANDSCAPE ARCHITECT
No. 239
11/4/2022

BETA
www.BETA-Inc.com

Contract Number _____
Number of Sheet 1
Total Sheets 42

ADVERTISING

PROVIDENCE DEPARTMENT OF PLANNING AND DEVELOPMENT

APPROVED

DIRECTOR DATE

APPROVED

OTHER DATE

APPROVED

OTHER DATE

APPROVED

OTHER DATE

N:\10400\10430 – PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_001_CVR

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	2	42

EXISTING

	EDGE OF PAVEMENT
	BERM
	CURB
	GUARDRAIL
MB	MAILBOX
NO.	UTILITY POLE
	POLE GUY
	LUMINARE
SIGN	SIGN
(SIZE)SD	SUBDRAIN
(SIZE)D	STORMDRAIN
(SIZE)S	SANITARY SEWER
(SIZE)W	WATER MAIN
(SIZE)G	GAS MAIN
(SIZE)T	TELEPHONE DUCT
(SIZE)E	ELECTRIC DUCT
	PLUG AND CAP PIPE
	ABANDONED UTILITY
	FLARED END SECTION
	HEADWALL
WG OR GG	WATER OR GAS GATE
CB	CATCH BASIN
MH	MANHOLE
HYD	HYDRANT
1+00	BASELINE OR CENTERLINE
EXIST. S.H.L. PLAT NO. XX	STATE HIGHWAY LINE
EXIST. S.F.L. PLAT NO. XX	STATE FREEWAY LINE
EXIST. P.E.B.	PERMANENT EASEMENT LINE
EXIST. T.E.B.	TEMPORARY EASEMENT LINE
P	PROPERTY LINE
CITY NAME / TOWN NAME	CITY OR TOWN LINE
PWW	PAVED WATERWAY
ELEV.	CONTOUR LINE
	OPEN DITCH
R.I.H.B.	R.I. HIGHWAY BOUND
S.B.	STONE BOUND
	RETAINING WALL
	FIELD STONE WALL
NO.	BORINGS
TYPE	FENCE
	WOOD OR BRUSH LINE
	TREES
(NAME)	RIVER OR STREAM
	WETLAND AREA
NO. TYPE MATERIAL	BUILDING
	FOUNDATION
	BUILDING TO BE REMOVED
	RAILROAD TRACKS
	CUT AND MATCH
	RIP-RAP
	CUT SLOPE
	FILL SLOPE
	ROCK CUT
00x00	SPOT GRADE
	AREA GRADED TO DRAIN
	BALED HAY RI STD 9.1.0
	BALED HAY & SILT FENCE RI STD. 9.3.0
123 124 125	EDGE OF WETLAND
	WETLAND PERIMETER
ASSF	AREA SUBJECT TO STORM FLOW
100 YR. FLOOD BOUNDARY	100-YEAR FLOOD PLAIN
	LIMIT OF DISTURBANCE
	LIMIT OF CLEARING

NEW

	EDGE OF PAVEMENT
	BERM
	CURB
	GUARDRAIL
	MAILBOX
NO.	UTILITY POLE
GUY	POLE GUY
	LUMINARE
	SIGN
N(SIZE)SD	SUBDRAIN
(Length Size)	STORMDRAIN
(Length Size)	SANITARY SEWER
N(SIZE)W	WATER MAIN
N(SIZE)G	GAS MAIN
N-#(SIZE)T	TELEPHONE DUCT
N-#(SIZE)E	ELECTRIC DUCT
	PLUG AND CAP PIPE
	ABANDONED UTILITY
	FLARED END SECTION
	HEADWALL
WG OR GG	WATER OR GAS GATE
	CATCH BASIN
	MANHOLE
	HYDRANT
1+00	BASELINE OR CENTERLINE
NEW S.H.L. PLAT NO. XX	STATE HIGHWAY LINE
NEW S.F.L. PLAT NO. XX	STATE FREEWAY LINE
NEW P.E.B.	PERMANENT EASEMENT LINE
NEW T.E.B.	TEMPORARY EASEMENT LINE
	PROPERTY LINE
	CITY OR TOWN LINE
	PAVED WATERWAY
ELEV.	CONTOUR LINE
	OPEN DITCH
RIHB	R.I. HIGHWAY BOUND
STN. BND	STONE BOUND
	RETAINING WALL
	FIELD STONE WALL
NO.	BORINGS
	FENCE
	WOOD OR BRUSH LINE
	TREES
	RIVER OR STREAM
	WETLAND AREA
	BUILDING
	FOUNDATION
	BUILDING TO BE REMOVED
	RAILROAD TRACKS
	CUT AND MATCH
	RIP-RAP
ROADWAY / TOP OF SLOPE	CUT SLOPE
ROADWAY / TOE OF SLOPE	FILL SLOPE
ROCK SHELF / ROCK / CUT	ROCK CUT
00.00 x	SPOT GRADE
ELEV. x	AREA GRADED TO DRAIN
	BALED HAY RI STD 9.1.0
	BALED HAY & SILT FENCE RI STD. 9.3.0
	EDGE OF WETLAND
	WETLAND PERIMETER
	AREA SUBJECT TO STORM FLOW
	100-YEAR FLOOD PLAIN
LIMIT OF DISTURBANCE	LIMIT OF DISTURBANCE
LIMIT OF CLEARING	LIMIT OF CLEARING

1.1.0	UNDERDRAIN
1.3.0	CONCRETE CONNECTING COLLAR
2.1.0	CONCRETE HEADWALLS FOR PIPE CULVERTS
2.2.0	STANDARD HEADWALLS FOR MULTIPLE 3'-6" TO 7'-0' PIPE CULVERTS
2.3.0 (DIA.)	PRECAST CONCRETE FLARED END SECTION
3.2.0	BRICK/SOLID BLOCK 4'-0" ROUND MANHOLE
3.2.1 (DIA.)	BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND MANHOLE
3.3.0	BRICK/SOLID BLOCK TYPE "D" SQUARE CATCH BASIN
3.3.2	BRICK/SOLID BLOCK TYPE "F" SQUARE CATCH BASIN
3.3.3	SOLID BLOCK FLUSH SQUARE CATCH BASIN
3.4.0	BRICK/SOLID BLOCK TYPE "D" ROUND CATCH BASIN
3.4.1	BRICK/SOLID BLOCK ROUND CATCH BASIN WITH GUTTER INLET
3.4.2	BRICK/SOLID BLOCK TYPE "F" ROUND CATCH BASIN
3.4.3	BRICK/SOLID BLOCK TYPE "R" CATCH BASIN
3.4.4	SOLID BLOCK FLUSH ROUND CATCH BASIN
3.4.5 (DIA.)	BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND CATCH BASIN
3.5.0	SOLID BLOCK SHALLOW TYPE "F" SQUARE CATCH BASIN
3.5.1 (SIZE)	SOLID BLOCK SHALLOW 5'-0" OR 6'-0" SQUARE CATCH BASIN
3.6.0	BRICK/SOLID BLOCK DROP INLET
3.7.0 (DIA.)	BRICK/SOLID BLOCK ROUND MANHOLE OR CATCH BASIN GREATER THAN 12'-0"
4.2.0	PRECAST 4'-0" ROUND MANHOLE
4.2.1	PRECAST 5'-0" ROUND MANHOLE
4.2.2	PRECAST 6'-0" ROUND MANHOLE
4.3.0 (SIZE)	PRECAST 4'-0" OR 6'-0" SQUARE MANHOLE OR CATCH BASIN
4.4.0 (DIA.)	PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN
4.5.0	PRECAST CONCRETE DROP INLET
4.5.1	PRECAST CONCRETE DROP INLET LATERAL OUTLET
4.5.2	PRECAST CONCRETE DROP INLET LONGITUDINAL OUTLET
5.3.0	CATCH BASIN AND MANHOLE STEP
5.4.0	CONCRETE COLLARS
6.1.0	LIGHT-DUTY SQUARE FRAME AND ROUND COVER
6.1.1	HEAVY DUTY SQUARE FRAME AND ROUND COVER
6.2.0	LIGHT-DUTY ROUND FRAME AND COVER
6.2.1	HEAVY-DUTY ROUND FRAME AND COVER
6.3.0	SQUARE FRAME AND GRATE
6.3.1	SQUARE FRAME AND GRATE
6.3.2	SQUARE FRAME AND GRATE (BICYCLE SAFE)
6.3.3	HIGH CAPACITY FRAME AND GRATE
6.3.4	HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)
6.4.0	ROUND FRAME AND GRATE
7.1.0S	PRECAST CONCRETE CURB (STRAIGHT)
7.1.0C	PRECAST CONCRETE CURB (CIRCULAR)
7.1.1	3'-0' PRECAST CONCRETE TRANSITION CURB
7.1.2	6'-0" PRECAST CONCRETE TRANSITION CURB
7.1.4	PRECAST 2'-0" RADIUS CORNER
7.1.5	PRECAST CONCRETE INLET STONE (FOR SQUARE CATCH BASIN)
7.1.6	PRECAST CONCRETE INLET STONE (FOR ROUND CATCH BASIN)
7.1.7	PRECAST CONCRETE APRON STONE (FOR SQUARE CATCH BASIN)
7.1.8	PRECAST CONCRETE APRON STONE (FOR ROUND CATCH BASIN)
7.2.0S	PRECAST CONCRETE SLOPED FACE CURB (STRAIGHT)
7.2.0C	PRECAST CONCRETE SLOPED FACE CURB (CIRCULAR)
7.2.1	PRECAST CONCRETE SLOPED FACE TRANSITION CURB
7.2.2	PRECAST CONCRETE TRANSITION CURB (VERTICAL FACE TO SPLOPED FACE)
7.3.0S	GRANITE CURB (STRAIGHT)
7.3.0C	GRANITE CURB (CIRCULAR)
7.3.1	3'-0" GRANITE TRANSITION CURB
7.3.2	6'-0" GRANITE TRANSITION CURB
7.3.3	GRANITE WHEELCHAIR RAMP TRANSITION CURB
7.3.4	GRANITE 2'-0" RADIUS CORNER
7.3.5	GRANITE INLET STONE (FOR SQUARE CATCH BASIN)
7.3.6	GRANITE INLET STONE (FOR ROUND CATCH BASIN)
7.3.7	GRANITE APRON STONE (FOR SQUARE CATCH BASIN)
7.3.8	GRANITE APRON STONE (FOR ROUND CATCH BASIN)
7.4.0	GRANITE SLOPED FACE CURB
7.4.1	GRANITE SLOPED FACE TRANSITION CURB
7.4.2	GRANITE TRANSITION CURB (VERTICAL FACE TO SLOPE FACE)
7.5.0	BITUMINOUS CONCRETE LIP CURB
7.5.1A	BITUMINOUS BERM (CONSTRUCTION METHOD A)
7.5.1B	BITUMINOUS BERM (CONSTRUCTION METHOD B)
7.6.0	CURB SETTING DETAIL
8.2.0	BITUMINOUS CONCRETE DITCH
8.3.0	RIP-RAP DITCH
8.4.0	PAVED WATERWAY
9.1.0	BALED HAY EROSION CHECK
9.2.0	SILT FENCE DETAIL
9.3.0	BALED HAY DITCH EROSION CHECK AND SILT FENCE COMBINED
9.4.0	BALED HAY DITCH AND SWALE EROSION CHECK
9.5.0	LOG AND HAY CHECK DAM
9.7.0	DEWATERING BASIN
9.8.0	BALED HAY CATCH BASIN INLET PROTECTION
9.9.0	CONSTRUCTION ACCESS
10.1.0	WET STONE MASONRY RETAINING WALL
10.2.0	RUBBLE MASONRY WALL
10.3.0	CONCRETE RETAINING WALL
10.4.0	STONE MASONRY STEPS
14.1.0	CONCRETE HIGHWAY BOUND
15.1.0	POST AND MOUNTINGS FOR RURAL MAILBOX
15.2.0 (NO.)	POST AND MULTIPLE MOUNTINGS FOR RURAL MAILBOXES
18.2.0	PRECAST TYPE "A" HANDHOLE
18.2.2	HEAVY DUTY TYPE "H" HANDHOLE
18.3.0	ALUMINUM LIGHTING STANDARDS
20.2.0	BI-DIRECTIONAL CONTROL DEVICE
24.6.1	STREET SIGN MOUNTING DETAIL
26.2.0	POLYETHYLENE DRUM WITH MARKINGS
26.3.0	PVC PLASTIC PIPE TYPE III BARRICADE
31.1.0	CHAIN LINK FENCE 3'-0" TO 4'-0"
31.2.0	CHAIN LINK FENCE 5'-0" TO 6'-0"
31.2.1	CHAIN LINK FENCE 5'-0" TO 6'-0" INTERMEDIATE POST
31.3.0	WOVEN WIRE RIGHT-OF-WAY FENCE (STEEL POST)
34.1.0	TYPICAL GUARDRAIL INSTALLATION
34.2.0	STEEL BEAM GUARDRAIL
34.2.1	STEEL BEAM GUARDRAIL DETAILS
34.2.2	STEEL BEAM GUARDRAIL DOUBLE FACED ASSEMBLY
34.2.3	STEEL BEAM GUARDRAIL FIXTURES
34.2.5	STEEL BEAM GUARDRAIL REFLECTORIZED TRIANGULAR DELINEATOR
34.3.1	GUARDRAIL END SECTION
34.3.2	TERMINAL END SECTION (SINGLE FACE)
34.3.3	ANCHORAGE DETAILS APPROACH END SECTION
34.3.4	ANCHORAGE DETAILS TRAILING END SECTION
34.4.0	STEEL BACKED TIMBER GUARDRAIL
34.4.1	STEEL BACKED TIMBER GUARDRAIL TERMINAL SECTION-TYPE 1
40.1.0	DOUBLE-FACED PRECAST MEDIAN BARRIER
40.2.0	SINGLE-FACED PRECAST MEDIAN BARRIER
40.2.1	SINGLE-FACED PRECAST MEDIAN BARRIER
40.3.0	PRECAST MEDIAN BARRIER TRANSITION UNIT
40.5.0	PRECAST MEDIAN BARRIER FOR TEMPORARY TRAFFIC CONTROL
43.1.0	CEMENT CONCRETE SIDEWALK
43.2.0	BITUMINOUS CONCRETE SIDEWALK
43.3.0	WHEELCHAIR RAMP
43.3.1	WHEELCHAIR RAMP FOR LIMITED RIGHT-OF-WAY AREAS
43.4.0	DRIVEWAY DEVELOPMENT FOR 3'-0" TRANSITION CURB
43.4.1	DRIVEWAY DEVELOPMENT FOR 6'-0" TRANSITION CURB
43.5.0	CEMENT CONCRETE DRIVEWAYS
48.1.0	DETECTABLE WARNING SYSTEM
51.1.0	TREE PROTECTION DEVICE
51.1.1	DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES
51.2.0	SHRUB PROTECTION DEVICE
51.3.0	TREE WELL
51.4.0	TREE WALL

AB	ADJUST CATCH BASIN TO GRADE
ABM	ADJUST CATCH BASIN TO MANHOLE
AC	ADJUST CURB STOP TO GRADE
AD	ADJUST DRAINAGE MANHOLE TO GRADE
AE	ADJUST ELECTRIC MANHOLE TO GRADE
AFC	ADJUST FRAME AND COVER TO GRADE
AFG	ADJUST FRAME AND GRATE TO GRADE
AG	ADJUST GAS GATE BOX TO GRADE
AHH	ADJUST HANDHOLE TO GRADE
AS	ADJUST SANITARY SEWER MANHOLE TO GRADE
AT	ADJUST TELEPHONE MANHOLE TO GRADE
AW	ADJUST WATER GATE BOX TO GRADE
BCD	BITUMINOUS CONCRETE DRIVEWAY 3" BITUMINOUS CONCRETE TYPE I-2 8" GRAVEL BORROW SUBBASE COURSE
BPS	BUILD NEW STRUCTURE OVER EXISTING PIPE
CCB	CLEAN CATCH BASIN
CCP	CUT AND CAP PIPE WITH RESTRAINT (ALL SIZES)
CFP	CLEAN AND FLUSH PIPE
CG	CLEARING AND GRUBBING
CMH	CLEAN MANHOLE
CP (DEPTH)	COLD PLANE
CPP	CUT AND PLUG PIPE (ALL TYPES, ALL SIZES)
DB	REMOVE AND DISPOSE BITUMINOUS CURB
DC	REMOVE AND DISPOSE CONCRETE CURB
DCB	REMOVE AND DISPOSE CATCH BASIN
DDI	REMOVE AND DISPOSE DROP INLET
DF	REMOVE AND DISPOSE FENCE
DFC	REMOVE AND DISPOSE FRAME AND COVER
DFE	REMOVE AND DISPOSE FLARED END SECTION
DFG	REMOVE AND DISPOSE FRAME AND GRATE
DFH	REMOVE AND DISPOSE FIRE HYDRANT
DFP	REMOVE AND DISPOSE FLEXIBLE PAVEMENT
DG	REMOVE AND DISPOSE GUARDRAIL
DH	REMOVE AND DISPOSE HEADWALL
DHB	REMOVE AND DISPOSE HIGHWAY BOUND
DHH	REMOVE AND DISPOSE HANDHOLE
DL	REMOVE AND DISPOSE LIGHT AND FOUNDATION
DMB	REMOVE AND DISPOSE MEDIAN BARRIER
DMH	REMOVE AND DISPOSE MANHOLE
DMM	REMOVE AND DISPOSE MEDIAN MARKER
DOW	REMOVE AND DISPOSE OBSERVATION WELL
DP	REMOVE AND DISPOSE PIPE
DPB	REMOVE AND DISPOSE PAVEMENT AND RIGID BASE
DRB	REMOVE AND DISPOSE RIGID BASE
DS	REMOVE AND DISPOSE SIGN
DSS	REMOVE AND DISPOSE TRAFFIC SIGNAL SYSTEM
DSW	REMOVE AND DISPOSE SIDEWALK
DTD	REMOVE AND DISPOSE TELEPHONE DUCT BANKS
DUP	REMOVE AND DISPOSE UTILITY POLE
DWW	REMOVE AND DISPOSE PAVED WATERWAY
FF	FILTER FABRIC RIPRAP FLARED END UNDERLAYMENT
GET	FLARED GUARDRAIL END TREATMENT
IA	IMPACT ATTENUATOR
IDL	IMPERVIOUS DITCH LINER
LOD	LIMIT OF DISTURBANCE
LOR	LIMIT OF REGRADING
LS	4" LOAM AND SEED

NFH	NEW FIRE HYDRANT WITH GATE VALVE
NIC	NOT IN THIS CONSTRUCTION CONTRACT
NWB	FURNISH AND INSTALL NEW WATER GATE VALVE BOX
NWVB	FURNISH AND INSTALL NEW WATER GATE VALVE AND BOX
NWCB	FURNISH AND INSTALL NEW WATER CURB STOP BOX
NWSB	FURNISH AND INSTALL NEW WATER CURB STOP AND BOX
PCD	PERMANENT CHECK DAM
PS	4" PLANTABLE SOIL AND SEED
RCB	RECONSTRUCT TYPE "D" CATCH BASIN, TO CATCH BASIN WITH GUTTER INLET
RCM	R.I.D.O.T. COMMUNICATIONS MANHOLE
RHH	REMOVE, HANDLE, HAUL, TRIM, RESET CURB EDGING, STRAIGHT, CIRCULAR (ALL TYPES)
RLP	RELOCATE LAMP POST
RMB	RELOCATE MAILBOX (BY OTHERS)
RPM	REMOVE PAVEMENT MARKINGS
RRP	RIP-RAP PAD (SEE DETAIL)
RRS	REMOVE AND RELOCATE SIGN
RUP	RELOCATE UTILITY POLE (BY OTHERS)
SB	STONE BAFFLE
SBAE	STEEL BEAM BRIDGE CONNECTION APPROACH END (W/O NESTED RAIL)
SBTE	STEEL BEAM BRIDGE CONNECTION TRAILING END (W/NESTED RAIL)
SD-	STRUCTURAL DISPOSITION - SEE CS PAGES OF SPECIFICATION
SF	REMOVE AND STOCKPILE FENCE
SGA	SPECIAL GRADED AGGREGATE
SGC	REMOVE AND STOCKPILE GRANITE CURB
SGR	REMOVE AND STOCKPILE GUARDRAIL
SH	REMOVE AND STOCKPILE HYDRANT
SS	REMOVE AND STOCKPILE SIGN
STS	REMOVE AND STOCKPILE TRAFFIC SIGNAL SYSTEM
TB	CONCRETE THRUST BLOCK
TEP	TIE EXISTING PIPE INTO NEW STRUCTURE
TNP	TIE NEW PIPE INTO EXISTING STRUCTURE
TBT	THRIE BEAM TRANSITION
TBBC	THRIE BEAM BRIDGE CONNECTION
TT	TREE TRIMMING
WCM	4" WOOD CHIP MULCH
4DY	4" EPOXY RESIN PAVEMENT MARKINGS - DOUBLE YELLOW
6W	6" EPOXY RESIN PAVEMENT MARKINGS - WHITE
12W	12" EPOXY RESIN PAVEMENT MARKINGS - WHITE
6WT	6" PREFORMED PATTERNED MARKING (HIGH PERFORMANCE TAPE)
4Y	4" EPOXY RESIN PAVEMENT MARKINGS - YELLOW
6Y	6" EPOXY RESIN PAVEMENT MARKINGS - YELLOW
P.G.L.	PROFILE GRADE LINE

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

STANDARD SYMBOLS & LEGENDS

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	3	42

GENERAL NOTES:

1. ANY DAMAGE TO EXISTING PAVEMENT, BRIDGES, CONDUIT, SIDEWALK, FENCES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.
2. THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF THE TRAVEL LANE SO AS NOT TO CAUSE A SAFETY HAZARD, IN ACCORDANCE WITH SECTION 106.06 OF THE R.I.D.O.T. STANDARD SPECIFICATION, LATEST EDITION.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED IN SUFFICIENT DETAIL, THEREBY ENABLING HIM TO CONSTRUCT THE PROJECT IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS. SURVEY WILL BE PROVIDED BY THE CONTRACTOR. THE RESIDENT ENGINEER WILL NOT AUTHORIZE CONSTRUCTION ACTIVITIES TO BEGIN UNTIL HE IS SATISFIED THAT ALL GROUND CONTROL HAS BEEN ESTABLISHED, TIED DOWN, AND DULY RECORDED IN STANDARD FIELD BOOKS.
4. ALL R.I. STD. 9.9.0 CONSTRUCTION ACCESS ROADS SHALL BE CONSTRUCTED PRIOR TO ANY ROADWAY ACCEPTING CONSTRUCTION TRAFFIC.
5. THE FREQUENCY AND APPLICATION RATES FOR THE DUST CONTROL ITEMS WILL BE AS DIRECTED BY THE ENGINEER.
6. ALL SIDEWALK AND DRIVEWAYS DESIGNATED FOR REPLACEMENT SHALL BE CUT AND MATCHED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
7. ASPHALT EMULSION TACK COAT SHALL BE PLACED PRIOR TO PAVEMENT PLACEMENT ON THE CONCRETE BASE OR COLD PLANED PAVEMENT, AND ON ANY NEW COURSE WHICH HAS BEEN OPEN TO TRAFFIC, OR ANY NEW COURSE WHICH HAS BEEN EXPOSED FOR MORE THAN 3 DAYS, AND/OR AS DIRECTED BY THE ENGINEER. IT SHALL ALSO BE APPLIED TO VERTICAL PAVEMENT FACES BETWEEN ADJOINING PAVEMENT SECTIONS. ALL APPLICATIONS ON BOTH HORIZONTAL AND VERTICAL SURFACES SHALL BE PAID FOR UNDER THE CONTRACT UNIT BID PRICE FOR CODE 403.0300 "ASPHALT EMULSION TACK COAT."
8. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, PLANTABLE SOIL AND SEED IN AREAS WHICH ARE OUTSIDE OF THE PROJECT'S AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS ARE STORED WITH THE PERMISSION OF THE ENGINEER.
9. UNDER NO CIRCUMSTANCE WILL THE CONTRACTOR BE ALLOWED TO STOCKPILE REMOVED PAVEMENT MATERIALS WITHIN THE PROJECT LIMITS.
10. CLEANING AND SWEEPING OF PAVEMENT WILL INCLUDE REMOVAL OF ALL PAVEMENT DEBRIS PRIOR TO THE PLACEMENT OF EACH BITUMINOUS PAVEMENT LIFT. ALL CLEANING AND SWEEPING SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
11. PRIOR TO INSTALLATION, ALL SIGNS, MOUNTINGS AND LOCATIONS SHALL BE APPROVED OR MODIFIED BY THE ENGINEER.
12. THE COORDINATE SYSTEM, IF SHOWN, IS THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM.
13. PAVEMENT OPERATIONS FOR CURBED SECTIONS: IN AREAS WHERE CURBING IS SET TO FINISH LINE AND GRADE, THE CONTRACTOR WILL NOT BE REQUIRED TO UTILIZE THE SENSOR AND SKY-TYPE DEVICE FOR AUTOMATIC GRADE CONTROL, BUT WILL BE ALLOWED TO MANUALLY ADJUST THE BITUMINOUS PAVER FOR CONTROLLING GRADE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAYS FREE OF DEBRIS RESULTING FROM THEIR CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.
15. NO FUEL STORAGE, VEHICLE REFUELING, OR EQUIPMENT STORAGE SHALL TAKE PLACE IN DESIGNATED WETLANDS, NOR WITHIN 100' OF ANY WATER BODY. THIS REQUIREMENT SHALL NOT SUPERSEDE ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE OR REGULATION THAT APPLIES TO THE SAME, UNLESS THIS REQUIREMENT IS MORE STRINGENT THAN SAID LAW, ORDINANCE, RULE OR REGULATION.
16. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT AT THE END OF FINAL PAVING OPERATIONS, FLOW TO EXISTING DRAINAGE STRUCTURES HAS BEEN REESTABLISHED AND THAT NO ISOLATED DEPRESSIONS REMAIN. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED INCIDENTAL TO PAVING AND COLD PLANING OPERATIONS.
17. ALL EMBANKMENTS SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 12" (AFTER COMPACTION) AND SHALL BE COMPACTED AS SPECIFIED BEFORE THE NEXT LAYER IS PLACED. ALSO, EMBANKMENT CONSTRUCTION SHALL CONFORM TO SECTION 202.03.2 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
18. IF THIS PROJECT IS ON A HURRICANE EVACUATION AND DIVERSIONARY ROUTE, AS DESIGNATED ON THE COVERSHEET, THE CONTRACTOR IS ADVISED THAT UPON 12 (TWELVE) HOURS NOTICE THE ROADWAY SHALL BE OPEN TO EVACUEES AND EMERGENCY PERSONNEL. ANY EXTRA WORK NECESSARY TO COMPLY WITH THIS REQUIREMENT WILL BE REIMBURSED UNDER FORCE ACCOUNT PROCEDURES.
19. THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS STATED IN THE ENVIRONMENTAL APPROVALS ISSUED FOR THE PROJECT FROM THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM). AND/OR THE ARMY CORPS OF ENGINEERS (ACOE). AND/OR THE COASTAL RESOURCES MANAGEMENT COUNCIL (CRMC). COPIES OF EACH OF THESE PERMITS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH THESE CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).
20. FOR ALL PROJECTS INVOLVING KNOWN SITE REMEDIATION ISSUES, THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE CONSTRUCTION RELATED PROVISIONS, CONDITIONS, AND STIPULATIONS OF ANY REMEDIAL PLANS DEVELOPED FOR THE PROJECT. COPIES OF THESE DOCUMENTS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH COMPLIANCE WITH THESE DOCUMENTS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).
21. NO UNPROTECTED CONSTRUCTED FEATURE MAY PROJECT MORE THAN 4 INCHES ABOVE THE FINISHED GRADE OF A TRAVERSABLE SLOPE IN A CLEAR ZONE, e.g. HEADWALL, DRAINAGE INLET, ETC.
22. THE REMAINING SECTION OR STUB OF A BREAKAWAY BASE MAY NOT PROJECT MORE THAN 4 INCHES ABOVE THE FINISHED GRADE OF A TRAVERSABLE SLOPE IN A CLEAR ZONE, e.g. SIGN POSTS, LIGHT POLES, FIRE HYDRANTS, ETC.

DRAINAGE AND EROSION CONTROL NOTES:

1. FOR ALL PROJECTS WITH AT LEAST ONE(1) ACRE OF SOIL DISTURBANCE. R.I.D.O.T. IS REQUIRED TO DEVELOP AND ENFORCE A SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ORDER TO REMAIN IN COMPLIANCE WITH THE RIPDES GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS OF THE GENERAL PERMIT AND THE SITE SPECIFIC SWPPP FOR THIS PROJECT. COPIES OF THESE DOCUMENTS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH ADHERENCE TO THE SWPPP SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).
2. NO UNDISTURBED AREAS SHALL BE CLEARED OF EXISTING VEGETATION AFTER OCTOBER 15 OF ANY CALENDAR YEAR OR DURING ANY PERIOD OF FULL OR LIMITED WINTER SHUTDOWN. ALL DISTURBED SOILS EXPOSED PRIOR TO OCTOBER 15 OF ANY CALENDAR YEAR SHALL BE SEEDED OR PROTECTED BY THAT DATE. ANY SUCH AREAS THAT DO NOT HAVE ADEQUATE VEGETATIVE STABILIZATION, AS DETERMINED BY THE RESIDENT ENGINEER OR ENVIRONMENTAL INSPECTOR, BY NOVEMBER 15 OF ANY CALENDAR YEAR, MUST BE STABILIZED THROUGH THE USE OF EROSION CONTROL MATTING OR HAY MULCH, IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. IF WORK CONTINUES WITHIN ANY OF THESE AREAS DURING THE PERIOD FROM OCTOBER 15 THROUGH APRIL 15, CARE MUST BE TAKEN TO ENSURE THAT ONLY THE AREA REQUIRED FOR THAT DAY'S WORK IS EXPOSED, AND ALL ERODIBLE SOIL MUST BE RESTABILIZED WITHIN 5 WORKING DAYS. ANY WORK TO CORRECT PROBLEMS RESULTING FROM FAILURE TO COMPLY WITH THIS PROVISION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THERE WILL BE NO SEPARATE PAYMENT FOR THIS PROVISION, IT SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS. STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 2 WEEKS OF FINAL GRADING.
3. STOCKPILES OF MATERIAL SHALL NOT BE LOCATED WITHIN REGULATED WETLANDS OR BUFFER ZONE AREAS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND STOCKPILES OF ERODABLE MATERIAL SHALL ALSO BE SEEDED AND RINGED WITH R.I. STD. 9.1.0 TO STABILIZE.
4. IF THE PLANS INCLUDE SPECIFIC AREAS FOR PLACEMENT OF CONSTRUCTION DEWATERING BASINS AND/OR EQUIPMENT AND MATERIALS STORAGE AND STOCKPILING, AND IF THE CONTRACTOR ELECTS TO UTILIZE ANY OTHER AREAS FOR THESE PURPOSES, THIS SHALL BE APPROVED BY THE ENGINEER ONLY AFTER OBTAINING ANY NECESSARY PERMITS AND/OR PERMIT MODIFICATIONS FROM THE APPROPRIATE REGULATORY AUTHORITY(IES). ANY PERMITTING REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE ACCOMPLISHED AT NO COST TO THE STATE. THE ENGINEER WILL COORDINATE SUBMISSION OF ANY REQUIRED PERMIT APPLICATION MATERIALS WITH THE R.I.D.O.T. OFFICE OF ENVIRONMENTAL PROGRAMS.
5. JUTE MESH SHALL BE USED TO STABILIZE PLANTABLE SOIL AND/OR LOAM IN ALL DITCHES, ON ALL SLOPES ADJACENT TO WETLANDS AND WETLAND PERIMETERS, AND ON ALL SLOPES WITHIN WATER QUALITY BASINS. JUTE MESH IN DITCHES SHALL EXTEND TO AN ELEVATION 2 FEET ABOVE THE BOTTOM OF THE DITCH.
6. SEEDING ON ALL SLOPES 3 TO 1 OR STEEPER SHALL CONSIST OF THE FOLLOWING APPLICATIONS UNLESS CHANGED IN THE CONTRACT.
   a. SEEDING TYPE I.
   b. ADHESIVE MULCH STABILIZER
7. UNVEGETATED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR PERIODS IN EXCESS OF 2 WEEKS OR THROUGH THE INACTIVE WINTER SEASON.
8. PRIOR TO DRAINAGE AND UTILITY CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION (HORIZONTAL AND VERTICAL) OF ALL EXISTING PIPES AND/OR STRUCTURES WHICH ARE TO BE CONNECTED. ANY VARIATION FOUND FROM THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO DRAINAGE AND UTILITY CONSTRUCTION. WORK CAN COMMENCE ONLY UPON THE ENGINEER'S AUTHORIZATION.
9. ALL DRAINAGE AND UTILITY STRUCTURES WITHIN THE PAVED ROADWAY SHALL BE ADJUSTED TO GRADE WITH THE SURROUNDING PAVEMENT PRIOR TO THE WINTER SHUTDOWN.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL THROUGHOUT THE WORK AREA.
11. CATCH BASIN RIM GRADES NOTED ON PLANS ARE DEPRESSED 0.1' LOWER THAN THE GUTTER GRADE. RIM ELEVATIONS SHOWN ARE FINAL GRADES. THE CONTRACTOR SHALL PLACE FRAMES AND GRATES 0.1' BELOW THE GRADE CONSTRUCTED IN THIS CONTRACT OR AS DIRECTED BY THE ENGINEER.
12. PROVISIONS FOR CLEARING TO ACCESS OUTFALLS DURING THE CLEANING AND FLUSHING OF THE CLOSED DRAINAGE SYSTEM SHALL BE KEPT TO A MINIMUM.
   a. ANY VEGETATIVE CLEARING SHALL BE LIMITED TO BRUSH AND TREES LESS THAN 3" DIAMETER.
   b. NO HEAVY EQUIPMENT MAY ENCROACH UPON VEGETATED PERIMETER OR RIVERBANK WETLANDS AS WELL AS BIOLOGICAL WETLANDS.
13. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES FOR OUTLET PROTECTION PRIOR TO CLEANING AND FLUSHING STORM WATER DRAINAGE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL FLUSHED SEDIMENTS ARE REMOVED. AT ALL OUTFALL LOCATIONS WHERE PIPES ARE TO BE CLEANED AND FLUSHED, OUTLET PROTECTION (R.I. STD. 9.1.0 OR 9.3.0) SHALL BE INSTALLED TO TRAP SEDIMENTS. THESE SEDIMENTS SHALL THEN BE REMOVED AND DISPOSED OF LEGALLY BEFORE THE OUTLET PROTECTION DEVICES ARE REMOVED. IF OUTLET PROTECTION AT THE OUTFALL IS NOT FEASIBLE, THEN THE OUTLET PIPE OF THE LAST DRAINAGE STRUCTURE TO BE CLEANED SHALL BE PLUGGED TO CAPTURE ALL MATERIALS FLUSHED FROM PIPES. AFTER THE MATERIALS ARE REMOVED FROM THE DRAINAGE STRUCTURE, THE OUTLET SHALL BE UNPLUGGED TO RESUME NORMAL FUNCTIONING.
14. R.I. STD. 9.8.0 BALED HAY INLET PROTECTION SHALL BE INSTALLED AT ALL CATCH BASINS AND INLETS WHENEVER SUBBASE IS EXPOSED, AND SHALL REMAIN IN PLACE UNTIL THE ABUTTING GROUND SURFACES ARE STABILIZED.
15. WHERE BALED HAY INLET PROTECTION AND SILT FENCES ARE USED AT CATCH BASINS, THEY SHALL BE REMOVED AT THE END OF THE PROJECT OR AS DIRECTED BY THE ENGINEER IN ORDER TO PREVENT CLOGGING OF THE INLET.

DRAINAGE AND EROSION CONTROL NOTES (CONTINUED):

16. DETENTION AND RETENTION BASINS MAY BE ROUGH GRADED AND STABILIZED WITH VEGETATION AND/OR OTHER EROSION CONTROL MEASURES AS REQUIRED BY THE ENGINEER PRIOR TO USE AS TEMPORARY SEDIMENTATION BASINS DURING PROJECT CONSTRUCTION. FINAL BASIN CONSTRUCTION SHALL NOT COMMENCE UNTIL ALL SOURCES OF SEDIMENT HAVE BEEN ELIMINATED, FINAL ROADSIDE VEGETATION IS ESTABLISHED AND USE OF TEMPORARY BASINS IS NO LONGER REQUIRED AS DIRECTED BY THE ENGINEER. ANY ISSUES RELATING TO EROSION AND/OR SEDIMENT TRANSPORT INTO WETLAND AREAS RESULTING FROM SUCH USE OF SEDIMENTATION BASINS DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY CORRECTIVE ACTION REQUIRED TO RESOLVE SUCH ISSUES SHALL BE COMPLETED BY THE CONTRACTOR.
17. THE TOE OF ANY FILL SLOPE IS TO REMAIN AT LEAST 1' INSIDE OF ALL EROSION CONTROLS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR COVER ANY PORTION OF THE EROSION CONTROL MEASURES WITH MATERIAL. ANY MATERIAL THAT IS PLACED ON ANY EROSION CONTROLS BY THE CONTRACTOR, OR ANY AGENT OF THE CONTRACTOR, SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR, AND ANY NECESSARY REPAIRS TO THE EROSION CONTROLS ACCOMPLISHED.
18. PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES, EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AT THOSE AREAS INDICATED ON THE PLANS. CLEARING MAY OCCUR PRIOR TO INSTALLATION OF SUCH CONTROLS, HOWEVER NO GRUBBING, GRADING, FILLING, OR OTHER SOIL DISTURBANCE SHALL OCCUR PRIOR TO INSTALLATION. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS.
19. ALL HAY BALES, SILT FENCE OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING CAN HELP TO MINIMIZE EROSION. TEMPORARY SEED WILL CONFORM TO R.I.D.O.T. STANDARD TEMPORARY SEED MIX.
20. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE STATE.
21. THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE SPECIFIED IN SUBSECTION L.02.03 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
22. ADDITIONAL EROSION CONTROLS, SHALL BE INSTALLED AS DIRECTED BY THE RESIDENT ENGINEER. THESE ADDITIONAL ITEMS WILL BE PAID AT THE UNIT PRICE FOR THAT BID ITEM.

UTILITY NOTES:

1. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. BUILDING SERVICE CONNECTIONS (ELECTRIC, GAS, TELEPHONE, WATER AND SANITARY) ARE NOT SHOWN. CONTRACTOR IS TO ASSUME SERVICES ARE PRESENT TO ALL BUILDINGS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH CHAPTER 39-1.2 OF THE R.I. GENERAL LAWS ENTITLED "EXCAVATION NEAR UNDERGROUND UTILITY FACILITIES", WITH AMENDMENTS EFFECTIVE AS OF NOVEMBER 1, 2009 AND, WHEN NECESSARY, BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY APPLICABLE CITY, TOWN, STATE OR FEDERAL AGENCY. THE CONTRACTOR SHOULD UNDERSTAND THAT NOT ALL UTILITIES SUBSCRIBE TO THE DIG SAFE PROGRAM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES AND ENSURE THAT ALL UTILITIES HAVE BEEN MARKED PRIOR TO COMMENCING THEIR WORK. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS A RESULT OF FAILING TO CONTACT THE APPROPRIATE UTILITY COMPANY, SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE STATE.
3. ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE CAPPED.
4. EXISTING WATER SERVICES SHALL BE RECONNECTED TO THE NEW WATER MAINS.
5. UTILITY SERVICE CONNECTIONS SHALL BE MAINTAINED TO ALL EXISTING FACILITIES TO REMAIN.
6. FIRE HYDRANTS SHALL NOT BE REMOVED FROM SERVICE WITHOUT WRITTEN AUTHORIZATION FROM THE FIRE DEPARTMENT OR THE WATER AUTHORITY.
7. ALL NEW WATER LINES SHALL BE DISINFECTED TO THE SATISFACTION OF THE WATER AUTHORITY IN ACCORDANCE WITH THE SPECIFICATIONS.
8. ALL UTILITY POLE RELATED WORK SHALL BE BY OTHERS.

THIS PLAN SHALL NOT BE ALTERED

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

STANDARD NOTES - 1

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	4	42

LANDSCAPE NOTES:

1. ALL PLANT MATERIAL MUST BE TAGGED AT THE NURSERY (A RECOGNIZED GROWER OF PLANT MATERIAL) IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION. ALL PLANT MATERIAL MUST BE NURSERY GROWN; NO PLANTATION GROWN PLANT MATERIAL WILL BE ACCEPTED.
2. ALL PLANT SUBSTITUTIONS AND/OR CHANGES IN PLANT LOCATION MUST BE APPROVED IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. ALL PLANT MATERIAL IS TO BE FIELD LOCATED BY A REPRESENTATIVE FROM THE R.I.D.O.T. LANDSCAPE ARCHITECTURE UNIT.
4. A R.I.D.O.T. LANDSCAPE REPRESENTATIVE MUST BE ON SITE TO APPROVE ALL TRIMMING AND CLEARING NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS.
5. ANY TOPSOIL USED AS PLANTABLE SOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS, AND SHALL CONFORM TO SECTION M.18 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
6. ALL TREES AND SHRUBS SHALL BE MULCHED WITH PINE BARK MULCH IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
7. ALL TREES AND/OR SHRUBS THAT ARE PLANTED AS A BED SHALL BE MULCHED AS A BED.
8. PROVIDE A MINIMUM 6'-8" BRANCHING STANDARD ON ALL TREES INSTALLED ADJACENT TO SIDEWALKS AND/OR PEDESTRIAN ACCESS AREAS.

STRUCTURAL NOTES FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS:

GENERAL

1. ALL SUPPORT DESIGNS AND ASSOCIATED SHOP DRAWING REVIEWS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION, OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS (THE "SPECIFICATIONS"), INCLUDING THE LATEST INTERIM SPECIFICATIONS, EXCEPT AS MODIFIED HEREIN.

CONSTRUCTION DRAWINGS AND DETAILS

1. THE FOLLOWING NOTES SHALL BE INCLUDED ON ALL PLANS AND/OR SHOP DRAWINGS IN REFERENCE TO ANCHOR BOLTS:
   - "PRETENSIONING OF ALL ANCHOR NUTS IS REQUIRED, AND SHALL BE ACCOMPLISHED BY TIGHTENING TO 1/6TH TURN BEYOND THE SNUG-TIGHT POSITION."
   - "THE MAXIMUM CLEARANCE BETWEEN THE BOTTOM OF THE LEVELING NUTS AND THE TOP OF THE CONCRETE IS CRITICAL AND SHALL NOT EXCEED THE AMOUNT SPECIFIED ON THIS DRAWING."
2. THE USE OF GROUT UNDER BASE PLATES SHALL GENERALLY NOT BE PERMITTED. IF SPECIFIC CONDITIONS WARRANT ITS USE, THE GROUT SHALL NOT BE CONSIDERED LOAD CARRYING; LOADS SHALL BE DIRECTLY SUPPORTED BY THE ANCHOR BOLTS. ADEQUATE DRAINAGE SHALL BE PROVIDED.
3. THE DAMPENING EFFECTS OF VIBRATION MITIGATION DEVICES SHALL NOT BE CONSIDERED IN THE DESIGN OF STRUCTURAL SUPPORTS FOR SIGNS AND TRAFFIC SIGNALS. IF THE CONTRACTOR CHOOSES TO USE THESE DEVICES FOR WARRANTY PURPOSES, THE TYPE OF DEVICES PROPOSED SHALL BE APPROVED BY THE DEPARTMENT PRIOR TO FABRICATION OF SUPPORTS.

TRAFFIC SIGNAL NOTES:

1. ALL SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE DELIVERED TO THE R.I.D.O.T. MAINTENANCE HEADQUARTERS, 360 LINCOLN AVENUE, WARWICK, RHODE ISLAND, 02888.
2. BACK PLATES SHALL BE INSTALLED ON ALL TRAFFIC SIGNAL HEADS.
3. THE CONTRACTOR SHALL SUPPLY AND INSTALL ON THE UPPER LEFT HAND CORNER OF THE BACK OF THE CONTROLLER CABINET DOOR A LAMINATED INTERSECTION GRAPHIC AND TABLE DEPICTING THE TRAFFIC DETECTOR RELAY CHANNEL ASSIGNMENTS. THE DIAGRAM SHALL BE A GRAPHIC OF THE INDIVIDUAL INTERSECTION ORIENTED SIMILAR TO THE PLANS SHOWING THE LOCATIONS OF EACH OF THE LOOP DETECTORS. THE DIAGRAM SHALL, AT A MINIMUM, INCLUDE DETECTOR NUMBERS, STREET NAME LABELS, NORTH ARROW, AND CONTROLLER CABINET LOCATION. THE ASSIGNMENT INFORMATION SHALL BE INCLUDED IN A TABLE WHICH SHALL INCLUDE, AT A MINIMUM, THE APPROACH NAME, DETECTOR NUMBER, TERMINAL NUMBER, DETECTOR RACK SLOT NUMBER, RELAY NUMBER, RELAY CHANNEL NUMBER, AND PHASE ASSOCIATED WITH EACH DETECTOR.
4. TRAFFIC CONTROLLER CABINETS, UNLESS OTHERWISE NOTED, SHALL BE NEMA TS2 TYPE 1 CABINET SIZE 6 ("P" TYPE) WITH NOMINAL DIMENSIONS OF 52"Hx44"Wx24"D.
5. ALL DELAY AND EXTENSION TIMES, AS CALLED FOR ON THE PLANS, FOR PROPOSED LOOP DETECTORS SHALL BE PROGRAMMED IN THE TRAFFIC SIGNAL CONTROLLER AND NOT THE DETECTOR RELAY.
6. A BARE GROUND WIRE SHALL BE PLACED IN ALL PVC CONDUITS AND SHALL BE BONDED TO GROUND RODS IN ACCORDANCE WITH SECTION T.03 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
7. THE FINAL POSITION OF SIGNAL HEADS, PEDESTRIAN PUSHBUTTONS, DETECTORS, AND STOP LINE AND CROSSWALK PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD ACCORDING TO ACTUAL INTERSECTION CHARACTERISTICS.
8. A 2' MINIMUM BUFFER SHALL BE PROVIDED BETWEEN THE CURB AND ALL LATERAL OBSTRUCTIONS (INCLUDING ALL SIGNAL POLES AND TRAFFIC/PEDESTRIAN SIGNAL HEADS) TO PROVIDE ADEQUATE CLEARANCE FOR TURNING VEHICLES.
9. ALL FOUNDATIONS MUST HAVE CONES OR BARRELS BOLTED TO FOUNDATION BASES UNTIL ACTUAL POLE IS INSTALLED.
10. WHEN PLACING TRAFFIC SIGNAL HANDHOLES OR CONDUIT IN EXISTING PORTLAND CEMENT CONCRETE SIDEWALKS, THE ENTIRE SIDEWALK SQUARE OF CONCRETE SHALL BE REPLACED IN ACCORDANCE WITH R.I. STD. 43.1.0. NO PATCHES WILL BE ALLOWED.
11. ALL PEDESTRIAN PUSHBUTTONS SHALL BE COMPLIANT WITH "THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES" (ADAAG) AND SHALL INCLUDE A PRESSURE-ACTIVATED (NON-MOVING) BUTTON. SIGNS APPLICABLE TO PUSHBUTTON ACTUATION SHALL BE INSTALLED SUCH THAT THE CROSSING ASSIGNED TO EACH BUTTON IS CLEARLY INDICATED. IF SITE CONDITIONS DO NOT ALLOW PEDESTRIAN PUSHBUTTONS TO BE INSTALLED WHERE CALLED FOR ON THE PLANS, THE R.I.D.O.T. TRAFFIC ENGINEERING UNIT SHALL BE CONSULTED WITH THROUGH AN R.F.I. PRIOR TO INSTALLING THE PUSHBUTTONS. THE FINAL PLACEMENT OF ALL PEDESTRIAN PUSHBUTTONS SHALL BE IN ACCORDANCE WITH ADAAG AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
12. ALL LOOP DETECTORS SHALL BE CENTERED WITHIN EACH LANE AS DELINEATED, UNLESS OTHERWISE DIMENSIONED ON PLANS.
13. ALL LOOP DETECTORS SHALL BE CUT INTO THE FINAL PAVEMENT SURFACE COURSE.
14. TRAFFIC SIGNAL CONTROLLERS SHALL BE WIRED SO THAT ANY FIRE PRE-EMPTION SHALL OVERRIDE MANUAL (PUSH BUTTON) OPERATION.
15. THE CONTRACTOR SHALL WORK CONTINUOUSLY TO RESTORE TRAFFIC SIGNAL OPERATION TO ITS INTENDED PURPOSE WHEN REPLACING THE TRAFFIC SIGNAL EQUIPMENT. A POLICE DETAIL IS REQUIRED TO DIRECT TRAFFIC AT THE INTERSECTION AT ALL TIMES WHEN THE TRAFFIC SIGNAL IS INOPERATIVE. AT NO TIME SHALL THE CONTRACTOR LEAVE THE SITE BEFORE RESTORING FULL TRAFFIC OPERATIONS.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

1. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELIZING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
2. ALL SIGN MOUNTINGS FOR TEMPORARY AND CONSTRUCTION SIGNS SHALL BE IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. THE CONTRACTOR SHALL COVER ALL EXISTING AND/OR TEMPORARY SIGNS THAT ARE NOT RELEVANT TO THE TRAFFIC CONTROL REQUIRED DURING ANY PARTICULAR STAGE OF THE CONTRACT.
4. ADVANCE FLAGPERSON SIGNS (W20-7A) SHALL BE USED IN ADVANCE OF ANY POINT AT WHICH A FLAGPERSON OR A POLICE OFFICER HAS BEEN STATIONED TO CONTROL TRAFFIC. WHEN NEEDED, AN APPROPRIATE DISTANCE MESSAGE MAY BE DISPLAYED ON A SUPPLEMENTAL PLATE (24"x18") BELOW THE FLAGPERSON SYMBOL SIGN. THE SIGN SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE FLAGPERSON IS NOT AT THE STATION.
5. POLICE OFFICERS (AND NOT FLAGPERSONS) SHALL BE UTILIZED WHEN WORK WILL IMPACT SIGNALIZED INTERSECTIONS AND LIMITED ACCESS HIGHWAYS.
6. POLYETHYLENE DRUMS SHALL BE UTILIZED AS A CHANNELIZING DEVICE WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN BEYOND WORKING HOURS WHEN NO WORKERS ARE PRESENT. CONES SHALL BE UTILIZED WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY BROKEN DOWN AT THE END OF THE WORKDAY.
7. ARROW PANELS SHALL BE SET IN THE FLASHING FOUR CORNERS CAUTION MODE UNLESS UTILIZED FOR A MERGING TAPER. ARROW PANELS SET IN THE FLASHING ARROW MODE SHALL NOT BE UTILIZED FOR LANE SHIFTS.
8. TEMPORARY CONSTRUCTION SIGNS AND OTHER WORKZONE TRAFFIC CONTROL DEVICES THAT ARE DAMAGED OR REQUIRE RELOCATION SHALL BE REPLACED AND / OR RELOCATED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."
9. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED ON THE TRAVEL LANES OR SHOULDERS. THEY MAY BE PARKED WITHIN THE STATE RIGHT-OF-WAY ONLY IN AREAS 30' BEYOND THE OUTSIDE EDGE OF THE TRAVEL LANES AND/OR IN AREAS APPROVED BY THE ENGINEER.
10. TEMPORARY CONSTRUCTION SIGNS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC, AND SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER APPROPRIATE.
11. THE INTENDED VEHICLE PATHS THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES. WATERBORNE PAVEMENT MARKINGS SHALL BE INSTALLED BEFORE THE END OF THE WORK SHIFT ON ALL COLD-PLANED AND NEW ROADWAY SURFACES THAT WILL BE OPENED TO TRAFFIC AT THE END OF THE SHIFT.

THIS PLAN SHALL NOT BE ALTERED

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

STANDARD NOTES - 2

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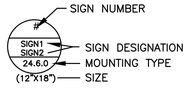
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	5	42

ABBREVIATIONS

ABAN	ABANDON
ADJ	ADJUST
APPROX	APPROXIMATE
℄	BASELINE
BM	BENCH MARK
BIT	BITUMINOUS
BB	BITUMINOUS BERM
BC	BITUMINOUS CURB
BOC	BOTTOM OF CURB
BOS	BOTTOM OF SLOPE
BOW	BOTTOM OF WALL
BD OR BND	BOUND
BLDG	BUILDING
CEM	CEMENT
℄	CENTER LINE
CLF	CHAIN LINK FENCE
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CO	COUNTY
Δ	DELTA ANGLE (CENTRAL ANGLE OF HORIZ CURVE)
DHV	DESIGN HOURLY VOLUME
DWY	DRIVEWAY
EB	EAST BOUND
EP, EOP	EDGE OF PAVEMENT
EL	ELEVATION
ETW	EDGE OF TRAVEL WAY
EX	EXISTING
FLDSTN	FIELDSTONE
FDN	FOUNDATION
GAR	GARAGE
GRAN	GRANITE
GRAV	GRAVEL
GND	GROUND
HORIZ	HORIZONTAL
HMA	HOT MIX ASPHALT
HSE	HOUSE
IP	IRON PIPE
JCT	JUNCTION
LT	LEFT
L	LENGHT OF CURVE
LP	LOW POINT
MB	MAIL BOX
MAX	MAXIMUM
MIN	MINIMUM
NB	NORTH BOUND
NTS	NOT TO SCALE
O.C.	ON CENTER
PVMT	PAVEMENT
PEB	PERMANENT EASEMENT BOUNDARY
PS	PLANTABLE SOIL BORROW
PCC	POINT OF COMPOUND CURVATURE
PC	POINT OF CURVATURE
PRC	POINT OF REVERSE CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PGL	PROFILE GRADE LINE
PROJ	PROJECT
ℙ	PROPERTY LINE
PROP	PROPOSED
R	RADIUS OF CURVATURE
RCP	REINFORCED CONCRETE PAVEMENT
R&D	REMOVE & DISPOSE
REM	REMOVE
REMOD	REMODEL
RET	RETAINING
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
ROW	RIGHT-OF-WAY
RPMW	REMOVE PAVEMENT MARKING WATER BLASTING
RD	ROAD
SHT	SHEET
SHLDR	SHOULDER
SDWK	SIDEWALK
SB	SOUTH BOUND OR STONE BOUND
SHL	STATE HIGHWAY LAYOUT LINE
STA	STATION
SSD	STOPPING SIGHT DISTANCE
TAN	TANGENT
T	TANGENT DISTANCE OF CURVE/TRUCK PERCENTAGE
TEB	TEMPORARY EASEMENT BOUNDARY
TEMP	TEMPORARY
TOC	TOP OF CURB
TOS	TOP OF SLOPE
TOW	TOP OF WALL
TP	TURNING POINT
TYP	TYPICAL
VAR	VARIABLE
VERT	VERTICAL
VC	VERTICAL CURVE
WB	WEST BOUND
WCR	WHEELCHAIR RAMP
WD	WOOD
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CIP	CAST IRON PIPE
CL	CLASS (PIPE, CONCRETE, EXCAVATION, ETC)
COND	CONDUIT
CAP	CORRUGATED ALUMINUM PIPE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
CSP	CORRUGATED STEEL PIPE
CULV	CULVERT
CI	CURB INLET
CS	CURB STOP
DI	DUCTILE IRON PIPE
EL (OR ELEV)	ELEVATION
FM	FORCE MAIN
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
GIP	GALVANIZED IRON PIPE
GG	GAS GATE
GI	GUTTER INLET
HDWL	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
LP	LIGHT POLE
LPS	LOW PRESSURE SERVICE CONNECTION
MH	MANHOLE
PVC	POLY-VINYL-CHLORIDE PIPE
PWW	PAVED WATER WAY
R&D	REMOVE & DISPOSE
RCP	REINFORCED CONCRETE PIPE (CLASS III UNLESS NOTED)
S	SANITARY SEWER OR SERVICE CONNECTION
SCPL	REMOVE AND STOCKPILE CONCRETE PLANTER
SMH	SEWER MANHOLE
SD	SUBDRAIN
TS	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
UP	UTILITY POLE
VCP	VITRIFIED CLAY PIPE
WG	WATER GATE
WM	WATER METER / WATER MAIN

JOB SPECIFIC SYMBOLS

- (#) CURB RAMP NUMBER
- (7.3.8P) GRANITE APRON STONE – 30" OPENING – PVD STD
- (43.1.0) (m) CEMENT CONCRETE SIDEWALK – PVD STD
- (43.3.0) (m) WHEELCHAIR RAMP
- (43.3.2) (m) RAMP–LANDING FOR NARROW SIDEWALK
- (CSCP) CORE STRUCTURE AND CONNECT PIPE
- (BE) BENCH
- (BS) BRICK SIDEWALK
- (CPS) CONCRETE PAVER SIDEWALK
- (DTWB) DIRECTIONAL TACTILE WAYFINDING BAR
- (FG) FRAME AND GRATE – ADA COMPLIANT
- (GC) GRANITE CURB 7.3.0P PVD STD
- (GCF) GRANITE CURB 7.3.0P PVD STD FLUSH
- (GB) (16) GRANITE BLOCK 16"X16"
- (GB) (24) GRANITE BLOCK 24"X24"
- (ISCD) INLET SEDIMENT CONTROL DEVICE
- (PML) PAVEMENT MARKING LEGEND
- (RBP) REMOVE & RESET BRICK PAVERS
- (RCBC) RECONSTRUCT CATCH BASIN/ BORBEL CONES
- (RCP) REMOVE & RESET CONCRETE PAVERS
- (RSB) RETRACTABLE STEEL BOLLARD
- (SBR) STEEL BOLLARD – REMOVABLE
- (SFC) REMOVE AND STOCKPILE FRAME AND GRATE
- (TDCB) TRENCH DRAIN CATCH BASIN



SIGN LEGEND
NOT TO SCALE

- HH TYPE "A" HANDHOLE (18.2.0)
- (SI) EXISTING HANDHOLE
- EXISTING SIGNAL POST

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

JOB SPECIFIC SYMBOLS & LEGENDS

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	6	42

GENERAL NOTES

1. SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, AMENDED MARCH 2018, WITH ALL REVISIONS, AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE R.I. STANDARD DETAILS, 2005 EDITION, WITH ALL REVISIONS.
2. ALL WORK SHALL CONFORM TO THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION WITH ALL REVISIONS.
3. ALL WORK SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT OF 1990 (ADA) AND SECTION 504 OF THE REHABILITATION ACT OF 1973, SPECIFICALLY THE ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION, WITH ALL REVISIONS, AT A MINIMUM AND THE PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) WHERE POSSIBLE. THE HIGHEST DEGREE OF ACCESSIBILITY SHOULD BE ATTAINED, RATHER THAN MEETING THE MAXIMUM ALLOWABLE.
4. THE CITY OF PROVIDENCE SHALL BE THE OWNER OF THE PROJECT AND SHALL ADMINISTER THE PROJECT. ANY REFERENCES TO THE STATE OR OWNER, WHERE APPLICABLE, SHALL MEAN THE CITY OF PROVIDENCE.
5. THE BASE PLAN INFORMATION WAS OBTAINED FROM TOPOGRAPHICAL SURVEY, RECORD PLANS, AND GEOGRAPHIC INFORMATION SYSTEM (GIS), THE INFORMATION IS NOT GUARANTEED FOR COMPLETENESS OR ACCURACY BY THE DESIGNER. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND MAKE ADJUSTMENTS AS DIRECTED BY THE ENGINEER TO MATCH ACTUAL CONDITIONS.
6. ALL ITEMS NOT REFERENCED FOR MODIFICATION ON THE PLANS OR IN THE CONTRACT DOCUMENTS WILL BE "EXISTING TO REMAIN" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. THE LOCATIONS AND DIMENSIONS SHOWN IN THE PLANS ARE PROVIDED TO CONVEY THE INTENT OF THE DESIGN TO REPRESENT THE PROPOSED WORK AND SHALL BE CONSIDERED TO BE APPROXIMATE. FINAL LOCATIONS AND DIMENSIONS SHALL BE AS DIRECTED BY THE ENGINEER.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EMPLOYMENT OF ALTERNATE CIRCULATION PATHS WITH A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) TO ALLOW FOR ADA CONTINUITY DURING CONSTRUCTION OR CONSTRUCTION PHASING. TPARS SHOULD INCORPORATE TEMPORARY RAMPS WITHIN THE ROAD WHEN A TPAR IS OF A SHORT DURATION THAT WOULD NOT WARRANT CONSTRUCTING A RAMP WITHIN THE CURB AND SIDEWALK.
9. ANY ITEM OF WORK NOT SPECIFICALLY INDICATED IN THE PLANS BUT REQUIRED FOR THE COMPLETE CONSTRUCTION OF THE PROJECT DEFINED IN THE PLAN SET, WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND INCLUDED IN THE CONTRACT BID PRICE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SITE CONDITIONS AN CONFORM TO THE SCOPE AND INTENT OF THE PROJECT PLANS.
10. THE INTENT OF THIS WORK IS TO MAINTAIN EXISTING GRADES, AND IN AREAS OF WIDENING TO MAINTAIN EXISTING ROADWAY CROSS SLOPE TO NEW CURB LINE. THE CONTRACTOR SHALL VERIFY AND LOCATE LOW POINT DRAINAGE STRUCTURES TO ELIMINATE GUTTERLINE PONDING OR OTHER POTENTIAL DRAINAGE ISSUES.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENT AND EROSION CONTROLS THROUGHOUT THE DURATION OF CONSTRUCTION.
12. THE COST OF ANY CURB CUTTING REQUIRED TO INSTALL NEW AND/OR RESET EXISTING CURBING AND CONCRETE FOR CURB LOCK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE RESPECTIVE CURB ITEM.
13. CUT AND MATCH LINES AT BACK OF DRIVEWAYS SHALL NOT EXCEED MAXIMUMS SHOWN IN RI STANDARD DETAILS 43.4.0 AND 43.4.1.
14. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO WALLS, LOT CURBS, AND FENCES ABUTTING SIDEWALKS AND DRIVEWAYS DESIGNATED FOR REPLACEMENT. WHERE DIRECTED, NEW SIDEWALKS SHALL MEET SAID WALLS AND FENCES. PRIOR TO SIDEWALK REMOVAL, A SAWCUT SHALL BE PROVIDED IN ALL SIDEWALKS A DISTANCE DETERMINED BY THE ENGINEER (6" MINIMUM) FROM THE FACE OF ADJACENT BUILDINGS, RETAINING WALLS, LOT CURBS AND FENCES.
15. CONCRETE SIDEWALKS ARE TO BE REPLACED TO THE NEAREST JOINT, NO PARTIAL SAWCUT AREAS OF SIDEWALK SHALL BE PERMITTED TO REMAIN.
16. THERE ARE NO LOCATIONS IN THE PROJECT AREA AND WITHIN THE RIGHT-OF-WAY TO STORE CONSTRUCTION MATERIAL AND EQUIPMENT; THEREFORE, IN ACCORDANCE WITH SECTION 12.106.06 OF THE STATE OF RHODE ISLAND PROCUREMENT REGULATIONS, THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO STORE CONSTRUCTION MATERIAL AND EQUIPMENT ELSEWHERE AT NO ADDITIONAL COST TO THE OWNER.
17. THE CONTRACTOR SHALL NOT PARK VEHICLES OR CONSTRUCTION EQUIPMENT BENEATH THE DRIP LINE OF ANY TREES OR ON THE SIDEWALK.

CURB RAMP NOTES

1. WHERE IT IS NECESSARY TO CUT EXISTING GRANITE CURB ADJACENT TO A NEW CURB RAMP INSTALLATION, THE CURB SECTION TO BE CUT WILL BE REMOVED, CUT AND RESET SO THAT NO RESET OR REMAINING CURB SECTION IS LESS THAN 3'-0" IN LENGTH. THE COST OF REMOVING, CUTTING AND RESETTING CURB WILL BE INCLUDED IN THE CONTRACT UNIT BID PRICE PER LINEAR FOOT FOR ITEM "REMOVE, HANDLE, HAUL, TRIM, RESET CURB ENDING, STRAIGHT CIRCULAR ALL TYPES" FOR THE LENGTH OF THE CURB TO BE RESET. THE SECTION OF EXISTING CURB TO BE REMOVED AND DISPOSED WILL BE PAID FOR UNDER ITEM "REMOVE AND DISPOSE GRANITE CURB". CONCRETE CURB SECTIONS SHALL BE FULLY REPLACED, NO CUTS OR PARTIAL SECTIONS SHALL BE PERMITTED.
2. ALL WORK SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT OF 1990 (ADA) AND SECTION 504 OF THE REHABILITATION ACT OF 1973, SPECIFICALLY THE ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION, WITH ALL REVISIONS, AT A MINIMUM AND THE PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) WHERE POSSIBLE. THE HIGHEST DEGREE OF ACCESSIBILITY SHOULD BE ATTAINED, RATHER THAN MEETING THE MAXIMUM ALLOWABLE.
3. THE FINAL LOCATION OF ALL CURB RAMPS SHALL BE COORDINATED IN THE FIELD WITH PROPOSED AND/OR EXISTING LOCATIONS OF DRAINAGE STRUCTURES, UTILITY POLES AND OTHER APPURTENANCES TO ENSURE A CLEAR PEDESTRIAN ACCESS ROUTE IN ACCORDANCE WITH THE UNITED STATES DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION, WITH ALL REVISIONS, AT A MINIMUM AND THE PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) WHERE POSSIBLE
4. THE CONTRACTOR SHALL ENSURE THAT NO LOW POINTS ARE CREATED WITHIN THE CURB RAMP PROPER, AND THAT NO PONDING SHALL OCCUR ALONG THE GUTTER LINE OR WITHIN THE LEVEL LANDING AREA. PROPER ADJUSTMENTS SHALL BE MADE AT THE DIRECTION OF THE ENGINEER.

ENVIRONMENTAL PERMIT NOTES

1. THE WORK PROPOSED IN THESE PLANS SHALL NOT RESULT IN ANY ROADWAY GRADE CHANGES AND THE EXISTING DRAINAGE PATTERN SHALL BE MAINTAINED.
2. ALL WORK SHALL BE IN COMPLIANCE WITH RULE 6.01 "GENERAL CONDITIONS FOR EXEMPT ACTIVITIES" OF THE RIDEM, DIVISION OF FRESHWATER WETLANDS "RULES AND REGULATIONS GOVERNING THE ADMINISTRATION AND ENFORCEMENT OF THE FRESHWATER WETLANDS ACT".

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES

1. TRAFFIC FINES IN WORK ZONE REGULATORY SIGN, R.I. STD. 27.1.1 SHALL BE UTILITZED WHENEVER CONSTRUCTION ACTIVITIES ARE IN PROGRESS AND CONSTRUCTION PERSONNEL ARE PRESENT. THE SIGNS SHALL BE REMOVED FROM THE SITE OR COVERED AT ALL OTHER TIMES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL APPLICABLE REGULATORY AND WARNING SIGNS (EXCEPT FOR PARKING SIGNS) ARE VISIBLE TO TRAFFIC AT ALL TIMES ON EITHER PERMANENT OR TEMPORARY MOUNTINGS.
3. THE INTENDED PEDESTRIAN ACCESS ROUTES THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES AND SHALL COMPLY WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION, WITH ALL REVISIONS, AT A MINIMUM AND THE PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) WHERE POSSIBLE.
4. THE CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL APPLICABLE PERMITS TO OCCUPY OR WORK WITHIN THE PUBLIC RIGHT-OF-WAY FROM THE PROVIDENCE TRAFFIC ENGINEER.

DRAINAGE AND UTILITY NOTES

1. DURING THE PROCESS OF THE WORK, THE CONTRACTOR SHALL COOPERATE WITH THE OWNERS OF ADJACENT OVERHEAD OR UNDERGROUND UTILITIES AND PERMIT THEIR REPRESENTATIVES ACCESS TO THE WORK AREA TO DETERMINE IF THEIR UTILITIES ARE BEING ENDANGERED IN ANY WAY.
2. ANY DRAINAGE STRUCTURES, PIPES OR CULVERTS DAMAGED BY THE CONTRACTOR WHILE CARRYING OUT THIS CONTRACT SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL CHARGE TO THE OWNER.
3. THE CONTRACTOR SHALL ADJUST ALL DRAINAGE AND UTILITY STRUCTURES IN ROADWAY AREAS TO THE SURROUNDING PAVEMENT DRAINAGE AT THE END OF EACH WORK DAY. THE CONTRACT PROVIDES FOR THE FOLLOWING ADJUSTMENTS: ONE PRIOR TO BITUMINOUS PAVEMENT REMOVAL BY MICRO-MILLING, ONE TO GRADE OF LEVELING COURSE (WHERE APPLICABLE), AND ONE TO FINAL GRADE.
4. ANY/ALL ADJUSTMENTS TO VERIZON OR NATIONAL GRID ELECTRIC OWNED UNDERGROUND EQUIPMENT (MANHOLES, FRAMES AND COVERS, CONDUITS, ETC.) MUST BE PERFORMED BY AN APPROVED VERIZON/GRID CONTRACTOR. ADDITIONALLY, ALL ADJUSTMENTS MUST BE INSPECTED BY VERIZON/GRID'S CONTRACT WORK INSPECTOR (CWI). THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING UTILITY OWNERS AT LEAST 48 HOURS IN ADVANCE BEFORE COMMENCING WORK.
5. IF VERIZON'S UNDERGROUND STRUCTURES (MANHOLES, CONDUIT, CABLES, ETC.) ARE EXPOSED DURING CONSTRUCTION, THE GENERAL CONTRACTOR MUST PROVIDE PROTECTION FOR THE EXPOSED PLANT IN ACCORDANCE WITH VERIZON'S METHODS AND PROCEDURES AND WITH THE APPROVAL OF VERIZON'S CWI. ADDITIONALLY, AN APPROVED PARTITION MUST BE PLACED BETWEEN EXISTING VERIZON STRUCTURES AND NEW CONCRETE CONSTRUCTION WHERE CONTACT AND/OR ENCROACHMENT MAY ARISE.
6. THE UNDERMINING OF VERIZON DUCTS (INCLUDING THOSE CONCRETE ENCASED) IS NOT PERMITTED WITHOUT INSPECTION/PERMISSION OF VERIZON'S CWI.
7. AS A MINIMUM, CLEARANCE TO OVERHEAD POWER AND COMMUNICATIONS FACILITIES SHALL CONFORM TO THE NATIONAL ELECTRIC SAFETY CODE (NESC) AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS. PARTICULAR ATTENTION MUST BE PAID TO THE OSHA REQUIREMENT 29 CFR 1910.333, SUBPART C AND 29 CFR 1926.550 SUBPART N AS THESE REQUIREMENTS GOVERN IN MOST CASES WHEN DEALING WITH POWER LINES. THE SUBPARTS REQUIRE ALL PERSONS OF OBJECT/EQUIPMENT THAT A PERSON IS IN CONTACT WITH SHALL NOT COME CLOSER TO ANY UNGUARDED, ENERGIZED OVERHEAD (PRIMARY ELECTRICAL) LINE THAN THE FOLLOWING DISTANCES:
   a. FOR VOLTAGES TO GROUND 50KV OR BELOW – 10 FEET.
   b. FOR VOLTAGES TO GROUND OVER 50KV – 10 FEET. PLUS 4 INCHES FOR EVERY 10KV OVER 50KV.

   ALSO, THE NESC STATES THAT VERTICAL AND HORIZONTAL CLEARANCES OF 3 FEET MUST BE MAINTAINED FOR INSULATED COMMUNICATION CONDUCTORS AND CABLES. A RADIAL CLEARANCE OF 3 FEET MUST BE MAINTAINED BETWEEN VERIZON'S AERIAL EQUIPMENT (CABLES, TERMINALS, POLES, ETC.) IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS REQUIREMENTS. THIS INCLUDES TRAFFIC SIGNAL AND CONSTRUCTION EQUIPMENT, EITHER TEMPORARY OR PERMANENT.
8. THE CONTRACTOR SHALL CLEAN AND FLUSH ALL DRAINAGE STRUCTURES AND PIPES THROUGHOUT THE PROJECT LIMITS AS DIRECTED IN THE SPECIFICATIONS.
9. ALL UTILITY COMPANIES ARE TO FOLLOW ALL ADA REGULATIONS, ESPECIALLY AS THEY RELATE TO THE PLACEMENT OF UTILITY POLES IN SIDEWALKS. POLE PLACEMENT MUST ALLOW FOR AN ACCESSIBLE ROUTE OF AT LEAST FIVE FEET FOR ALL PEDESTRIANS. THE PLACEMENT OF APPURTENANCES ON POLES SHOULD PROJECT FROM THE POLE NO MORE THAN FOUR INCHES, AND BE SITUATED SO AS TO NOT OBSTRUCT THE PEDESTRIAN ROUTE.
10. SEWER, DRAIN, TRAFFIC SIGNAL, AND FIRE ALARM UTILITIES ARE NOT PART OF DIGSAFE. THE CONTRACTOR IS RESPONSIBLE TO RESEARCH AND LAYOUT THESE UTILITIES AND COORDINATE THE WORK WITH THE OWNERS. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

REVISIONS		
NO.	DATE	BY

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

JOB SPECIFIC NOTES

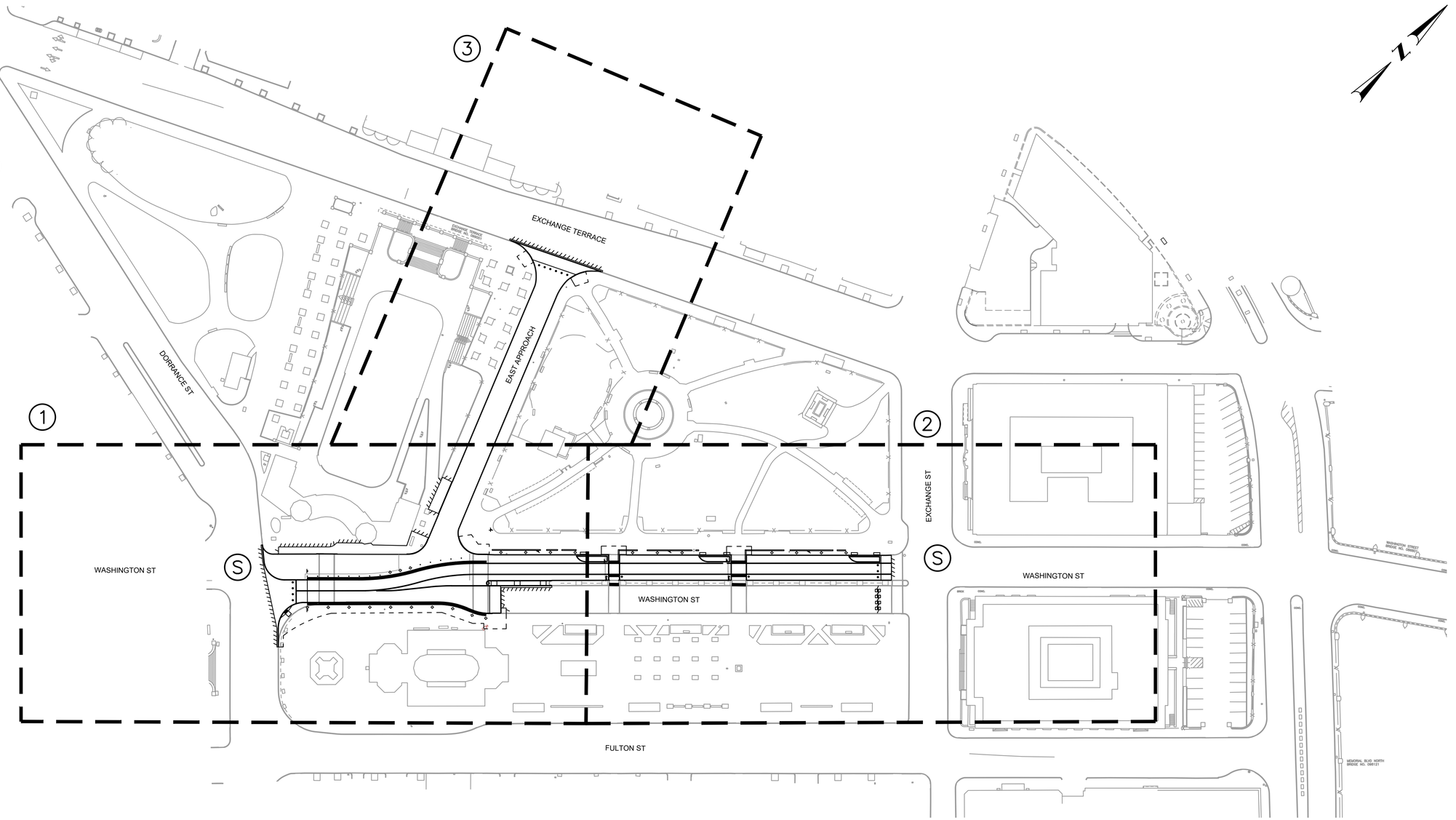
CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\CAD\CAD\PLAN SET\10430_001_CTR.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	7	42

LEGEND:

- (#) PLAN NUMBER
- (S) TRAFFIC SIGNAL



REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

KEY PLAN

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

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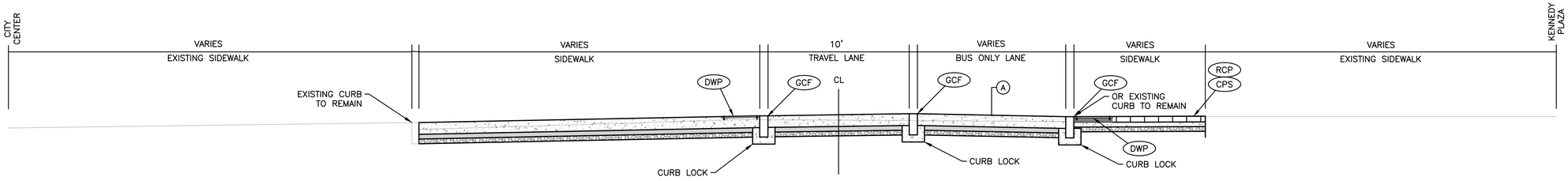
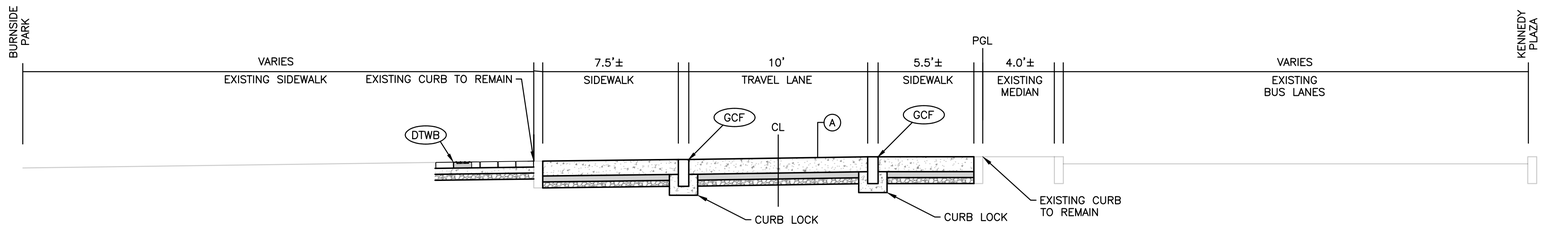
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	8	42



WASHINGTON STREET

STA 10+15± to STA 12+25±

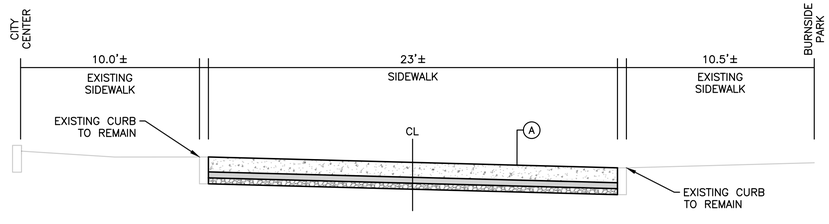
SCALE 1"=4'



WASHINGTON STREET

STA 12+25± to STA 16+15±

SCALE 1"=4'



EAST APPROACH

STA 50+25± TO STA 53+31±

SCALE 1"=4'

PAVEMENT STRUCTURE

(A) FULL DEPTH PAVEMENT
DFP – DISPOSE FLEXIBLE PAVEMENT
DRB – DISPOSE FLEXIBLE PAVEMENT & RIGID BASE
10" PORTLAND CEMENT CONCRETE
4" CRUSHED STONE BASE COURSE
4" GRAVEL BORROW SUBBASE COURSE

(B) FULL DEPTH PAVEMENT
DFP – DISPOSE FLEXIBLE PAVEMENT
DRB – DISPOSE FLEXIBLE PAVEMENT & RIGID BASE
4" MODIFIED CLASS 12.5 HMA BINDER COURSE
2" CLASS 9.5 HMA TOP COURSE

GRAPHIC SCALE
4 3 2 1 0 2 4
(IN FEET)
1 inch = 4 ft.

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WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

TYPICAL SECTIONS

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

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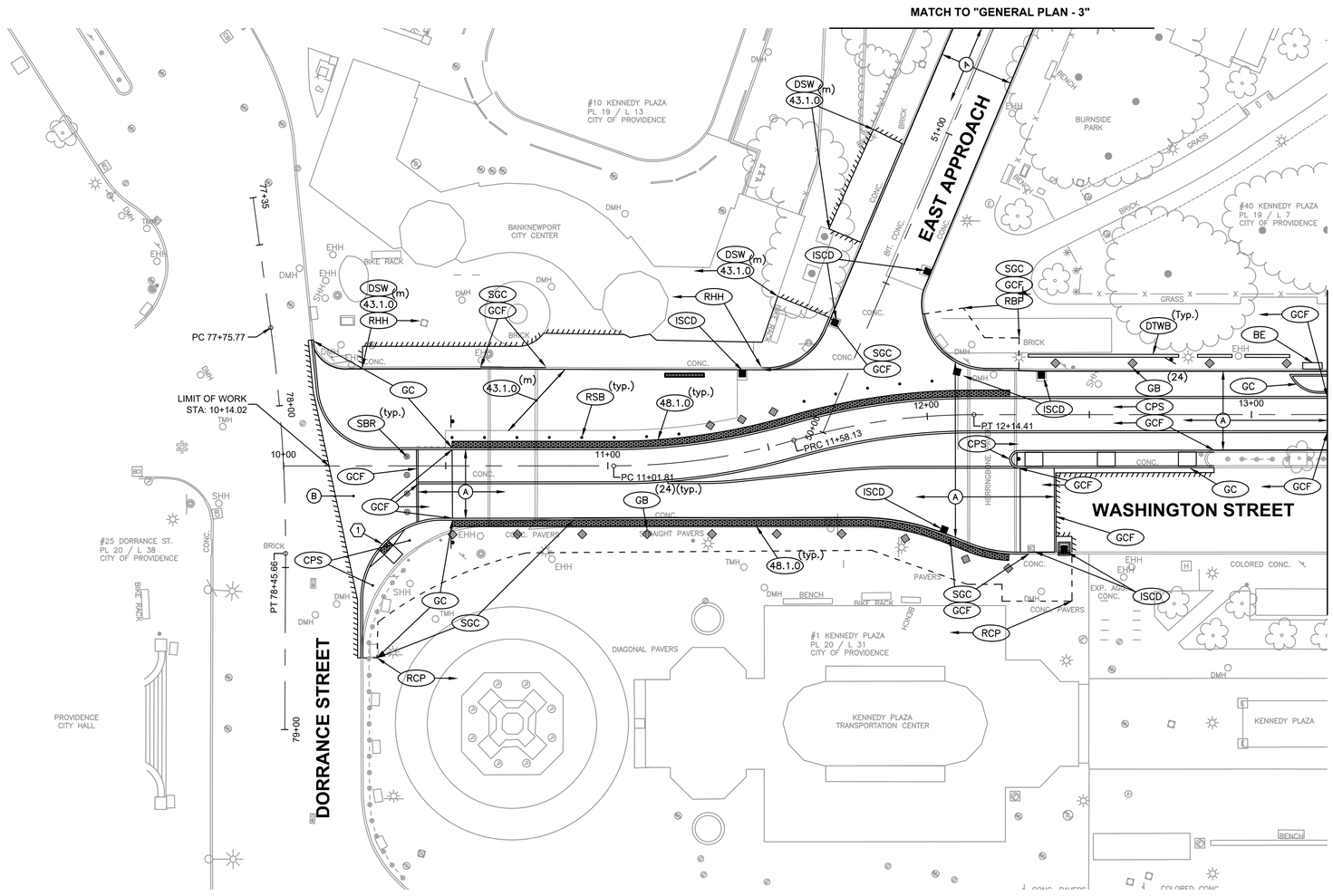
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	9	42



GRAPHIC SCALE

30 20 10 10 5 0 15 30 60

(IN FEET)
1 inch = 20 ft.

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NO.	DATE	BY

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WASHINGTON STREET AND EAST APPROACH

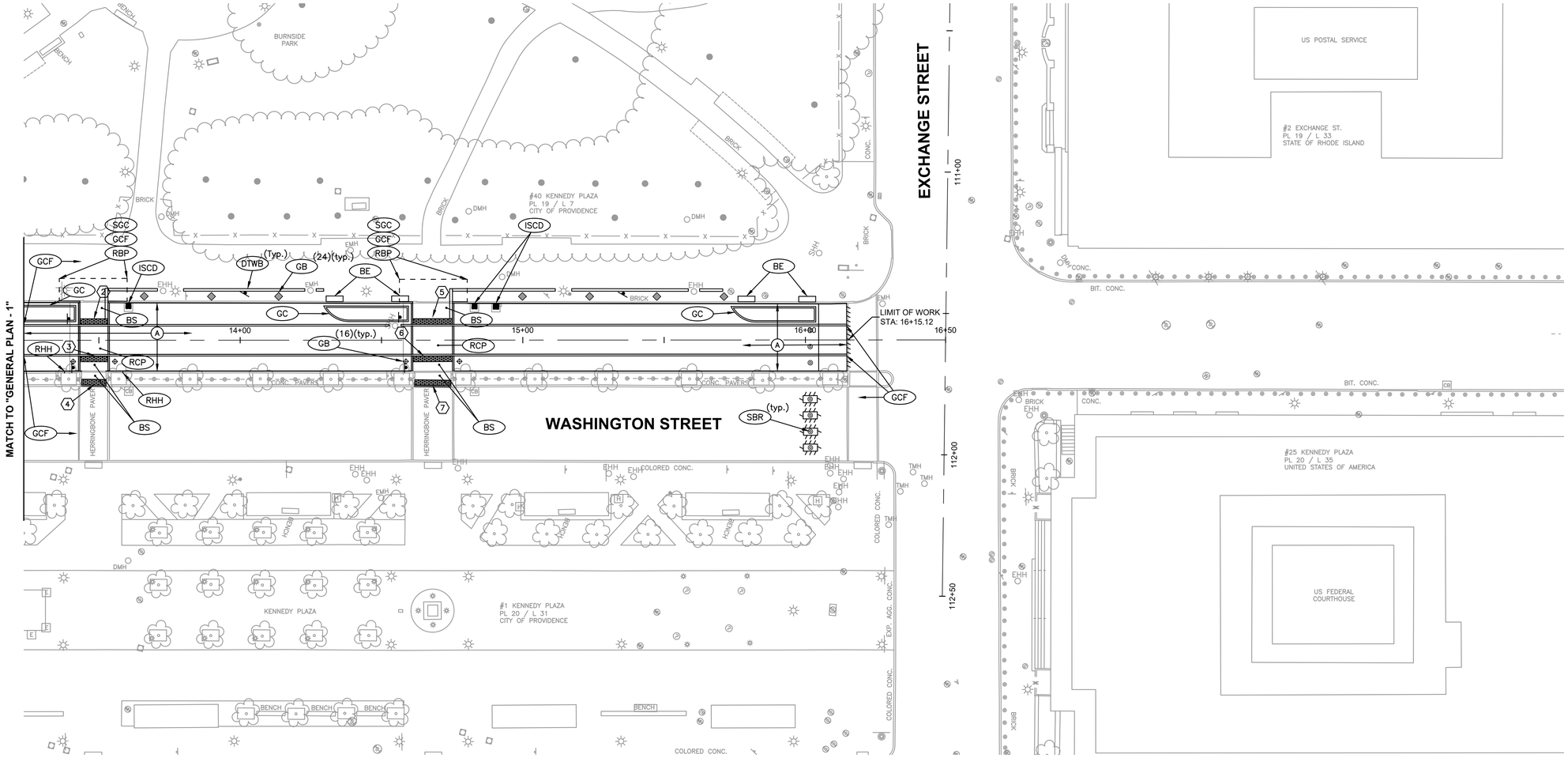
PROVIDENCE, RHODE ISLAND

GENERAL PLAN - 1

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_004_GEN.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	9	42



CURB RAMP TABLE (m)								
CR	BASELINE	STA	OFF	SIDEWALK WIDTH	APPROX. OPENING WIDTH	MIN. TRANS. LENGTH		RIDOT STD
						LEFT	RIGHT	
1	WASHINGTON ST	10+30±	24± RT		4.0'	6'	9.5'	43.3.0 (m)
2	WASHINGTON ST	13+48±	5± LT		10.0'	N/A	N/A	43.3.2 (m)
3	WASHINGTON ST	13+48±	5± RT		10.0'	N/A	N/A	43.3.2 (m)
4	WASHINGTON ST	13+48±	16± RT		8.5'	N/A	N/A	43.3.2 (m)
5	WASHINGTON ST	14+68±	5± LT		14.0'	N/A	N/A	43.3.2 (m)
6	WASHINGTON ST	14+68±	5± RT		14.0'	N/A	N/A	43.3.2 (m)
7	WASHINGTON ST	14+68±	16± RT		13.0'	N/A	N/A	43.3.2 (m)

* CURB RAMP INFORMATION IS PROVIDED TO CONVEY THE INTENT OF THE DESIGN TO REPRESENT THE PROPOSED WORK AND SHALL BE CONSIDERED TO BE APPROXIMATE. FINAL LOCATIONS AND DIMENSIONS SHALL BE AS DIRECTED BY THE ENGINEER, THE CONTRACT DUCUMENTS, THE STANDARD SPECIFICATIONS, THE STANDARD DETAILS, ETC.

GRAPHIC SCALE
20 15 10 5 0 10 20 40
(IN FEET)
1 inch = 20 ft.

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NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

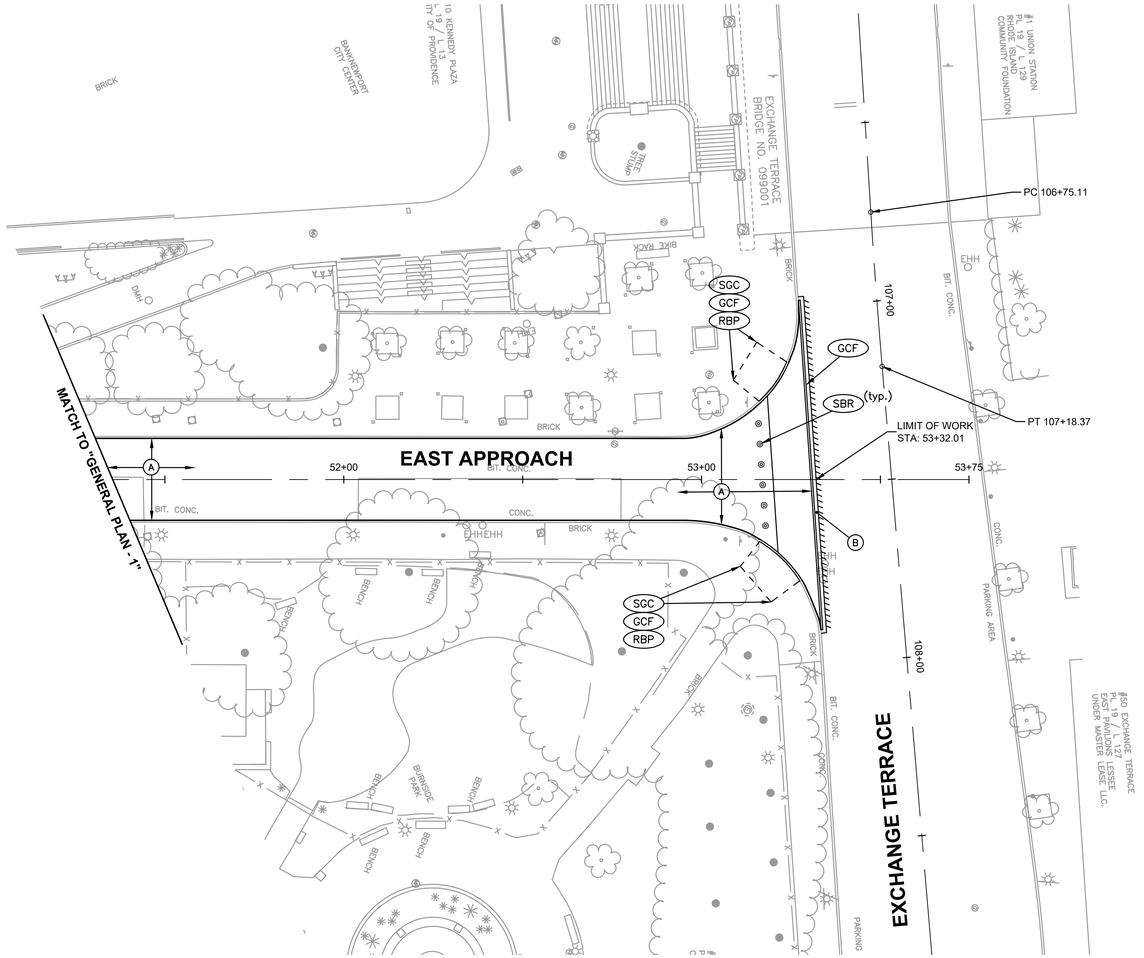
PROVIDENCE, RHODE ISLAND

GENERAL PLAN - 2

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_004_GEN.DWG Plotted by: Francis Marinuccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	#	42



GRAPHIC SCALE

30 15 20 10 10 5 0 15 30 60

(IN FEET)
1 inch = 20 ft.

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NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

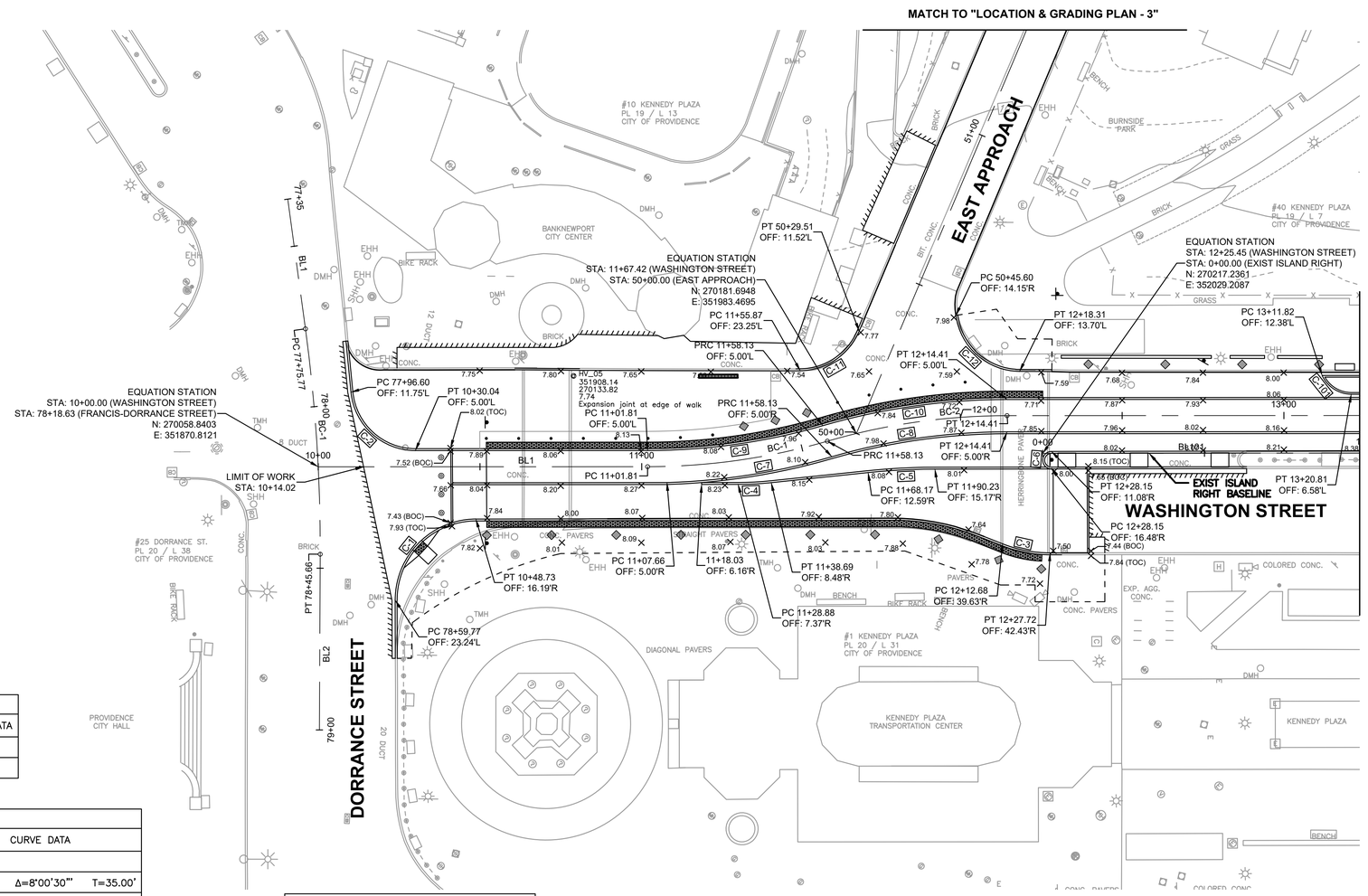
PROVIDENCE, RHODE ISLAND

GENERAL PLAN - 3

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_004_GEN.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	12	42



BASELINE DATA – EXIST ISLAND RIGHT						
Number	STATION	NORTHING	EASTING	DISTANCE	LINE/CHORD DIRECTION	CURVE DATA
BL101	0+00.00	270217.2361	352029.2087	117.38	N46° 00' 04.65"E'	
BL102	2+49.79	270390.7176	352208.9322	139.88	N46° 03' 24.16"E'	

BASELINE DATA – FRANCIS–DORRANCE STREET						
Number	STATION	NORTHING	EASTING	DISTANCE	LINE/CHORD DIRECTION	CURVE DATA
BL1	77+35.31	270111.8982	351806.6145	40.47	S51° 41' 22.57"E'	
BC–1	77+75.77	270086.8131	351838.3659	69.89	S47° 41' 07.65"E	R=500.00' Δ=8°00'30"' T=35.00'
BL2	78+45.66	270039.8045	351890.0014	54.34	S43° 40' 52.73"E'	

BASELINE DATA – WASHINGTON STREET						
Number	STATION	NORTHING	EASTING	DISTANCE	LINE/CHORD DIRECTION	CURVE DATA
BL1	10+00.00	270058.8403	351870.8121	101.81	N46° 02' 46.89"E'	
BC–1	11+01.81	270129.5039	351944.1049	56.32	N37° 58' 49.90"E	R=200.03' Δ=16°07'54"' T=28.35'
BC–2	11+58.13	270173.7494	351978.6491	56.28	N37° 58' 32.07"E	R=200.00' Δ=16°07'28"' T=28.33'
BL2	12+14.41	270217.9709	352013.1684	435.18	N46° 02' 15.98"E'	

BASELINE DATA – EAST APPROACH						
Number	STATION	NORTHING	EASTING	DISTANCE	LINE/CHORD DIRECTION	CURVE DATA
BL1	50+00.00	270181.6948	351983.4695	374.73	N21° 04' 52.11"W'	

CURVE DATA				
NO.	Δ	RADIUS	TANGENT	LENGTH
C–1	090°01'52"	25.00'	25.01'	39.28
C–2	084°26'06"	20.00'	18.15'	29.47
C–3	021°33'07"	40.00'	7.61'	15.05
C–4	005°52'45"	100.00'	5.13'	10.26
C–5	005°55'32"	200.00'	10.35'	20.68
C–6	179°56'55"	2.70'	6032.16'	8.49
C–7	014°27'29"	205.00'	26.00'	51.73
C–8	016°07'28"	195.00'	27.62'	54.88
C–9	016°07'59"	195.00'	27.64'	54.91
C–10	016°07'28"	205.00'	29.04'	57.69
C–11	066°34'51"	20.00'	13.13'	23.24

CURVE DATA				
NO.	Δ	RADIUS	TANGENT	LENGTH
C–101	064°41'58"	10.00'	6.33'	11.29

NOTES:
1. GRADES SHOWN ARE EDGE OF PAVEMENT OR BOTTOM OF CURB UNLESS OTHERWISE NOTED
2. GRADES SHOWN AT 25' STATIONS UNLESS OTHERWISE NOTED

GRAPHIC SCALE
20 15 10 5 0 10 20 40
(IN FEET)
1 inch = 20 ft.

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

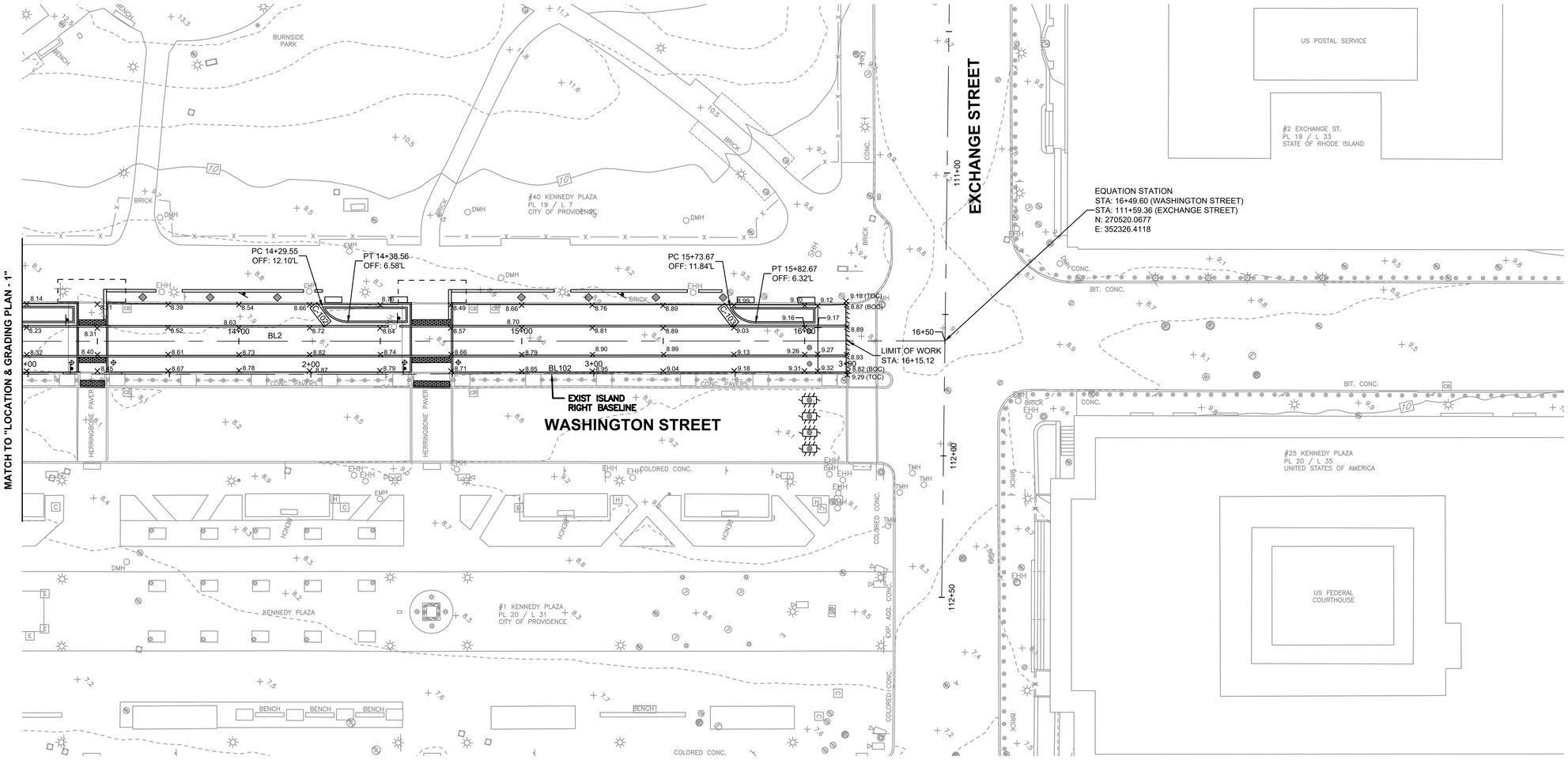
PROVIDENCE, RHODE ISLAND

LOCATION & GRADING PLAN - 1

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_006_LGR.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	13	42



CURVE DATA				
NO.	Δ	RADIUS	TANGENT	LENGTH
C-102	063°44'47"	10.00'	6.22'	11.13
C-103	063°44'47"	10.00'	6.22'	11.13

GRAPHIC SCALE
20 15 10 5 0 10 20 40
(IN FEET)
1 inch = 20 ft.

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

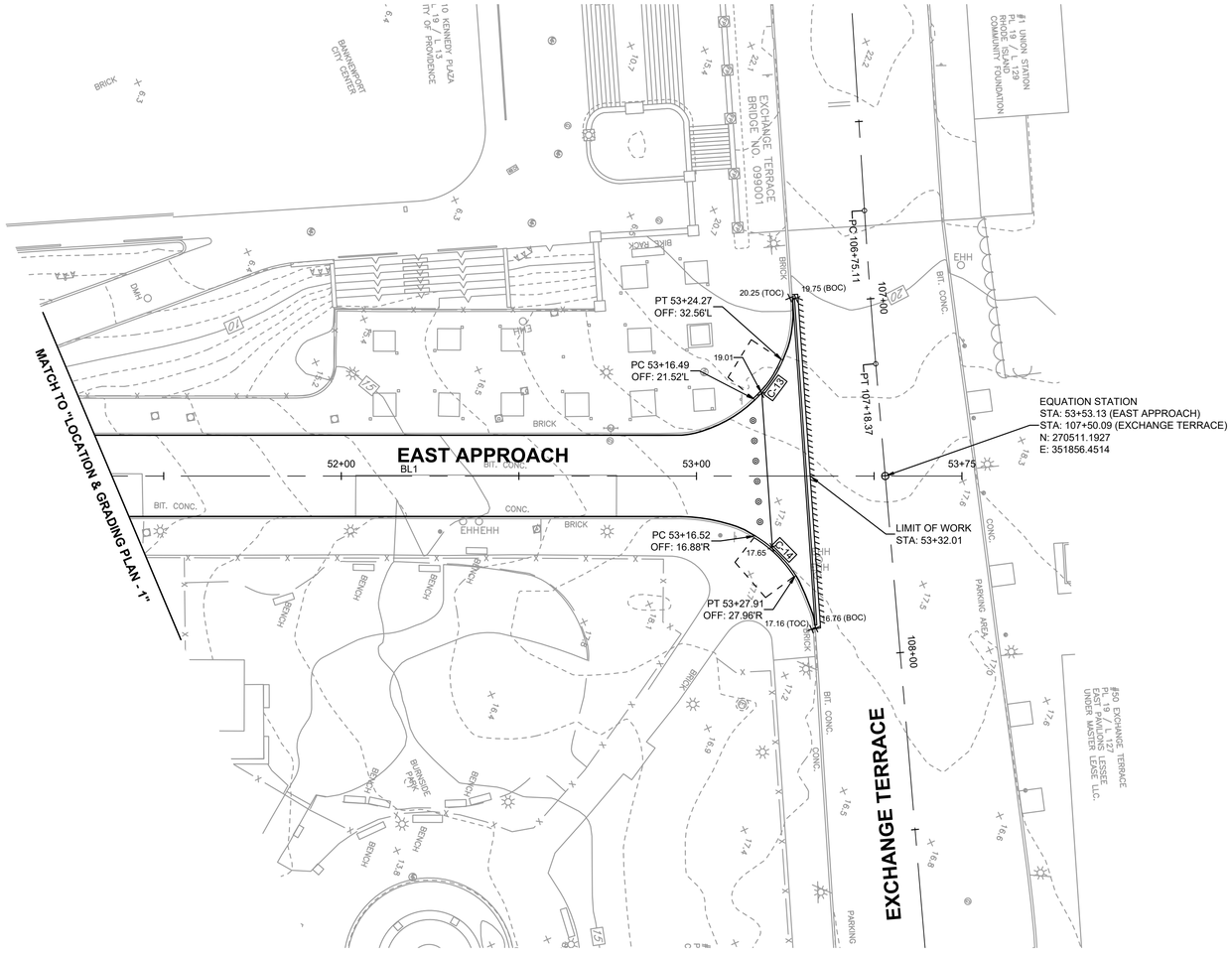
PROVIDENCE, RHODE ISLAND

LOCATION & GRADING PLAN - 2

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_006_LGR.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	14	42



CURVE DATA				
NO.	Δ	RADIUS	TANGENT	LENGTH
C-13	026°00'54"	30.00'	6.93'	13.62
C-14	026°14'08"	35.00'	8.16'	16.03

GRAPHIC SCALE
20 15 10 5 0 10 20 40
(IN FEET)
1 inch = 20 ft.

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

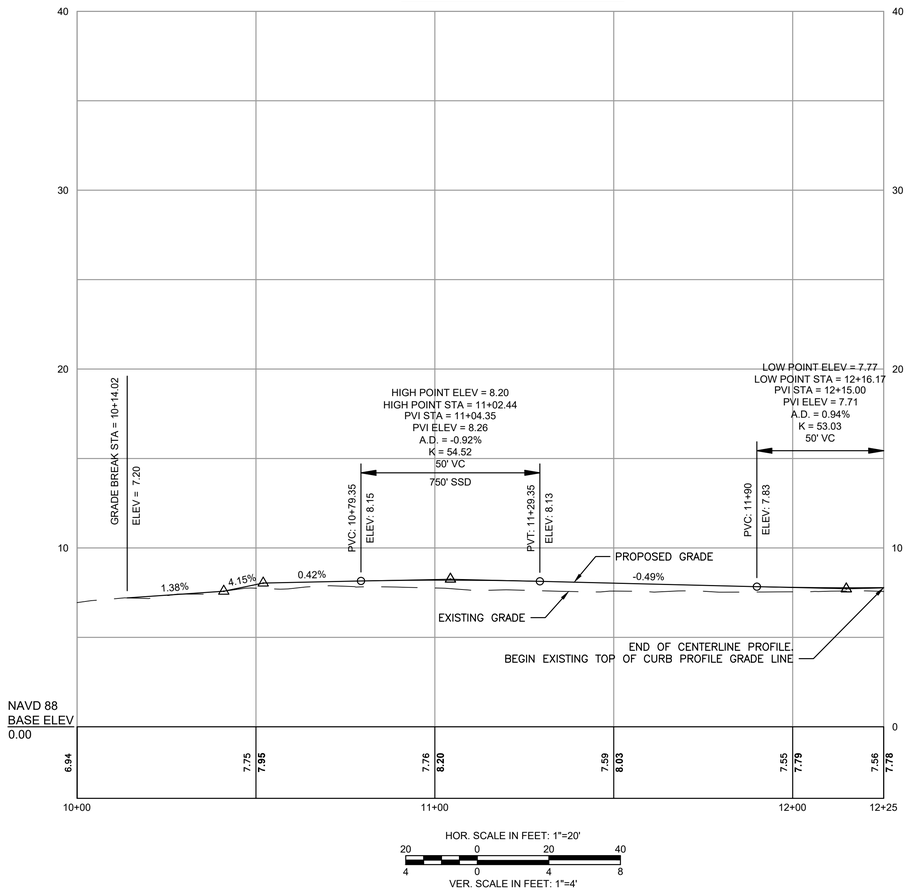
LOCATION & GRADING PLAN - 3

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AutoCAD\PLAN SET\10430_006_LGR.DWG Plotted by: Francis Marinuccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	15	42

WASHINGTON STREET



HOR. SCALE IN FEET: 1"=20'

20 0 20 40

VER. SCALE IN FEET: 1"=4'

4 0 4 8

CONTINUED NEXT SHEET

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND
EAST APPROACH

PROVIDENCE, RHODE ISLAND

PROFILE PLAN - 1

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

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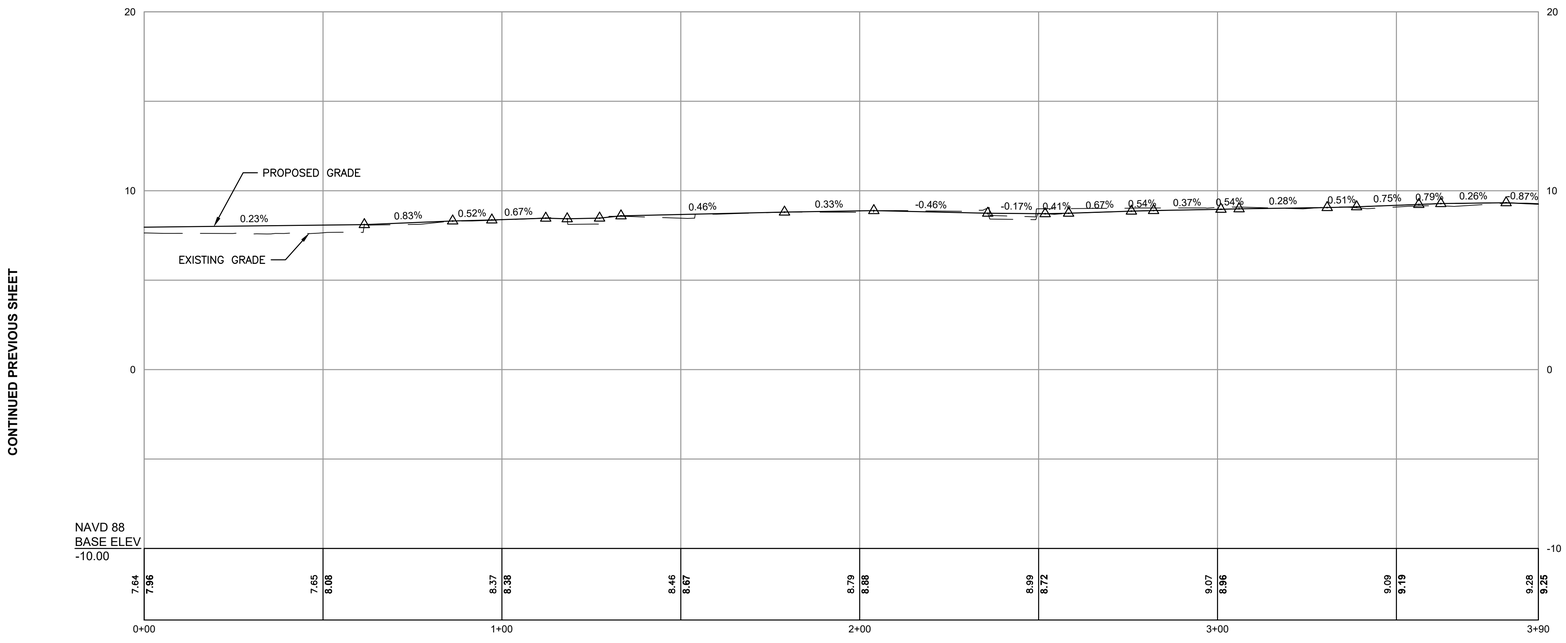
N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_006A_PRF.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	16	42

TOP OF CURB PROFILE GRADE LINE – WASHINGTON STREET – EXIST ISLAND RIGHT



CONTINUED PREVIOUS SHEET

HOR. SCALE IN FEET: 1"=20'

20 0 20 40

VER. SCALE IN FEET: 1"=4'

4 0 4 8

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

PROFILE PLAN - 2

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

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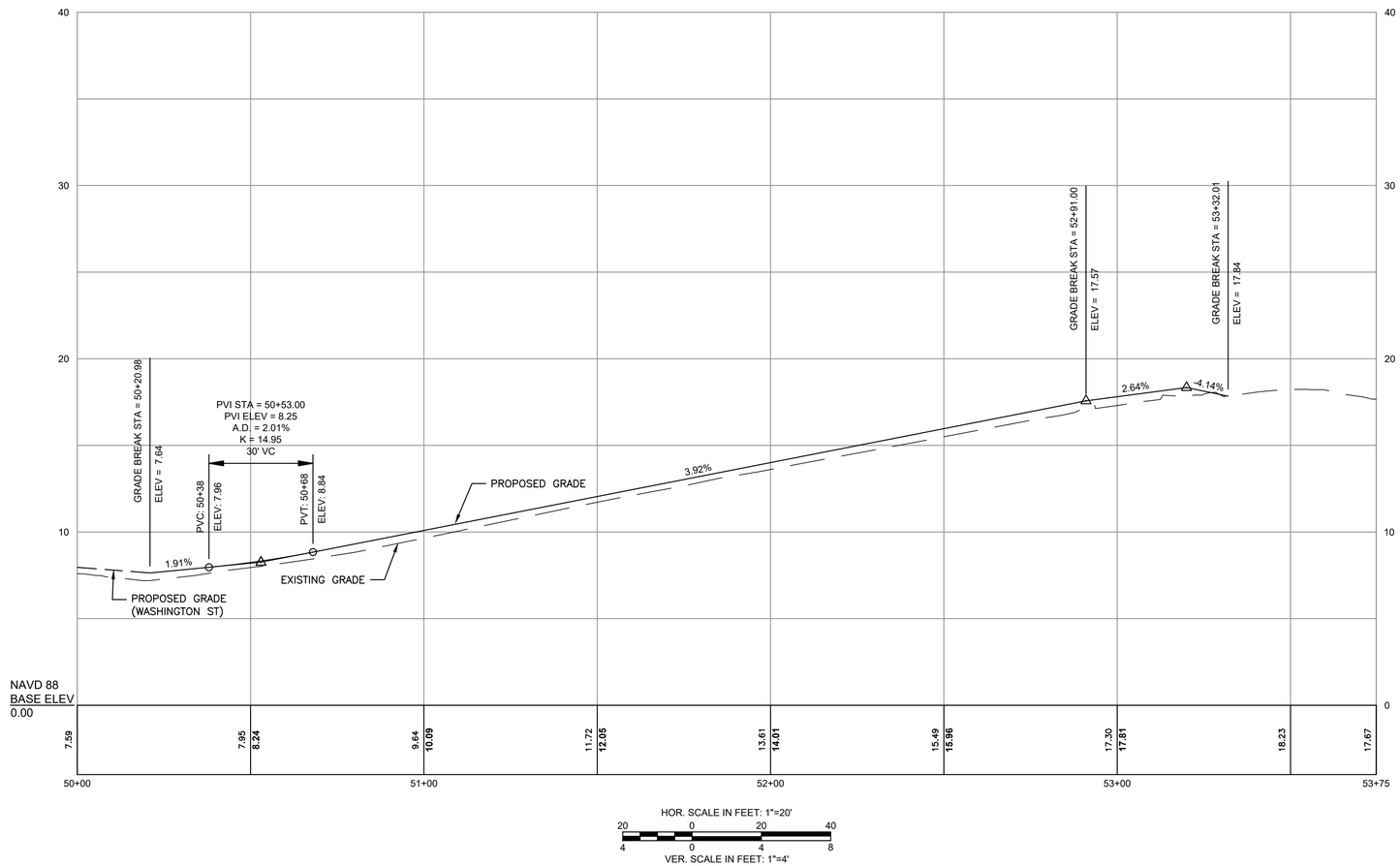
N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_0064_PRF.DWG Plotted by: Francis Mariuccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	17	42

EAST APPROACH



HOR. SCALE IN FEET: 1"=20'

20 0 20 40

VER. SCALE IN FEET: 1"=4'

4 0 4 8

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND
EAST APPROACH

PROVIDENCE, RHODE ISLAND

PROFILE PLAN - 3

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

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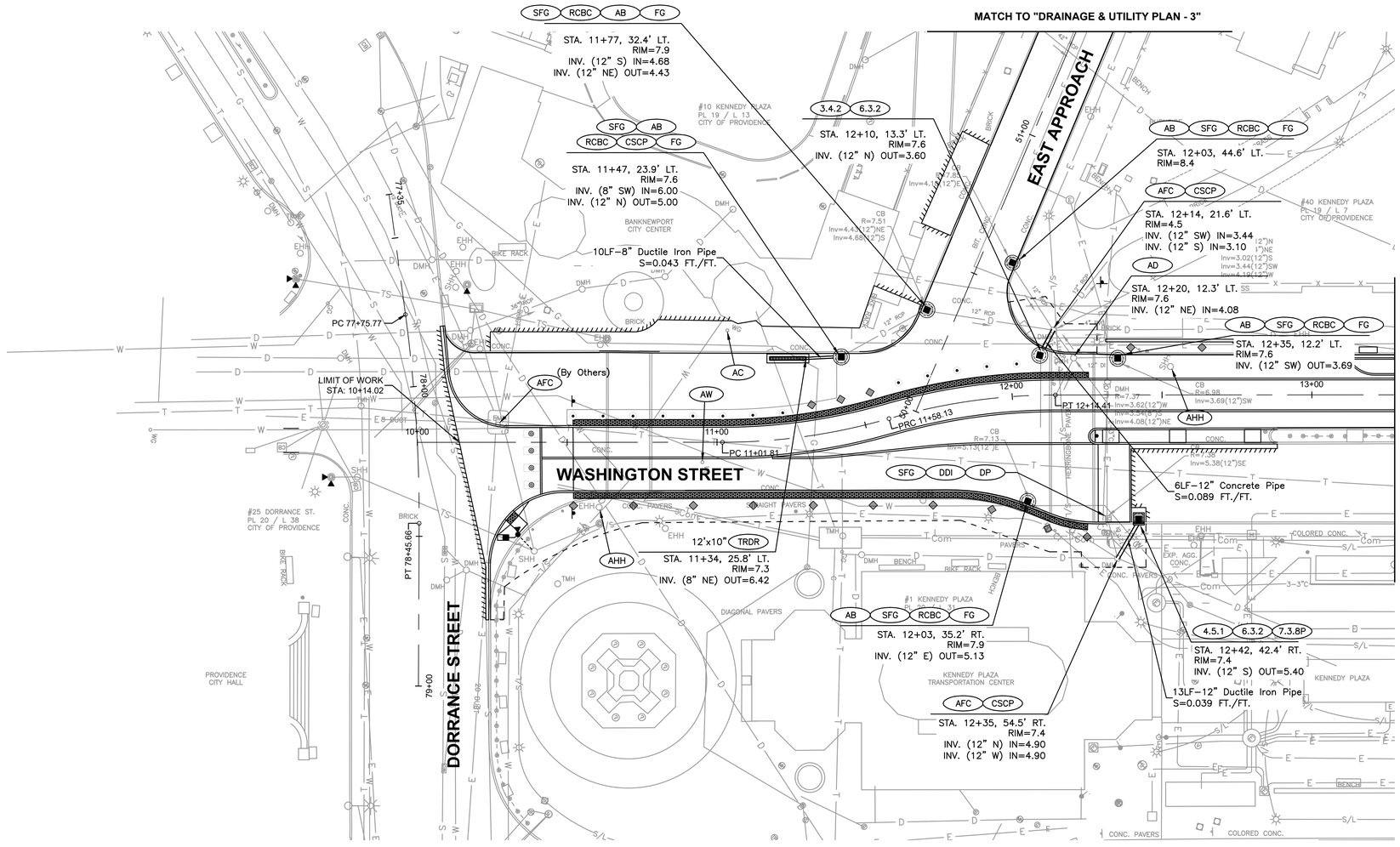
N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_006A_PRF.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	18	42



GRAPHIC SCALE

20 15 10 5 0 10 20 40

(IN FEET)
1 inch = 20 ft.

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

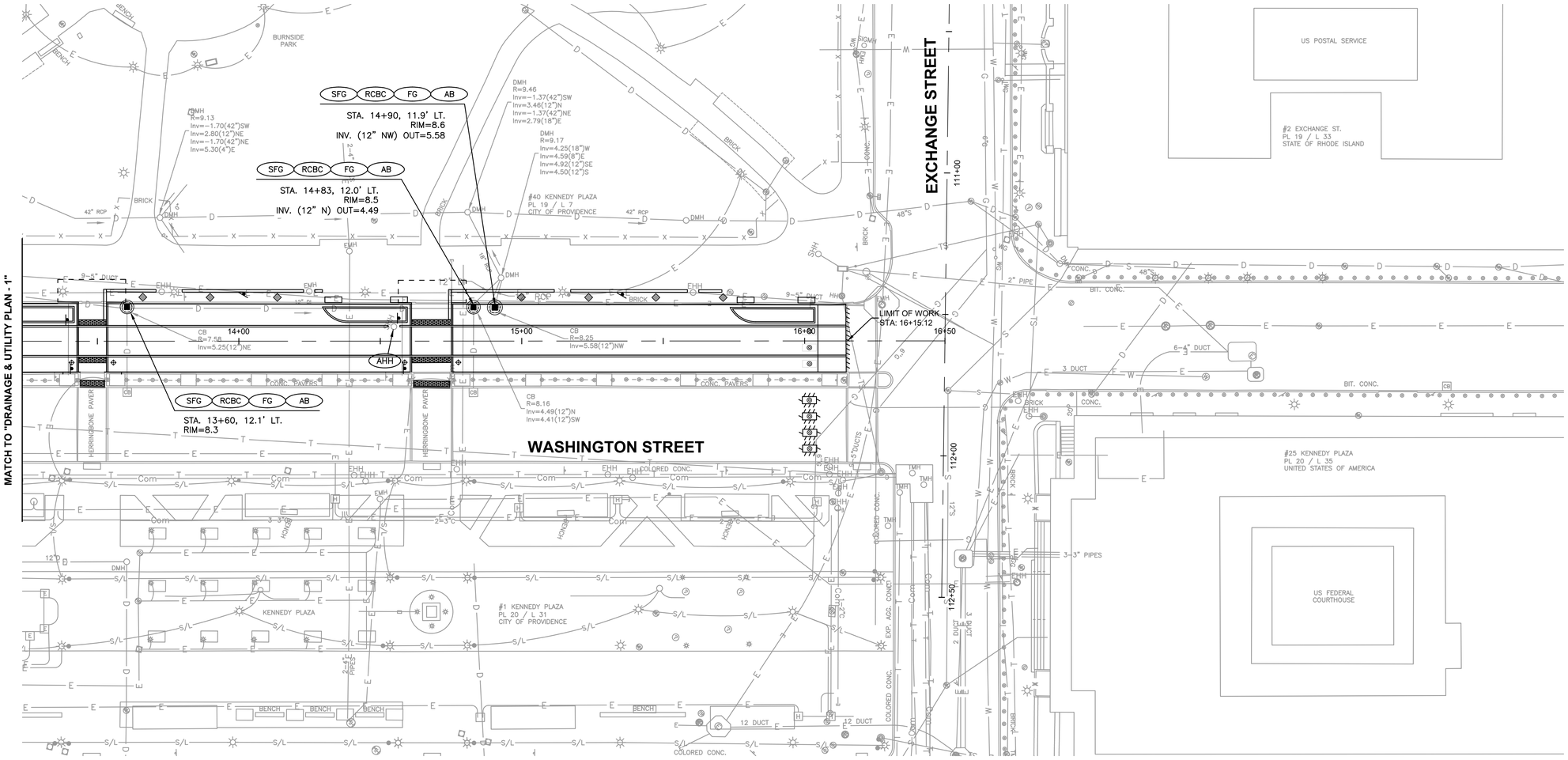
PROVIDENCE, RHODE ISLAND

DRAINAGE & UTILITY PLAN - 1

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_007_DU.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	19	42



GRAPHIC SCALE

20 15 10 5 0 10 20 40

(IN FEET)
1 inch = 20 ft.

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

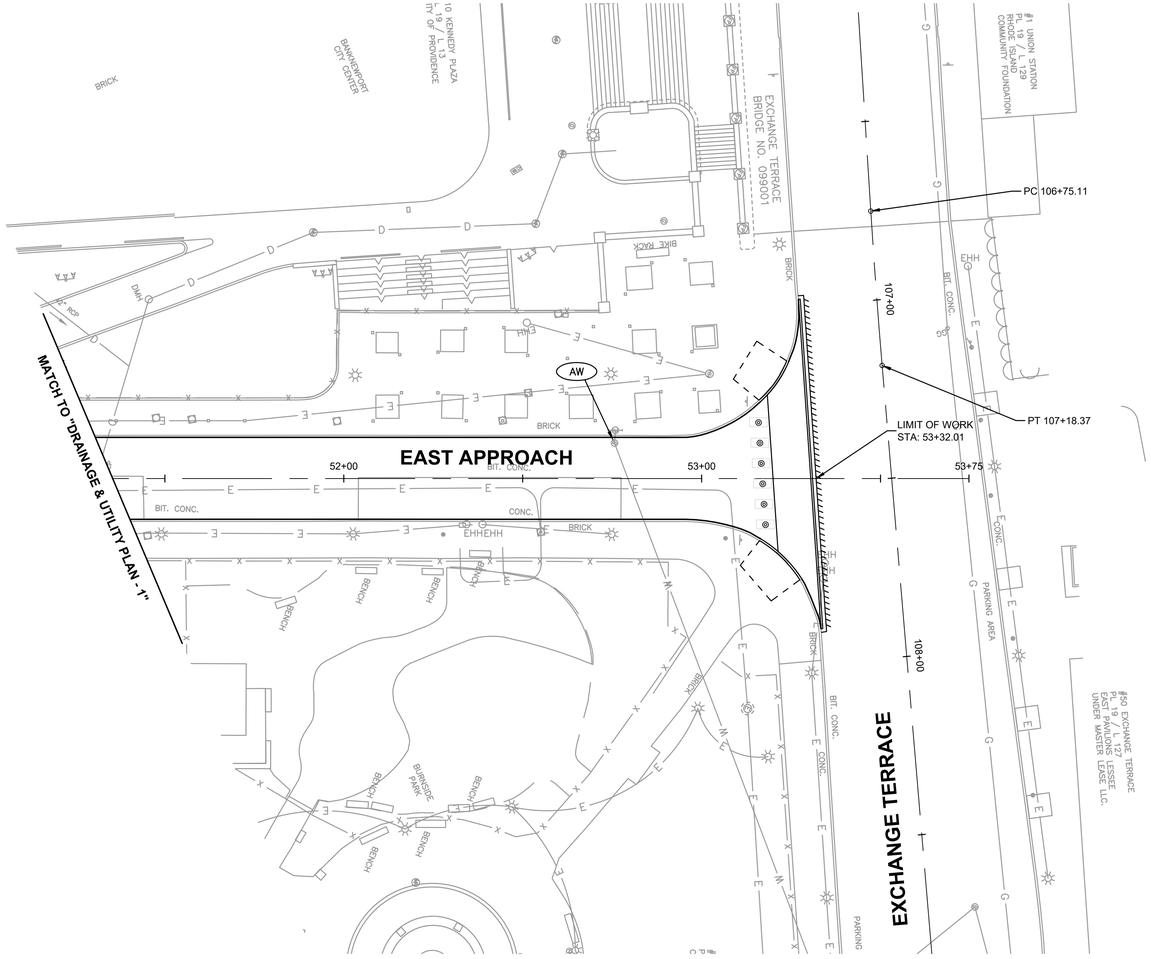
PROVIDENCE, RHODE ISLAND

DRAINAGE & UTILITY PLAN - 2

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_007_DU.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	20	42



GRAPHIC SCALE

20 15 10 5 0 10 20 40

(IN FEET)
1 inch = 20 ft.

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

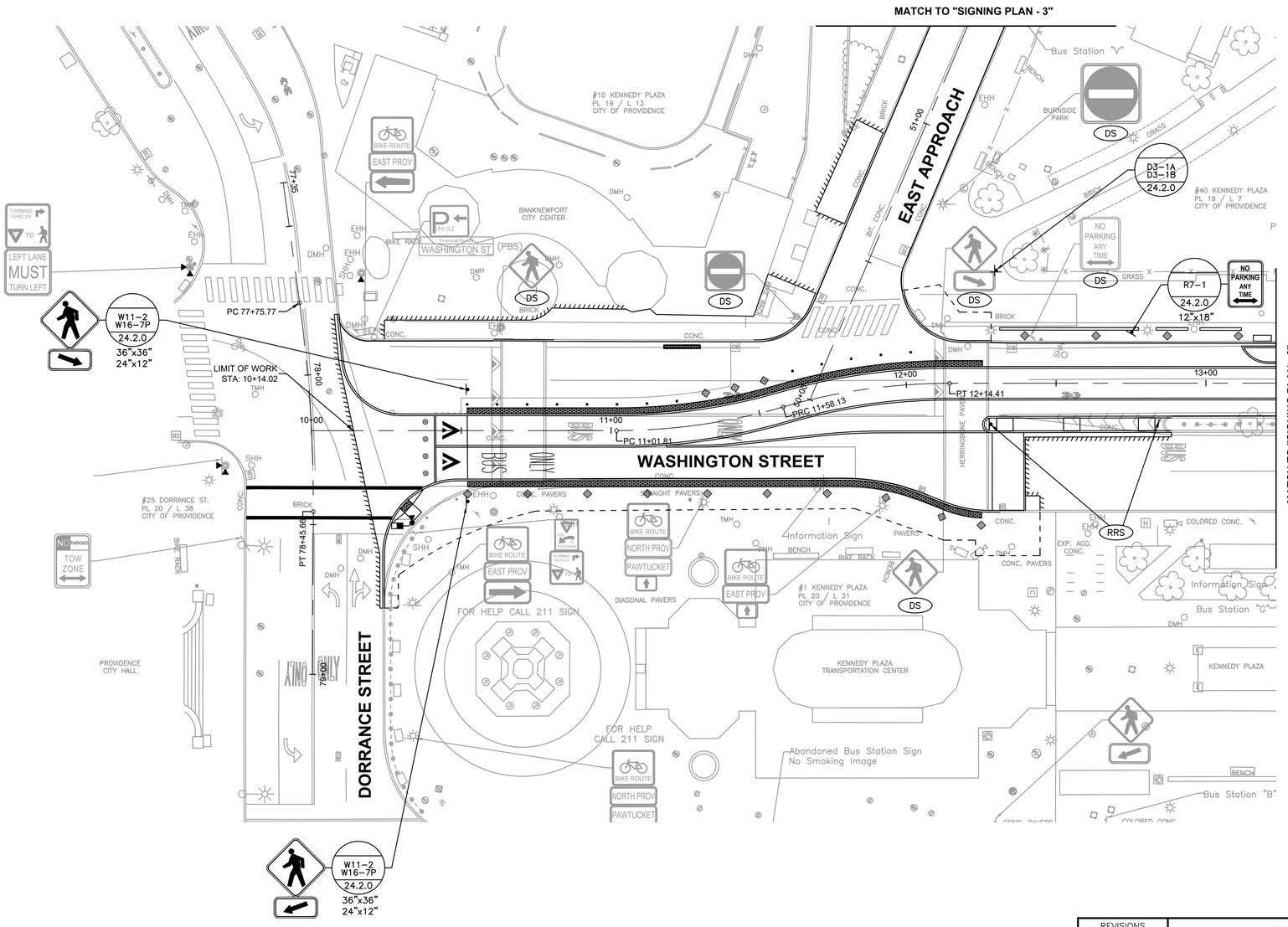
PROVIDENCE, RHODE ISLAND

DRAINAGE & UTILITY PLAN - 3

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_007_DU.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	21	42



GRAPHIC SCALE

30 15 20 10 10 5 0 10 20 30 60

(IN FEET)
1 inch = 20 ft.

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REVISIONS		
NO.	DATE	BY

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WASHINGTON STREET AND EAST APPROACH

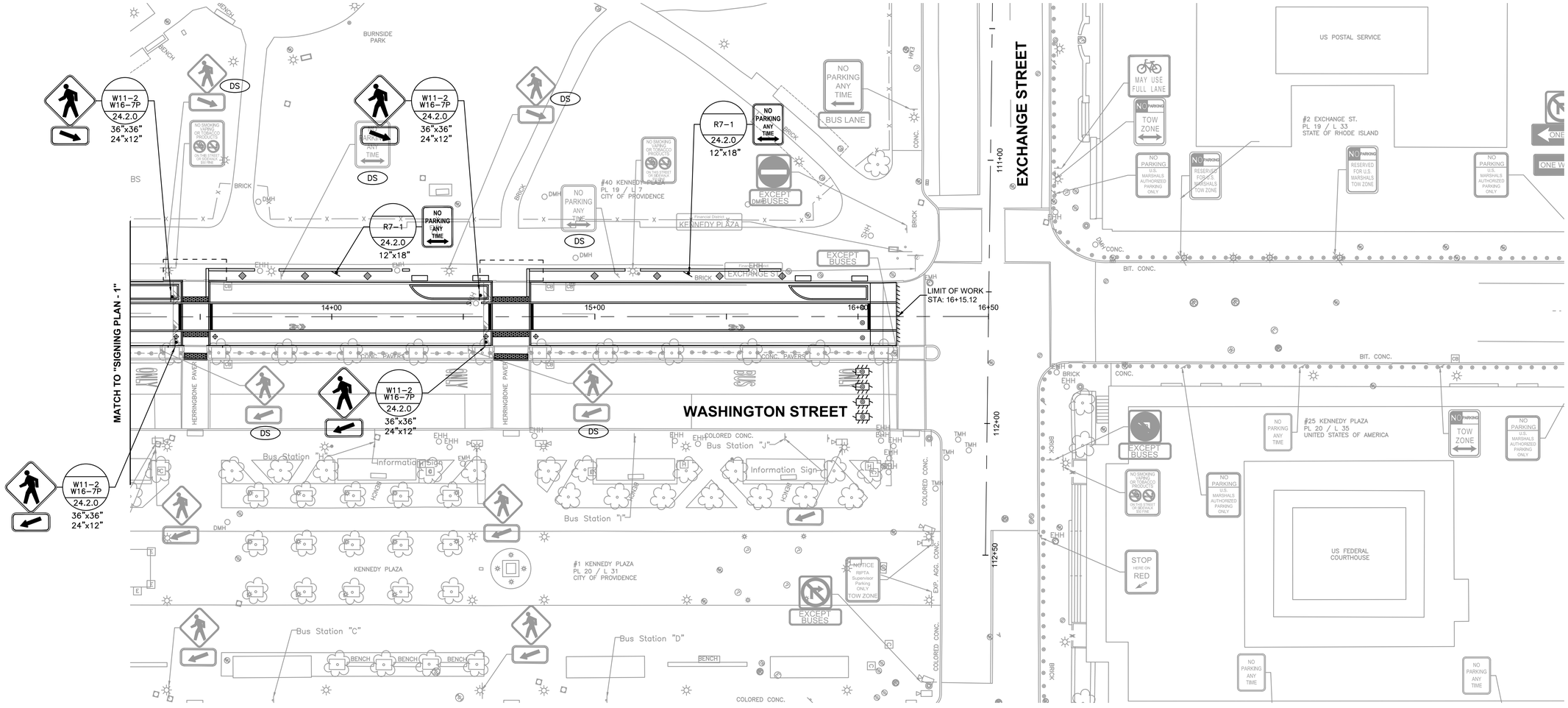
PROVIDENCE, RHODE ISLAND

SIGNING PLAN - 1

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_009_SIGN.DWG Plotted by: Francis Marinuccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	22	42



N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_009_SIGN.DWG Plotted by: Francis Marinaccio

REVISIONS		
NO.	DATE	BY

GRAPHIC SCALE
30 20 10 10 5 0 10 20 40
(IN FEET)
1 inch = 20 ft.

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

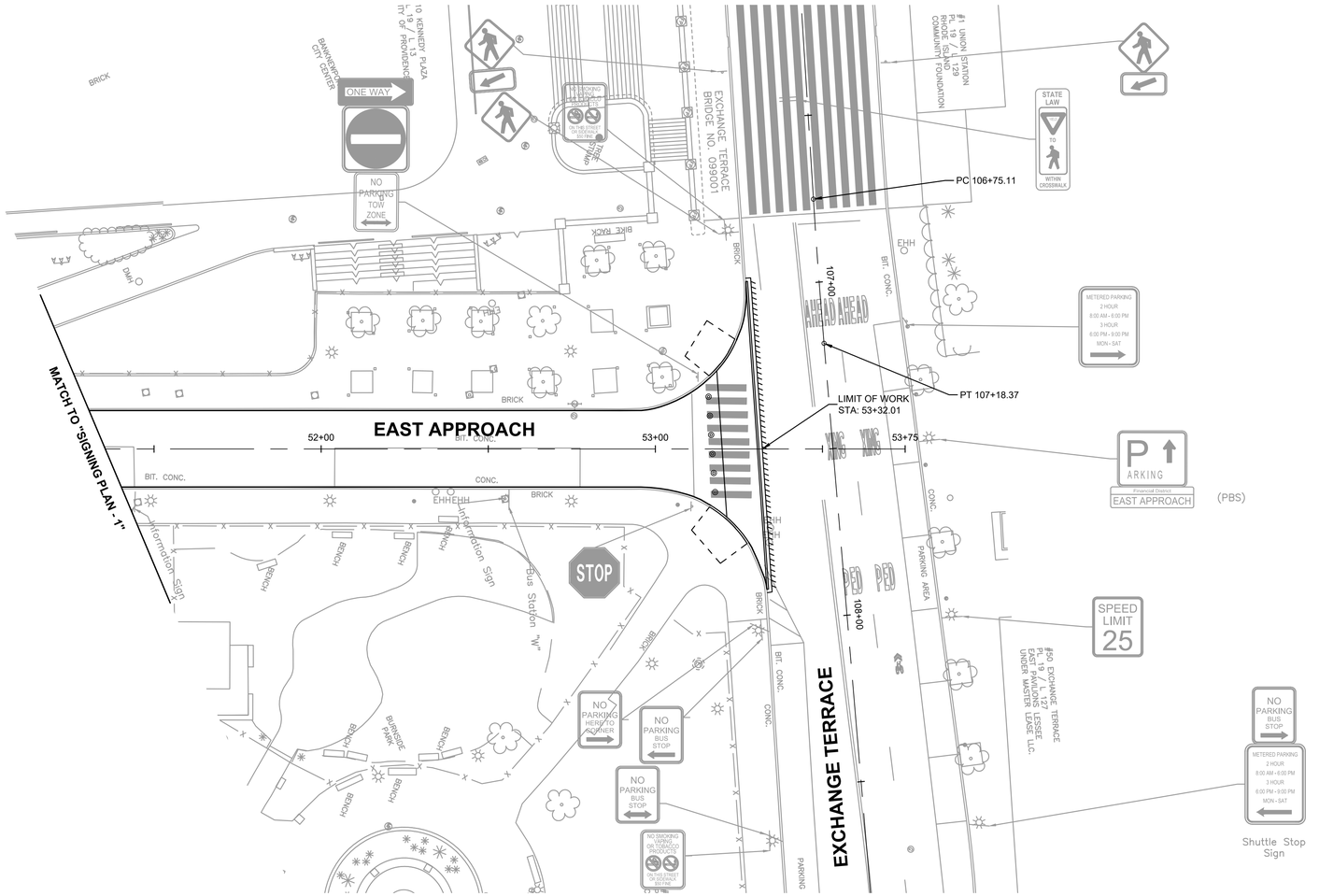
WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

SIGNING PLAN - 2

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	23	42



GRAPHIC SCALE

20 15 10 5 0 10 20 40

(IN FEET)
1 inch = 20 ft.

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REVISIONS		
NO.	DATE	BY

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DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

SIGNING PLAN - 3

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_009_SIGN.DWG Plotted by: Frances Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	24	42

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	LETTER HEIGHT	NUMBER OF SIGNS REQUIRED	COLOR			UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT				BACKGROUND	LEGEND	BORDER		
R7–1	12”	18”			3	WHITE	RED	RED	1.5	4.5
W11–2	36”	36”			6	FY/G	BLACK	BLACK	9	54
W16–7P	24”	12”			6	FY/G	BLACK	BLACK	2	12
D3–1A	TBD	12”	Financial District WASHINGTON ST		1	WHITE	BLACK	PURPLE	TBD	TBD
D3–1B	TBD	12”	Financial District EAST APPROACH		1	WHITE	BLACK	PURPLE	TBD	TBD

SEE 2009 MUTCD STANDARDS

ALL SIGNS TO BE MOUNTED USING U–CHANNEL POSTS UNLESS OTHERWISE SPECIFIED.

GRAPHIC SCALE

30 20 10 0 15 30 60

(IN FEET)
1 inch = 30 ft.

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

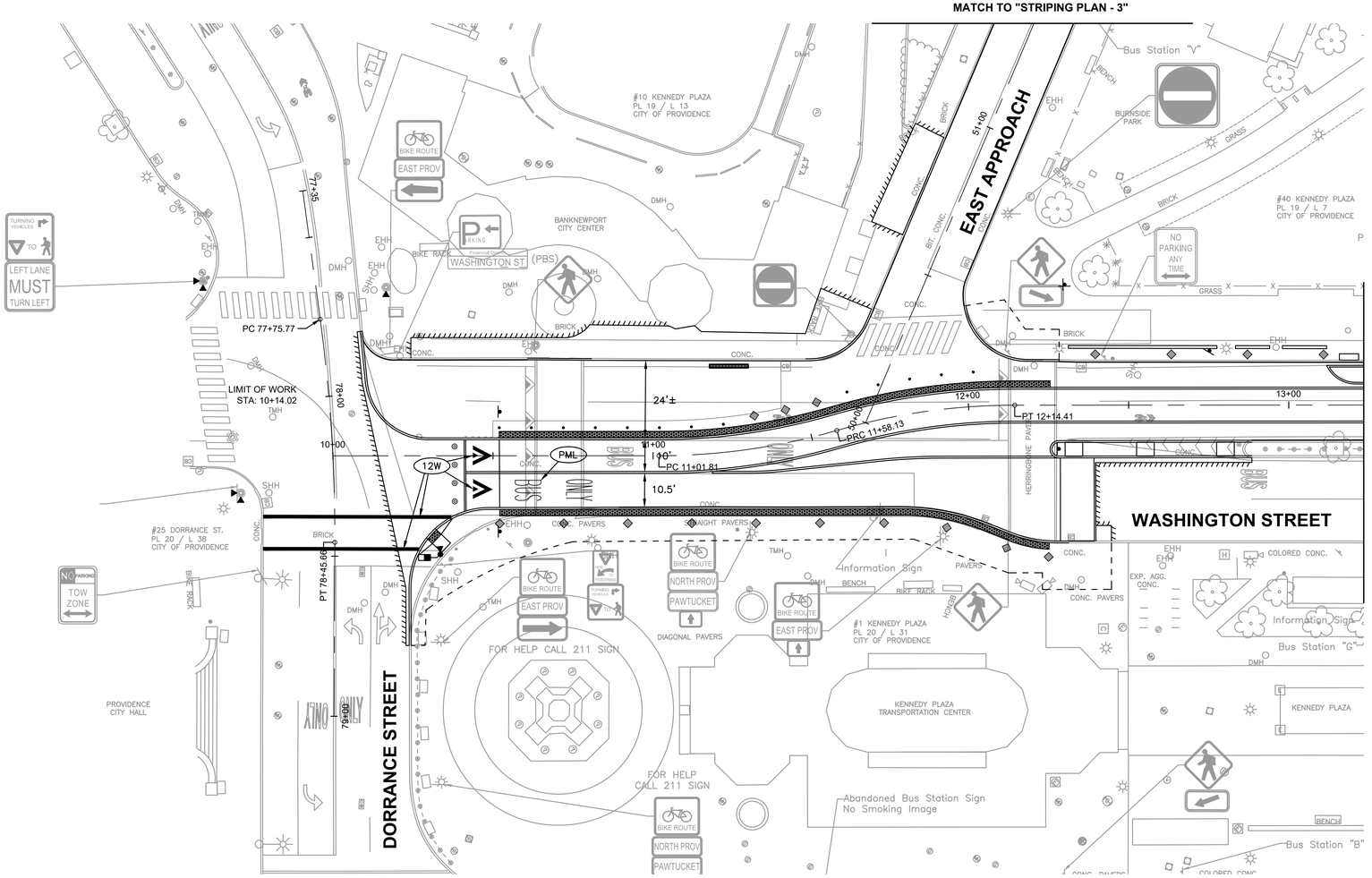
PROVIDENCE, RHODE ISLAND

SIGN SUMMARY

CHECKED BY MPS DATE 10–25–22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_009_SIGN_SUM.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	25	42



GRAPHIC SCALE

30 15 0 15 30 60

(IN FEET)
1 inch = 30 ft.

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

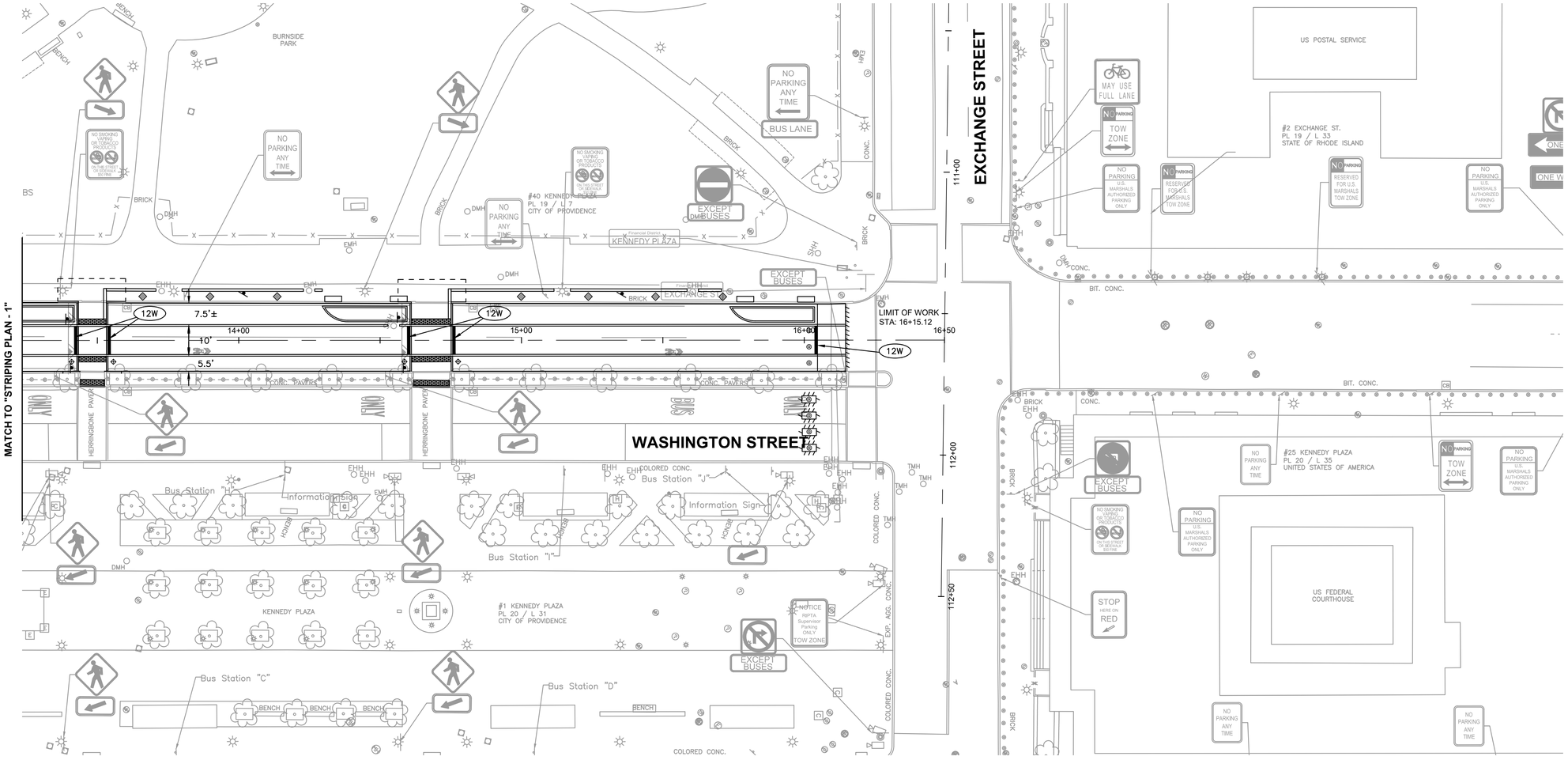
PROVIDENCE, RHODE ISLAND

STRIPING PLAN - 1

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLANSET\10430_010_STRIPE.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	26	42



REVISIONS		
NO.	DATE	BY

GRAPHIC SCALE

30 15 0 10 10 5 0 10 20 60

(IN FEET)
1 inch = 20 ft.

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

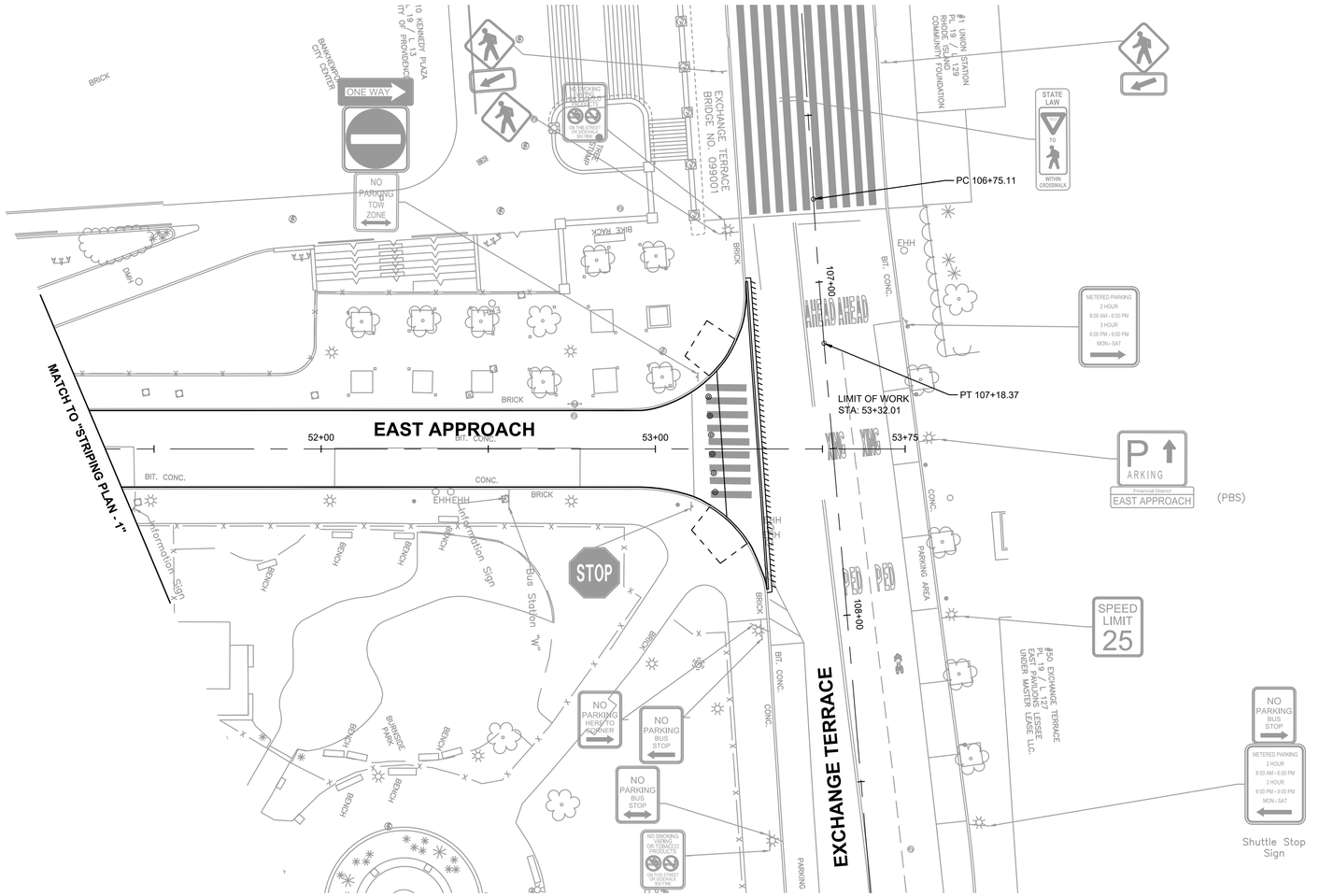
PROVIDENCE, RHODE ISLAND

STRIPING PLAN - 2

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_010_STRIPE.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	27	42



GRAPHIC SCALE

30 15 20 10 10 5 0 15 30 60

(IN FEET)
1 inch = 20 ft.

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

STRIPING PLAN - 3

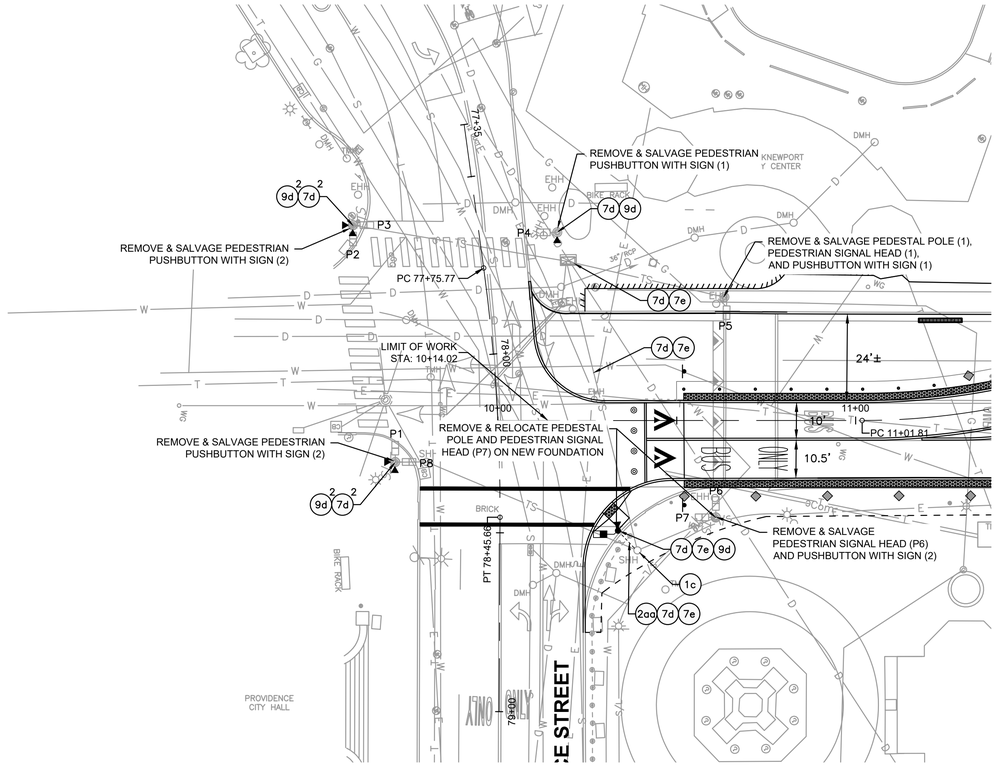
CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_010_STRIPE.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	28	42

TRAFFIC SIGNAL MATERIALS LIST

ITEM NO.	LEGEND	ITEM CODE	ITEM DESCRIPTION
1c		T05.0400	BREAK INTO EXISTING HANDHOLE
2aa	————	T06.3030	3 INCH RIGID STEEL CONDUIT – UNDER EXISTING PAVEMENT
7d		T04.5303	14 AWG 3 CONDUCTOR CABLE
7e		T04.5305	14 AWG 5 CONDUCTOR CABLE
9d	▼	T13.8210	ACCESSIBLE PEDESTRIAN DETECTOR – PUSHBUTTON WITH SIGN
11		945.0200	REMOVE AND SALVAGE TRAFFIC SIGNAL SYSTEM



CONSTRUCTION NOTES:

1. EQUIPMENT TO BE REMOVED AND SALVAGED AT THIS LOCATION SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING MAJOR ITEMS:
   A) 1 PEDESTAL POLE
   B) 2 PEDESTRIAN SIGNAL HEAD
   C) 8 PEDESTRIAN PUSHBUTTON WITH SIGN
2. EQUIPMENT TO BE REMOVED AND RELOCATED ON A NEW FOUNDATION AT THIS LOCATION SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING MAJOR ITEMS:
   A) 1 PEDESTAL POLE
   B) 1 PEDESTRIAN SIGNAL HEAD
3. WIRING FOR THE NEW ACCESSIBLE PEDESTRIAN PUSHBUTTONS AND RELOCATED PEDESTRIAN SIGNAL HEAD SHALL BE NEW UNLESS THE EXISTING WIRES ARE DETERMINED TO BE SUFFICIENT AND IN GOOD CONDITION. ANY NEW WIRING SHALL RUN THROUGH EXISTING CONDUIT UNLESS OTHERWISE NOTED TO THE EXISTING TRAFFIC SIGNAL CABINET.
4. THE WORK PROPOSED AS PART OF THIS LOCATION IS LIMITED TO HIGHLIGHTED ITEMS INCLUDING THIS ITEMS LISTED ON THE MATERIALS LIST. SHADED ITEMS REFLECT EXISTING CONDITIONS, EQUIPMENT, AND SETTINGS AND SHALL NOT BE ALTERED.
5. PEDESTRIAN SIGNAL HEAD P7 SHALL BE REMOVED AND REMOUNTED USING A ONE–WAY BRACKET.
6. THE INTENT OF THE PROJECT IS TO RELOCATE AN EXISTING PEDESTAL POLE/PEDESTRIAN SIGNAL HEAD AND REPLACE ALL PEDESTRIAN PUSHBUTTONS WITH ACCESSIBLE PEDESTRIAN PUSHBUTTONS TO COMPLY WITH ADA, ALIGNED IN THE APPROPRIATE DIRECTIONS WITH THE CROSSWALKS. ALL WORK REQUIRED TO COMPLETE THIS PROJECT SHALL BE INCLUDED IN THE CONTRACT INCLUDING REPAIRING/PAINTING PEDESTAL POLES TO COVER HOLES OR DAMAGED SECTIONS OF THE POLES.
7. THE EXISTING CONDUIT NETWORK SHOWN ON THIS PLAN IS BASED ON RECORD PLANS. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDUIT LOCATION AND SIZES FOR ACCURACY AND ADEQUACY PRIOR TO PERFORMING WORK.

VIDEO DETECTOR DATA					
DETECTOR ZONE NO.	CAMERA NUMBER	APPROX. SIZE DET. ZONE	DELAY (SEC)	CALL PHASE	REMARKS
1	1	6'x40'	5	ø1/ø2	EXISTING
2	1	6'x40'	3	ø2	EXISTING
3	2	6'x40'	5	ø2/ø3	EXISTING
4	2	6'x40'	5	ø2	EXISTING
7	3	6'x40'	3	ø4	EXISTING
8	3	6'x6'	5	ø4	EXISTING

NOTES:
1. DETECTOR NO. 1 IS TO BE WIRED TO CALL AND EXTEND ø1 ND ø2.
2. DETECTOR NO. 3 IS TO BE WIRED TO CALL AND EXTEND ø2 ND ø3.

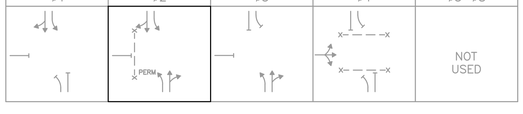
COORDINATION DATA
(ALL ENTRIES IN SECONDS)

	PLAN 1	PLAN 2	
CYCLE LENGTH	70	70	
OFFSET	0	0	
SPLIT ø1	11	11	
SPLIT ø2	23	23	
SPLIT ø3	11	11	
SPLIT ø4	25	25	
COORDINATED PHASE	ø2	ø2	
PLAN 1 – MONDAY–FRIDAY 7:00AM–9:15AM			
PLAN 2 – MONDAY–FRIDAY 11:30AM–6:30PM			
FREE – ALL OTHER TIME PERIODS			

NOTES:
1. MAX. 2 IN OPERATION DURING COORDINATION
2. ø2 "CALL NON ACTUATED" DURING COORDINATION.
3. MAX. RECALL TO BE PROGRAMMED INITIALLY FOR ø1–ø3
4. PEDESTRIAN RECALL TO BE PROGRAMMED FOR ø4 DURING COORDINATION
5. OFFSET: BEG OF ø2 GREEN.
6. PLAN FORCE OFF/FLOATING FORCE OFF SHALL BE IN EFFECT.
7. SPLIT TIMES EQUAL GREEN PLUS CLEARANCES.

SEQUENCE AND TIMING DIAGRAM																		
APPROACH	DIRECTION	HOUSING	ø1			ø2			ø3			ø4			ø5			FLASHING OPERATION
MINIMUM INTERVAL			4			6			4			4						
VEHICLE EXTENSION			2.4			2.4			2.4			2.4						
MAXIMUM 1			10			20			10			15						
MAXIMUM 2			10			20			10			15						
YELLOW CLEARANCE				3			3			3			3					
RED CLEARANCE					1			2			1.5			2				
PED. WALK/CHANGE						5/12						4/15						
DORRANCE STREET	NB–LT	A	R	R	R	G	Y	R	G/FG	Y/FY	R	R	R	R				FY
DORRANCE STREET	NB	B	R	R	R	G	Y	R	G	Y	R	R	R	R				FY
DORRANCE STREET	SB–LT	C,D	G/FG	Y/FY	R	G	Y	R	R	R	R	R	R	R				FY
DORRANCE STREET	SB	E	G	Y	R	G	Y	R	R	R	R	R	R	R				FY
WASHINGTON STREET	EB	F,G	R	R	R	R	R	R	R	R	R	G	Y	R				FR
PEDESTRIAN X–ING	N–S	P1,2	DW	DW	DW	W/FDW	DW	DW	DW	DW	DW	DW	DW	DW				DARK
PEDESTRIAN X–ING	E–W	P3,4,7,8	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	DW	DW				
DETECTOR			NON–LOCK			NON–LOCK			NON–LOCK			NON–LOCK						
RECALL			OFF			SOFT			OFF			OFF						
			ø1			ø2			ø3			ø4			ø5–ø8			

SEQUENCE AND TIMING NOTES:
1. FLASHING OPERATION PER M.U.T.C.D. SECTIONS 4D.28–4D.31.
2. PERM = PERMISSIVE
3. MAXIMUM 1 = NORMAL OPERATION
4. MAXIMUM 2 = COORDINATION
5. PED. W/FDW UPON PUSHBUTTON ACTUATION ONLY



GRAPHIC SCALE
30 120 10 105 0 10 20 60
(IN FEET)
1 inch = 20 ft.

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WASHINGTON STREET AND EAST APPROACH

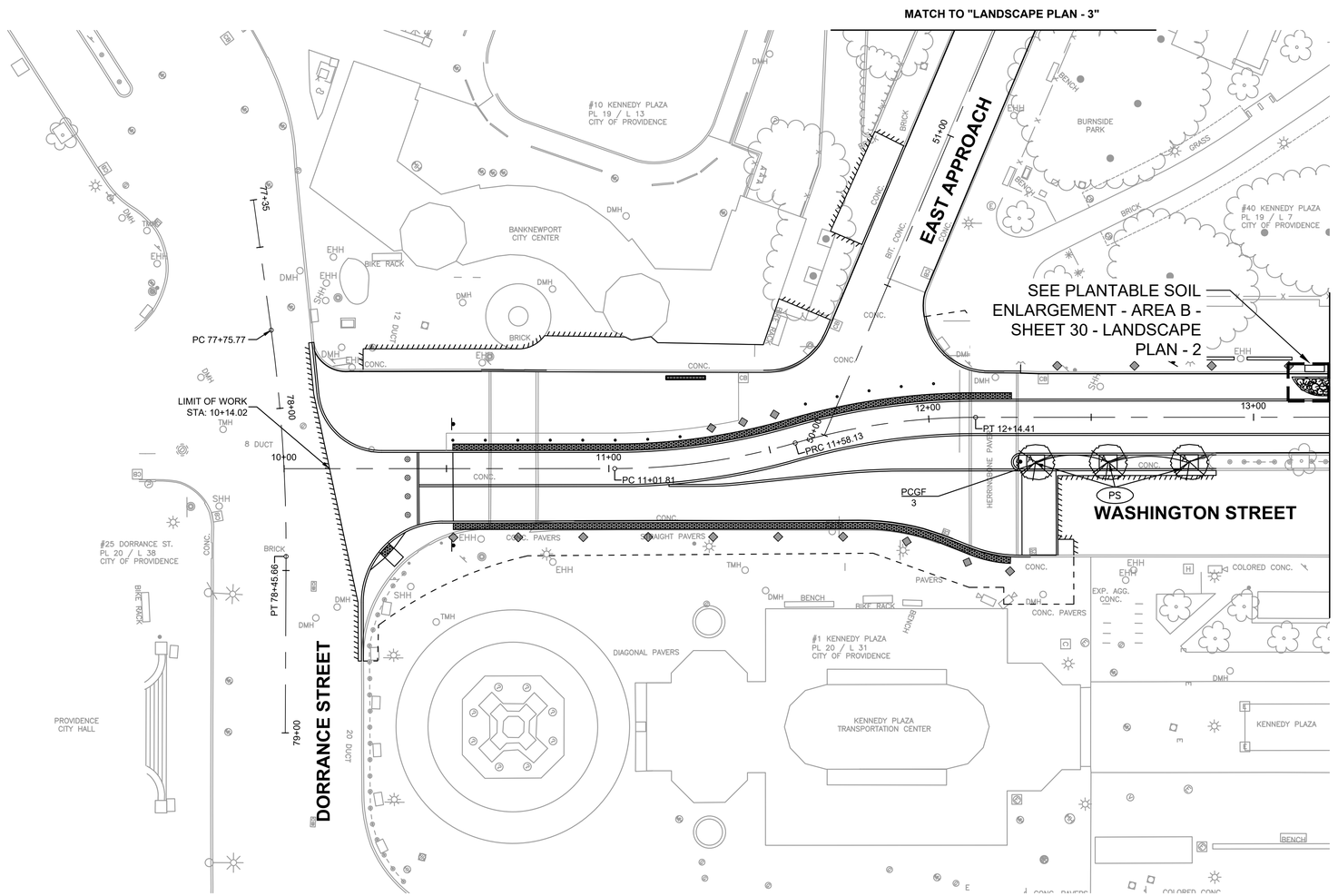
PROVIDENCE, RHODE ISLAND

TRAFFIC SIGNAL PLAN - 1

CHECKED BY MPS DATE 10–25–22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_0104_TRF.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	29	42



KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
TREES					
PCGF	3	PYRUS CALLERYANA 'GLENS FORM'	CHANTICLEER PEAR	2-2.5" CAL.	B&B
PERENNIALS					
BGBA	9	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLUE GRAMA GRASS	#1	CONT.
PAH	60	PENNISETUM ALOPECUROIDES 'HAMELN'	DWARF FOUNTAIN GRASS	#1	CONT.
RH	30	RUDBECKIA HIRTA	BLACK EYED SUSAN	#1	CONT.
SSC	18	SCHIZACHYRIUM SCOPARIUM 'CAROUSEL'	CAROUSEL LITTLE BLUESTEM	#1	CONT.

GRAPHIC SCALE
20 15 10 5 0 10 20 40
(IN FEET)
1 inch = 20 ft.

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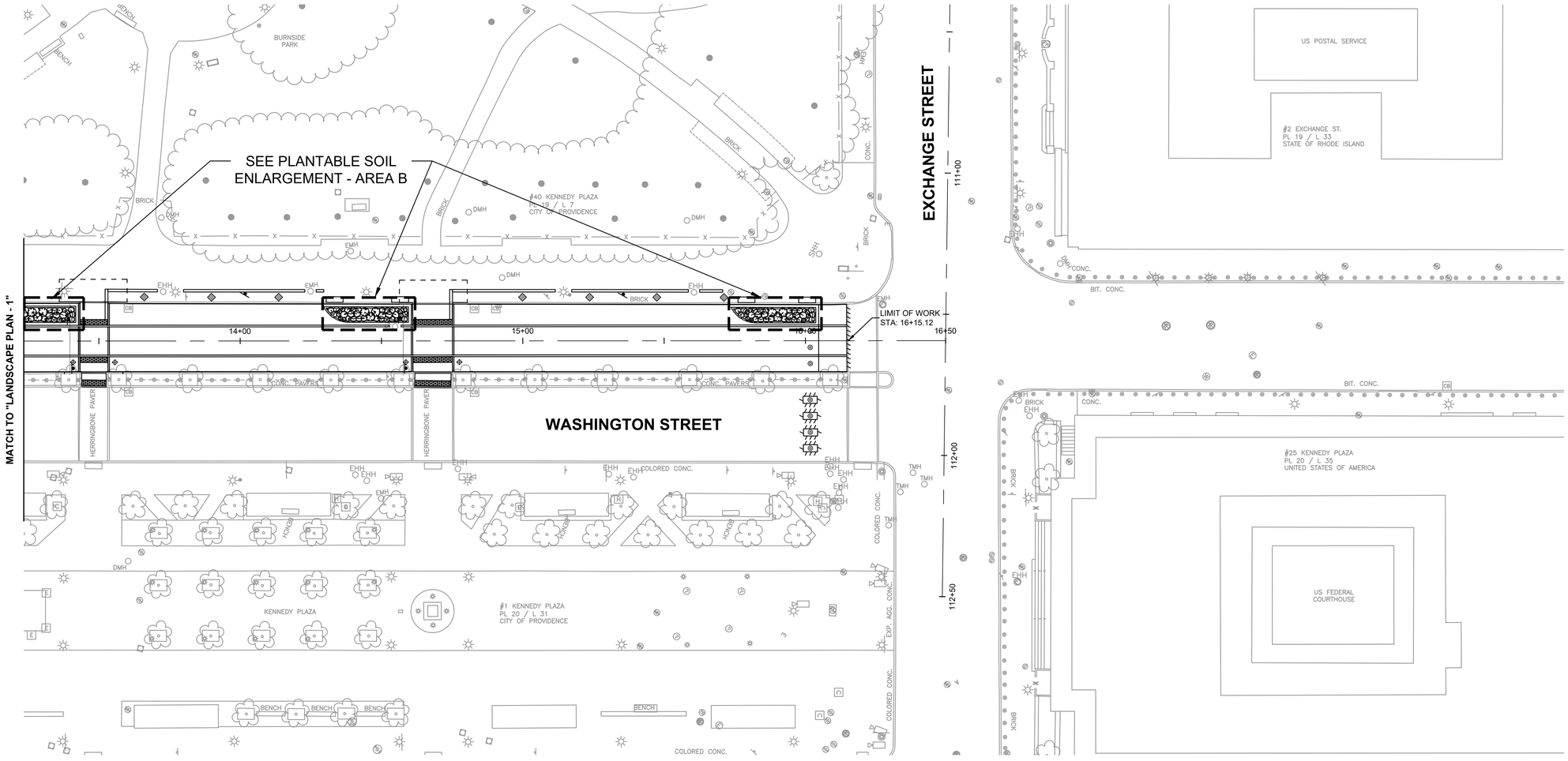
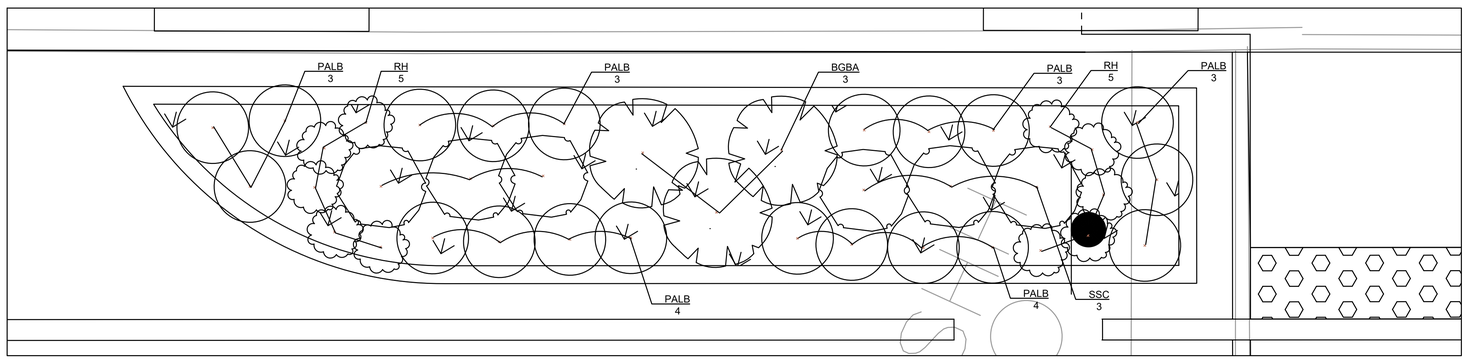
LANDSCAPE PLAN - 1

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_011_LAND.DWG Plotted by: Francis Marinuccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	30	42





PLANTABLE SOIL ENLARGEMENT - AREA B
SCALE: $\frac{1}{2}$" = 1' - 0"

GRAPHIC SCALE
20 15 10 5 0 10 20 40
(IN FEET)
1 inch = 20 ft.

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LANDSCAPE PLAN - 2

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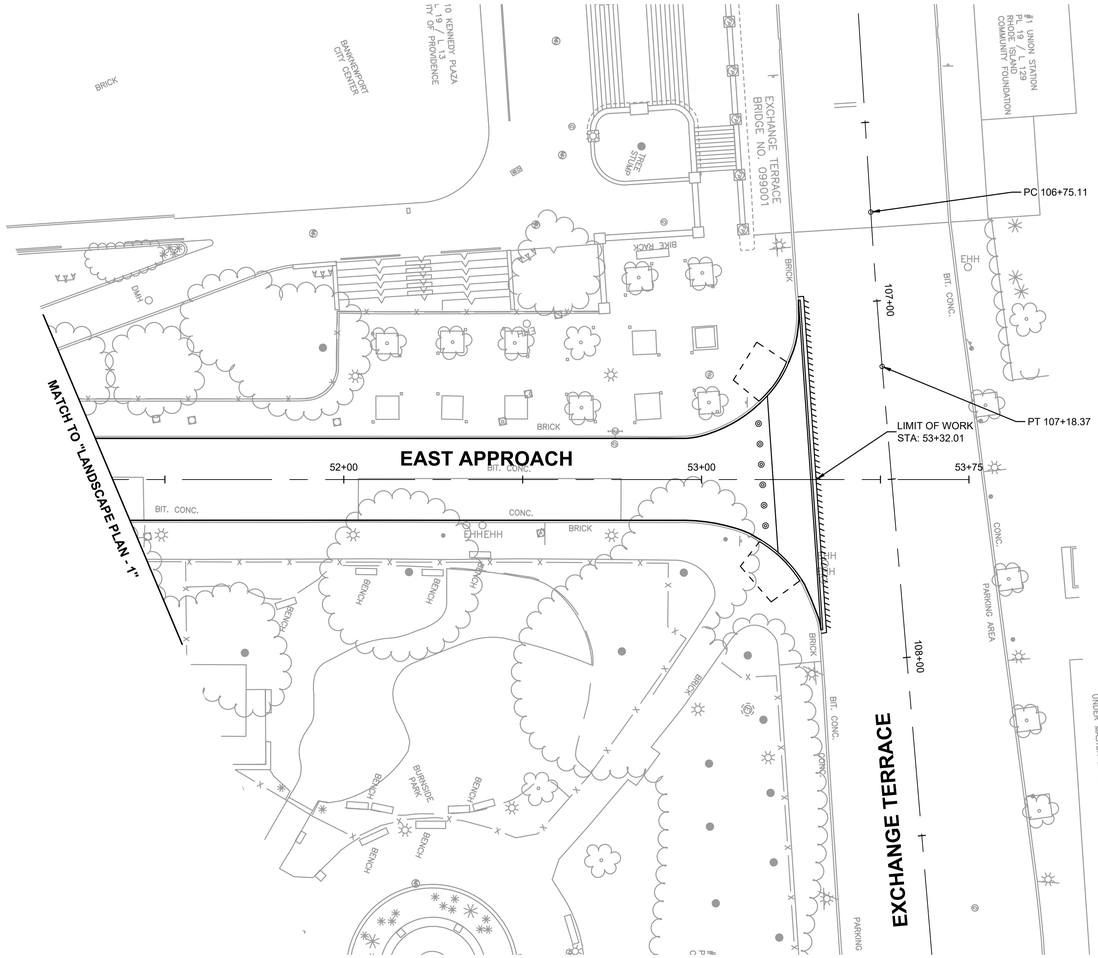
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	31	42



GRAPHIC SCALE

20 15 10 5 0 10 20 40

(IN FEET)
1 inch = 20 ft.

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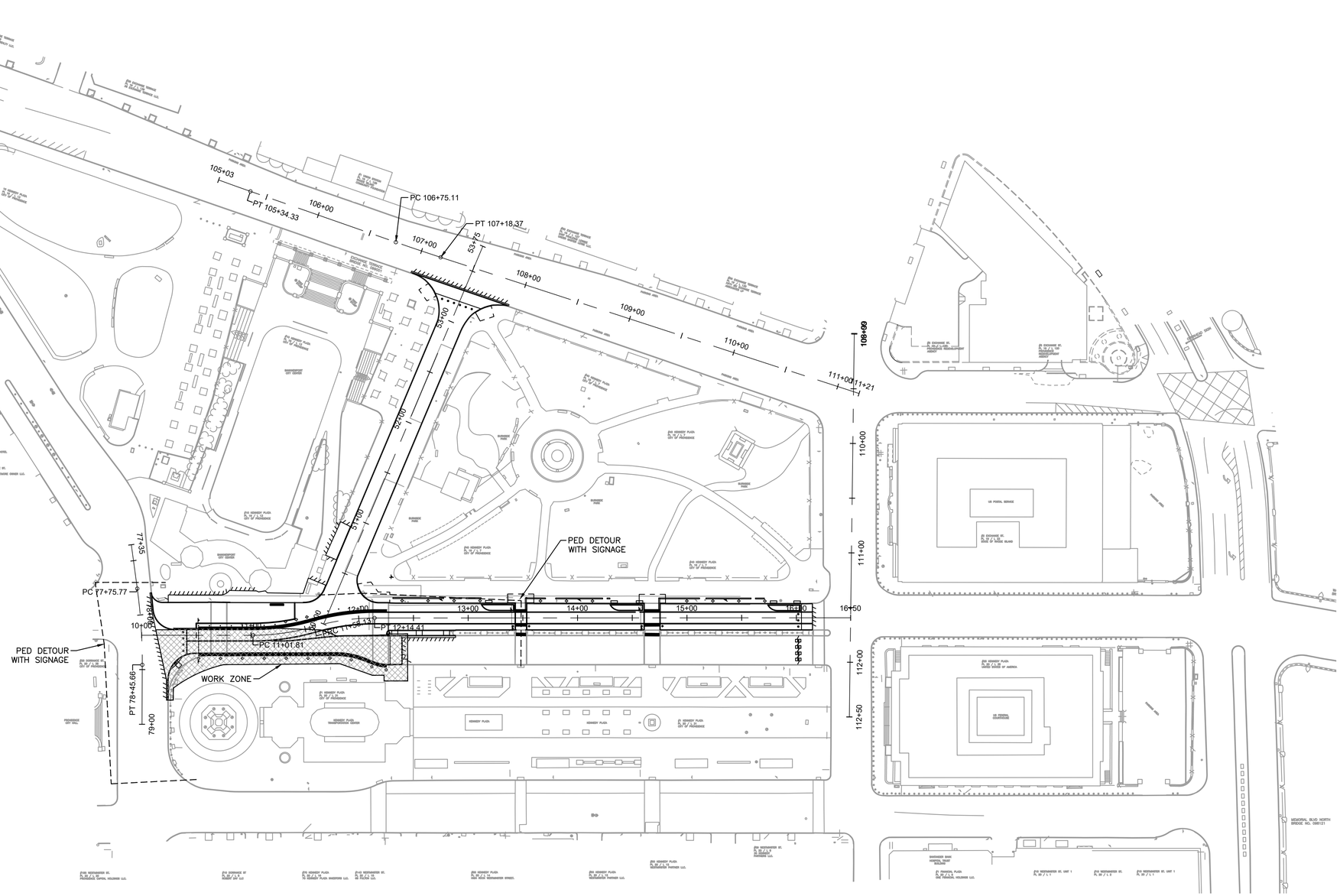
LANDSCAPE PLAN - 3

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_011_LAND.DWG Plotted by: Francis Marinaccio

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	32	42



PHASE 1

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PHASING PLAN - 1

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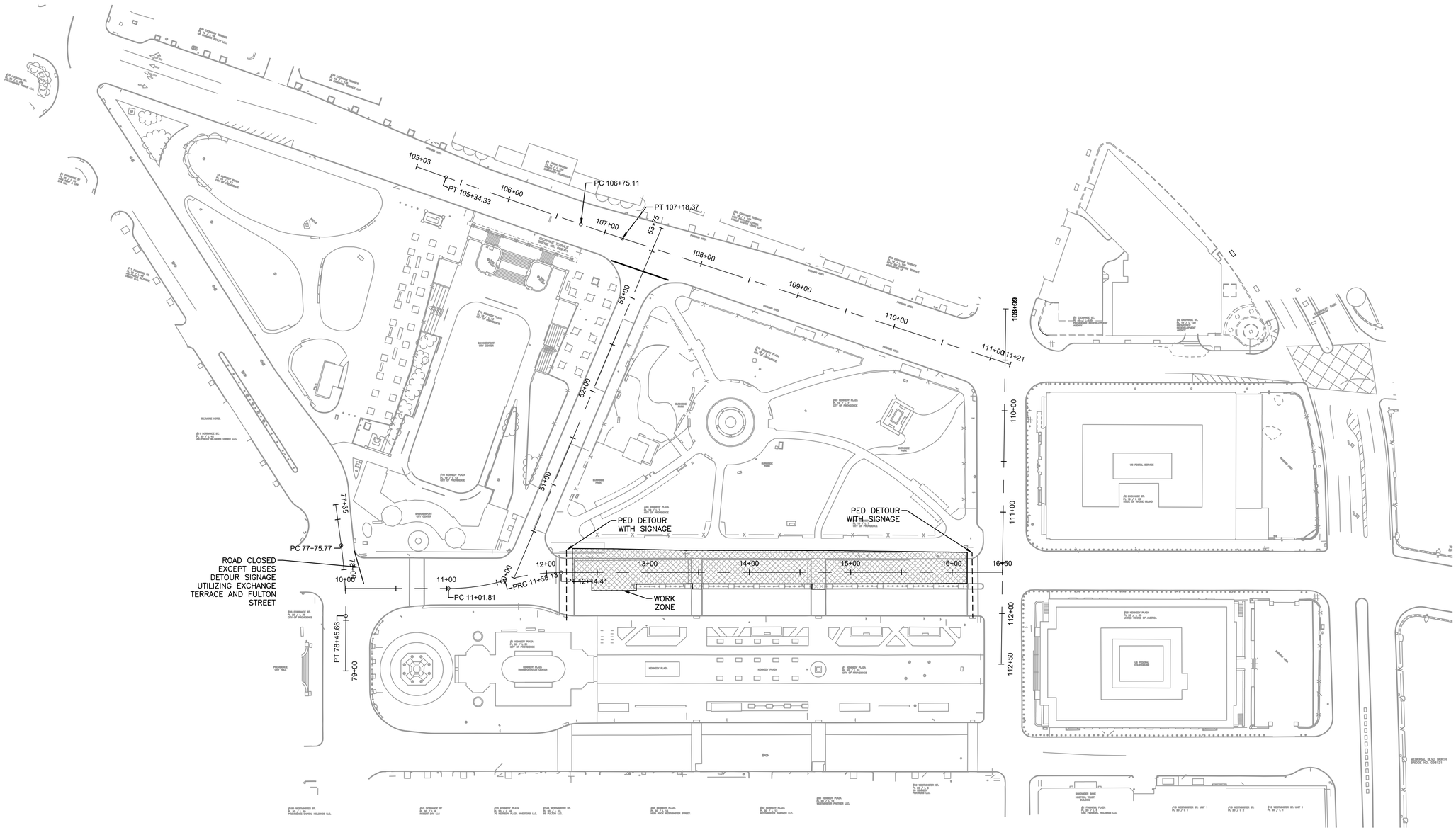
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	33	42



PHASE 2

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PHASING PLAN - 2

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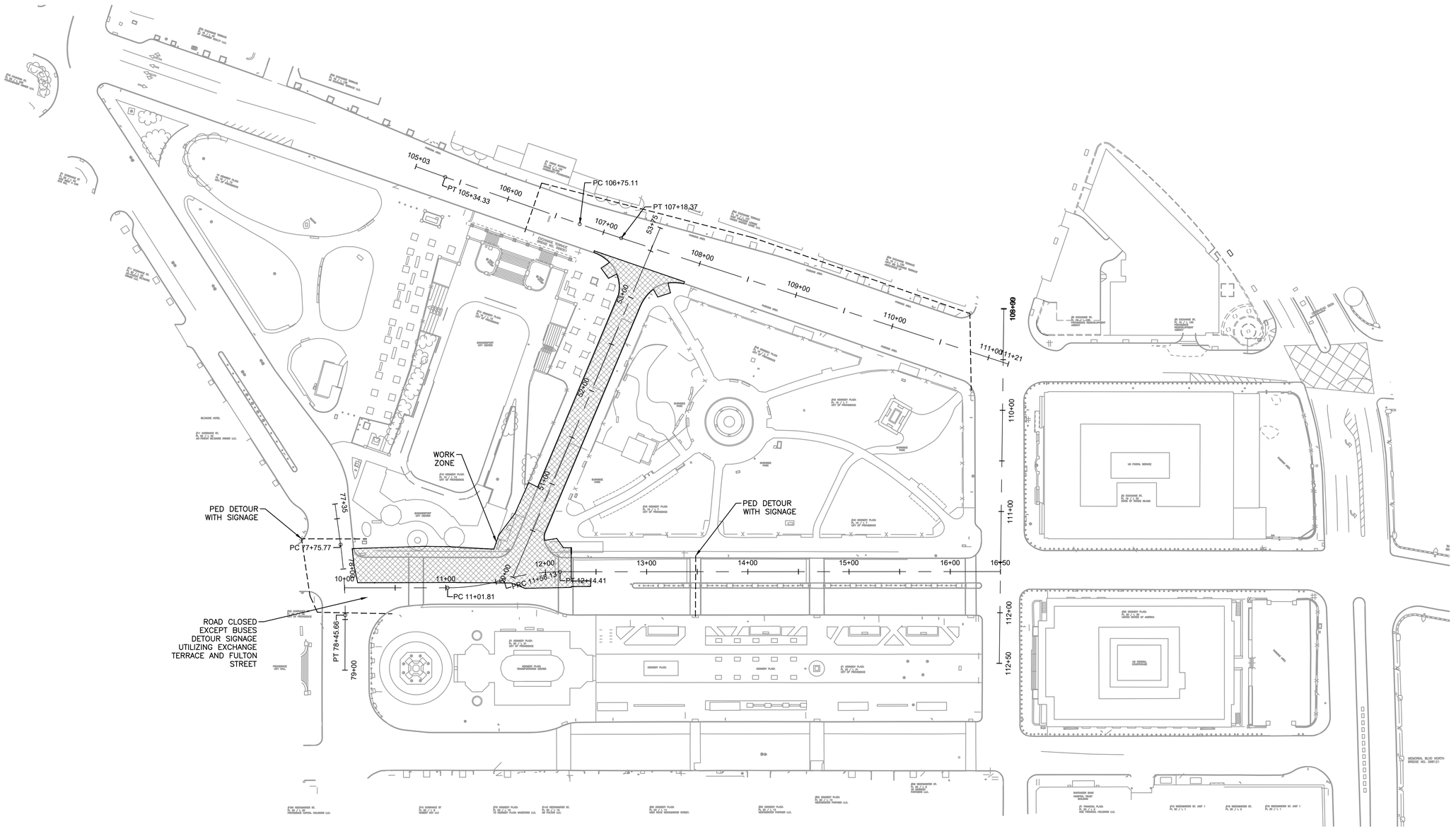
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	34	42



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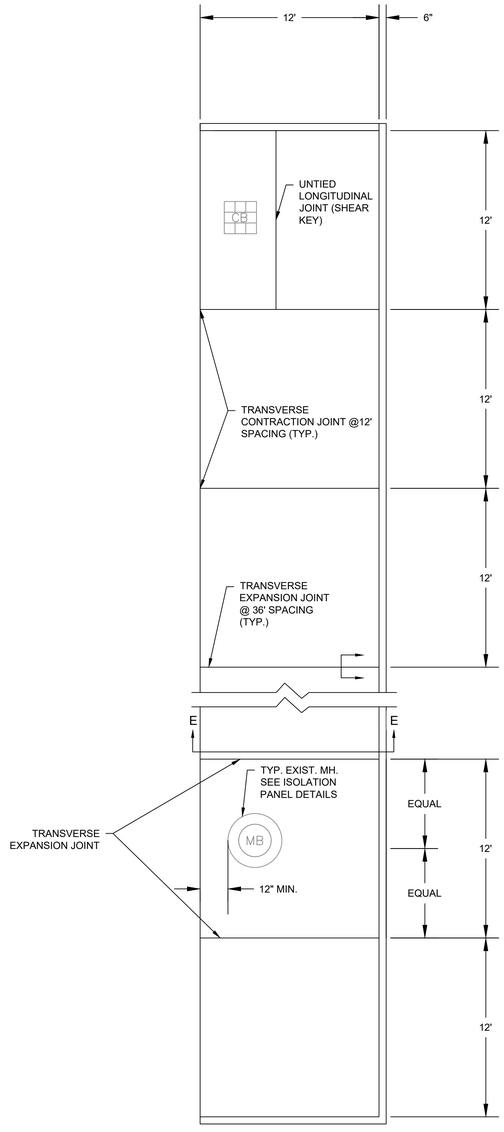
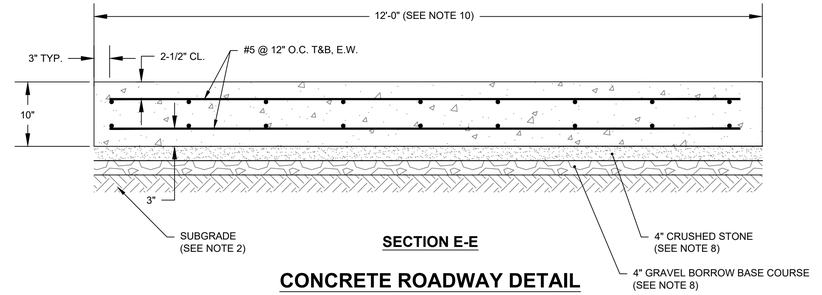
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	35	42



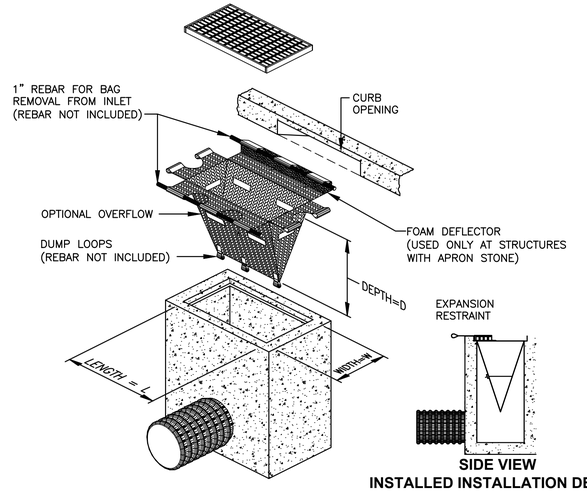
GENERAL NOTES:

1. ALL REINFORCING BARS ARE GRADE 60 GALV. COATED.
2. AFTER REMOVAL OF THE EXISTING PAVEMENT AND BASE MATERIAL TO THE REQUIRED DEPTH, THE EXISTING SUBGRADE SHALL BE STABILIZED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 202. OF THE STANDARD SPECIFICATIONS
3. CONTRACTION JOINTS SHALL BE PROVIDED IN THE NEW PAVEMENT BY SAWING THE HARDENED SLAB OR BY PLACING AN INSERT OR GROOVE IN THE SLAB SURFACE WHILE THE CONCRETE IS PLASTIC.
4. TRANSVERSE CONTRACTION JOINTS SHALL BE PLACED WITH A MAXIMUM SPACING OF 12 FEET. JOINT SPACING MAY BE REDUCED TO A MINIMUM OF 10 FEET TO SATISFY SITE CONDITIONS.
5. TRANSVERSE JOINTS SHALL BE ALIGNED TO COINCIDE WITH THE JOINTS IN THE ADJACENT ROADWAY AND CURBS WHERE PRACTICAL.
6. ALL JOINTS ARE TO BE SAWED IN SUCCESSION AND SHOULD BE SAWED WHILE THE PAVEMENT IS UNDER COMPRESSION TO PREVENT THE SLAB FROM CRACKING AHEAD OF THE SAW.
7. PRIOR TO SEALING, THE JOINT SURFACES MUST BE CLEAN AND FREE OF CUING COMPOUND RESIDUE, LAITANCE, AND ANY OTHER FOREIGN MATERIAL.
8. CRUSHED STONE AND GRAVEL BORROW BASE COURSE LAYERS SHALL CONFORM TO SECTION M.01.09 OF THE STANDARD SPECIFICATIONS.
9. DRIVING SURFACE SHALL BE TEXTURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
10. ADJUST PANEL WIDTH AND REINFORCEMENT AS NECESSART TO MATCH SITE CONDITIONS AND PLAN REQUIREMENTS.



SECTION E-E

CONCRETE ROADWAY DETAIL



SIDE VIEW INSTALLED INSTALLATION DETAIL

INLET SEDIMENT CONTROL DEVICE (WITH OPTIONAL CURB DEFLECTOR)

NOT TO SCALE

ISCD

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DETAILS - 1

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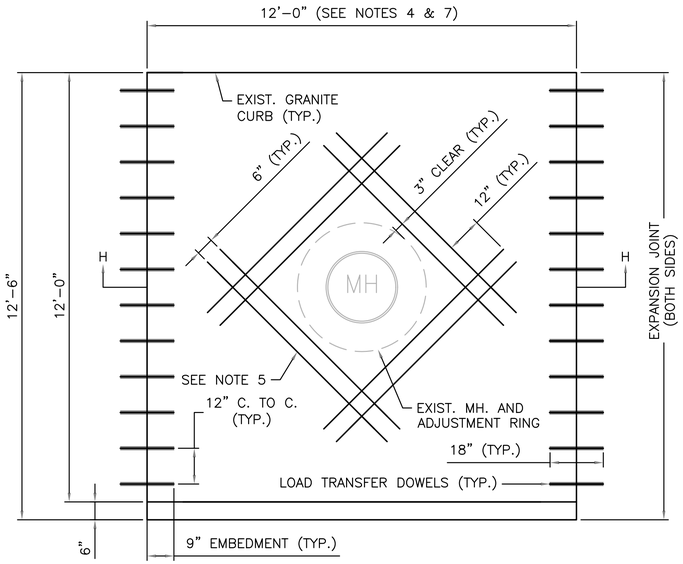
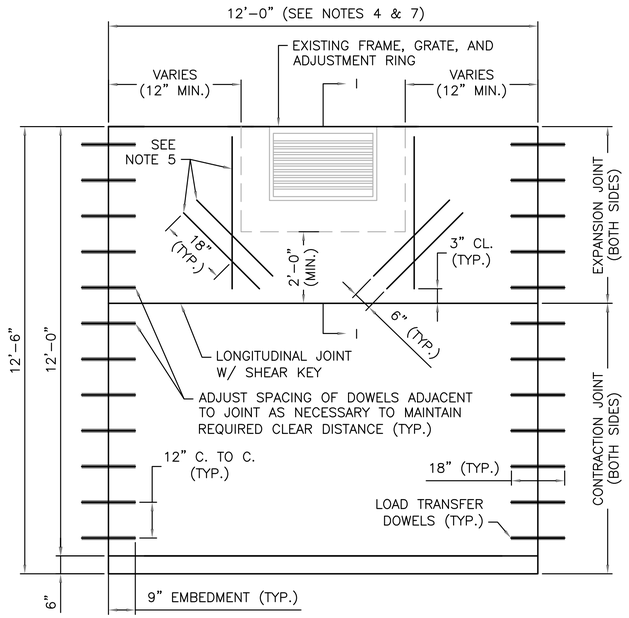
1	RI		2022	36	42



MANHOLE LOCATION

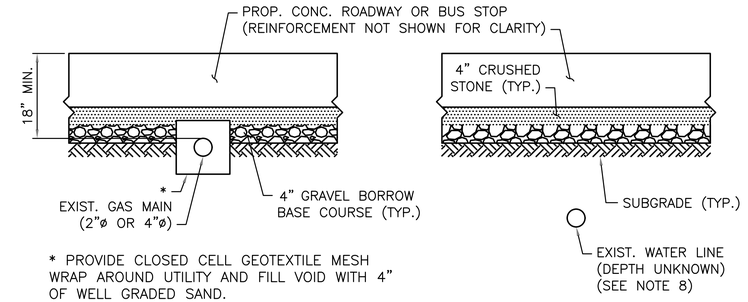


CATCH BASIN LOCATION

GENERAL NOTES:

1. ISOLATION PANELS SHALL BE USED AS REQUIRED WITHIN THE PROPOSED CONCRETE RIGID PAVEMENT LIMITS TO PROVIDE ADDITIONAL REINFORCING AROUND THE EXISTING CATCH BASINS AND MANHOLES.
2. FOR ALL ISOLATION PANELS, WELDED WIRE FABRIC REINFORCEMENT SHALL BE SHEETS OF A NOMINAL 4" X 4" GRID PATTERN AND SHALL CONFORM TO THE SIZE AND GAUGE DESIGNATIONS NOTED ON RIGID PAVEMENT DETAILS 3. A MINIMUM CLEAR DISTANCE OF 3" SHALL BE MAINTAINED BETWEEN THE WIRE FABRIC AND ALL JOINTS, JOINT BARS, AND UTILITIES.
3. THE LAYOUT OF REINFORCEMENT SHOWN ON THIS SHEET IS CONCEPTUAL AND MAY BE MODIFIED IN A MANNER APPROVED BY THE ENGINEER TO ACCOMMODATE SITE CONDITIONS. THE MINIMUM ALLOWABLE DEPTH FOR REINFORCEMENT SHALL BE SUCH THAT 3" OF CONCRETE COVER IS PROVIDED. THE MAXIMUM ALLOWABLE DEPTH SHALL BE THE MID-POINT OF THE SLAB.
4. CENTER THE UTILITY OR DRAINAGE STRUCTURE BETWEEN THE TRANSVERSE JOINTS (±12"). THE SLAB LENGTH MAY BE ADJUSTED IF NECESSARY TO PROPERLY CENTER THE STRUCTURE, PROVIDED THE FOLLOWING GEOMETRIC CRITERIA IS MET:

   $0.65 \leq W/L \leq 1.37$
5. USE #6, GRADE 60 STEEL, EPOXY COATED, DEFORMED BARS PLACED AT A DEPTH OF HALF THE ISOLATION SLAB THICKNESS FOR ALL UTILITY STRUCTURE REINFORCEMENT. BARS MAY BE BENT TO ACHIEVE REQUIRED CLEARANCES.
6. FOR LOAD TRANSFER DOWEL DETAILS, SEE DETAILS SHEET 3
7. ADJUST PANEL WIDTH AND REINFORCEMENT AS NECESSARY TO MATCH SITE CONDITIONS AND PLAN REQUIREMENTS.
8. WATER LINE DEPTHS AT LOCATIONS SHOWN ON PLANS ARE UNKNOWN. THE CONTRACTOR SHALL CAREFULLY IDENTIFY THE DEPTH OF THE WATER LINE. SECTIONS OF WATER LINE WITHIN LIMITS OF CONSTRUCTION AND LESS THAN 30" BELOW GRADE SHALL BE ENCASED IN 4" OF WELL-GRADED SAND AROUND PERIMETER OF PIPE AND WRAPPED IN CLOSED CELL GEOTEXTILE MESH. VIBRATORY COMPACTION METHODS FOR INSTALLING ROADWAYS/BUS STOPS SHALL NOT BE PERMITTED IN THE VICINITY OF EXISTING WATER LINES. ANY DAMAGE TO EXISTING WATER LINES DUE TO CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.



* PROVIDE CLOSED CELL GEOTEXTILE MESH WRAP AROUND UTILITY AND FILL VOID WITH 4" OF WELL GRADED SAND.

GAS MAIN

WATER LINE

DETAILS AT EXISTING UTILITIES

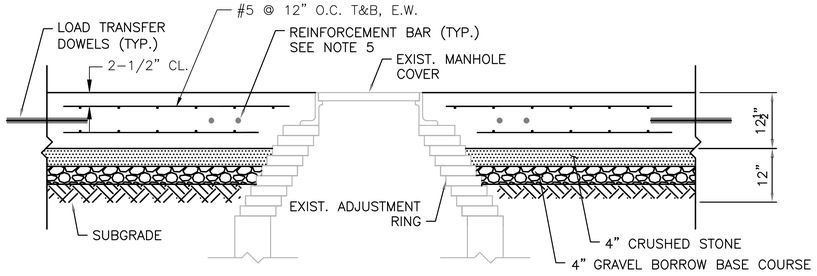
SCALE: ¾" = 1'-0"

ISOLATION PANEL DETAILS

NOTE: WIRE FABRIC REINFORCEMENT NOT SHOWN FOR CLARITY.

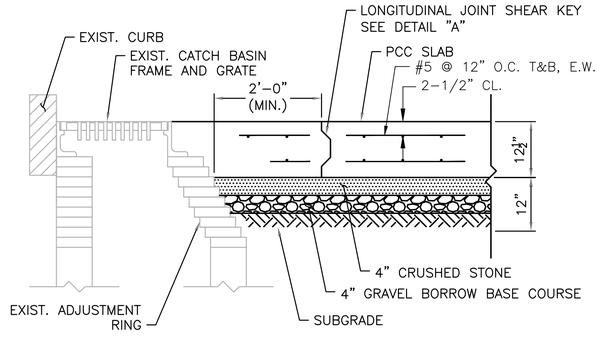
ISOLATION PANEL DETAILS PLAN VIEWS

SCALE: ½" = 1'-0"



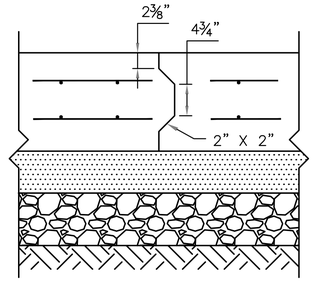
SECTION H-H

SCALE: ¾" = 1'-0"



SECTION I-I

SCALE: ¾" = 1'-0"



DETAIL A

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DETAILS - 2

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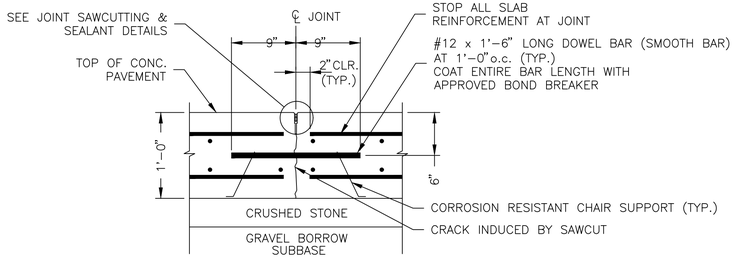
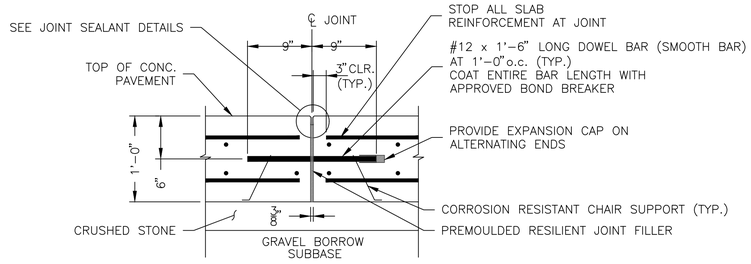
1	RI		2022	37	42



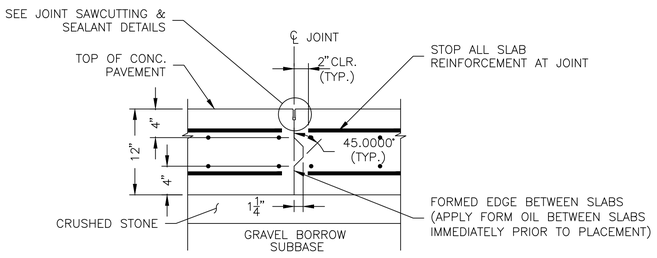
TRANSVERSE CONTRACTION JOINT

SCALE: NOT TO SCALE



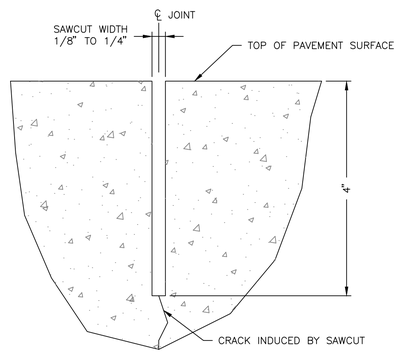
TRANSVERSE EXPANSION JOINT

SCALE: NOT TO SCALE

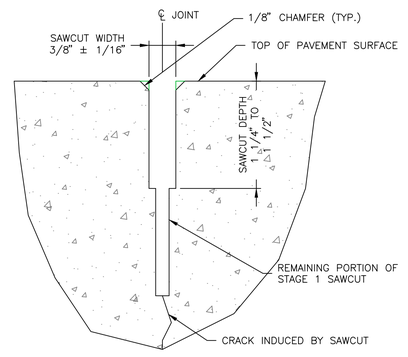


UNTIED LONGITUDINAL JOINT (SHEAR KEY)

SCALE: NOT TO SCALE

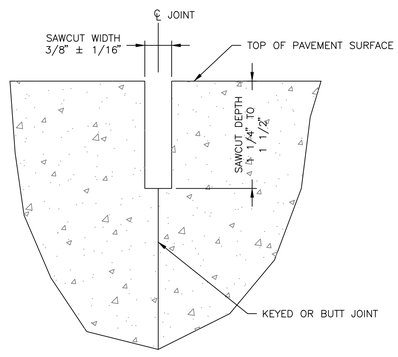


STAGE 1 SAWCUT



STAGE 2 SAWCUT

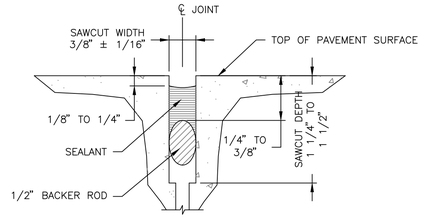
DETAIL 'A' – TWO STAGE SAWCUT BETWEEN LANES PLACED SIMULTANEOUSLY



DETAIL 'B' – SAWCUT BETWEEN LANES PLACED SEPARATELY
(DETAIL TO BE USED WITH LONGITUDINAL BUTT OR SHEAR KEY JOINTS ONLY)

TYPICAL JOINT SAWCUTTING

SCALE: 1=1



SEALANT DETAIL

SCALE: NOT TO SCALE

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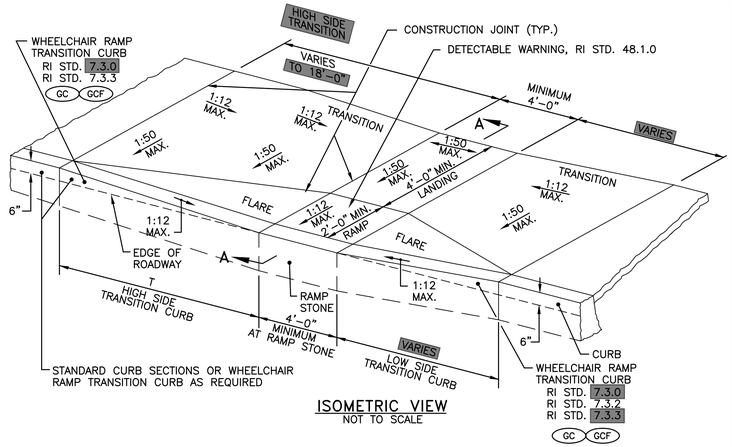
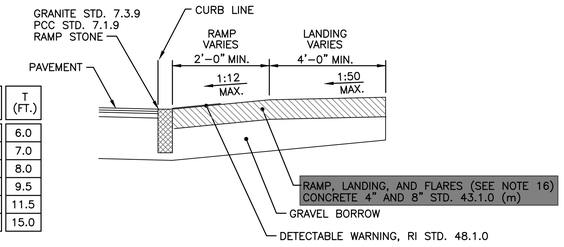
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	38	42



ISOMETRIC VIEW
NOT TO SCALE



ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0

SECTION A–A
NOT TO SCALE

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, THE WHEELCHAIR RAMP WILL BE PLACED SUCH THAT THE OBSTRUCTION FALLS OUTSIDE OF THE RAMP.
3. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
4. DRAINAGE FACILITIES ARE TO BE LOCATED UP–GRADE OF ALL WHEELCHAIR RAMPS.
5. LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
6. IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 1:50 EXCEPT WITHIN THE RAMP AREA.
7. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 3'–0" SHALL BE MAINTAINED.
8. THE WHEELCHAIR RAMP SLOPE AND SIDE SLOPES (TRANSITIONS), MUST NOT EXCEED 1:12. HOWEVER, THESE SLOPES MAY BE FLATTER THAN 1:12 WHEN WARRANTED BY SURROUNDING CONDITIONS.
9. WHERE THE ROAD PROFILE EXCEEDS 5% THE HIGH SIDE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'–0").
10. IN NO CASE, WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED BEHIND THE STOP LINE.
11. THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
12. THE WHEELCHAIR RAMP SHALL BE CENTERED RADIALLY, OPPOSITE THE RADIUS POINT WHEN POSSIBLE.
13. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'–0" (GREATER LENGTHS PREFERRED).
14. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
15. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 942 OF THE RI STANDARD SPECIFICATION.
16. 8" CONCRETE DEPTH WITH WELDED WIRE MESH FOR RADIUS WHEELCHAIR RAMPS. USE 4" DEPTH FOR TANGENT (MID–BLOCK) LOCATIONS.

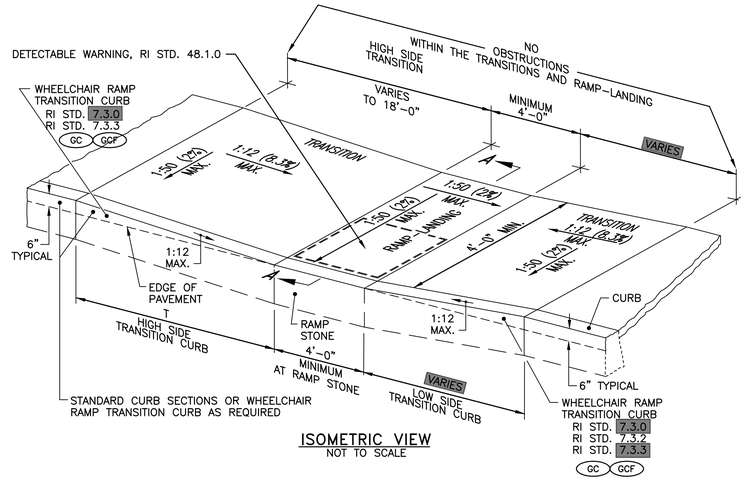
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE
1	MLP	Oct 2005
2	MLP	Jun 2008
3	MLP	Sep 2012

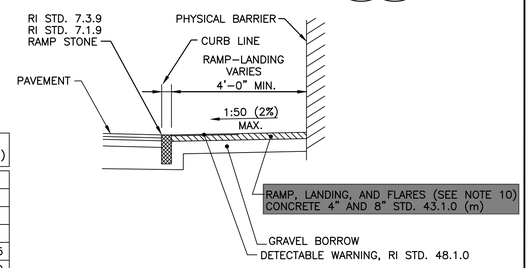
WHEELCHAIR RAMP

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 43.3.0 m



ISOMETRIC VIEW
NOT TO SCALE



ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0
> 0.05	18.0

SECTION A–A
NOT TO SCALE

NOTES:
1. THIS DETAIL MAY BE USED WHEN A PHYSICAL BARRIER IS PRESENT AND THERE IS INSUFFICIENT ROOM TO PROPERLY CONSTRUCT AN ADA ACCESSIBLE RAMP AND LANDING; A TECHNICAL INFEASIBILITY FINDING IS REQUIRED.
2. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
3. THE RAMP–LANDING AND TRANSITIIONS SHAL BE FREE OF OBSTRUCTIONS.
4. LOCATION OF THE RAMP–LANDING IS AS SHOWN ON THE CONTRACT DRAWINGS.
5. AN UNOBSTRUCTED PEDESTRIAN ACCESS ROUTE (PATH OF TRAVEL) WITH A MINIMUM WIDTH OF 4'–0" SHALL BE MAINTAINED.
6. THE ENTRANCE OF THE RAMP–LANDING SHALL BE FLUSH WITH THE PAVEMENT.
7. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'–0" (GREATER LENGTHS PREFERRED).
8. ALL REQUIRED CUTTING OF CURB PIEDES TO BE PAID FOR UNDER COST OF CURB.
9. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 942 OF THE R.I. STANDARD SPECIFICATIONS.
10. 8" CONCRETE DEPTH WITH WELDED WIRE MESH FOR RADIUS WHEELCHAIR RAMPS. USE 4" DEPTH FOR TANGENT (MID–BLOCK) LOCATIONS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE

RAMP–LANDING FOR NARROW SIDEWALK

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 43.3.2 m

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

DETAILS - 4

CHECKED BY MPS DATE 10–25–22 SCALE AS SHOWN

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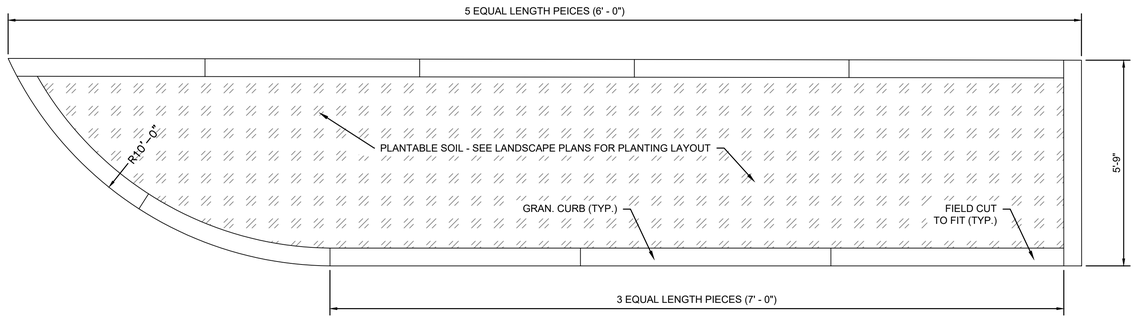
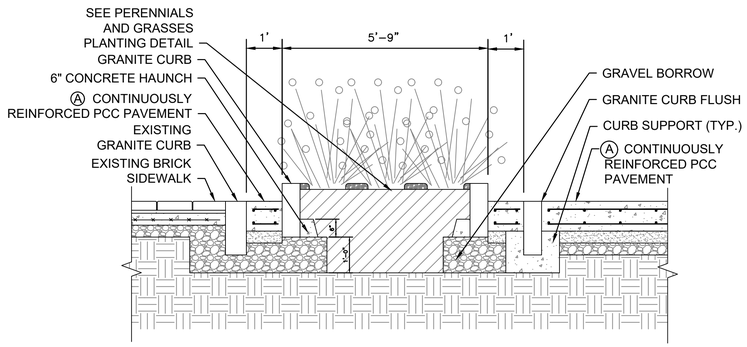
N:\10400\10430 - PROVIDENCE WASHINGTON & EAST APPROACH\AUTOCAD\PLAN SET\10430_013_DETAILS.DWG Plotted by: Francis Marinaccio

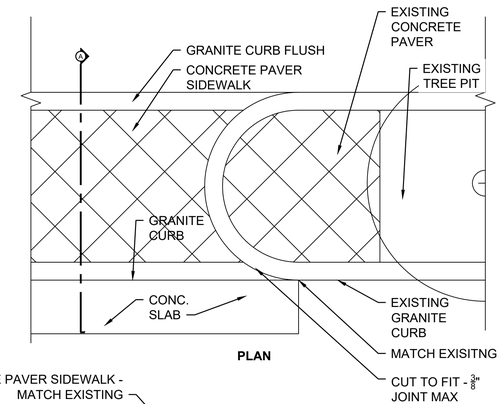
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	39	42



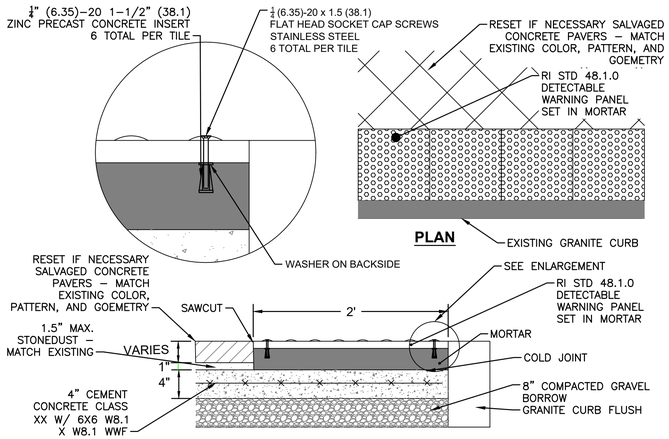
PLANTER LAYOUT PLAN (TYPICAL)
SCALE: 1/2"=1'-0"



(PS) - PLANTABLE SOIL - AREA B
SCALE: 1/2"=1'-0"

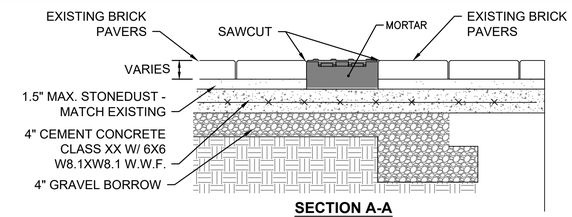


PLAN

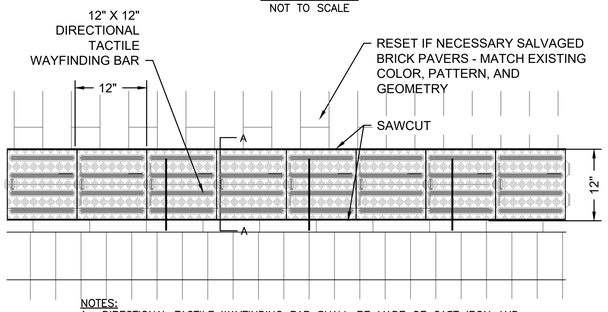


NOTES:
1. DETECTABLE WARNING PANELS SHALL BE MADE OF CAST IRON AND SHALL BE PLACED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
2. DETECTABLE WARNING PANELS SHALL BE SET IN MORTAR
3. REFER TO STANDARD 48.1.0

DETECTABLE WARNING PANEL AT RESET SALVAGED CONCRETE PAVER SIDEWALK
SCALE: 1"=1'-0"

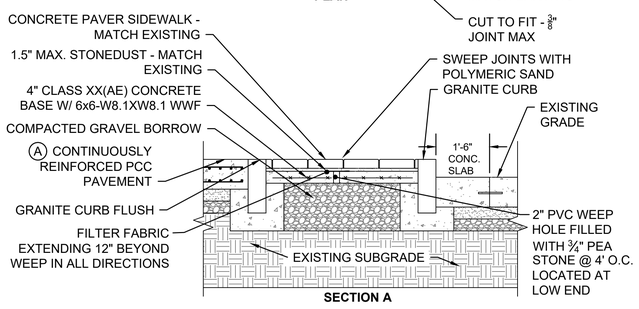


SECTION A-A
NOT TO SCALE



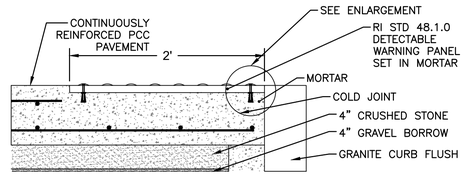
NOTES:
1. DIRECTIONAL TACTILE WAYFINDING BAR SHALL BE MADE OF CAST IRON AND SHALL BE PLACED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
2. DIRECTIONAL TACTILE WAYFINDING BAR SHALL BE SET IN CONCRETE
3. REFER TO RI STANDARD 48.1.0

(DTWB) DIRECTIONAL TACTILE WAYFINDING BAR AT EXISTING BRICK PAVERS
SCALE: 1"=1'-0"



SECTION A

(CPS) CONCRETE PAVER SIDEWALK
SCALE: 1/2"=1'-0"



NOTES:
1. DETECTABLE WARNING PANELS SHALL BE MADE OF CAST IRON AND SHALL BE PLACED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
2. DETECTABLE WARNING PANELS SHALL BE SET IN MORTAR
3. REFER TO STANDARD 48.1.0

DETECTABLE WARNING PANEL (A) CONTINUOUSLY REINFORCED PCC PAVEMENT
SCALE: 1"=1'-0"

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

DETAILS - 5

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

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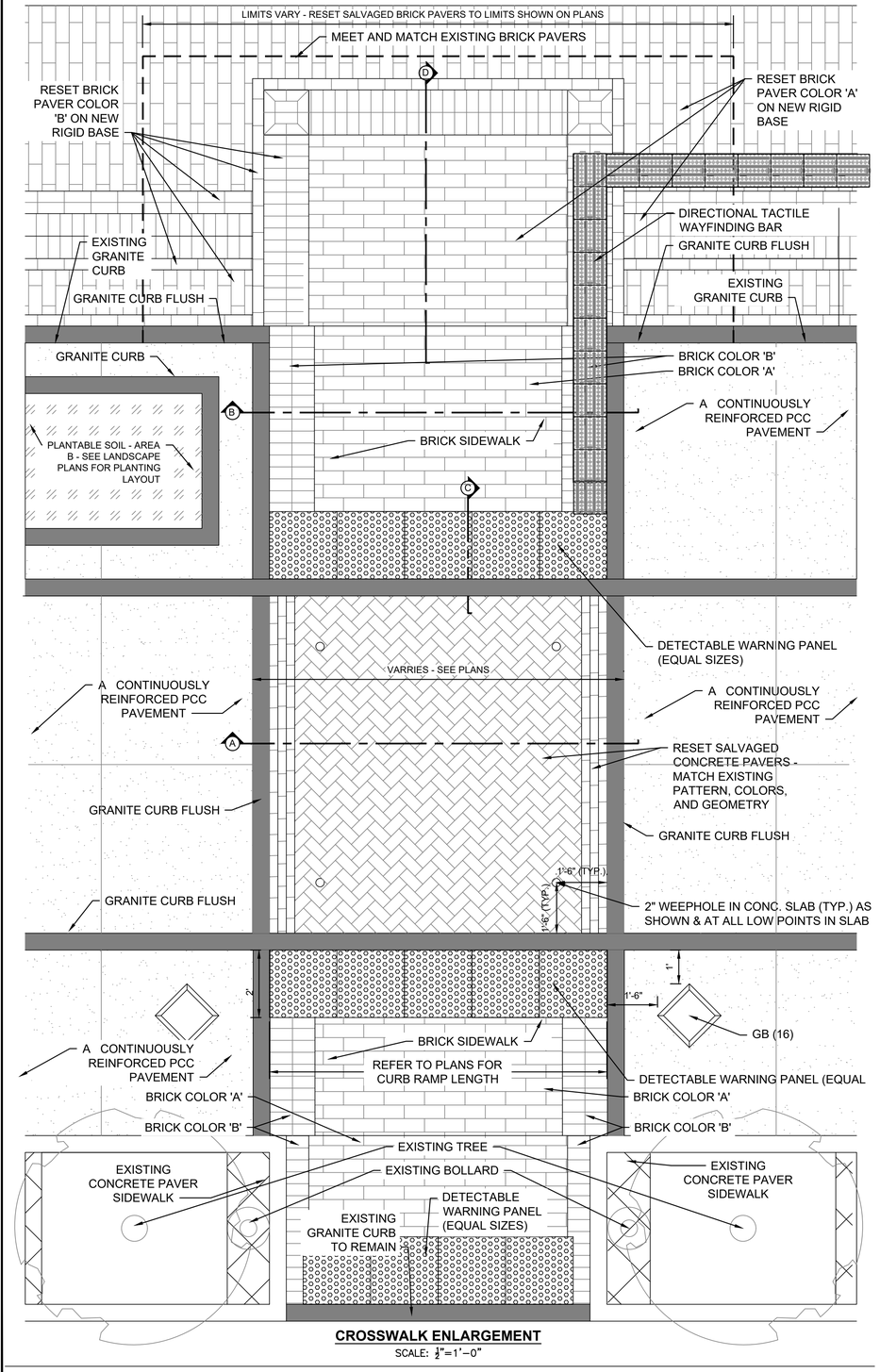
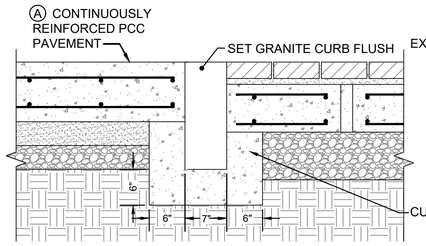
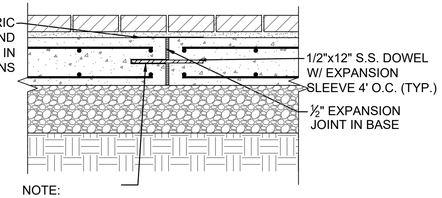
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	40	42



CROSSWALK ENLARGEMENT
SCALE: $\frac{1}{2}$"=1'–0"

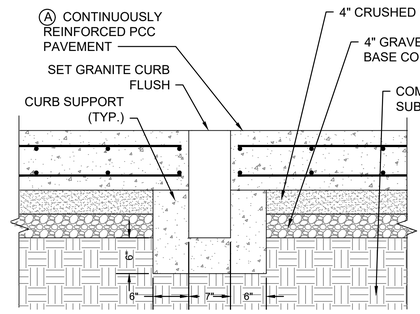


GCF GRANITE CURB FLUSH DETAIL AT CROSSWALK
SCALE: 1"=1'

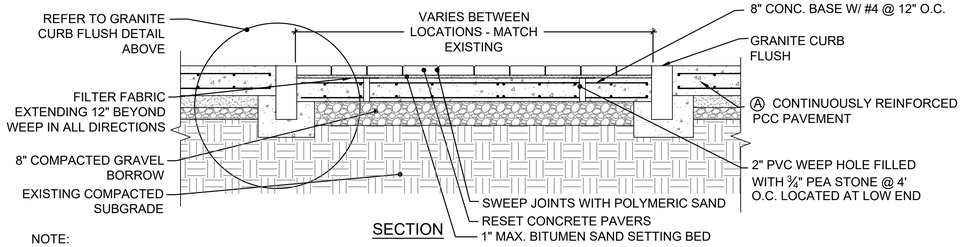


NOTE:
EXPANSION JOINTS SHALL BE LOCATED AT THE CENTER UNLESS OTHERWISE NOTED.

EXPANSION JOINT AT CROSSWALK
SCALE: 1"=1'



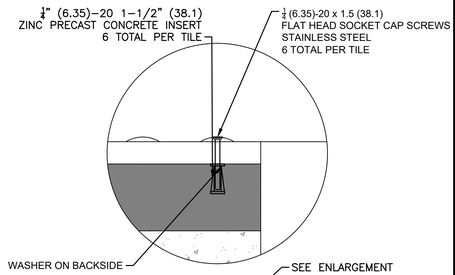
GCF GRANITE CURB FLUSH DETAIL AT A CONTINUOUSLY REINFORCED PCC PAVEMENT
SCALE: 1"=1' - 0"



SECTION

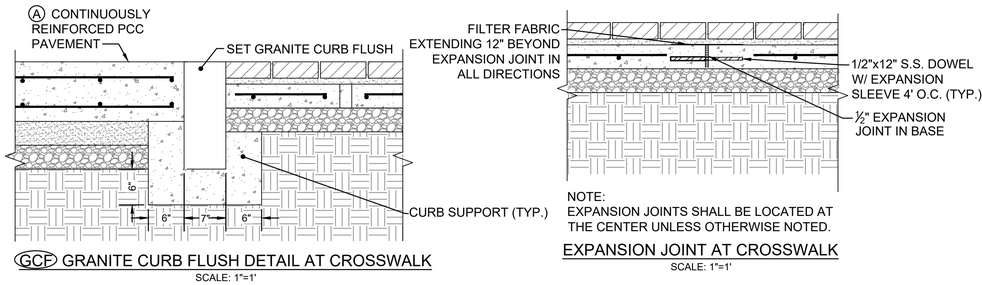
NOTE:
1. SLOPE & SHAPE OF CONC. BASE TO FOLLOW PROFILE & SLOPE OF ADJACENT ROADWAY. PROVIDE WEEPHOLES IN CONC. BASE AS INDICATED.
2. ALL STEEL REINFORCING SHALL BE IN ACCORDANCE WITH SECTION 810 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED
3. ALL REINFORCING STEEL SHALL BE ASTM A 615, GRADE 60
4. ALL REINFORCING STEEL SHALL BE GALVANIZED. ALL WIRE TIES AND MISCELLANEOUS HARDWARE USED FOR THE PLACEMENT OF GALVANIZED REINFORCING SHALL ALSO BE GALVANIZED. GALVANIZED COATING FOR REINFORCING STEEL SHALL CONFORM TO ASTM A767 CLASS 1.

A - RCP RESET CONCRETE PAVER AT CROSSWALK
SCALE: $\frac{1}{2}$"=1'–0"



NOTES:
1. DETECTABLE WARNING PANELS SHALL BE MADE OF CAST IRON AND SHALL BE PLACED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
2. DETECTABLE WARNING PANELS SHALL BE SET IN MORTAR
3. REFER TO STANDARD 48.1.0

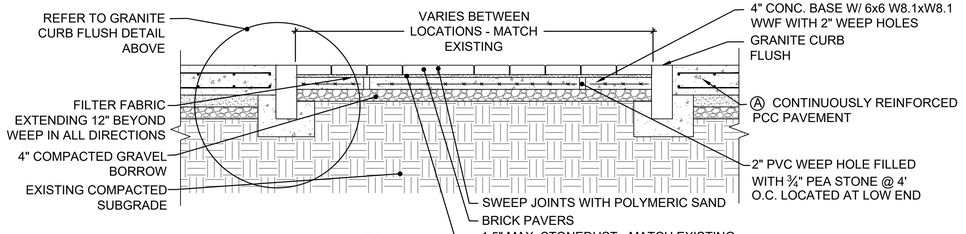
C - DETECTABLE WARNING PANEL AT BRICK PAVERS
SCALE: 1"=1'–0"



GCF GRANITE CURB FLUSH DETAIL AT CROSSWALK
SCALE: 1"=1'

NOTE:
EXPANSION JOINTS SHALL BE LOCATED AT THE CENTER UNLESS OTHERWISE NOTED.

EXPANSION JOINT AT CROSSWALK
SCALE: 1"=1'



SECTION

NOTE:
1. SLOPE & SHAPE OF CONC. BASE TO FOLLOW PROFILE & SLOPE OF ADJACENT ROADWAY. PROVIDE WEEPHOLES IN CONC. BASE AS INDICATED.
2. ALL STEEL REINFORCING SHALL BE IN ACCORDANCE WITH SECTION 810 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED
3. ALL REINFORCING STEEL SHALL BE ASTM A 615, GRADE 60
4. ALL REINFORCING STEEL SHALL BE GALVANIZED. ALL WIRE TIES AND MISCELLANEOUS HARDWARE USED FOR THE PLACEMENT OF GALVANIZED REINFORCING SHALL ALSO BE GALVANIZED. GALVANIZED COATING FOR REINFORCING STEEL SHALL CONFORM TO ASTM A767 CLASS 1.

B - BS BRICK SIDEWALK AT CROSSWALK
SCALE: $\frac{1}{2}$"=1'–0"

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

DETAILS - 6

CHECKED BY MPS DATE 10–25–22 SCALE AS SHOWN

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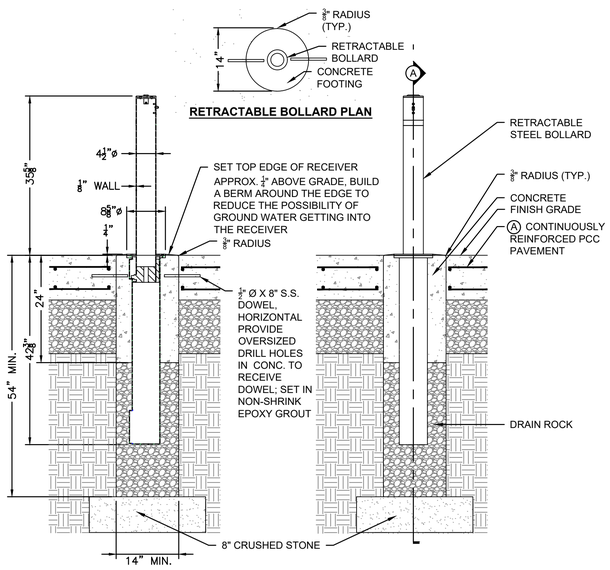
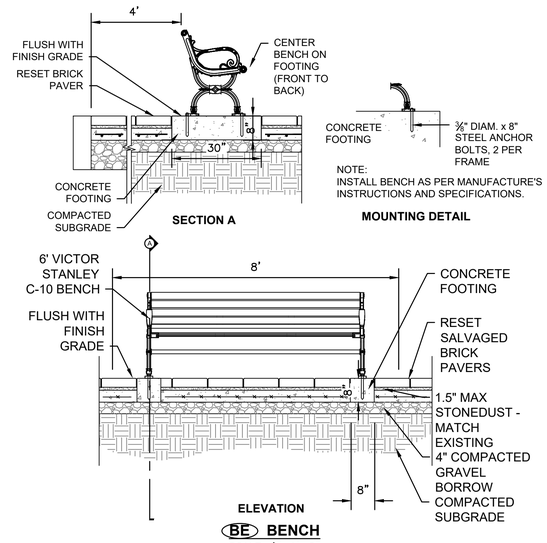
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	41	42



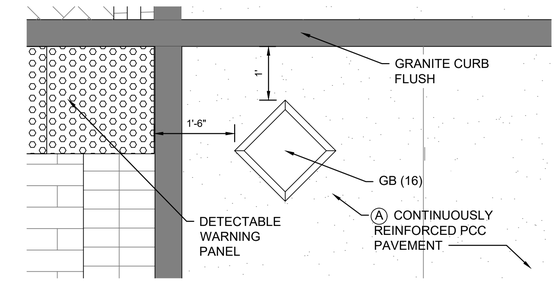
RSB RETRACTABLE STEEL BOLLARD

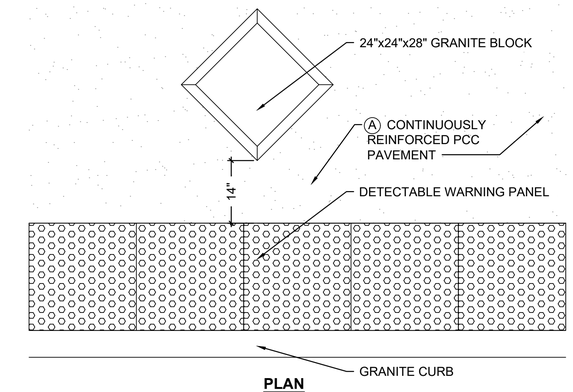
SCALE: ¾"=1'–0"

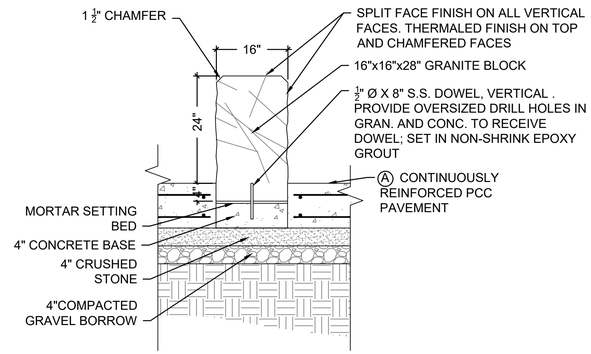


BE BENCH

SCALE: ½"=1'–0"

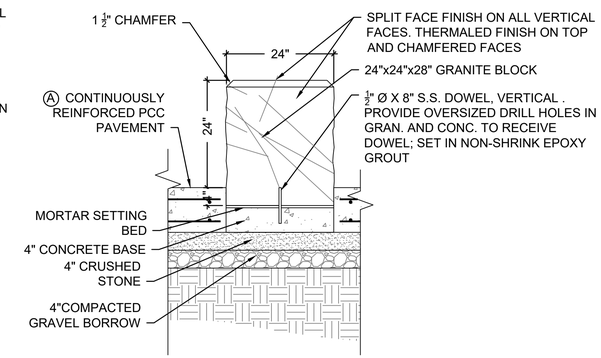






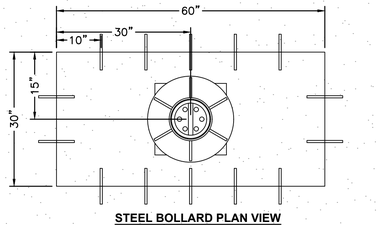
GB (16) GRANITE BLOCK AT CONCRETE

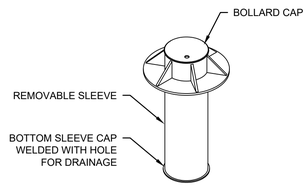
SCALE: ¾"=1'–0"

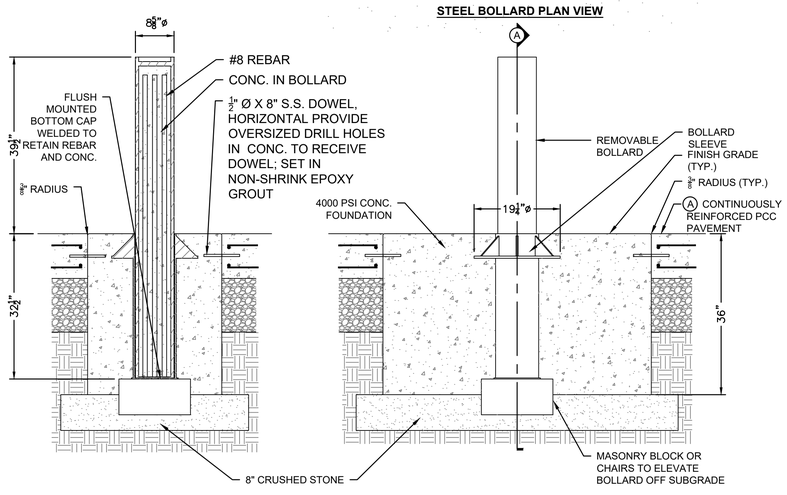


GB (24) GRANITE BLOCK AT A CONTINUOUSLY REINFORCED PCC PAVEMENT

SCALE: ¾"=1'–0"

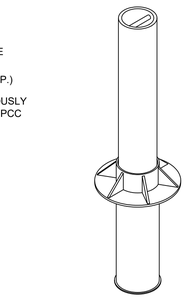




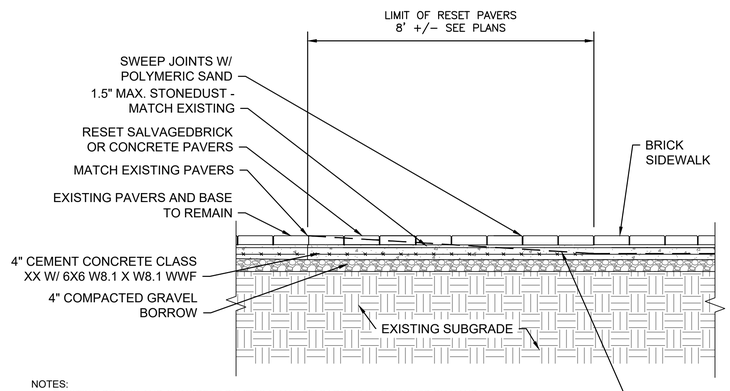


SB STEEL BOLLARD

SCALE: ¾"=1'–0"



REMOVABLE BOLLARD INSTALLED IN BOLLARD SLEEVE



NOTES:
1. EXISTING BRICKS AND CONCRETE PAVERS SHALL BE CAREFULLY REMOVED BY HAND.
2. CONTRACTOR IS RESPONSIBLE FOR EVALUATING THE EXISTING BASE MATERIAL FOR SUITABILITY FOR REUSE AS A BASE MATERIAL AND TO SUPPLEMENT AND COMPACT, AS REQUIRED.

D - RCP RBP RESET BRICK OR CONCRETE PAVERS AT EXISTING CURB RAMP

SCALE: ½"=1'–0"

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

DETAILS - 7

CHECKED BY MPS DATE 10–25–22 SCALE AS SHOWN

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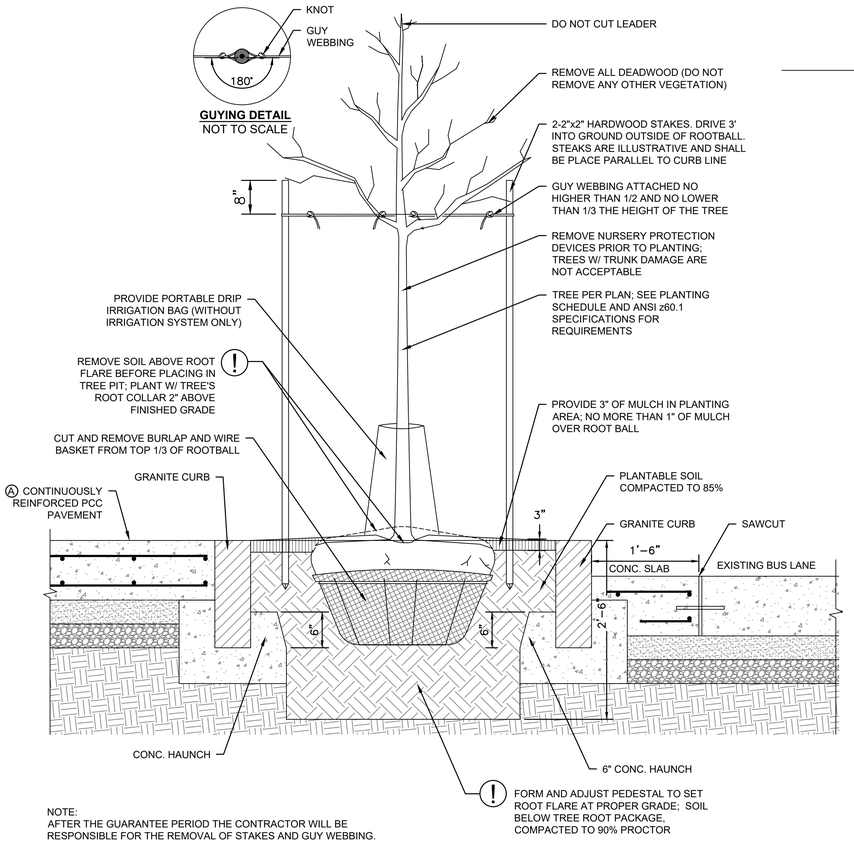
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2022	42	42

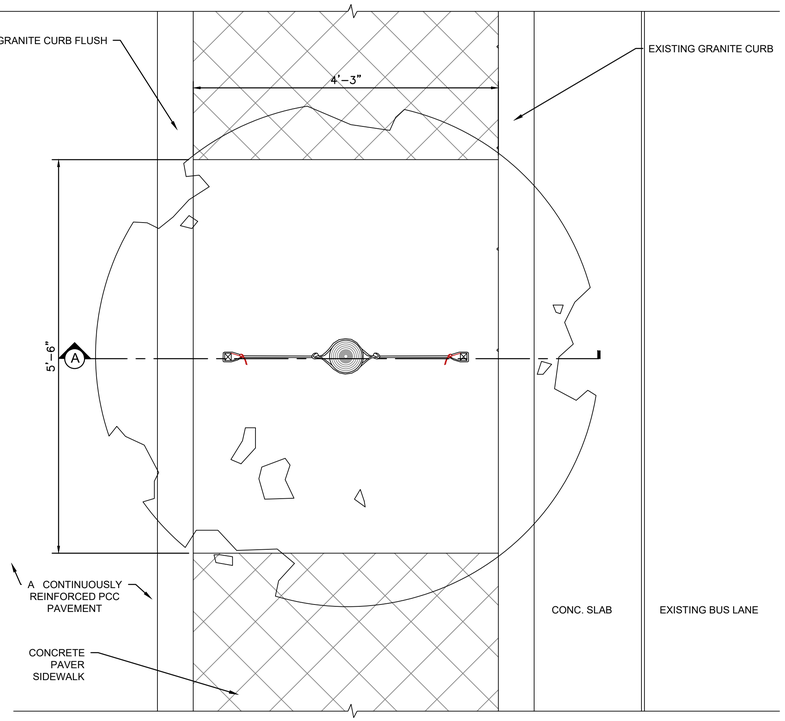


NOTE:
AFTER THE GUARANTEE PERIOD THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF STAKES AND GUY WEBBING.

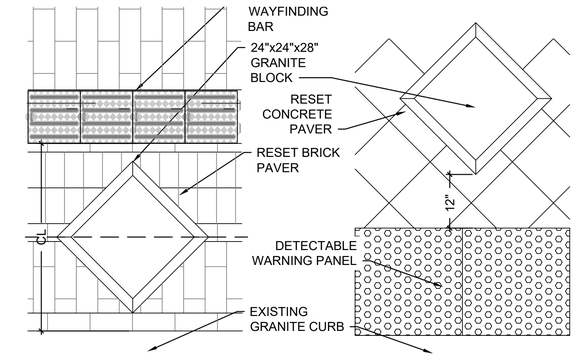
GUYING DETAIL
NOT TO SCALE

TYPICAL SECTION

Ⓟⓢ - PLANTABLE SOIL - AREA A
NOT TO SCALE

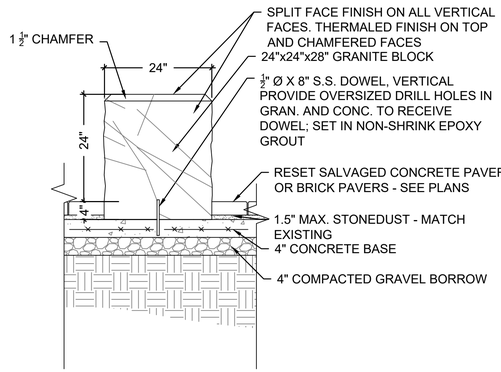


PLAN VIEW

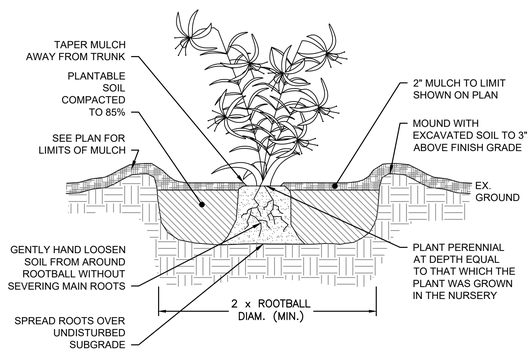


PLAN - RESET BRICK

PLAN - RESET CONCRETE PAVER



GB (24) GRANITE BLOCK AT RESET BRICK OR CONCRETE PAVER
SCALE: 3/4"=1'-0"



PERENNIALS & GRASSES PLANTING
NOT TO SCALE

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET AND EAST APPROACH

PROVIDENCE, RHODE ISLAND

DETAILS - 8

CHECKED BY MPS DATE 10-25-22 SCALE AS SHOWN

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