

July 3, 2019

ADDENDUM NO. 1

To Prospective Bidders and Others on:

Sutton

CENTRAL TURNPIKE IMPROVEMENT PROJECT

Transmitting changes to the contract documents as follows:

RESPONSE TO CONTRACTOR QUESTIONS:

(1 page)

REVISED BID BOOK PAGES:

Revised Table Of Contents (1 page)
[Updated Page Numbers]

Revised Invitation To Bid (1 page)
[Changed pre-qualification category,
Replaced Highway-Construction with Pavement Surfacing]

Revised Instructions To Bidders (1 page)
Article 1, Section 1.1.5
[Changed pre-qualification category,
Replaced Highway-Construction with Pavement Surfacing]

Revised Form For General Bid (1 page)
[Changed Add Alternative #2 Bid Tabs,
Removed Items 102.1, 102.51, 102.52, 103, 104, 227.3, 227.31, 715, 751, 756, 765]

Revised Special Provisions (7 pages)
[Removed Items 102.51, 102.52, 756]

Please take note of the above, substitute Addendum No. 1 for the original due to page number revisions and acknowledge Addendum No. 1 in your Proposal before submitting your bid.

Respectfully Submitted,



TEC, Inc.
Jake Carmody, P.E.
Project Manager – Transportation Engineering Services

Sutton

CENTRAL TURNPIKE IMPROVEMENT PROJECT

RESPONSE TO CONTRACTOR QUESTIONS ADDENDUM NO. 1, JULY 3, 2019

Question #1: The Special Provisions state that ‘The Contractor shall obtain the services of a qualified material testing company to provide in-situ compaction and other material testing as ordered by the Engineer.’ Will the Contractor be allowed to self-perform HMA testing with their own NETTCP certified QA/QC personnel?

Response #1: This will be acceptable.

Question #2: Item 450.53 Superpave Leveling Course – 12.5. The Project Plans indicate a thickness of 1” and the Special Provisions state that ‘The proposed leveling course shall be placed at the minimum thickness necessary to fill existing ruts and only at locations with existing rutting.’ Given these conditions a 9.5mm Leveling Course would be the appropriate mix.

Response #2: The 12.5 mm leveling course is proposed for ease of construction by utilizing the same mix as the surface course. The surface course shall be placed over the leveling course soon after placement of the leveling course and prior to opening the roadway to vehicle travel. Any raveling along the edges shall be swept prior to placement of the surface course.

ADDENDUM #1 – JULY 3, 2019

PROJECT MANUAL FOR

CENTRAL TURNPIKE IMPROVEMENT PROJECT

Town of Sutton



June 14, 2019

Prepared by:



TEC, Inc.
146 Dascomb Road
Andover, MA 01810

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INVITATION TO BID

Central Turnpike Improvement Project

The Town of Sutton invites sealed bids for the Central Turnpike Improvement Project, in accordance with the plans and specifications prepared by TEC, Inc.

The Project shall consist of pavement resurfacing, driveway reconstruction, HMA curbing, drainage modifications, and other related work.

The work, including the Base Bid, Add Alt #1, and Add Alt #2, is estimated to cost **\$915,000 (including Add Alternates)**.

Bids shall be mailed or delivered to the office of the Town Clerk, 4 Uxbridge Road, Sutton, MA 01590 to be time stamped. **Sealed BIDS shall be received until 11:00 AM on Friday, July 19, 2019** and publicly opened forthwith and read aloud in the Sutton Town Hall at 4 Uxbridge Road, Sutton, MA.

Plans and Contract Documents will be available online at TEC, Inc.'s website www.theengineeringcorp.com under the "Central Turnpike" link on the homepage, on or after Friday, June 14, 2019.

Bids are subject to MGL c.30 §39M and to minimum wage rates as required by MGL c.149 §26 to 27H inclusive, as amended. Bids shall be accompanied by a bid deposit that is not less than five (5%) of the greatest possible bid amount and made payable to the Town of Sutton.

Pursuant to MGL c.30 §39S, any person submitting a bid for, or signing a contract to work on, a public works project estimated to cost more than \$10,000, must certify under the pains and penalties of perjury that he or she is able to furnish labor in harmony with all other elements of labor employed in the work and that all employees on the worksite, or in work subject to the bid, have successfully completed at least ten (10) hours of OSHA approved training.

The Town of Sutton reserves the right to reject any or all bids and to waive any informalities in the bidding if it is deemed to be in the best interest of the Town to do so.

A Non-mandatory pre-bid meeting will be held on June 28, 2019 at 10:00 A.M. at the intersection of Central Turnpike and Uxbridge Road, Sutton, MA.

All bidders must submit the plan holders form (located at www.theengineeringcorp.com Under Projects/Central Turnpike) or email to Lee Kreplick (LKreplick@theengineeringcorp.com) to be placed on the official plan holders list to receive official bid notifications and addenda.

Contractors shall be pre-qualified by the Massachusetts Department of Transportation (MassDOT) in the Pavement Surfacing category. Contractors shall be responsible for submitting a waiver with the Construction Prequalification Department if they intend to submit a bid over their single contract limit.

Matt Stencel, Highway Superintendent

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PROJECT DESCRIPTION

This contract contains a combined goal of 10.4% for Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) participation.

Work under this contract includes roadway improvements along Central Turnpike in the Town of Sutton. This project proposes improvements to the existing roadway, including HMA Mill & Overlay, HMA curbing installation, driveway reconstruction, drainage modifications, pavement markings, and other ancillary work.

All work under this contract shall be done in conformance with the *Standard Specifications for Highways and Bridges* dated 1988, the *Supplemental Specifications* dated April 1, 2019; the October 2017 *Construction Standard Details*, the 1990 *Standard Drawings for Signs and Supports*, the 1996 *Construction and Traffic Standard Details* (as relates to the Pavement Markings details only); *The 2015 Overhead Signal Structure and Foundation Standard Drawings*, the 2009 *Manual on Uniform Traffic Control Devices (MUTCD)* with *Massachusetts Amendments* and the *Standard Municipal Traffic Code*; the 1968 *Standard Drawings for Traffic Signals and Highway Lighting*; the latest edition of *American Standard for Nursery Stock*; the Plans and these Special Provisions.

Awarding Authority / Owner

Town of Sutton
4 Uxbridge Road
Sutton, MA 01590
508-865-8743
Contact: Matt Stencel, mstencel@town.sutton.ma.us

Engineer

TEC, Inc.
146 Dascomb Road
Andover, MA 01810
978-794-1792
Contact: Jonathan Rockwell, P.E. jrockwell@theengineeringcorp.com
Jake Carmody, P.E. jcarmody@theengineeringcorp.com

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INSTRUCTIONS TO BIDDERS

ARTICLE 1 – BIDDER’S REPRESENTATION

- 1.1** Each General Bidder (hereinafter called the “**Bidder**”) by making a Bid (hereinafter called “**Bid**”) represents that:
- .1** The Bidder has read and understands the Contract Documents and the Bid is made in accordance therewith.
 - .2** The Bidder has visited the site and is familiar with the local conditions under which the Work has to be performed.
 - .3** The Bidder has a minimum of five (5) years’ experience and has completed satisfactorily five (5) jobs within that time of similar size and scope.
 - .4** All Subcontractors to the Bidder have a minimum of five (5) years’ experience and have completed satisfactorily five (5) jobs within that time of similar size and scope.
 - .5** The Bidder is pre-qualified by the Massachusetts Department of Transportation (MassDOT) in the Pavement Surfacing category. Bidders shall be responsible for submitting a waiver with the Construction Prequalification Department if they intend to submit a bid over their single contract limit.
- 1.2** Failure to so examine the Contract Documents and site will not relieve any Bidder from any obligation under the Bid as submitted.

1.3 MINORITY/WOMEN BUSINESS REQUIREMENTS

This contract contains a combined goal of 10.4% for Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) participation.

For the purpose of this paragraph, the term Minority Business Enterprise (MBE) means a business in which 51% of the beneficial ownership is held by one or more minority persons (Black, Hispanic, Native American, Asian or Cape Verdean). For the purpose of this paragraph, the term Women Business Enterprise means a business in which 51% of the beneficial ownership is held by one or more female persons.

Within 5 working days after the receipt of general bids, the low bidder must submit a completed MBE Utilization Form(s) and a completed WBE Utilization Form(s) to the Town covering each M/WBE to be used to meet the requirements contained in the contract documents. If a firm is certified as a minority-women owned firm, that firm may propose to work as either a women or minority owned or both for each contract by declaring its status on the Minority Business Utilization Form or the Women Business Utilization Form (MB UP or WB UF). Participation of a minority/women-owned firm may not be "double-counted" in order to comply with this goal.

Within 10 working days from the receipt of general bids, the Town shall complete its review of the completed M/WBE utilization forms submitted by the low bidder.

If the M/WBE utilization forms submitted by the low bidder do not meet the requirements of the contract documents, or if no forms are submitted, the low bidder may thereafter be considered ineligible to receive the contract, and the Awarding Authority may require that the next lowest eligible and responsible bidder provide the above described forms within 5 working days from being notified by the Awarding Authority to do so.

Bidders may exercise their own judgment in selecting the M/WBE to perform any portion of the work or to be a supplier of goods or services.

ARTICLE 2 – CONTRACTOR’S CERTIFICATION

- 2.1** All employees who work on this construction site shall have no less than 10 hours of OSHA-approved safety and health training. See Chapter 306 of the Acts of 2004.
- 2.2** The Contractor and all subcontractors on this project shall be required to provide certification of compliance with this requirement in accordance with the provisions of these Contract Documents.

ARTICLE 3 – CONTRACT TIME

- 3.1** Time is of the essence in the Contract.
- 3.2** The Awarding Authority expects work to begin within ten (10) days after issuance of Notice to Proceed and expects work to be **Substantially Complete by November 1, 2019**, and **Final Completion including all punch list items by November 15, 2019**.

ARTICLE 4 – REQUESTS FOR INTERPRETATION

- 4.1** Bidders shall promptly notify the Engineer of any ambiguity, inconsistency, or error, which they may discover upon examination of the Contract Documents, the site, and local conditions.
- 4.2** Every request for such interpretation should be in writing addressed to: **TEC, Inc., Attn: Lee Kreplick 146 Dascomb Road, Andover, MA 01810 (LKreplick@theengineeringcorp.com)** and to be given consideration must be received at on or before Monday, July 8, 2019 at 12:00 P.M. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the Contract Documents which, when issued, will be e-mailed with return receipt requested to all prospective bidders (at the respective e-mail address furnished by them for such purposes), on or before July 12, 2019 at 12:00 P.M. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under this bid as submitted.

- 4.3** Interpretation, correction, or change in the Contract Documents will be made by written Addendum, which will become part of the Contract Documents. Neither the Owner nor the Engineer shall be held accountable for any oral interpretations, corrections, or changes.
- 4.4** Addenda will be issued, via email by the Engineer, to every individual or firm on record as having downloaded a set of Contract Documents.
- 4.5** Addenda must be acknowledged on the spaces provided in the Bid Form. Failure of a Bidder to acknowledge Addenda on the Bid Form may cause rejection of the bid or lead to a protest. Failure of a Bidder to receive any Addenda shall not relieve it from any obligation under its bid as submitted.

ARTICLE 5 – PREPARATION AND SUBMISSION OF BIDS

5.1 Forms and Bid Preparation

Bids shall be submitted on the “**Form for General Bid**” provided in the Project Manual and include a completed “**Bidder’s Reference Form.**” Additional forms are available from the Owner.

- .1** All entries on the Bid Form shall be made by typewriter or in ink. Do not alter Bid Forms.
- .2** Sums shall be expressed in both words and figures in the space indicated on the bid form. Where there is a discrepancy between the bid sum expressed in words and the bid sum expressed in figures, the words shall control.
- .3** Complete all spaces provided. Do not leave any blanks. Print “N/A” if not applicable.
- .4** All Addenda must be acknowledged on the Bid Form.

5.2 Bid Deposits shall be:

- .1** at least five percent (5%) of the highest possible bid amount, considering all alternates;
- .2** made payable to the Town of Sutton;
- .3** conditioned upon faithful performance by the principal of the agreements contained in the bid, and
- .4** in the form of:
 - .1** certified check, treasurer's or cashier's check issued by a responsible bank or trust company, or
 - .2** a bid bond issued by a surety licensed to do business in the Commonwealth of Massachusetts.
- .5** retained until the execution and delivery of the Owner/Contractor Agreement if they represent the bid deposit of one of the three (3) lowest responsible and eligible General Bidders

5.3 Delivery of Bid:

- .1** General Bids, including the bid deposit, shall be enclosed in a sealed envelope with the following plainly marked on the outside:
 - BID FOR: TOWN OF SUTTON
 - CENTRAL TURNPIKE IMPROVEMENT PROJECT
 - BIDDER'S NAME, BUSINESS ADDRESS, AND PHONE NUMBER.

- .2 Date, time and location for receipt of bids is set forth in the Invitation to Bid.
- .3 Timely delivery of a bid to the location designated shall be the full responsibility of the Bidder

ARTICLE 6 – NOT USED

ARTICLE 7 – WITHDRAWAL OF BIDS

7.1 Before Opening of Bids

- .1 Any bid may be withdrawn prior to the time designated for receipt of bids upon written request. Withdrawal of bids must be confirmed over the Bidder's signature by written notice post-marked or sent by facsimile on or before the date and time set for receipt of bids.
- .2 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids.

7.2 After Opening of Bids:

Bidders may withdraw a bid without penalty, any time up to the Award as defined in paragraph 8.1, and upon demonstrating, to the satisfaction of the Owner, that a bona fide clerical error was made during the preparation of the bid. Failure to conclusively demonstrate a bona fide clerical error may result in forfeiture of the bid deposit.

- 7.3 In the event of a General Bid withdrawal after Opening of Bids, the Owner shall consider the bid from the next lowest eligible and responsible bidder.

ARTICLE 8 – CONTRACT AWARD

- 8.1 **Award** means the determination and selection of the lowest, responsible and eligible Bidder, by the Owner.
- 8.2 The Owner will award the contract to the lowest responsible and eligible Bidder within Fifteen (15) days, Saturdays, Sundays, and legal holidays excluded, after the opening of Bids.
- 8.3 The Contract will be awarded to the lowest responsible and eligible bidder. Upon evaluation of bids, the town will decide whether to award a contract for only the base bid, OR for the total of the base bid plus Add Alternate 1, OR for the total of base bid plus Add Alternate 1 and Add Alternate 2. The combination serving as the basis for award is contingent on the available project funding.
- 8.4 The Owner also reserves the right to waive any informality in or to reject any or all Bids if it be in the public interest to do so.
- 8.6 The Owner also reserves the right to reject any bid if it determines that such Bid does not represent the Bid of a person competent to perform the work as specified or if bid prices are not reasonable for acceptance without further competition.

- 8.7** As used herein, the term "lowest responsible and eligible bidder" shall mean the General Bidder whose Bid is the lowest of those Bidders demonstrably possessing the skill, experience, ability, and integrity necessary for the faithful performance of the work, and who meets the requirements set forth in M.G.L. c.149 §44A-J and is not debarred from bidding under M.G.L. c.149 §44C; and who shall certify that they are able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work.

ARTICLE 9 – FORMS REQUIRED FOR CONTRACT APPROVAL

- 9.1** Upon award, the General Bidder shall complete the following forms to ensure prompt contract validation. These forms will be provided to the selected General Bidder by the Owner. Submit three (3) originals of each.
- .1 Owner/Contractor Agreement and Form of Corporate Vote**
 - .2 Performance Bond and Labor and Material Payment Bond** must be submitted by the General Contractor in accordance with Article 18 of the General Conditions. The dates on the bonds must coincide with the contract date, and a current Power-of-Attorney must be attached to each bond.
 - .3 Certification of Compliance with State & Federal Tax Laws**
 - .4 Affidavit of Non-Collusion**
 - .5 OSHA Certification**
 - .6 Certificate of Owner's Attorney Regarding Contract Execution**
 - .7 Insurance Certificates for the General Contractor** are required and must be submitted in accordance with Article 16 of the General Conditions. General Contractors must indicate on special perils insurance or installation floater if stored materials are covered.
 - .8 All applicable licenses for both General Contractor and subcontractors.**
 - .9 Statement of Management on Internal Accounting Controls and a Statement prepared by a CPA** expressing an opinion to the state of Management Controls, as required by M.G.L. c.30 §39R.
This applies to all General Contractors with contracts of \$100,000 or more.
 - .10 Minority Business Utilization Form**
 - .11 Women Business Utilization Form**

ARTICLE 10 – CONTRACT VALIDATION

- 10.1** The Owner-Contractor Agreement shall not be valid until signed by the Town of Sutton.
- 10.2** The Notice to Proceed for construction shall not be issued until the Owner/Contractor Agreement has been executed.
- 10.3** Incomplete or unacceptable submissions of forms required by Article 9 will delay validation of the Owner/ Contractor agreement by the Town of Sutton.

END OF SECTION

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FORM FOR GENERAL BID

From: (Insert name of General Bidder) _____

To the Awarding Authority: The undersigned proposes to furnish all labor and materials required for **CENTRAL TURNPIKE IMPROVEMENT PROJECT** in Sutton, Massachusetts in accordance with the accompanying Contract Documents prepared by TEC, Inc. for the contract price specified below, subject to additions and deductions according to the terms of the specifications.

Printed Name of Bidder: _____

Address: _____

This bid includes addenda numbered: _____

The Bidder hereby pledges to deliver the complete scope of services required for the price shown below:

BASE BID PRICE

The Bidder submits this bid proposal to perform all of the work (including labor and materials) as described in the solicitation for this Base Bid Price (including the costs for all Allowances, Bonds, and Addenda):

Base Bid in figures \$ _____

Base Bid in words \$ _____

ADD ALTERNATE NO. 1 BID PRICE

The Bidder submits this bid proposal to perform all of the work (including labor and materials) as described in the solicitation for this Add Alternate No. 1 Bid Price (including the costs for all Allowances, Bonds, and Addenda):

Add Alternate No. 1 Bid in figures \$ _____

Add Alternate No. 1 Bid in words \$ _____

ADD ALTERNATE NO. 2 BID PRICE

The Bidder submits this bid proposal to perform all of the work (including labor and materials) as described in the solicitation for this Add Alternate No. 2 Bid Price (including the costs for all Allowances, Bonds, and Addenda):

Add Alternate No. 2 Bid in figures \$ _____

Add Alternate No. 2 Bid in words \$ _____

TOTAL BASE BID PRICE plus ADD ALTERNATE NO. 1 PRICE

The Total bid price submitted for this proposal (Base Bid + Add Alternate No. 1) is as follows:

Total Bid in figures \$ _____

Total Bid in words \$ _____

TOTAL BASE BID PRICE plus ADD ALTERNATE NO. 1 PRICE plus ADD ALTERNATE NO. 2 PRICE

The Total bid price submitted for this proposal (Base Bid + Add Alternate No. 1 + Add Alternate No. 2) is as follows:

Total Bid in figures \$ _____

Total Bid in words \$ _____

All quantities in the bid form below are undetermined. Assumed quantities are provided for bid comparison purposes only. Contractor will be paid for actual "installed" quantities performed to complete the project as shown and specified on the plans and specifications.

In the event that any specification herein, whether in a product description or scope of service, is deemed proprietary under either M.G.L. c. 30B, §14 or M.G.L. c. 30, §39M, and such specification provides for a named item "or equal," the Bidder may substitute an item for the one specified only if the substitute is "equal" as that term is defined in M.G.L. c. 30, §39M(b). In the event that the Bidder wishes to substitute an equal item, it may do so only in its bid or proposal, and the contract award shall be conditioned on the Bidder providing the item originally specified or an equal item accepted by the Town and identified in the contract. In no event shall the Bidder be entitled to offer, or the Town obliged to consider, the substitution of an item as equal after the signing of the contract. In the event the Bidder substitutes or

attempts to substitute an "equal" item after the date of the contract, it shall be in breach thereof and be liable for actual and consequential damages resulting from its failure to perform as agreed.

The following Unit prices shall be used to determine Change Orders as specified in the Project Manual and Unit Price specification. The difference in Unit Prices between add and deduct shall not exceed 15%.

In accordance with the above, the undersigned proposes to perform the Work, furnish all labor, tools, equipment, and materials, to complete the Work in its entirety in the manner and under the conditions required at the prices listed as follows:

ITEM NO.	QTY	BASE BID		UNIT PRICE		TOTAL	
		ITEM WITH UNIT BID PRICE WRITTEN IN WORDS		DOLLARS	CENTS	DOLLARS	CENTS
120.1	60	AT UNCLASSIFIED EXCAVATION					
		PER CUBIC YARD					
151.	65	AT GRAVEL BORROW					
		PER CUBIC YARD					
170.	280	AT FINE GRADING AND COMPACTING - SUBGRADE AREA					
		PER SQUARE YARD					
415.	12000	AT PAVEMENT MICROMILLING					
		PER SQUARE YARD					
450.23	3100	AT SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)					
		PER TON					
450.53	800	AT SUPERPAVE LEVELING COURSE - 12.5 (SLC - 12.5)					
		PER TON					
452.	2350	AT ASPHALT EMULSION FOR TACK COAT					
		PER GALLON					
453.	20200	AT HMA JOINT SEALANT					
		PER FOOT					
482.03	3000	AT HOT APPLIED ASPHALTIC CRACK FILLER (CMCR)					
		PER GALLON					
703.	60	AT HOT MIX ASPHALT DRIVEWAY					
		PER TON					
748.	1	AT MOBILIZATION					
		PER LUMP SUM					
852.	425	AT SAFETY SIGNING FOR TRAFFIC MANAGEMENT					
		PER SQUARE FOOT					

CARRIED FORWARD _____

BT-1

BROUGHT FORWARD _____

ITEM NO.	QTY	BASE BID		UNIT PRICE		TOTAL	
		ITEM WITH UNIT BID PRICE WRITTEN IN WORDS		DOLLARS	CENTS	DOLLARS	CENTS
856.	180	AT	ARROW BOARD _____				
			PER DAY				
856.12	250	AT	PORTABLE CHANGEABLE MESSAGE SIGN _____				
			PER DAY				
859.1	18000	AT	REFLECTORIZED DRUM WITH SEQUENTIAL FLASHING WARNING LIGHTS _____				
			PER DAY				
867.106	22500	AT	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) _____				
			PER FOOT				
999.	1	AT	POLICE DETAIL _____	\$9,500	00	\$9,500	00
			PER ALLOWANCE				

BASE BID TOTAL _____

IN WRITTEN WORDS

BT-2

ITEM NO.	QTY	ADD ALTERNATE #1		UNIT PRICE		TOTAL	
		ITEM WITH UNIT BID PRICE WRITTEN IN WORDS		DOLLARS	CENTS	DOLLARS	CENTS
120.1	20	AT	UNCLASSIFIED EXCAVATION PER CUBIC YARD				
151.	25	AT	GRAVEL BORROW PER CUBIC YARD				
170.	75	AT	FINE GRADING AND COMPACTING PER SQUARE YARD				
450.23	450	AT	SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5) PER TON				
452.	225	AT	ASPHALT EMULSION FOR TACK COAT PER GALLON				
453.	3050	AT	HMA JOINT SEALANT PER FOOT				
482.03	450	AT	HOT APPLIED ASPHALTIC CRACK FILLER (CMCR) PER GALLON				
703.	15	AT	HOT MIX ASPHALT DRIVEWAY PER TON				
867.106	2850	AT	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) PER FOOT				
999.	1	AT	POLICE DETAIL PER ALLOANCE	\$4,000	00	\$4,000	00

ADD ALTERNATE #1 TOTAL

IN WRITTEN WORDS

BT-1

ITEM NO.	QTY	ADD ALTERNATIVE #2		UNIT PRICE		TOTAL	
		ITEM WITH UNIT BID PRICE WRITTEN IN WORDS		DOLLARS	CENTS	DOLLARS	CENTS
101.	0.08	AT	CLEARING AND GRUBBING PER ACRE				
120.1	1400	AT	UNCLASSIFIED EXCAVATION PER CUBIC YARD				
156.	35	AT	CRUSHED STONE PER TON				
220.	2	AT	DRAINAGE STRUCTURE ADJUSTED PER EACH				
280.	25	AT	HOT MIX ASPHALT WATERWAY PER SQUARE YARD				
402.13	6600	AT	PAVEMENT MILLING MULCH FOR SHOULDERS PER FOOT				
470.2	20	AT	HOT MIX ASPHALT BERM, TYPE A - MODIFIED PER FOOT				
570.2	1300	AT	HOT MIX ASPHALT CURB TYPE 2 PER FOOT				
697.1	8	AT	SILT SACK PER EACH				
698.1	4800	AT	GEOTEXTILE FABRIC FOR STABILIZATION PER SQUARE YARD				
748	1	AT	MOBILIZATION PER LUMP SUM				
767.121	1000	AT	SEDIMENT CONTROL BARRIER PER FOOT				
874.2	5	AT	TRAFFIC SIGN REMOVED AND RESET PER EACH				
999.	1	AT	POLICE DETAIL PER ALLOWANCE	\$10,000	00	\$10,000	00

ADD ALTERNATE #2 TOTAL

IN WRITTEN WORDS

BT-1

Bidder certifies as follows:

- A. Bidder is an established business with a minimum of five (5) years of experience in providing services related to highway construction.
- B. Bidder holds all applicable State and Federal permits, licenses and approvals.
- C. Bidder provides a Town approved Foreman, who shall be present at the work site at all times.
- D. Bidder provides supervision of all workers performing under all Contracts held and pledges to provide such supervision under any Contract with the Town.
- E. Bidder has not defaulted on any Contract within the last five (5) years.
- F. Bidder maintains a permanent place of business.
- G. Bidder has adequate personnel and equipment to perform the work expeditiously.
- H. Bidder has suitable financial status to meet obligations incident to the work.
- I. Bidder is registered with the Secretary of the Commonwealth of Massachusetts to do business in Massachusetts.
- J. Bidder has not failed to perform satisfactorily on Contracts of a similar nature.
- K. Bidder possesses the skill, ability and integrity necessary for the faithful performance of the work.
- L. Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work.
- M. Bidder's employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee.

The Bidder understands that, pursuant to M.G.L. c.30, §39M, the Town shall award, within fifteen (15) days of the opening of sealed Bids, one (1) Contract, if at all, to the lowest responsible and eligible Bidder, base upon Article 8 above, to provide the required services. The award of any Contract pursuant to this IFB shall be subject to appropriation by Town of Sutton.

The Bidder agrees that, if he/she/it is the Successful Bidder, he/she/it will, within ten (10) calendar days after notification of award of a Contract by the Awarding Authority, execute said Contract in accordance with the terms of this Bid and furnish a Performance Bond and a Labor and Materials Payment Bond, each with a surety company qualified to do business under the laws of the Commonwealth of Massachusetts and satisfactory to the Awarding Authority in the amount of one hundred percent (100%) of the Contract price, the premiums for which are to be paid by the Successful Bidder and are included in the Contract price; provided, however, that if there is more than one (1) surety company, the surety companies shall be jointly and severally liable.

The undersigned certifies under the penalties of perjury that this Bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection

the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth of Massachusetts under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

The Bidder agrees that all Bid specifications and Contract Documents are hereto made part of any Contract executed with the Town and are binding on the Successful Bidder.

Authorized Signature

Printed Name

Printed Title

Date

If an individual:

Name: _____

Residence: _____

If an individual doing business under a firm:

Name of firm: _____

Name of Individual: _____

Business Address _____

Residence: _____

If a partnership:

Name of partner: _____

Residence: _____

Name of partner: _____

Residence: _____

If a corporation:

Incorporated in what state: _____

President: _____

Treasurer: _____

Secretary: _____

END OF SECTION

BIDDERS REFERENCE FORM

Bidders Name: _____

Project Title: _____

The bidder must provide five (5) business references for projects performed and completed within the past five (5) years. (attach additional pages if necessary)

1. Reference Name: _____ Contact: _____
Address: _____ Phone: (____) _____

Description and date(s) of work:

2. Reference Name: _____ Contact: _____
Address: _____ Phone: (____) _____

Description and date(s) of work:

3. Reference Name: _____ Contact: _____
Address: _____ Phone: (____) _____

Description and date(s) of work:

4. Reference Name: _____ Contact: _____
Address: _____ Phone: (____) _____

Description and date(s) of work:

5. Reference Name: _____ Contact: _____
Address: _____ Phone: (____) _____

Description and date(s) of work:

References will be contacted to confirm the bidder's skills, abilities and qualifications to faithfully perform the work as specified.

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OWNER-CONTRACTOR AGREEMENT

Note to Parties to the Agreement: This form of agreement is only a suggested guideline agreement. The Engineer is not an attorney and is not qualified to assist in the preparation of contracts between the Awarding Authority and the Contractor or any Subcontractor. The parties to this agreement should obtain qualified legal advice and counsel before using or signing this form of agreement.

THIS AGREEMENT, made this _____ day of _____, 2019 by and between the Town of Sutton, Massachusetts, as represented by the **Town of Sutton** herein called the "Owner"

and

_____ a corporation organized and existing under the laws of _____

_____ a partnership consisting of _____

_____ an individual doing business as _____

_____ hereinafter called the "Contractor".

WITNESSETH, that the Owner and the Contractor, for the consideration hereinafter named agree as follows:

Article 1. SCOPE OF THE WORK: The Contractor shall furnish all of the materials and perform all of the work shown and described in the Contract Documents titled CENTRAL TURNPIKE IMPROVEMENT PROJECT, prepared by TEC, Inc., acting as and in these Contract Documents entitled the Engineer, and shall do everything required by this Agreement and the Contract Documents.

Article 2. TIME OF COMPLETION: The Contractor hereby agrees to commence work within 10 calendar days (Saturdays, Sundays and legal holidays excluded) from receipt of a written "Notice to Proceed" and to Substantially Complete the Work by November 1, 2019

The parties acknowledge that time is of the essence in the performance of this Contract.

Article 3. THE CONTRACT PRICE: The Owner shall pay the Contractor for the performance of the Work subject to additions and deductions by Change Order as provided in the Conditions of the Contract, in current funds, the sum of:

_____ DOLLARS (\$ _____)

Article 4. PAYMENTS: The Owner agrees to pay the Contractor in current funds for the performance of the Contract as provided in the GENERAL CONDITIONS OF THE CONTRACT

FOR CONSTRUCTION, as amended by the SUPPLEMENTARY GENERAL CONDITIONS, if any, and by Massachusetts statutes, including General Laws Chapter 30, Section 39K.

Article 5. THE CONTRACT DOCUMENTS: The following together with this Agreement, form the CONTRACT:

The Record Documents as listed in the Table of Contents, including all instructions, specifications, plans and requirements contained herein.

The Record Drawings as listed on the Contract Drawing coversheet.

Addenda No. ____ through ____, inclusive.

Modifications issued after the execution of the Contract.

Article 6. REQUIRED TERMS: This Contract shall be considered to include all items required to be included in it by the Massachusetts General Laws, Chapter 30 and 149, as amended, and any applicable other laws, as though such terms were set forth herein.

IN WITNESS WHEREOF, the parties hereto on the day and year first above written have executed this Agreement in two (2) counterparts, each of which shall, without proof of accounting for the other counterpart, be deemed an original thereof.

TOWN OF SUTTON,

SEAL

CONTRACTOR,

Address: _____

By: _____

Title: _____

Note: If the Contractor is a corporation, attach Certificate of Vote by Board of Directors stating that the officer signing the contract has the authority of the Corporation to sign contracts binding on the Corporation

COMMONWEALTH OF MASSACHUSETTS

(County) _____

Then personally appeared the above _____

the aforesaid _____ of _____

and acknowledged the foregoing instrument to be the free act and deed of _____

_____ before me

My Commission expires: _____

Notary Public

END OF SECTION

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CERTIFICATE OF VOTE OF AUTHORIZATION

_____ 20__

I hereby certify that a meeting of the Board of Directors of the:

(Name of Corporation)

duly called and held at _____ on the ____ day of _____ 20____,

at which a quorum was present and acting, it voted that _____
(Name of Corporation Officer)

of the _____, be and hereby is authorized to execute and deliver for
(Name of Corporation)

and on behalf of the Corporation a Contract with the Town of Sutton, for work to be done on the Central Turnpike Improvement Project in the Town of Sutton, and to act as Principal to execute bonds in connection therewith, which Contract and Bonds were presented to and made a part of the records of said meeting.

I further certify that _____ is duly qualified and acting
(Name of Corporation Officer)

_____ of the Corporation and that said vote has not been repealed,
(Title)

rescinded or amended

A true copy of the record,

ATTEST: _____

(CORPORATE SEAL)

On this ____ day of _____ 20____, before me, the undersigned Notary Public, personally appeared _____, duly designated by the board of directors and proved to me, through satisfactory evidence of identification, which was _____, s/he is the person whose name is signed on the foregoing documents, and acknowledged to me that s/he signed it voluntarily for its stated purpose and that it was her/his free act and deed.

Notary Public
My Commission Expires on: _____

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PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS that _____

as Principal, and _____

as Surety, are held and firmly bound unto the Awarding Authority, in the sum of _____

lawful money of the United States to be paid to the Awarding Authority for which payments, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has made a contract with the Awarding Authority bearing the date of _____

_____ 2019, for the construction of _____

_____ (Project),

Now the condition of this obligation is such that if the Principal shall well and truly keep and perform all the undertakings, covenants, agreement, terms and conditions of said contract and any extensions thereof that may be granted by the Awarding Authority, with or without notice to the Surety, and during the life and any guaranty required under the contract, and shall also well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of any and all duly authorized modifications, alterations changes or additions to said contract that may hereafter be made, notice to the Surety of such modifications, alterations, changes or additions being hereby waived, then this obligations shall become null and void; otherwise it shall remain in full force and virtue.

In the event that the contract is abandoned by the Contractor, or is terminated by the Awarding Authority, said Surety hereby further agrees that said Surety shall, if requested in writing by the Awarding Authority, take such action as is necessary to complete said Contract.

In witness whereof we hereto set our hands and seals this _____ day of _____, 20__

By Principal: _____ (Seal)

By Surety: _____

Address: _____

Surety Agent: _____ (Seal)

Address: _____

Telephone: _____

FORM APPROVED BY AWARDING AUTHORITY: _____

CERTIFICATE AS TO CORPORATE PRINCIPAL (PERFORMANCE BOND)

I, _____ certify that I am the _____
of the corporation names as Principal in the within bond; that _____
who signed said Bond on behalf of the Principal was then _____
of said corporation and I know his signature and his signature thereon is genuine; and that said
Bond was duly signed, sealed and attested for and on behalf of said corporation by authority of
its governing body.

Signed: _____ (Seal)

Date: _____, 20 ____

Rate of Premium on this bond is \$_____ per thousand.

Total Amount of Premium Charge is \$ _____.

END OF SECTION

LABOR AND MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that _____

as Principal, and _____

as Surety, are held and firmly bound unto the Awarding Authority, in the sum of _____

lawful money of the United States of America to be paid to the Awarding Authority for which payments, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has made a contract with the Awarding Authority bearing the date of _____

_____ 2019, for the construction of _____

_____ (Project),

Now the conditions of this obligation is such that it the principal shall promptly pay for all labor performed or furnished and for all materials used or employed in said contract and in any and all duly authorized modifications, alterations, extensions of time, changes or additions to said contract that may hereafter be made, notice to the surety of such modifications, alterations, extensions of time, changes or additions being hereby waived, the foregoing to include any other purposes or items set out in, and to be subject to, provisions of Massachusetts General Laws, Chapter 30, Section 39A, and Chapter 149, Section 29 as amended, then this obligation shall become null and void; otherwise it shall remain in full force and virtue.

In witness whereof we hereto set our hands and seals this _____ day of _____, 20____

By Principal: _____ (Seal)

By Surety: _____

Address: _____

Surety Agent: _____ (Seal)

Address: _____

Telephone: _____

FORM APPROVED BY AWARDING AUTHORITY: _____

CERTIFICATE AS TO CORPORATE PRINCIPAL (LABOR AND MATERIAL BOND)

I, _____ certify that I am the _____
of the corporation names as Principal in the within bond; that _____
who signed said Bond on behalf of the Principal was then _____
of said corporation and I know his signature and his signature thereon is genuine; and that said
Bond was duly signed, sealed and attested for and on behalf of said corporation by authority of
its governing body.

Signed: _____ (Seal)

Date: _____, 20 ____

Rate of Premium on this bond is \$_____ per thousand.

Total Amount of Premium Charge is \$ _____.

END OF SECTION

MINORITY BUSINESS UTILIZATION FORM

Name of Project: _____

Total Dollar Amount of Base Bid: _____

Name of General Bidder: _____

Address: _____

Telephone: _____

Listed below is the MBE (Minority Business Enterprise), the services and/or supplies it will provide and the approximate amount of money it will receive. The General Contractor and this MBE intend to work together on the above named project.

Name: _____ Scope of work to be performed and/or
supplies to be provided.

Address: _____

Telephone: _____ Amount: \$ _____

SIGNED UNDER THE PAINS AND PENALTIES OF PERJURY. A PRINCIPAL OF THE MBE AND THE GENERAL CONTRACTOR MUST SIGN THIS FORM. IF THE GENERAL CONTRACTOR IS SIGNING ON BEHALF OF THE MINORITY BUSINESS, AUTHORIZATION TO DO SO SIGNED AND DATED BY A PRINCIPAL OF THE MBE MUST BE ATTACHED TO THIS FORM.

General Contractor

Minority Business Enterprise

Signed: _____

Signed: _____

Date: _____

Date: _____

Title: _____

Title: _____

Please attach additional forms if other MBE Enterprises are needed.

Note: This Form must be submitted by the General Contractor to the TOWN within 5 business days after the opening of the general bid.

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WOMEN BUSINESS UTILIZATION FORM

Name of Project: _____

Total Dollar Amount of Base Bid: _____

Name of General Bidder: _____

Address: _____

Telephone: _____

Listed below is the WBE (Women Business Enterprise), the services and/or supplies it will provide and the approximate amount of money it will receive. The General Contractor and this WBE intend to work together on the above named project.

Name: _____ Scope of work to be performed and/or
supplies to be provided.

Address: _____

Telephone: _____ Amount: \$ _____

SIGNED UNDER THE PAINS AND PENALTIES OF PERJURY. A PRINCIPAL OF THE WBE AND THE GENERAL CONTRACTOR MUST SIGN THIS FORM. IF THE GENERAL CONTRACTOR IS SIGNING ON BEHALF OF THE WOMEN BUSINESS, AUTHORIZATION TO DO SO SIGNED AND DATED BY A PRINCIPAL OF THE WBE MUST BE ATTACHED TO THIS FORM.

General Contractor

Women Business Enterprise

Signed: _____

Signed: _____

Date: _____

Date: _____

Title: _____

Title: _____

Please attach additional forms if other WBE Enterprises are needed.

Note: This Form must be submitted by the General Contractor to the TOWN within 5 business days after the opening of the general bid.

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GENERAL CONDITIONS

(Site Work over \$10,000 – c30 §39M)

ARTICLE 1

GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents consist of the Owner-Contractor Agreement, Advertisement, Instructions to Bidders, Bidding Documents, Contract Forms, Conditions of the Contract, Specifications, Drawings, all addenda issued prior to execution of the Contract, and other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Engineer.

1.1.2 THE CONTRACT

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification.

1.1.3 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner or by separate contractors.

1.1.5 THE DRAWINGS

The Drawings are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards, and workmanship for the Work, and performance of related services.

1.2 EXECUTION, CORRELATION, AND INTENT

- 1.2.1** Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.
- 1.2.2** The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all. Performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results. In case of inconsistent requirements in the Contract Documents, the requirement for the greater quantity or higher quality shall take precedence and shall be the Contract requirement.
- 1.2.3** Unless otherwise stated in the Contract Documents, words which have well known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.
- 1.2.4** Where reference is made to standards or trade association publications, it shall be considered to refer to the latest edition and revision thereof, if any, in effect on the date the Contract Documents were advertised for bid.

1.3 USE OF DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS

The Drawings, Specifications and other documents prepared by the Engineer, and copies thereof furnished to the Contractor, are for use solely with respect to this Project. They are not to be used by the Contractor or any Subcontractor, Sub-subcontractor, or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner and the Engineer.

ARTICLE 2

OWNER

2.1 DEFINITION

The term "Owner" sometimes also referred to as the "Awarding Authority" or "Authority" means the Town of Sutton identified in the Owner-Contractor Agreement, organized and existing under the current laws of the Commonwealth of Massachusetts.

2.2 INFORMATION AND SERVICES TO BE PROVIDED BY THE OWNER

- 2.2.1** The Owner will furnish to the Contractor, free of charge, an electronic copy (PDF and AutoCAD) of the Contract Documents for the execution of the Work, including one hard copy set for record purposes. The Contractor shall provide and distribute such number of prints of these documents as required for the Contractor's and Subcontractors' use.

2.3 OWNER'S RIGHT TO STOP THE WORK

2.3.1 If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents or persistently fails to carry out the Work in accordance with the Contract Documents, the Owner by written order signed personally or by its authorized agent, may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

2.3.2 Stop work orders require the Administrator's prior approval. (See Subparagraph 3.1.2)

2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

2.4.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven-day period after receipt of written notice from the Engineer at the Owner's direction to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies, hire one or more contractors to correct such deficiencies.

2.4.2 In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the Engineer's additional services and expenses made necessary by such default, neglect, or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

ARTICLE 3

ENGINEER

3.1 DEFINITION

The term "Engineer" means TEC, Inc., the Engineer identified in the Contract Documents.

ARTICLE 4

CONTRACTOR

4.1 DEFINITION

The Contractor, sometimes referred to as the General Contractor, is the person or entity identified as such throughout the Contract Documents as if singular in number. The term Contractor means the Contractor or its authorized representative.

4.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

4.2.1 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner pursuant to Subparagraph 2.2.2 and shall at once report to the Engineer errors, inconsistencies, or omissions discovered. The Contractor shall not be liable to the Owner or Engineer for damage resulting from errors, inconsistencies, or omissions in the Contract Documents unless the Contractor recognized such error, inconsistency, or omission and knowingly failed to notify the Engineer. If the Contractor performs any construction activity knowing it involves a

recognized error, inconsistency or omission in the Contract Documents without such notice to the Engineer, the Contractor shall assume responsibility for such performance and shall bear the costs attributable for correction.

4.2.2 The Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract documents before commencing activities. Errors, inconsistencies, or omissions discovered shall be reported to the Engineer at once.

4.2.3 The Contractor shall perform the Work in accordance with the Contract Documents and submittals approved pursuant to Paragraph 4.7.

4.3 SUPERVISION AND CONSTRUCTION PROCEDURES, COORDINATION, AND CUTTING AND PATCHING

4.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract.

4.3.2 The Contractor shall be responsible for the proper fitting of all Work and the coordination of the operations of all trades, Subcontractors, or materialmen engaged upon the Work.

4.3.3 All necessary cutting, coring, drilling, grouting, and patching required to fit together the several parts of the Work shall be done by the Contractor, except as may be specifically noted otherwise under any particular filed sub-bid section of the Specifications.

4.3.4 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors, and their agents and employees, and other persons performing portions of the Work.

4.3.5 The Contractor shall be responsible for inspection of portions of Work already performed under this Contract to determine that such portions are in proper condition to receive subsequent Work.

4.3.6 The Contractor shall do engineering required for establishing grades, lines, levels, dimensions, layouts, and reference points for the trades; shall be responsible for maintaining bench marks and other survey marks; and shall replace any bench marks or survey marks which have been disturbed or destroyed.

4.3.7 Unless otherwise required by the Contract Documents, or directed in writing by the Engineer, Work shall be done during regular working hours. However, if the Contractor desires to carry on the Work outside of regular working hours or on Saturdays, Sundays, or Massachusetts holidays it shall allow ample time to enable satisfactory arrangements to be made for inspecting Work in progress and shall bear the costs of such inspection. The Owner shall bill the Contractor directly for such costs.

4.3.8 Work done outside of regular working hours without the consent or knowledge of the Engineer shall be subject to additional inspection and testing as directed by the

Engineer. The cost of this inspection and testing shall be paid by the Contractor whether the Work is found to be acceptable or not.

4.4 SUPERINTENDENT

4.4.1 The Contractor shall employ a Superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The Superintendent shall represent the Contractor, and communications given to the Superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case. The Superintendent shall attend each job meeting.

4.4.2 The Superintendent shall be a competent and responsible employee, satisfactory to the Owner, who is regularly employed by the Contractor and is designated by the Contractor as its representative to be in full time attendance at the Project site throughout the construction of the Work. The Superintendent shall be responsible for coordinating all the Work of the Contractor and the Subcontractors. The Superintendent shall be licensed consistent with the Massachusetts Building Code. The Superintendent's resume shall be submitted to the Owner prior to commencement of construction and must demonstrate to the Owner's reasonable satisfaction that the Superintendent has performed similar duties on previous construction projects similar to the Project.

4.5 LABOR

The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them, and whenever the Owner shall notify the Contractor, in writing, that any worker is, in its opinion, incompetent, unfaithful, disorderly, or otherwise unsatisfactory, such employee shall be discharged from the Work and shall not again be employed on the Project except with the consent of the Owner.

4.6 MATERIALS AND EQUIPMENT

4.6.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

4.6.2 Materials and Equipment to be installed as part of the Contract (both or either of which are hereinafter referred to as "Materials") shall be new, unused, of recent manufacture, assembled, and used in accordance with the best construction practices.

4.6.3 "OR EQUAL" SUBMISSIONS/SUBSTITUTIONS

4.6.3.1 Except where a product has been specified as a proprietary material, the words "or equal" are understood to follow the name of any maker, vendor, or product specified to be used in the Contract Documents. To determine if the materials or articles proposed by the Contractor are equal to those specified, the Engineer shall determine whether the materials or articles proposed are at least equal in quality, durability, appearance, strength and design to the material or articles named or

described, and will perform at least equally the functions imposed by the design. See M.G.L. c.30 §39M.

- 4.6.3.2** The Contractor shall be responsible for providing the Engineer with any information and test results the Engineer reasonably requires to determine if a material is equal to a material named or described in the Contract Documents.
- 4.6.3.3** Whenever the Contractor submits a material for approval as a substitute for a material named or described in the Contract Documents, such submission shall be made at least one hundred and twenty (120) days prior to the date the materials will be used on the Project. In no event shall the Contractor maintain a claim for delays based upon the Engineer's review of such substituted materials if the Contractor has failed to comply with the one hundred and twenty (120) days submission requirement.

4.7 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

- 4.7.1** Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate a portion of the Work.
- 4.7.2** Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor or its Subcontractors and suppliers to illustrate materials or equipment for some portion of the Work.
- 4.7.3** Samples are physical examples which illustrate materials, equipment, or workmanship and establish standards by which the Work will be judged.
- 4.7.4** Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. The purpose of their submission is to demonstrate for those portions of the Work for which submittals are required the way the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Review by the Engineer is subject to the limitations of Subparagraph 4.7.9.
- 4.7.5** The Contractor shall review, approve, and submit to the Engineer, Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. Submittals made by the Contractor which are not required by the Contract Documents may be returned without action. The Contractor's attention is directed to the provisions of Subparagraph 4.6.3 entitled "Or Equal" Submissions/ Substitutions.
- 4.7.6** The Contractor shall prepare and keep current, for the Engineer's approval, a schedule of submittals which is coordinated with the Contractor's construction schedule submitted pursuant to Paragraph 9.4, and allows the Engineer reasonable time to review submittals.
- 4.7.7** The Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective

submittal has been approved by the Engineer. Such Work shall be in accordance with approved submittals.

- 4.7.8** By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements, and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.
- 4.7.9** The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Engineer's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Engineer in writing of such deviation at the time of submittal and the Department has given explicit written approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals by the Engineer's actions.
- 4.7.10** The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Engineer on previous submittals.
- 4.7.11** Informational submittals upon which the Engineer is not expected to take responsive action may be so identified in the Contract Documents.
- 4.7.12** When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the Engineer shall be entitled to rely upon the accuracy and completeness of such calculations and certifications.
- 4.8 SAMPLES AND TESTS**
- 4.8.1** Materials to be used in the Work may be tested or inspected after reasonable notice by the Engineer and may be rejected if they fail the specified tests. Except as otherwise provided in the Contract, all testing of material specifically requested by the Engineer will be paid for by the Contractor. If the Contractor requests permission to use a material that was not specified in the Contract Documents and the Engineer requires testing of such material before approving its use, the Contractor shall pay for such testing.
- 4.8.2** The source of material proposed by the Contractor shall be designated in time to permit all required testing and inspection before the material is needed for incorporation into the Work. The Contractor shall have no claim for delays due to testing if it fails to designate the proposed source or to order the material in time to provide for adequate testing and inspection. Necessary arrangements shall be made to permit the Engineer to make factory, shop, or other inspection of materials or equipment ordered for the Work, in process of manufacture or fabrication, or in storage elsewhere than the site of the Work.
- 4.8.3** The Contractor shall furnish the Engineer with samples of the materials it proposes to use in the execution of the work in sufficient time to afford the Engineer the opportunity to adequately review and, if necessary, arrange for testing of such materials.

4.9 DELIVERY AND STORAGE OF MATERIALS

- 4.9.1** Materials and equipment shall be progressively delivered to the site so that there will be neither delay in the progress of the Work nor an undue accumulation of materials that are not to be used within a reasonable time.
- 4.9.2** Materials stored off-site shall be stored at the expense of the Contractor in a manner that preserves their quality and fitness for the Work. Material shall be placed on wooden platforms or other hard clean surfaces and not on the ground and shall be properly protected.
- 4.9.3** If the Contractor requests the Engineer's inspection of materials stored off-site, the Contractor shall assume the Engineer's reasonable costs for travel, room, and meals associated with such inspection.
- 4.9.4** Materials stored either at the site or at some other location agreed upon in writing shall be located so as to facilitate prompt inspection and may again be inspected prior to their use in the work.
- 4.9.5** The Contractor shall take charge of and be liable for any loss of or injury to the materials delivered at or in the vicinity of the place where the Work is being done and shall notify the Engineer as soon as any such materials are so delivered and allow them to be examined by the Engineer.
- 4.9.6** Payment for stored materials shall be made in accordance with Paragraph 10.4.

4.10 WARRANTY

The Contractor warrants to the Owner and Engineer that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

4.11 REJECTION OF DEFECTIVE MATERIALS

The Engineer may reject materials if the Engineer reasonably determines that such materials do not conform to the Contract Documents. No rejected materials, the defects of which have been subsequently corrected, shall be used in the Work except with the written permission of the Engineer. No extra time shall be allowed for completion of the Work due to the rejection of non-conforming materials.

4.12 REJECTION OF DEFECTIVE WORK

The Engineer's inspection of the Work shall not relieve the Contractor of any of its responsibilities to fulfill the Contract obligations, and defective work shall be corrected. Unsuitable work may be rejected by the Engineer, notwithstanding that such work and materials have been previously overlooked or misjudged by the Engineer and accepted for payment. If the Work or any part thereof shall be found defective at any time before

the final acceptance of the whole Work, the Contractor shall forthwith correct such defect in a manner satisfactory to the Engineer, and if any material brought upon the site for use in the Work, or selected for the same, shall be rejected by the Engineer as unsuitable or not in conformity with the Contract requirements, the Contractor shall forthwith remove such materials from the vicinity of the Work.

4.13 MATERIALS ATTACHED OR AFFIXED TO THE WORK

Nothing in this Contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the Work or the soil; but all such materials shall, upon being so attached or affixed, become the property of the Owner.

4.14 SALES TAX EXEMPTION AND OTHER TAXES

4.14.1 To the extent that materials and supplies are used or incorporated in the performance of this Contract, the Contractor is considered an exempt purchaser under the Massachusetts Sales Act, Chapter 14 of the Acts of 1966.

4.14.2 The Contractor shall be responsible for paying all other taxes and tariffs of any sort, related to the work.

4.15 DOCUMENTS AND SAMPLES AT THE SITE

The Contractor shall maintain at the site for the use and information of the Owner, one record copy of the Drawings, Specifications, Addenda, Change Orders, and other Contract Modifications, in good order and marked currently to record changes and selections made during construction, and in addition approved Shop Drawings, Product Data, Samples, updated construction schedule, and similar required submittals. These shall be available to the Engineer and shall be delivered to the Engineer for submittal to the Owner upon completion of the Work.

4.16 PERMITS, FEES, AND NOTICES

4.16.1 The Contractor shall secure and the Owner shall pay for any and all permits. The Contractor shall secure and pay for all licenses, and other fees required for the proper execution of the Work. The Contractor shall coordinate all efforts required to obtain these permits including having the permit issued in the name of the Contractor.

4.16.2 The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations, and lawful orders of public authorities bearing on performance of the Work.

4.16.3 It is not the Contractor's responsibility to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations. However, if the Contractor observes that portions of the Contract Documents are at variance therewith, the Contractor shall promptly notify the Engineer and Owner in writing, and necessary changes shall be accomplished by appropriate Modification.

4.16.4 If the Contractor performs Work knowing it to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Engineer and Owner, the Contractor shall assume full responsibility for such Work and shall bear the costs attributable.

4.17 DEBRIS, CHEMICAL WASTE

4.17.1 The Contractor shall not permit the accumulation of debris, both exterior and interior, and the work area shall at all times be kept satisfactorily clean.

4.17.2 The Contractor shall remove debris from the site of the work and legally dispose of it at any private or public dump that the Contractor may choose. The Contractor shall make all arrangements and obtain any approvals necessary for said disposal from the owners or officials in charge of such dumps.

4.17.3 No open fire shall be permitted on site.

4.17.4 Chemical Waste: Chemical waste shall be stored in corrosion resistant containers, removed from the Project site, and disposed of not less frequently than monthly unless directed otherwise. Disposal of chemical waste shall be in accordance with requirements of the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP). Fueling and lubricating of vehicles and equipment shall be conducted in a manner that affords the maximum protection against spills and evaporation. Lubricants to be discarded or burned shall be disposed of in accordance with approved procedures meeting all applicable Federal, State and local regulations. In the event of an oil or hazardous materials spill large enough to violate Federal, State, or applicable local regulations, the Engineer shall be notified immediately. The Contractor shall be responsible for immediately cleaning up any oil or hazardous waste spills resulting from its operations. Any costs incurred in cleaning up any such spills shall be borne by the Contractor.

4.18 SITE AND WEATHER PROTECTION

4.18.1 The Contractor shall take precaution during the execution of work involving demolition not to disturb or damage any existing structures, landscaping, walks, roads, or other items scheduled to remain. The Contractor shall restore any damaged items to original condition and as directed by the Engineer. The Contractor shall provide and erect acceptable barricades, fences, signs, and other traffic devices to protect the work from traffic and the public as reasonably necessary and as required by the Massachusetts Building Code.

4.18.2 The Contractor shall install weather protection and provide adequate heat in the protected area from November 1 to March 31 as required by M.G.L. c.149 §44G.

4.19 ARCHAEOLOGICAL AND HISTORICAL RESOURCES

All items having any apparent historical or archaeological interest which are discovered in the course of any construction activities shall be carefully preserved and reported immediately to the Engineer for determination of appropriate actions to be taken.

4.20 SAFETY REQUIREMENTS

4.20.1 The Contractor must comply with all Federal, State, and Local safety laws and regulations of the applicable to work performed under this Contract.

4.20.2 If the Contractor uses or stores toxic or hazardous substances it is subject to M.G.L. c.111F §2, the "Right to Know" law and regulations promulgated by the Department of Public Health, 105 CMR 670, the Department of Environmental Protection, 310 CMR 33, and the Department of Labor and Workforce Development, 441 CMR 21; and must post a Workplace Notice obtainable from the Department of Labor and Workforce Development.

4.20.3 The Contractor must comply with Dig-Safe Laws. Dig-Safe is the Utility Underground Plant Damage Prevention System, 331 Montvale Ave., Woburn, MA 01801, 1.888.344.7233. The Contractor must notify Dig-Safe of contemplated excavation, demolition, or explosive work in public or private ways, and in any utility company right of way or easement, by certified mail, with a copy to Department of Environmental Protection (DEP). This notice must be given at least 72 hours prior to the work, but not more than sixty days before the work is to be done. Such notice shall state the name of the street or the route number of the way and an accurate description of the location and nature of the proposed work. Dig-Safe is required to respond to the notice within 72 hours of receipt by designating the location of pipes, mains, wires or conduits at the site. The Contractor shall not commence work until Dig-Safe has responded. The work shall be performed in such manner and with reasonable precautions taken to avoid damage to utilities under the surface at the work location. The Contractor shall provide the Superintendent with current Dig-Safe regulations, and a copy of M.G.L. c.82 §40. Any costs related to the services performed by Dig-Safe shall be borne by the Contractor.

4.20.4 This project is subject to compliance with Public Law 92-596 "Occupational Safety and Health Act of 1970" (OSHA), with respect to all rules and regulations pertaining to construction, U.S. Code Title 29, sections 651 et seq. including Volume 36, numbers 75 and 105, of the Federal Register as amended, and as published by the U.S. Department of Labor.

4.20.5 If this Project requires the containment or removal of asbestos or material containing asbestos, lead or waste containing lead based paint, the Contractor shall ensure that the person or company performing the asbestos or lead related services is licensed pursuant to applicable State laws and regulations.

4.21 ACCESS TO WORK

The Contractor shall provide the Owner and Engineer access to the Work at all times and shall cooperate with the Owner whenever the Owner invites visitors to the site.

ARTICLE 5

ADMINISTRATION OF THE CONTRACT

5.1 ENGINEER

The Engineer is the person or entity licensed to practice engineering that is responsible for performing the duties assigned to the Engineer by the Contract Documents.

5.2 COMMUNICATIONS FACILITATING CONTRACT ADMINISTRATION

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall communicate through the Engineer. Communications by and with the Engineer's consultants shall be through the Engineer. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

5.3 ENGINEER'S ADMINISTRATION OF THE CONTRACT

5.3.1 The Engineer will provide administration of the Contract as described in the Contract Documents, and will be the Owner's representative (1) during construction, (2) until final payment is due and (3) with the Owner's concurrence, from time to time during the guaranty period described in Article 11. The Engineer will advise and consult with the Owner.

5.3.2 The Engineer will regularly visit the site, conduct job meetings, and keep the Owner informed of the progress and quality of the Work, and will endeavor to guard the Owner against defects and deficiencies in the Work. The Engineer's minutes of meetings shall be the official minutes kept on the Project.

5.3.3 Based on the Engineer's observations and evaluations of the Contractor's Applications for Payment, the Engineer will review and certify the amounts due the Contractor and will submit to the Owner for their consideration Certificates for Payment in such amounts as the Engineer determines appropriate.

5.3.4 The Engineer shall reject Work which does not conform to the Contract Documents. Whenever the Engineer considers it necessary or advisable in order to achieve the intent of the Contract Documents, the Engineer will have authority to require additional inspection or testing of the Work in accordance with Paragraph 4.8.

5.3.5 The Engineer will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking such submittals for conformance with the information given and the design concept expressed in the Contract Documents. This review shall be in accordance with the provisions of Subparagraph 4.6.3 and shall not relieve the Contractor from compliance with the requirements of the Contract Documents.

5.3.6 The Engineer will prepare Change Orders and Construction Change Directives, and may authorize Minor Changes in the Work as provided in Paragraph 8.1.

5.3.7 The Engineer will conduct inspections to determine the date of Substantial Completion and the date of Final Completion, will receive and forward to the Owner for the Owner's review and records written warranties and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment upon the Contractor's compliance with the requirements of the Contract Documents.

5.3.8 If the Owner and Engineer agree, the Owner may provide one or more project representatives to assist in carrying out the Engineer's responsibilities at the site. The duties, responsibilities, and limitations of authority of such project representatives shall be explained at the pre-construction conference.

5.3.9 The Engineer will interpret and decide matters concerning performance under and requirements of the Contract Documents on written request of either the Owner or Contractor. The Engineer's written response to such requests will be made within the thirty day time limit prescribed in Paragraph 8.6.3.

5.3.10 The Engineer's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

5.4 PROCEDURES AND PRACTICES

Procedures, forms, and practices which must be employed on the Project will be explained at the preconstruction conference.

5.5 PRECONSTRUCTION CONFERENCE

Prior to commencement of the Work, the Contractor shall meet in conference with representatives of the Owner and Engineer to discuss and develop mutual understandings relative to administration of the quality assurance program, safety program, labor provisions, the schedule of work, and other Contract procedures.

ARTICLE 6

SUBCONTRACTORS

6.1 DEFINITION

A Subcontractor is a person or entity that has a direct contract with the Contractor to perform a portion of the work at the site.

ARTICLE 7

CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

7.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

7.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site. If the

Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such claim as provided elsewhere in the Contract Documents.

- 7.1.2** The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing and coordinating their construction schedules with one another when directed to do so.

7.2 MUTUAL RESPONSIBILITY

- 7.2.1** The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

- 7.2.2** If part of the Contractor's Work depends on proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Engineer apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor to so report shall constitute an acknowledgement that the Owner's or separate contractors' completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

- 7.2.3** The Contractor shall promptly remedy damage wrongfully caused by the Contractor to completed or partially completed construction or to property of the Owner or separate contractors.

ARTICLE 8

CHANGES IN THE WORK

8.1 CHANGES – DEFINITIONS

- 8.1.1** All changes in the work, including any increase, decrease, or other equitable adjustment in the Contract price or in the time for performing the Contract, shall be authorized in the form of one, or a combination of, the following written instruments: Change Order, Construction Change Directive, or a Minor Change in the Work. The term "equitable adjustment" as used in this paragraph shall include all adjustments to the Contract price or time to which the Contractor is entitled pursuant to M.G.L. c.30 §§39N and 39O and such equitable adjustment shall be made in accordance with the provisions of this Article.

- 8.1.2** A Change Order is a written instrument prepared by the Engineer and signed by the Owner, Contractor, and Engineer, stating their agreement regarding a change in the work, including a change in the Contract Sum or Contract Time.

- 8.1.3** A Construction Change Directive is a written order prepared by the Engineer and signed by the Owner and Engineer, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum, or Contract Time, or both. The Owner

may, by Construction Change Directive, and without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

8.1.4 A Change Order shall be based upon agreement among the Owner, Contractor and Engineer; a Construction Change Directive requires agreement by the Owner, Engineer, and the Department, and may or may not be agreed to by the Contractor; an order for a Minor Change in the Work may be issued by the Engineer with the concurrence of the Construction Advisor.

8.1.5 Change Orders and Construction Change Directives must be counter-signed by the Administrator in accordance with Subparagraph 3.3.1, to be effective.

8.2 REQUEST FOR A CHANGE IN THE WORK

A change order request shall be in writing and may originate with the Owner, the Engineer, or the Contractor. If such a request would cause a change in the Contract price, the Contractor shall promptly submit to the Engineer its cost and pricing data for such proposed change. Such data shall be accurate, current and complete at the time of submission and shall be computed in accordance with Subparagraph 8.3.1.

8.3 METHOD FOR DETERMINING AMOUNT OF CHANGE

8.3.1 Changes in the Contract price shall be calculated in accordance with one or a combination of the following methods, as determined by the Engineer:

8.3.1.1 Lump sum basis, provided the lump sum amount shall include the estimated cost of the change, broken down by items a through i in the following Subparagraph .3.

8.3.1.2 Unit price basis, to be adjusted in accordance with contract unit prices, or other agreed upon unit prices provided that the unit prices shall be inclusive of all costs related to such equitable adjustment.

8.3.1.3 Time and materials basis, on a not-to-exceed predetermined upset amount determined by the Engineer, to be subsequently adjusted on the basis of the Contractor's actual costs based on the following items a through i:

- a. Cost of labor at the rates found elsewhere in this document ,including foremen;*
- b. Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;*
- c. Rental cost of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others.*
- d. A percent of the net increase or decrease of item a to cover Worker's Compensation, F.I.C.A., and unemployment contributions.*
- e. The percentage for Worker's Compensation in Item d above shall not exceed the standard manual rate for the involved trade, as set by the Worker's Compensation Rating and Inspection Bureau of Massachusetts. This rate shall not include any surcharges such as experience modifications and all risk factor adjustment programs, etc.*
- f. For work performed by the Contractor's own forces, there shall be added an amount of 15% of items a-d for overhead, superintendence and profit.*
- g. The Contractor shall be entitled to an additional 10% mark-up on the total amount of the Subcontractor's price as compensation for assuming full responsibility and supervision for the Subcontractor's work.*

- h. Actual increases in the premium costs for performance and payment bonds required of the Contractor and filed Subcontractors, provided there will be an appropriate credit for reduced premiums for a credit change order.*
- i. On any change in the contract price that involves a credit, the amount of the credit will not include an overhead and profit factor, however, the credit will include a 25% amount of item a (labor deleted) for item d.*

8.3.2 The method provided in Subparagraph 8.3.1, for compensating the Contractor and Subcontractors for changes in the Work, shall be considered to adequately compensate the Contractor and Subcontractors for any and all costs directly, indirectly, or consequentially related to, or caused by, such change in the work.

8.4 MINOR CHANGES IN THE WORK

The Engineer, with the concurrence of the Construction Advisor, will have authority to order Minor Changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly

8.5 WORK PERFORMED UNDER PROTEST

The Contractor shall perform all work as directed by the Engineer, and if the Engineer determines that certain work for which the Contractor has requested a change order does not represent a change in the Contract, or if the Contractor and the Engineer cannot agree to the amount of compensation for a change order, the Contractor shall perform said work under protest and must follow the notice requirements and maintain the records required by Subparagraph 8.7.3.

8.6 STATUTORY CHANGE ORDER PROVISIONS

8.6.1 The Contractor's attention is directed to the Massachusetts General Laws Chapter 30, §§ 39I, 39J, 39N, 39O and 39P, the provisions of which apply to this Contract.

8.6.2 DIFFERING SITE CONDITIONS, M.G.L. c.30 §39N

8.6.2.1 If, during the progress of the Work, the Contractor or the Owner discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the Contract Documents, either the Contractor or the Owner may request an appropriate time extension and an equitable adjustment in the Contract price applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered.

8.6.2.2 Upon receipt of such a claim from a Contractor, or upon its own initiative, the Owner shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the Contract Documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and Contract Documents and are of such nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the

work, the Owner shall upon submission by the Contractor of a properly submitted Change Order request, make an equitable adjustment in the Contract price and the Contract shall be modified in writing accordingly.

8.6.3 TIMELY DECISION BY OWNER – M.G.L. c.30 §39P

Whenever this Contract requires the Owner or its Engineer to make a decision during construction of the Project, on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, that decision shall be made promptly and, in any event, no later than thirty days after receipt of a written submission for such decision by the Contractor; but if such decision requires extended investigation and study, the Owner or the Engineer shall, within thirty days after the receipt of the submission, give the Contractor written notice of the reasons why the decision cannot be made within the thirty day period and the date by which the decision will be made.

8.7 CLAIMS

8.7.1 If the Contractor has any claim or dispute of any nature arising under this Contract, including a claim based on the Owner's failure or refusal to approve a change order request of the Contractor, in full or in part, the Contractor shall submit such claim or dispute to the Engineer, in the form of a change order request, for initial review and consideration, subject to further appeal to the Administrator. If the Contractor is not satisfied with the Engineer's decision or, if the Engineer fails to render a decision within thirty (30) days after receiving written notice of such claim or dispute from the Contractor, the Contractor may file a written request for a decision with the Owner pursuant to Subparagraph 8.7.2.

8.7.2 Appeal of an Engineer's decision under Subparagraph 8.7.1 must be made directly to the Administrator by certified mail, within twenty-one (21) calendar days after the date on which the party making the appeal receives the Engineer's written decision or within twenty-one (21) days after the thirty (30) day non- decision period noted in 8.7.1. Failure to appeal within this period will result in the Engineers decision becoming final and binding upon the Owner and the Contractor.

8.7.3 Pending resolution of the claim or dispute, the Contractor must proceed with the disputed Work, as directed by the Engineer. The Contractor must give written notice to the Owner and the Engineer stating that it is proceeding with the disputed work under protest. Accurate records of the nature and extent of the disputed Work and of the time spent and equipment used on the disputed Work shall be maintained by the superintendent and verified daily by the Owner designee. Failure of the Contractor to maintain such records shall cause the Contractor to forfeit its claim to additional compensation for such disputed work.

8.7.4 Meetings or administrative conferences held by the Owner to review the basis of the claim or dispute are conducted in accordance with standard procedures. Such conferences are not subject to the State Administrative Procedures Act.

8.7.5 At the conclusion of these proceedings, the Owner shall issue a decision which shall be final under the Contract. The matter may then be appealed to a court of competent jurisdiction.

- 8.7.6** Requests for administrative conferences by subcontractors must be made by the Contractor; subcontractors cannot make such requests directly.

ARTICLE 9

TIME, SCHEDULES, AND COMPLETION

9.1 DEFINITIONS

- 9.1.1** Unless otherwise provided, Contract Time is the period of time, as extended by approved Change Order, stated in the Contract Documents for Substantial Completion of the Work.
- 9.1.2** The date of commencement of the Work is the date established in the Notice to Proceed from the Owner. The commencement date shall not be postponed by the failure to act by the Contractor or by persons or entities for whom the Contractor is responsible.
- 9.1.3** The date of Substantial Completion is the date certified by the Engineer in accordance with Subparagraph 9.6.7.
- 9.1.4** The term 'day' as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

9.2 PROGRESS AND COMPLETION

- 9.2.1** Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Contract the Contractor confirms that the Contract Time is a reasonable period for performing the Work.
- 9.2.2** The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

9.3 DELAYS AND EXTENSIONS OF TIME

- 9.3.1** The Contractor shall be entitled to an extension of time for completion of the Work because of: acts of God; labor disputes; abnormal weather conditions; or acts of neglect of the Owner or Engineer as described in Subparagraph 8.6.3. Except in unusual circumstances, delays caused by suppliers, Subcontractors and sub-subcontractors shall be considered to be within the control of the Contractor. Should the Contractor require additional time to complete the Work, the Contractor shall document the reasons therefore and request an extension of time at the time the alleged delay occurs, as provided in this Article and Article 8. Failure to notify the Owner or Engineer of any delay as provided in this Article shall preclude the Contractor from subsequently claiming any damages due to said delay. Requests for extensions of time shall be submitted as a change order request to the Owner or Engineer under Article 8 for the Owner's consideration.

9.3.2 CONTRACTOR'S LIABILITY FOR DELAYS

The Contractor shall be liable for, and shall pay, to the Owner, Liquidated Damages in the amount of \$1,000.00 per day and all of the Owner's Project related costs incurred after the time stipulated for Substantial Completion, as extended by Change Order. Such costs shall include: fees paid to the Engineer as extra services for inspection services and administration of the contract, at the rate stipulated in the Contract for Services between the Owner and the Engineer; and any other direct expenses. The Owner may retain from monies otherwise due the Contractor whatever sums accrue to the Owner pursuant to this provision. The Contractor shall not be liable for costs for delay in performance for any period for which an extension of the Contract Time has been granted pursuant to the provisions of Subparagraph 9.3.

9.3.3 OWNER DELAYS

9.3.3.1 The Owner may delay the commencement of the Work, or any part thereof, due to unforeseen circumstances or conditions which have a bearing on the Work required under this Contract or for any other reason if it is deemed to be in the best interest of the Owner to do so. Except as expressly provided in the following Subparagraphs 9.3.3.2, 9.3.3.3, and 9.3.3.4, the Contractor shall have no claim for additional compensation on account of such delay, but shall be entitled to an extension of Contract Time as determined reasonable by the Owner.

9.3.3.2 The Contractor and the Owner agree that the following Subparagraphs provide the Contractor with the right to request additional compensation for Owner caused delays only in the following two circumstances:

- a. When the Owner provides the Contractor with a written order to suspend or delay the Work, or a portion thereof, for a period of fifteen days or more.*
- b. When the Owner fails to make a decision within the thirty (30) day period described in Subparagraph 8.6.3 and such failure delays the Work, or a portion thereof, for fifteen (15) days or more.*

9.3.3.3 The Owner may, for its convenience, order the Contractor in writing to suspend, delay, or interrupt all or any part of the Work for such period of time as it may determine appropriate, provided however, that if there is a suspension, delay, or interruption for fifteen (15) days or more or there is a failure of the Owner to act within the time specified in this Contract, the Owner shall make an adjustment in the Contract price for any increase in the cost of performance of this Contract, but shall not include any profit to the Contractor on account of such increase; and provided further, that the Owner shall not make any adjustment in the Contract price under this provision for any suspension, delay, interruption, or failure to act to the extent that such is due to any cause for which this Contract provides for an equitable adjustment of the Contract price under any other Contract provisions. M.G.L. c.30 §39O(a).

9.3.3.4 The Contractor must submit the amount of a claim under Subparagraph 9.3.3.3 to the Owner in writing as soon as practicable after the end of the suspension, delay, interruption, or failure to act and, in any event, not later than the date of final payment under this Contract and except for costs due to a suspension order, the

Owner shall not approve any costs in the claim incurred more than twenty days before the Contractor notified the Owner in writing of the act or failure to act involved in the claim. M.G.L. c.30 §390(b).

9.3.3.5 The Owner and the Contractor agree that the preceding Subparagraph 9.3.3.4 places a burden on the Contractor to inform the Owner, whenever the Contractor considers that an action or inaction of the Owner or its Engineer could result or has resulted in a delay in the Project, thereby providing the Owner with the opportunity to take action to avoid or lessen the time extensions or damages that might be associated with such action or inaction.

9.3.3.6 The Contractor must file any claim for additional compensation made pursuant to Subparagraph 9.3.3.4 as a Change Order request. The amount of any such claim shall be calculated only in accordance with the provisions of Subparagraph 8.3.1.3 items a through i, and shall be subject to the provisions of Subparagraph 8.3.2.

9.4 CONSTRUCTION AND PAYMENT SCHEDULES

9.4.1 Prior to commencement of the Work, the Contractor shall submit to the Engineer a construction schedule in bar graph form, satisfactory to the Engineer, showing in detail the proposed progress for the construction of the various parts of the Work, the proposed times for receiving materials required, and the interrelationship between the various construction operations and the percentage of completion and the dollar value of the completed work on the first day of each month for each section of the specifications and the entire Work. Submission of said schedule shall be a condition precedent to approval of the Contractor's first application for payment.

9.4.2 At the end of each month, or more often if required, the Contractor shall furnish the Engineer an updated schedule showing actual progress of the various parts of the Work in comparison with the originally proposed progress and payment schedules. If the Engineer raises any objections to progress or payment schedules submitted by the Contractor, the Contractor shall immediately address and resolve such objections to the reasonable satisfaction of the Engineer.

9.4.3 If the Contractor submits a construction schedule that anticipates Substantial Completion before the date established in the Owner's Notice to Proceed, the Contractor shall have no claim for additional compensation on account of any delays that prevent Substantial Completion before the date set in said Owner's Notice to Proceed.

9.5 USE AND OCCUPANCY

9.5.1 Prior to the date of Substantial Completion of the entire Project stipulated in the Notice to Proceed, the Owner shall have the right, from time to time, to occupy and use any portion of the Project as the Work in connection therewith is substantially completed, provided such occupancy and use does not unduly interfere with the Contractor's operations.

9.5.2 The Engineer will, prior to any such use and occupancy, give written notice to the Contractor, indicating the areas intended to be occupied and used, and the intended

commencement date of such use and occupancy. Occupancy and use shall not commence prior to a time mutually agreed to by the Owner and the Contractor.

- 9.5.3** Upon receipt of such notice of intent, the Contractor shall promptly secure and submit to the Engineer endorsement from the insurance carrier permitting occupancy and use of the Work, or any designated portion thereof, by the Owner prior to Substantial Completion of the entire Project
- 9.5.4** Partial or entire use and occupancy by the Owner shall not constitute an acceptance of Work not completed in accordance with the Contract Documents nor relieve the Contractor from the obligation of performing any Work required by the Contract but not completed at the time of use and occupancy. Before such use and occupancy, the Engineer will give the Contractor a list of items to be completed prior to Final Completion occurring in the areas to be used and/or occupied.
- 9.5.5** The Contractor shall be relieved of all maintenance costs of the portion of the Project occupied under the provisions of this Article.
- 9.5.6** The Contractor shall not be responsible for wear and tear or damage resulting solely from such use and occupancy.
- 9.5.7** The Contract Sum will be adjusted by mutually acceptable arrangements between the Owner and the Contractor with respect to electricity, and water furnished by the Contractor to the portion of the Work so occupied.

9.6 SUBSTANTIAL COMPLETION

- 9.6.1** Substantial Completion is the stage in the progress of the Work when, in the opinion of the Engineer, the Work is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.
- 9.6.2** When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Engineer a comprehensive list of items to be completed or corrected. The Contractor shall proceed promptly to complete and correct items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.
- 9.6.3** Upon receipt of the Contractor's list of items to be completed or corrected, the Engineer will promptly make a thorough inspection and prepare a "punch list", setting forth in accurate detail any items on the Contractor's list and additional items that are not acceptable or are incomplete.
- 9.6.4** If, after receipt of the Contractor's list, the Engineer determines that the Work is not substantially complete, the Engineer shall inform the Contractor in writing of those items that must be completed before the Engineer will prepare a punch list. Upon completion of those items, the Contractor shall again request the Engineer to prepare the punch list.

9.6.5 When the punch list has been prepared, the Contractor will arrange a meeting with the Engineer, Owner and Subcontractors to identify and explain all punch list items and address questions on the work which must be done before final acceptance.

9.6.6 The Engineer may revise the punch list, from time to time, to ensure that all items of the Work are properly completed.

9.6.7 The Engineer will prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate within the provisions of Subparagraph 9.7.2.

9.6.8 Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate.

9.7 FINAL COMPLETION

9.7.1 After the Engineer has certified that the Work is substantially complete, the Contractor shall immediately proceed to complete all the remaining items of Work as determined by the Engineer, including items authorized by Change Orders, Construction Change Directives, or items disputed by the Contractor.

9.7.2 The Contractor shall complete all the remaining items of Work described in Subparagraph 9.7.1, in accordance with the provisions of M.G.L. c.30 §39G.

9.7.3 If the Contractor fails to complete the remaining items of Work within the time period provided in Subparagraph 9.7.2, the Owner may arrange for other contractors to complete such items and the direct and indirect costs of such completion shall be charged against the balance due the Contractor or, if no such balance remains, the Contractor shall pay the Owner the costs of such completion.

9.7.4 As an alternative to the procedure described in Subparagraph 9.7.3, the Owner may invoke the performance bond of the Contractor and demand that the surety shall complete the remaining items of work in a timely manner.

9.7.5 The Engineer will conduct up to three (3) inspections of completed punch list items. The Contractor shall be responsible for the costs of additional inspections required to verify successful completion of the punch list.

ARTICLE 10

PAYMENTS

10.1 CONTRACT SUM

The Contract Sum is stated in the Owner-Contractor Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

10.2 SCHEDULE OF VALUES

10.2.1 Before the first Application for Payment, the Contractor shall submit to the Engineer a schedule of values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Engineer may require. This schedule, unless objected to by the Engineer, shall be used as a basis for reviewing the Contractor's Applications for Payment.

10.2.2 The schedule of values shall contain a separate item for each Section of the Specifications broken down in such form as the Engineer may require. Each item in the schedule of values shall include its proper share of overhead and profit.

10.3 APPLICATIONS FOR PAYMENT

Once each month, on a date established at the beginning of the Work, the Contractor shall deliver to the Engineer by hand or by registered or certified mail with return receipt, an itemized Application for Payment, supported by such data substantiating the Contractor's right to payment as the Engineer may require, and reflecting retainage as provided in Subparagraph 10.5.3. Such Application for Payment shall be submitted on a form available from the Owner. The form shall show separately:

10.3.1 The value of labor and materials incorporated in the Work.

10.3.2 The value, kind, and quantity of each item of material or equipment not incorporated in the Work but delivered and suitably stored at the site, during the current pay period.

10.3.3 The value, kind, and quantity of each item of material or equipment not incorporated in the Work but suitably stored at some other location agreed upon in writing, during the current pay period.

10.3.4 All Change Orders approved up to the date of the Application for Payment.

10.3.5 The amounts approved for payment for each item on previous applications.

10.4 PAYMENT FOR STORED MATERIALS

10.4.1 The Contractor shall include in such Application for Payment only such materials as are incorporated in the Work, except however, the Contractor may include the value of materials or equipment delivered at the site of the Work (or at some location agreed to in writing) upon delivery to the Owner of:

10.4.1.1 an acceptable Bill of Sale

- 10.4.1.2** receipted invoices or other acceptable proof of prior payment by the Contractor for such materials and certify that there are no encumbrances against such material; and
- 10.4.1.3** a stored materials insurance binder (see subparagraph 16.5.2) that covers the materials for which payment is requested, that names the Owner as an insured party should the stored materials be subjected to any casualty, loss, or theft prior to their inclusion in the work
- 10.4.2** This material(s) or equipment must, in the judgment of the Engineer:
 - 10.4.2.1** meets the requirements of the Contract, including proper prior shop drawing, product data, and sample approval,
 - 10.4.2.2** be ready for use, and
 - 10.4.2.3** be properly stored by the Contractor and adequately protected until incorporated in the Work.
- 10.4.3** Failure to comply with subparagraphs 10.4.1 or 10.4.2 may result in Certificates being changed.

10.5 CERTIFICATES FOR PAYMENT

- 10.5.1** The Engineer shall mark the date of receipt on the Contractor's Application for Payment. The Engineer will, within seven (7) days after receipt of the Contractor's Application for Payment, either
 - 10.5.1.1** issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Engineer determines is properly due, or
 - 10.5.1.2** return the application to the Contractor if it is not in proper form or contains computations not arithmetically correct; or
 - 10.5.1.3** make changes to the application as provided in subparagraph 10.5.2.
- 10.5.2** The Engineer shall notify the Contractor and Owner in writing of the Engineer's reasons for withholding certification in whole or in part as provided in subparagraph 10.5.3 and 10.5.4.
- 10.5.3** After the Engineer has issued a Certificate for Payment the Owner shall make payment to the Contractor within fifteen (15) days after receipt from the Contractor, at the place designated by the Owner if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the Owner will make a periodic payment to the Contractor for the Work performed during the preceding month and for the materials not incorporated in the Work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the Contractor has title and has authorized the Contractor to transfer title to the Owner, less (1) a retention based on its estimate of the fair value of its claims against the Contractor and less (2) a

retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of Section 39F, and less (3) a retention not exceeding five percent (5%) of the approved amount of the periodic payment.

10.5.4 The Owner may make changes in any Application for Payment submitted by the Contractor and the payment due on said Application for Payment shall be computed in accordance with the changes so made.

10.5.5 No certificate for payment nor any progress payment shall constitute acceptance of Work not in accordance with the Contract Documents.

10.5.6 Acceptance of any payment shall not bar a Contractor from reserving all rights to dispute the quantity or amount of, or failure of the Owner to approve a quantity and amount of, all or part of any work item or extra work item.

10.6 FINAL PAYMENT

10.6.1 Upon completion of the Work, the Contractor shall be entitled to payment of the Contract balance, in accordance with M.G.L. c30 §39G and per the process described in Division 1 of the Specifications.

10.6.2 The acceptance by the Contractor of the last payment due under this Contract or the execution of the Certificate of Final Completion shall operate as a release to the Owner and the Engineer from all claims and liability related to this Contract.

10.7 PAYMENT LIABILITIES OF CONTRACTOR

10.7.1 The Contractor shall be responsible to the Owner for all expenses, losses, and damages incurred in consequence of any defect, omission, or mistake of the Contractor or any of its employees, Subcontractors, or suppliers.

10.7.2 The Owner may retain any monies which would otherwise be payable under this Contract and apply the same, or so much as may be necessary therefor, to the payment of any expenses, losses, or damages incurred by the Owner as a direct result of the Contractor's failure to perform its obligations hereunder.

ARTICLE 11

GUARANTEES AND WARRANTIES

11.1 GENERAL GUARANTY

If at any time during the period of one (1) year from the date of Substantial Completion as defined in Paragraph 9.6, any part of the Work shall, in the reasonable determination of the Engineer or Owner, require replacing or repairing due to the fact that it is broken, defective, or otherwise does not conform to the Contract Documents, the Owner will notify the Contractor to make the required repairs or replacement.

11.2 If the Contractor shall neglect to commence such repairs or replacement to the satisfaction of the Owner within ten (10) days from the date of giving or mailing such notice, then the Owner may employ other persons to make the same.

11.3 The Contractor agrees, upon demand, to pay to the Owner all amounts which the Owner expends for such repairs or replacements.

11.4 During this one year guarantee period any corrective work shall be performed in accordance with the applicable terms of this Contract. For items of work completed after use and occupancy has been taken, the one year guarantee shall commence at the time the Owner accepts such items.

11.5 This one year guarantee shall not limit any express guaranty or warranty provided elsewhere in the Contract.

11.6 SPECIAL GUARANTEES AND WARRANTIES

11.6.1 Guarantees and warranties required in the various sections of the Specifications must be delivered to the Engineer before final payment to the Contractor may be made.

11.6.2 The failure to deliver a required guarantee or warranty shall constitute a failure to fully complete the Work in accordance with the Contract Documents.

11.6.3 The Contractor's obligation to correct Work as set forth in Paragraph 4.12 is in addition to, and not in substitution of, such guarantees or warranties as may be required in the various Sections of the Specifications.

11.7 WARRANTY REQUIREMENTS

11.7.1 Warranties Required: All materials, equipment, and work of the Project shall be covered by comprehensive written warranties. Refer to individual specification sections for additional specific warranty requirements. For work not specified to have additional specific warranty requirements or warranties longer than one year, provide a comprehensive one year written warranty signed by the Contractor and Subcontractor.

11.7.1.1 Warranty Limitations: Warranties required under the Contract are in addition to and not in lieu of any remedy or warranty to which the Owner is entitled under law. Warranties required under the Contract shall not be interpreted as a waiver of any of the Owner's rights.

11.7.1.2 Warranty Procurement: Do not purchase or subcontract for materials, equipment or work until it has been verified that parties required to provide and sign warranties are willing to do so and that warranty language, content, and form are approved by the Owner. Special warranty terms, conditions, and requirements are often specified. Ensure that warrantors subcontracting or purchasing the work.

11.7.1.3 Warranties are Irrevocable: After a specific warranty's language, content, and form has been approved by the Owner and after the work covered by a specific warranty is subcontracted or purchase order given to a manufacturer, the warrantor shall not revoke or withhold the warranty for any reason including, without limitation, non-payment or incomplete payment by any party other than the Owner, except that if the work has not been installed in compliance with the warrantor's installation

requirements, then the warranty may be temporarily withheld until corrections are made and the warrantor's installation requirements have been met.

11.7.1.4 Warranty Forms: Submit written warranty forms to Owner through Engineer for approval prior to award of subcontract, submission or purchase order, and execution of warranty. The manufacturer's standard warranty forms may not comply with the requirements of the Contract Documents. Special warranty terms, conditions, and requirements are often specified and required.

- a. Standard Warranty Form: In the absence of specific written permission by the Owner, provide all warranties including the Contractor's comprehensive one year warranty on fully executed copies of the "Standard Warranty Form" included in this Section.

11.7.1.5 Executed Warranties: Furnish original or certified copies of each executed warranty to Owner for warranty and maintenance manuals.

11.7.1.6 Work Covered by Warranty: Contractor and warrantor shall remove and replace other work damaged as a result of failure of warranted materials, equipment, or work, and shall remove and replace other work which must be removed and replaced to provide access to and replacement of materials, equipment, or work covered under warranty. Warranties shall include full payment to the Owner for work related to warranty repair or replacement including, without limitation, painting.

11.7.1.7 Pro-Rated Warranties: Unless otherwise specified or approved in writing by Owner, each warranty shall cover full cost of replacement or repair, and shall not be pro-rated on basis of useful service life or warranty period.

11.7.1.8 Warranty Extensions: Work repaired or replaced under warranty shall be provided with a new warranty equal to the full length of the original warranty. The new warranty shall begin on the date of Owner's acceptance and use of the replaced or repaired item.

11.7.1.9 Warranty Effective Starting Date: All warranties shall begin on Date of Final Acceptance of the entire project or Owner's acceptance of the work or item covered by the warranty, whichever is later, and the warranty coverage shall continue for the period specified. If no specific warranty period is specified, the warranty shall extend for one year (365 days).

11.7.1.10 Contractor's Responsibilities for Warranties: The Contractor shall implement and invoke all guarantees and warranties provided by subcontractors, manufacturers, material suppliers, and other parties, including warranties longer than one year duration. The Contractor shall make every effort to facilitate, expedite, and aid the Owner in warranty claims the Owner may have throughout the warranty periods.

ARTICLE 12

MISCELLANEOUS REQUIREMENTS

12.1 GENERAL

The Contractor shall stay fully informed of all existing and future state and national laws and municipal ordinances and regulations in any manner affecting those engaged or employed in the work, or the materials used or employed in the work, or in any way affecting the conduct of the Work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the Contract Work. All provisions of law that apply to this Contract are hereby made a part of this Contract. If any discrepancy or inconsistency is discovered in the Contract Documents in relation to any such law, ordinance, regulation, order or decree, the Contractor shall forthwith report the same to the Owner in writing.

12.1.1 The Contractor shall cause all of its agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees.

12.2 CORPORATE DISCLOSURES

The Contractor, if a foreign corporation, shall comply with M.G.L. c.181 §3 and §5, and M.G.L. c.30 §39L.

12.3 VETERANS PREFERENCE

In the employment of mechanics and apprentices, teamsters, chauffeurs, and laborers in the construction of public works in the Commonwealth, preference shall first be given to citizens of the Commonwealth who have been residents of the Commonwealth for at least six months at the commencement of their employment and who are veterans as defined M.G.L. c.4 §7 (34), and who are qualified to perform the work to which the employment relates; and secondly, to citizens of the Commonwealth generally who have been residents of the Commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States.

12.4 PREVAILING WAGE RATES

The Director of the Department of Labor and Workforce Development has established the Schedule found in Division One of the Specifications, listing the prevailing minimum wage rates that must be paid to all workers employed on the Contract. Such Schedule shall continue to be the minimum rate of wages payable to workers on this Contract throughout the term of the Contract. The Contractor shall not have any claim for extra compensation from the Owner if the actual wages paid to employees on the Contract exceeds the rates listed on the Schedule. The Contractor shall cause a copy of said Schedule to be kept in a conspicuous place at the Project site during the term of the Contract. (See M.G.L. c.149 §27.) If reserve police officers are employed by the Contractor, they shall be paid the prevailing wage of regular police officers. (See M.G.L. c.149 §34B).

12.5 VEHICLE AND EQUIPMENT OPERATORS

If the Director of the Department of Labor and Workforce Development has established a Schedule of wage rates to be paid to the operators of trucks, vehicles or equipment

for this Project, the Contractor shall be obligated to pay such operators at least the minimum wage rate contained on such Schedule. (See M.G.L. c.149 §26-27H).

12.6 EIGHT HOUR DAY AND LODGING

12.6.1 No laborer, workman, mechanic, foreman or inspector working in the employment of the Contractor, Subcontractor or other person doing or contracting to do the whole or part of the Work, shall be required or permitted to work any more than eight hours in any one day, or more than 48 hours in any one week, or more than six days in any one week, except in cases of emergency.

12.6.2 Every employee on the Work shall lodge, board, and trade where and with whom he/she elects, and the Contractor and any Subcontractor shall not directly or indirectly require, as a condition of employment, that an employee lodge, board, or trade at a particular place or with a particular person.

12.7 EXECUTIVE ORDERS

The Contractor shall comply with the provisions of M.G.L. c.151B; Executive Order No. 524 Establishing the Massachusetts Supplier Diversity Program (SDP), Executive Order 526, Order regarding Non-Discrimination, Diversity, equal Opportunity, and Affirmative Action; pertaining to minority and women owned business enterprises; Executive Order 527 establishing the Office of Access and Opportunity and Executive Order 481, prohibiting the use of undocumented workers on state contracts and all regulations promulgated pursuant thereto. The aforementioned law, executive orders, regulations and any amendments are incorporated herein by reference and made a part of this Contract.

12.8 CONFLICT OF INTEREST

12.9 The Contractor covenants, that (1) presently, there is no financial interest and shall not acquire any such interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement or which would violate M.G.L. c.268A, as amended; (2) in the performance of this Contract, no person having any such interest shall be employed by the Contractor or engaged as a subcontractor by the contractor; and (3) no partner or employee of the firm is related by blood or marriage to any Board Member or employee of the Awarding Authority.

ARTICLE 13

CONTRACTOR'S ACCOUNTING REQUIREMENTS

13.1 DEFINITIONS

13.1.1 "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded this Contract.

13.1.2 "Contract" means any contract awarded or executed pursuant to M.G.L. c.30 §39M or M.G.L. c.149 §44A-J, which is for an amount greater than one hundred thousand dollars (\$100,000.).

13.1.3 "Records" means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memoranda, invoices, computer printouts,

tapes, discs, papers and other documents or transcribed information of any type, whether expressed in ordinary or machine language.

13.1.4 "Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his/her residence or principal office and who is in fact independent.

13.1.5 "Audit," when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a certified opinion thereon, or, in the alternative, a qualified opinion or a declination to express an opinion for stated reasons.

13.1.6 "Accountant's Report," when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which he/she has made and sets forth his/her opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the Contractor.

13.1.7 "Management," when used herein, means the chief executive officers, partners, principals or other person or persons primarily responsible for the financial and operational policies and practices of the Contractor.

13.1.8 Accounting terms, unless otherwise defined herein, shall mean in accordance with generally accepted accounting principles and auditing standards.

13.2 RECORD KEEPING

13.2.1 The Contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the Contractor.

13.2.2 Until the expiration of six years after final payment, the Inspector General, the Owner, and the Department shall have the right to examine any books, documents, papers or records of the Contractor and Subcontractors that directly pertain to, and involve transactions relating to the Contractor and Subcontractors.

13.2.3 The Contractor shall describe any change in the method of maintaining records or recording transactions which materially affects any statements filed with the Owner including the date of the change and reasons therefor, and shall accompany said description with a letter from the Contractor's independent certified public accountant approving or otherwise commenting on the changes.

13.2.4 Prior to the execution of the Contract, the Contractor shall file a statement of management on internal accounting controls as set forth in Paragraph 13.3.

13.2.5 Prior to the execution of the Contract, the Contractor shall file an audited financial statement for the most recent completed fiscal year as set forth in Paragraph 13.4 below and will continue to file such statement annually during the term of the Contract.

13.3 STATEMENT OF MANAGEMENT CONTROLS

13.3.1 Prior to execution of the Contract, the Contractor shall file with the Owner a statement of management as to whether the system of internal accounting controls of the Contractor and its subsidiaries reasonably assures that:

13.3.1.1 Transactions are executed in accordance with management's general and specific authorization;

13.3.1.2 Transactions are recorded as necessary to:

- a.** permit preparation of financial statements in conformity with generally accepted accounting principles, and
- b.** maintain accountability for assets;

13.3.1.3 Access to assets is permitted only in accordance with management's general or specific authorization; and

13.3.1.4 The recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference taken with respect to any difference.

13.3.2 Prior to execution of the Contract, the Contractor shall also file with the Owner a statement prepared and signed by an independent certified public accountant, stating that the accountant has examined the statement of management on internal accounting controls, and expressing an opinion as to:

13.3.2.1 whether the representations of management in response to subparagraph 13.3.1 above are consistent with the results of management's evaluation of the system of internal accounting controls; and

13.3.2.2 whether such representations of management are reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statement.

13.4 ANNUAL FINANCIAL STATEMENT

Every Contractor awarded a contract shall annually file with the Owner during the term of the Contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report.

ARTICLE 14

EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

- 14.1** The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age, handicap, or sex. The aforesaid provision shall include, but not be limited to, the following: employment upgrading, demotion or transfer; recruitment advertising; recruitment layoff; termination; rates of pay or other forms of compensation; conditions or privileges of employment; and selection for apprenticeship.
- 14.2** The Contractor must provide information as is necessary, in the judgment of the Owner to ascertain compliance with the Equal Employment Opportunity Requirements.

ARTICLE 15

NOT USED

ARTICLE 16

INSURANCE

16.1 INSURANCE REQUIREMENTS

- 16.1.1** The Contractor shall take out and maintain insurance coverage as listed in subparagraphs 16.2 - 16.8 with respect to the on-going operations as well as the completed operations of this Contract. This insurance shall be provided at the Contractor's expense and shall be in full force and effect for the full term of the Contract.
- 16.1.2** All policies shall be issued by companies authorized to write that type of insurance under the laws of this Commonwealth.
- 16.2 CONTRACTOR'S COMMERCIAL GENERAL LIABILITY**
- 16.2.1** Provide the following minimum coverage with respect to the operations performed by any employee, Subcontractor, or supplier:

Bodily Injury & Property Damage	\$1,000,000. per occurrence
	\$2,000,000. general aggregate
Products & completed operations	\$2,000,000. aggregate
Fire Damage	\$1,000,000.
Personal & Advertising Injury	\$1,000,000. per occurrence
Umbrella Coverage	\$5,000,000 per occurrence

- 16.2.2** This policy shall include coverage relating to explosion, collapse, and underground (XCU) property damage.
- 16.2.3** This policy shall include contractual liability coverage.

16.2.4 The Contractor shall provide a separate Owner's and Contractor's Protective Liability policy in the name of the Owner at the same limits listed above.

16.2.5 The completed operations coverage shall be maintained for a period of two (2) years after Substantial Completion as defined in subparagraph 9.6.1.

16.3 VEHICLE LIABILITY

Provide the following minimum coverage with respect to the vehicle operations by any employee, including coverage for owned, non-owned, and hired vehicles:

Bodily Injury & Property Damage	\$1,000,000. Each person \$1,000,000. Each accident Combined single limit of \$1,000,000.
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16.4 WORKER'S COMPENSATION

Provide the following coverage in accordance with M.G.L. c.149 §34A and c.152 as amended:

Worker's Compensation Coverage A	Provide Statutory Minimum
Worker's Compensation Coverage B	\$500,000. Each accident \$500,000. Disease per employee \$500,000. Disease policy

16.5 PROPERTY COVERAGE

16.5.1 Provide Special Perils coverage against loss or damage by fire and against loss or damage covered by the special perils insurance endorsement on all work included in this contract in an amount equal to at least 100% of Contract Sum.

16.5.2 This policy shall indicate if Stored Materials coverage is provided as required by Paragraph 10.4.

16.5.3 The policy or policies shall specifically state that they are for the benefit of and payable to the Owner, the Department, the Contractor, and all persons furnishing labor or labor and materials for the Work, as their interests may appear

16.5.4 The Special Perils coverage shall include any costs for additional work performed by the Engineer or any consultant as the result of a loss experienced during the life of this contract.

16.6 OWNER AS ADDITIONAL INSURED

The Owner shall be named as additional insured on the Contractor's Commercial Liability Policies.

16.7 CERTIFICATES OF INSURANCE, POLICIES

16.7.1 Certificates of insurance, acceptable to the Owner, shall be submitted to the Owner simultaneously with the execution of the Contract. Certificates shall indicate that the contractual liability coverage, and Owner's and Contractor's Protective Liability coverage is in force, as well as the deletions of the XCU exclusions.

16.7.2 The Contractor shall file the original and one certified copy of all policies with the Owner within five (5) days after Contract award. If the Owner is damaged by the Contractor's failure to maintain such insurance and to so notify the Owner, then the Contractor shall be responsible for all reasonable costs attributable thereto.

16.8 CANCELLATION

16.9 Cancellation of any insurance required by this contract, whether by the insurer or the insured, shall not be valid unless written notice thereof is given by the party proposing cancellation to the other party and Owner at least thirty days prior to the effective date thereof, which shall be expressed in said notice.

ARTICLE 17

INDEMNIFICATION

17.1 The Contractor shall take all responsibility for the Work and take all precautions for preventing injuries to persons and property in or about the Work; shall bear all losses resulting from or on account of the amount or character of the Work. The Contractor shall pay or cause payment to be made for all labor performed or furnished and for all materials used or employed in carrying out this Contract. The Contractor shall assume the defense of, and indemnify and save harmless, the Engineer, the Owner, the Department and their officers and agents from all claims relating to: labor performed or furnished and materials used or employed for the Work; inventions, patents and patent rights used in and in doing the Work unless such patent infringement is due to a product or process specified by the Owner; injuries to any person or corporation received or sustained by or from the Contractor and any employees, and Subcontractors and employees, in doing the work, or in consequence of any improper materials, implements or labor used or employed therein; and any act, omission, or neglect of the Contractor and any employees.

ARTICLE 18

PERFORMANCE AND PAYMENT BONDS

18.1 CONTRACTOR BONDS

18.1.1 The Contractor shall provide the Owner with performance and payment (labor and materials) bonds in the form provided by the Owner, executed by a surety licensed by the Commonwealth's Division of Insurance. Each such bond shall be in the amount of the Contract Sum.

18.1.2 If at any time prior to final payment to the Contractor, the Surety:

18.1.2.1 is adjudged bankrupt or has made a general assignment for the benefit of its creditors;

18.1.2.2 has liquidated all assets and has made a general assignment for the benefit of its creditors;

18.1.2.3 is placed in receivership;

18.1.2.4 otherwise petitions a state or federal court for protection from its creditors; or

18.1.2.5 allows its license to do business in Massachusetts to lapse or be revoked;

the Contractor shall, within twenty-one (21) days of any such action listed above, provide the Owner with new performance and payment bonds as described in Paragraph 18.1.1. Such bonds shall be provided solely at the Contractor's expense.

ARTICLE 19

TERMINATION

19.1 TERMINATION FOR CAUSE

19.1.1 The Owner may terminate this Contract for cause if it determines that any of the following circumstances have occurred:

19.1.1.1 The Contractor is adjudged bankrupt or has made a general assignment for the benefit of its creditors;

19.1.1.2 A receiver has been appointed of the Contractor's property;

19.1.1.3 All or a part of the Work has been abandoned;

19.1.1.4 The Contractor has sublet or assigned all or any portion of the Work, the Contract, or claims thereunder, without the prior written consent of the Owner, except as provided in the Contract;

19.1.1.5 The Engineer has determined that the rate of progress required on the project is not being met; or

19.1.1.6 The Contractor has substantially violated any provisions of this Contract.

19.1.2 In the event of such termination, the Owner may hold the Contractor and its sureties liable in damages as for a breach of contract, or the Owner may notify the Contractor to discontinue all work, or any part thereof, and the Contractor shall discontinue all work, or any part thereof, as the Owner may designate.

19.1.3 The Owner may complete the work, or any part thereof, and charge the expense of completing the Work or part thereof, to the Contractor.

19.1.4 The Owner may take possession of and use any materials, machinery, implements and tools found upon the site of said Work. The Owner shall not be liable for any depreciation, loss or damage to said materials, machinery, implements or tools during said use and the Contractor shall be solely responsible for their removal from the Project site after the Owner has no further use for them.

19.1.5 The Owner may, at its option, require the surety or sureties to complete the Contract.

19.2 TERMINATION LIABILITIES

19.2.1 All expenses charged under Paragraph 19.1 shall be deducted and paid by the Owner out of any monies then due or to become due the Contractor under this Contract; and in such accounting the Owner shall not be held to obtain the lowest figures, by competitive bid or otherwise, for the completion of the Work or any part thereof.

19.2.2 All sums actually paid by the Owner to complete the Work shall be charged to the Contractor. In case the expenses charged are less than the sum which would have been payable under this Contract if the same had been completed by the Contractor, the Contractor shall be entitled to receive the difference. In case such expenses shall exceed the said sum, the Contractor shall pay the amount of the excess to the Owner.

19.2.3 Expenses incurred under subparagraph 19.1 shall also include, but not be limited to, costs for Engineerural extra services, in the opinion of the Owner, to successfully inspect and administer the construction contract through final completion, as described in Paragraph 9.7.

19.3 TERMINATION – NO FAULT

19.3.1 In the event that this Contract is terminated by the Owner, and termination is not based on a reason listed in Paragraph 19.1, the Contractor shall be compensated for its costs incurred on the Project, including reasonable costs of de-mobilization, calculated on a percent completion basis as provided in Article 10, covering the period of time between the last periodic payment and the date of termination.

19.3.2 Payment by the Owner pursuant to Subparagraph 19.3.1 shall be considered to fully compensate the Contractor for all claims and expenses and those of any consultants, Subcontractors, and suppliers, directly or indirectly attributable to the termination, including any claims for lost profits.

19.4 ADMINISTRATOR'S APPROVAL

Termination of the Contract requires the prior approval of the Administrator.

MASSACHUSETTS TAX CERTIFICATION FORM

Pursuant to M.G.L. Chapter 62C, Section 49A, I certify under the penalties of perjury, that to my best knowledge and belief, I have filed all state tax returns and paid all state taxes required under law.

Name of Bidder or Proposer

Authorized Signature of Bidder or Proposer

Social Security #
Or Federal Identification #

Date

Approval of a contract or other agreement will not be granted unless this certificate is signed by the bidder.

Social Security number or federal identification number, as applicable, shall be furnished to the Massachusetts Department of Revenue to determine compliance with the above-referenced law.

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COMMONWEALTH OF MASSACHUSETTS CONTRACT CLAUSES, WAGE RATES, LABOR STANDARDS & STATEMENT OF COMPLIANCE

PART 1 - GENERAL

1.1 GENERAL

1. All provisions of the Contract Documents shall be subject to all applicable provisions of law, including, without limitation, the Commonwealth of Massachusetts statutes indicated below. The Contractor shall recognize that other duties and obligations are required by statutes which may not be provided herein, but must be considered and made a part of this Contract. Incorrect citations of statutes in this Section shall not relieve the Contractor of its obligations under law. In case of a conflict between the Contract Documents and applicable statutes, the provisions of the statutes shall govern.

1.2 PROVISIONS INCORPORATED BY REFERENCE

1. The statutes incorporated by reference include, but are not limited to, the following:

Chapter 30, Section 39Fa-h	(payment to subcontractors)
Chapter 30, Section 39I	(deviations)
Chapter 30, Section 39J	(decision by contracting body)
Chapter 30, Section 39K	(payment to contractors)
Chapter 30, Section 39L	(foreign corporations)
Chapter 30, Section 39M	equality of materials
Chapter 30, Section 39N	subsurface conditions
Chapter 30, Section 39P	decisions on interpretations
Chapter 30, Section 39O	(price adjustments and delays)
Chapter 30, Section 39R b	(six year record keeping)
Chapter 30, Section 39R c	(statement of management)
Chapter 30, Section 39R d	(yearly audit)
Chapter 44, Section 31 c	(auditor's certification)
Chapter 62C, Section 49A b	(tax compliance certification)
Chapter 149, Section 26	(prevailing wage requirements)
Chapter 149, Section 27	(prevailing wage posting at job site)
Chapter 149, Section 34	(8 hour day)
Chapter 149, Section 34A	(workmen's compensation) And other applicable laws.

1.3 LABOR PROVISIONS

1. Freedom of Lodging, Boarding, and Trading: Every person employed by the Contractor or Subcontractors in performing the work under this Contract shall lodge, board and trade where and with whom he elects, and it shall not be directly or indirectly required as a condition of employment that an employee shall lodge, board, or trade at a particular place or with a particular person, in accordance with M.G.L., Chapter 149, Section 25.

2. Employment Preferences: In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers by the Contractor and Subcontractors, preference shall first be given to citizens of the Commonwealth who have been residents of the Commonwealth for at least six months at the commencement of their employment, who are veterans as defined in Clause 43 of M.G.L., Chapter 4, Section 7, and who are qualified to perform the work to which the employment relates; and secondly, to citizens of the Commonwealth generally who have been residents of the Commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, in accordance with M.G.L., Chapter 149, Section 226.
3. Overtime: No laborer, workman, mechanic, foreman or inspector working in the employment of the Contractor, Subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by this Contract, shall be required or permitted to work any more than eight hours in any one day, or more than forty-eight hours in any one week, except in cases of emergency.
4. Wage Rates: The minimum rates of wages of be paid mechanics and apprentices, chauffeurs, teamsters and laborers shall be set forth in the schedule of rates of wages determined by the Commissioner of Labor and Industry, **which schedule is included as an appendix to this document and made a part of the Contract**, in accordance with and subject to the provisions of M.G.L. Chapter 149, Section 26.
 1. Wage Determination Schedule: A Wage Determination Schedule, provided to the Engineer and the Owner by governmental authorities, is appended to this Section. The Engineer and the Awarding Authority do not guarantee the accuracy of the schedule, and every bidder and contractor shall be responsible for ascertaining the prevailing wages in the area where the work will be performed.
 2. Statement of Compliance: The Contractor and each Subcontractor shall furnish to the Commissioner of Labor and Industries and to the Awarding Authority, within fifteen days after completion of its portion of the work, fully completed and certified copies of the attached "Statement of Compliance" certifying compliance with wage and benefit provisions of M.G.L. Chapter 149, Section 26 and 27. A copy of the "Statement of Compliance" is appended to this Section.
 3. Records: Every Contractor and Subcontractor working under the terms of any contract for construction on this project shall file weekly payroll records with the Awarding Authority in the form described in M.G.L. Chapter 149, Section 27B in accordance with M.G.L. Chapter 149, Sections 26 and 27B, and 603 CMR 38.03 (2) k.
5. Payment Insurance: In accordance with M.G.L. Chapter 149, Section 34A, the Contractor shall, before commencing performance of the Contract, provide by insurance for the payment of compensation and the furnishing of other benefits under Chapter 152 to all persons to be employed under the Contract, and the Contractor shall continue such insurance in full force and effect during the term of the Contract. Sufficient proof of compliance with this Section must be furnished at the time of execution of this Contract. Failure to provide and continue in force such insurance as aforesaid shall be deemed a

material breach of Contract and shall operate as an immediate termination thereof. The attention of the Contractor is directed to that portion of M.G.L. Chapter 149, Section 34A, which provides that whoever violates any of its provisions shall be punished by a fine of not more than one hundred dollars or by imprisonment for six months, or both; and, in addition, any Contractor who violates any provision of this Section shall be prohibited from contracting, directly or indirectly, with the Commonwealth or any political sub-division thereof for the construction, alternation, demolition, maintenance or repair of, or addition to, any public works or public building for a period of two years from the date of conviction of said violation

6. Pay for Police Officers: The Contractor shall pay to any reserve police officer employed by him the prevailing rate of wage paid to regular police officers, as required by M.G.L. Chapter 149, Section 34B.

1.4 EQUAL EMPLOYMENT OPPORTUNITY

1. The Contractor and each Subcontractor shall comply with all applicable Local, State, and Federal laws and regulations regarding equal employment opportunity and with the provisions of the following:
 1. Governor's "Executive Order No. 74", dated July 20, 1970, entitled the "Governors Code of Fair Practices", as amended by the Governor's "Executive Order No. 116", dated May 1, 1975.
 2. The Fair Employment Practices Law of the Commonwealth, Chapter 151B of the General Laws of Massachusetts, as amended.
 3. The rules and regulations of the Massachusetts Commission Against Discrimination, as in force at the date of the Contract.
2. Equal Employment Plan: Implement an effective affirmative action plan to assure equal employment opportunity throughout the performance of work on this project. Do not discriminate against any employee or applicant for employment because of race, color, sex, religion, age, or national origin. Affirmative action equal employment opportunity plan shall apply to, but not be limited to, the following.
 1. Employment, upgrading, demotion, or transfer.
 2. Recruitment or recruitment advertising.
 3. Layoff or termination.
 4. Rates of pay or other forms of compensation.
 5. Selection for training, including apprenticeship.
3. Employment Advertisements: State in all solicitations or advertisements for employees that all qualified applicants will receive consideration for employment without regard to race, color, sex, religion, age, or national origin.
4. Referral Notices: Direct special effort toward the recruitment of minority workers through unions and through referral agencies representing the minority community.

5. Advising Labor Unions: Send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or worker's representative of the Contractor's commitment to equal employment opportunity.
6. Posting: Post copies of equal opportunity employment notices in conspicuous places available to employees and applicants for employment and post notices setting forth the provisions of this non-discrimination clause.

FORM OF STATEMENT OF WAGE RATE COMPLIANCE

In accordance with Massachusetts General Law c. 149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided. A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

In addition, every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority. This is required to be done on a weekly basis. Once collected, the awarding authority is also required to preserve those records for three years from the date of completion of the project.

Each such contractor or subcontractor shall furnish to the awarding authority directly within 15 days after completion of its portion of the work, a statement, executed by the contractor, subcontractor or by any authorized officer thereof who supervised the payment of wages, this form.

Date: _____, 20__

I, (insert name and title of signatory party) _____

do hereby state: That I pay or supervise the payment of the persons employed by (insert name of Contractor or Subcontractor) _____

on the Project (insert name of project) _____

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of Sections 26 and 27 of Chapter 149 of the Massachusetts General Laws.

Signature: _____

Title: _____

This statement is signed under penalties of perjury as provided for under M.G.L. Chapter 149, Section 27B.

END OF SECTION

SPECIAL CONDITIONS

1. Prior to the commencement of any work the Contractor will obtain a Road Opening permit from the Highway Department. The fee for which will be waived.
2. At the end of each week the Contractor shall submit itemized summary/quantities of items completed during the week. These quantities will be reviewed with the Engineer before the end of the day on Friday.
3. All certified payroll slips must be submitted as part of the pay requisition package for each individual pay requisition request, for each contractor and sub-contractor that has performed work under this contract, up to date of the current pay requisition before the pay requisition will be processed and paid.
4. At the end of each working day, the street shall be swept and cleaned of debris that has accumulated from the day's work.
5. Considered incidental to this contract, the Contractor shall perform all construction layout.
6. Traffic Management under this contract must be considered at all times meaning the following points apply:
 - a. Two (2) way traffic must be maintained at all times
 - b. Complete compliance with the Temporary Traffic Control Plan included in the contract plans.
 - c. Detours are not permitted under this contract.
7. Summary Table of Important Contract Dates

Item	Date	Amount
Bid Opening	July 19, 2019; 11:00 A.M.	N/A
Notice to Proceed	August 2, 2019	N/A
Substantial Completion of Work No Later Than	November 1, 2019*	N/A
Final Completion of Work No Later Than	November 15, 2019*	N/A
Liquidated Damages	Starts November 15, 2019	N/A

*working days are Monday through Friday from 7:00 A.M. to 3:00 P.M.. Work outside of these hours must first be approved by the Engineer or their representative.

8. Existing Conditions
 - a. Before submitting a bid, the Contractor shall make a thorough examination of the conditions at the site, checking the requirements of the Plans and Specifications with the existing site conditions.
 - b. No claim for extra compensation or extension of time will be allowed on account of the Contractor's failure to estimate properly the quantities, locations, and measurements of all items required to complete the work which could be discerned from visiting the site and a thorough review of bid documents, drawings and specifications.

- c. The Contractor shall report any discrepancies to the Engineer and request an interpretation prior to submission of bid.
- d. Prior to any work, the Contractor shall contact Dig Safe (1-888-DIG-SAFE) to have utilities located and delineated.

9. Police

Whenever, in the opinion of the Awarding Authority, traffic is sufficiently congested or public safety is endangered the Contractor shall furnish at his expense a uniformed police detail to direct traffic or to keep traffic off the area affected by construction operations. Such officers shall be in addition to flagmen required under other provisions of the Contract.

The employment of traffic flagmen, or the presence of special officers or police shall in no way relieve the Contractor of any responsibility or liability which is his under the terms of the Contract.

10. Fire Access

The Contractor shall maintain fire lanes as required by the Sutton Fire Department throughout the course of construction.

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SPECIAL PROVISIONS

SUTTON

Central Turnpike Improvement Project

SCOPE OF WORK

The proposed improvements in this project includes roadway milling and resurfacing along approximately 2 miles of Central Turnpike between Fuller Road and Silver Ledge Drive. Improvements will also include the installation of HMA curbing and berm, driveway reconstruction, drainage modifications, pavement markings, and other ancillary work.

All work under this contract shall be done in conformance with the *Standard Specifications for Highways and Bridges* dated 1988, the *Supplemental Specifications* dated April 1, 2019; the *2017 Construction Standard Details*, the *1990 Standard Drawings for Signs and Supports*, the *1996 Construction and Traffic Standard Details* (as relates to the Pavement Markings details only); *The 2015 Overhead Signal Structure and Foundation Standard Drawings*, the *2009 Manual on Uniform Traffic Control Devices (MUTCD)* with *Massachusetts Amendments* and the *Standard Municipal Traffic Code*; the *1968 Standard Drawings for Traffic Signals and Highway Lighting*; the latest edition of *American Standard for Nursery Stock*; the Plans and these Special Provisions.

WORK SCHEDULE

The Contractor shall perform all work in accordance with Sutton standard work hours for construction as follows: Monday through Friday (Excluding Holidays) 7:00 AM to 3:00 PM

The Contractor and any subcontractors shall only work overtime as approved by the Engineer. The Contractor shall coordinate with the Engineer and Sutton Police Department to obtain a waiver if work on Saturdays, Sundays or Holidays is necessary.

All work within project limits shall allow for safe passage of vehicular and pedestrian traffic at all times.

DESIGNER/PROJECT MANAGER

DESIGNER
TEC, Inc.
Jake Carmody, P.E.
(978) 794-1792

MATERIAL TESTING

The Contractor shall obtain the services of a qualified material testing company to provide in-situ compaction and other material testing as ordered by the Engineer. No separate payment will be made, and all costs associated with material testing shall be considered incidental to various contract items.

PROTECTION OF UNDERGROUND FACILITIES

The Contractor's attention is directed to the necessity of making his own investigation in order to assure that no damage to existing structures, drainage lines, traffic signal conduits, etcetera, will occur.

The Contractor shall notify Massachusetts DIG SAFE and procure a Dig Safe Number for each location prior to disturbing existing ground in any way. Contact the Dig Safe Call Center by dialing 811 or 1-888-344-7233 or online at www.digsafe.com.

NOTICE TO OWNERS OF UTILITIES

(Supplementing Subsection 7.13)

Written notice shall be given by the Contractor to all public service corporations or municipal and State officials owning or having charge of publicly or privately-owned utilities of his intention to commence operations affecting such utilities at least one week in advance of the commencement of such operations. The Contractor shall, at the same time, file a copy of such notice with the Engineer.

A list of public and private utilities can be found on the MassDOT website at:

<http://www.massdot.state.ma.us/>

Select Quick Links

Select Doing Business with the Highway Division

Select Design/Engineering

Select Utility Contacts

Select District 4 on top of the webpage, select the City/Town (SUTTON), and then locate the utility.

NOTICE TO OWNERS OF UTILITIES (Continued)

The following are the names of owners and representatives of the principal utilities affected, but completeness of this list is not guaranteed:

National Grid (Electric)
1250 Brayton Point Road
Somerset, MA 02725

Jack Saraiva
508-962-6298

Eversource (Gas)
157 Cordaville Road, 3113
Southborough, MA 01772

Jeffrey Evans-Mongeon
508-305-6970

Tennessee Gas Pipeline Company
8 Anngina Drive
Enfield, CT 06082

David Wood
860-763-6005

Verizon (Telephone)
385 Myles Standish Boulevard
Taunton, MA 02780

Karen Mealey
508-828-6437

Manchaug Water District
P.O. Box 173
Manchaug, MA 01526

Andrew Nedoroscik
508-476-7465

Wilkinsonville Water District
P.O. Box 173
Sutton, MA 01590

Water Commissioners
508-865-0060

Sutton Sewer Department
4 Uxbridge Road
Boston, MA 01590

Donald Obuchowski
508-917-7011

Providence & Worcester R.R.
75 Hammond St.
Worcester, MA 01610

David Cuthbertson
508-755-4000

Charter Communications (Cable)
301 Barber Avenue
Worcester, MA 01606

Rick Molnar
774-243-9789

Sutton Highway Department
4 Uxbridge Road
Sutton, MA 01590

Matt Stencel
508-865-8743

ITEM 280.**HOT MIX ASPHALT WATERWAY****SQUARE YARD**

Work under this Item shall consist of the construction of waterways around drainage structures in accordance with Section 280 of the Standard Specifications and the following:

The intent of the Item is to construct paved waterways. It will be at the discretion of the Engineer to define the limits of work required to construct the required waterways.

NOTE: The longitudinal joint of the existing road edge shall have an application of rubberized asphalt sealer applied to it prior to the placement of the HMA waterway.

Construction Method

Construction of paved waterways shall be in conformance with the October 2017 Construction Standard Drawing Number E 211.3.0 included in APPENDIX C. or as required by the Engineer.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 280., Hot Mix Asphalt Waterway shall be measured and paid for at the contract unit price per SQUARE YARD; which price shall be full compensation for furnishing, placing, grading, and compacting of approved hot mix asphalt for waterways complete, in place and include all materials as required to complete work, including asphalt sealer, bitumen for tack coat, and saw cutting to the satisfaction of the Engineer.

No separate payment will be made for grading and compacting of subgrade areas under the waterway, but all costs in connection therewith shall be included in the unit price bid for Item 280.

ITEM 402.13**PAVEMENT MILLING MULCH FOR SHOULDERS****FOOT**

Work to be done under this Item shall conform to the relevant provisions of Section 769 of the Supplemental Specifications and the following:

The work consists of earthworks to install pavement millings mulch for shoulders at the edge of pavement. The existing shoulder shall be prepared for pavement milling mulch as necessary and directed by the Engineer. The work shall consist of excavation and leveling shoulder area to be mulched. The excavation and leveling of shoulder shall be pushed back down slope on embankment and/or excavated and disposed of on-site level and compacted as directed by the Engineer. Milling mulch shall be graded and compacted to a typical width of 3 feet, or as shown on the Plans, and to a depth of 4 inches level with the edge of the pavement, top of edging or curb or as directed by the Engineer. No geotextile fabric under the pavement millings shall be installed.

MATERIALS

Pavement milling mulch shall be smaller than the Standard 1-1/2 inch sieve.

The on-site recycling of pavement millings sourced from the project is encouraged. All pavement milling mulch for shoulders will be accepted based on visual inspection by the Engineer. Mulch material greater than 1 ½ inch shall be removed off-site by the Contractor.

METHOD OF MEASUREMENT

Item 402.13 will be measured per Foot in the longitudinal direction parallel to the edge of road, complete in place.

BASIS OF PAYMENT

Item 402.13 will be paid per Foot of material installed which price includes materials, excavation, grading and leveling and disposing on site, compacting and all incidental costs required to complete the work to the satisfaction of the Engineer.

ITEM 415.**PAVEMENT MICROMILLING****SQUARE YARD**

All references to Section 130 Pavement Milling within Section 450 Hot Mix Asphalt Pavement shall be replaced by Item 415 Pavement Micromilling.

Description**415.20 General.**

This work shall consist of micromilling and removal of existing Hot Mix Asphalt (HMA) pavement courses from the project by the Contractor. Micromilling shall be performed in conformity with the approved QC Plan. The Contractor shall present and discuss in sufficient detail the Quality Control information and activities related to milling at the Construction Quality Meeting required under Section 450. Unless otherwise specified, the milled material shall become the property of the Contractor.

Construction Procedures**415.60 General.**

All construction procedures under Pavement Micromilling shall also conform to any of the following relevant provisions of Pavement Milling:

Milling Equipment Requirements.

The milling equipment shall be self-propelled with sufficient power, traction, and stability to remove the existing HMA pavement to the specified depth and cross-slope. The milling machine shall be capable of operating at a minimum speed of 10 feet (3 meters) per minute, designed so that the operator can at all times observe the milling operation without leaving the control area of the machine, and equipped with the following:

- (a) A built in automatic grade control system that can control the longitudinal profile and the transverse cross-slope to produce the specified results.
- (b) Longitudinal controls capable of operating from any longitudinal grade reference, including string line, 30 foot (10 meter) ski minimum, 30 foot (10 meter) mobile string line minimum, or a matching shoe.
- (c) The transverse controls shall have an automatic system for controlling cross-slope at a given rate.
- (d) Cutting heads able to provide a minimum 6 foot (2 meter) cutting width and a 0 to 4 inch (0 to 100 mm) deep cut in one pass. The teeth on the revolving cutting drum must be continually maintained and shall be replaced as warranted to provide a uniform pavement texture.
- (e) An integral pickup and conveying device to immediately remove milled material from the roadway and discharge the millings into a truck, all in one operation.

ITEM 415. (Continued)

- (f) All necessary safety devices such as reflectors, headlights, taillights, flashing lights and back up signals so as to operate safely in both day and night.
- (g) A means of effectively limiting the amount of dust escaping from the milling and removal operation in accordance with local, State, and Federal air pollution control laws and regulations.

When milling smaller areas or areas where it is impractical to use the above described equipment, the use of a smaller or lesser-equipped milling machine may be permitted when approved by the Engineer.

Sweeper Equipment Requirements.

The Contractor shall provide a sufficient number of mechanical sweepers to ensure that the milled surface is free of millings and debris at the end of each day's milling operations. Each sweeper shall be equipped with a water tank, spray assembly to control dust, a pick-up broom, a dual gutter broom, and a dirt hopper. The sweepers shall be capable of removing millings and loose debris from the textured pavement.

Milling Operations.

The milling operations shall be scheduled to minimize the duration and placement of traffic on the milled surface. The milling operations shall not proceed more than 3 miles ahead of the paving operations. Under no circumstances shall the milled surface be left exposed to traffic for a period exceeding seven days. The Engineer may allow the Contractor to adjust the above limitations on milling production when necessary.

The Contractor shall coordinate milling and paving operations to minimize the exposure of milled surfaces to traffic. The Contractor shall ensure that milled surfaces are overlaid in a timely manner to avoid damage to the pavement structure. Any damage to the pavement structure resulting from extended exposure of the milled surface to traffic shall be repaired as directed by the Engineer at the Contractor's expense.

The existing pavement shall be removed to the average depth shown on the plans, in a manner that will restore the pavement surface to a uniform cross-section and longitudinal profile. The longitudinal profile of the milled surface shall be established using a 30 foot (10 meter) mobile ski, mobile string line, or stationary string line. The cross-slope of the milled surface shall be established by a second sensing device or by an automatic cross-slope control mechanism. The Contractor will be responsible for providing all grades necessary to remove the material to the proper line, grade, cross section, superelevation, and transitions shown on the plans or as directed by the Engineer. The requirement for automatic grade or slope controls may be waived by the Engineer in locations warranted by the situation, including intersections and closely confined areas.

The Engineer may adjust the average milling depth specified on the plans by $\pm 3/4"$ ($\pm 20\text{mm}$) during each milling pass at no additional payment to minimize delamination of the underlying pavement course or to otherwise provide a more stable surface. If delamination or exposure of

ITEM 415. (Continued)

concrete occurs when milling a HMA pavement course from an underlying Portland Cement Concrete (PCC) pavement, the Contractor shall cease milling operations and consult the Engineer to determine whether to reduce the milling depth or make other adjustments to the operation.

Protection of Inlets and Utilities.

Throughout the milling operation, protection shall be provided around existing catch basin inlets, manholes, utility valve boxes, and any similar structures. Any damage to such structures as a result of the milling operation is the Contractor's responsibility and shall be repaired at the Contractor's expense. To prevent the infiltration of milled material into the storm sewer system the Contractor shall take special care to prevent the milled material from falling into the inlet openings or inlet grates. Any milled material that falls into inlet openings or inlet grates shall be removed at the Contractor's expense.

Vertical Faces.

All permanent limits of the milled area shall be sawcut or otherwise neatly cut by mechanical means to provide a clean and sound vertical face. No vertical faces, transverse or longitudinal, shall be left exposed to traffic. If any vertical face is formed in an area exposed to traffic a temporary paved transition with a maximum 12:1 slope shall be established. If the milling machine is used to temporarily transition the milled pavement surface to the existing pavement surface, the temporary transition shall be constructed at a maximum 12:1 slope.

Opening to Traffic.

Prior to opening a milled area to traffic, the milled surface shall be thoroughly swept with a mechanical sweeper to remove all remaining millings and dust. This operation shall be conducted in a manner so as to minimize the potential for creation of a traffic hazard and to comply with local, State, and Federal air pollution control laws and regulations. Any damage to vehicular traffic as a result of milled material becoming airborne is the responsibility of the Contractor and shall be repaired at the Contractor's expense. Temporary pavement markings shall be placed in accordance with the provisions of Subsection 850.64.

Milled Surface Inspection.

The milled surface shall provide a satisfactory riding surface with a uniform textured appearance. The milled surface shall be free from gouges, excessive longitudinal grooves and ridges, oil film, and other imperfections that are a result of defective equipment, non-uniform milling teeth, improper use of equipment, or otherwise poor workmanship. Any unsatisfactory surfaces produced shall be corrected by remilling at the Contractor's expense and to the satisfaction of the Engineer.

The Contractor shall perform Quality Control inspection of all work items addressed as specified in the table below. Inspection activities during milling of HMA pavement may be performed by qualified Production personnel (e.g. Skilled Laborers, Foremen, Superintendents). However, the

ITEM 415. (Continued)

Contractor's QC personnel shall have overall responsibility for QC inspection. The Contractor shall not rely on the results of Department Acceptance inspection for Quality Control purposes. The Engineer shall be provided the opportunity to monitor and witness all QC inspection.

The milled surface of each travel lane shall be divided into longitudinal Sublots of 500 feet (150 meters). The Contractor shall perform a minimum of one random QC measurement within each Sublot with a 10 foot (3 meter) straightedge in the transverse direction across the milled surface. Additional selective QC measurements within each Sublot will be performed as deemed necessary by the QC personnel. All QC inspection results shall be recorded on NETTCP Inspection Report Forms. The Engineer will also randomly inspect a minimum of 25% of the Sublots. The Contractor shall perform surface texture measurements with a 10 foot (3 meter) straightedge in the transverse direction across the milled surface. The milled surface shall have a texture such that the variation from the edge of the straightedge to the top of ridges between any two ridge contact points shall not exceed 1/8 inch (3 mm). The difference in height from the top of any ridge to the bottom of the groove adjacent to that ridge shall not exceed 1/16" (1.6 mm). Any point in the surface not meeting these requirements shall be corrected as directed by the Engineer at the Contractor's expense.

In isolated areas where surface delamination between existing HMA layers or a surface delamination of HMA on Portland Cement Concrete causes a non-uniform texture to occur, the straightedge surface measurement requirements stated in the preceding paragraph may be waived, subject to the approval of the Engineer.

Minimum QC Inspection of Milling Operations

Inspection Component	Items Inspected	Minimum Inspection Frequency	Point of Inspection	Inspection Method
Equipment	As specified in QC Plan	Per QC Plan	Per QC Plan	Per QC Plan
Environmental Conditions	Protection of Inlets & Utilities	Per QC Plan	Existing Surface	Visual Check
	Removal of Millings & Dust	Per QC Plan	Milled Surface	Visual Check
Workmanship	Milling Depth	Per QC Plan	Milled Surface	Check Measurement
	Cross-Slope & Profile	Per QC Plan	Milled Surface	Check Measurement
	Milled Surface Texture	Per QC Plan	Milled Surface	Visual Check
	Milled Surface Roughness	Once per 500 feet(150 meters) per milled lane	Milled Surface per Subsection 410.67	10 foot (3 meter) standard straightedge
	Sawcut Limit Vertical Face	Per QC Plan	Sawcut Limits	Visual Check

ITEM 415. (Continued)

415.61 Micromilling Equipment Requirements.

The micromilling machine shall be equipped with a drum specifically designed to provide the surface specified below.

415.62 Control Strip.

The Contractor shall micromill a control strip. The control strip shall be 500 feet minimum in length with a uniformly textured surface and cross slope, as approved by the Engineer.

The micromilled surface of the control strip shall provide a satisfactory riding surface with a uniform textured appearance. The micromilled surface shall be free from gouges, excessive longitudinal grooves and ridges, oil film, and other imperfections that are a result of defective equipment, non-uniform milling teeth, improper use of equipment, or otherwise poor workmanship. Any unsatisfactory surfaces produced in the control strip shall be corrected by additional micromilling at the Contractor's expense and to the satisfaction of the Engineer.

The micromilled pavement surface shall have a transverse pattern of 0.2 – 0.3 inch center to center of each strike area. The Contractor shall perform surface texture measurements with a 10 foot (3 meter) straightedge in the transverse direction across the milled surface. The milled surface shall have a texture such that the variation from the edge of the straightedge to the top of ridges between any two ridge contact points shall not exceed 1/8 inch (3 mm). The difference in height from the top of any ridge to the bottom of the groove adjacent to that ridge shall not exceed 1/16" (1.6 mm). Any point in the surface not meeting these requirements shall be corrected as directed by the Engineer at the Contractor's expense.

415.67 Micromilled Surface Inspection.

The Contractor shall perform Quality Control inspection of all work items addressed under Section 415. The Contractor shall not rely on the results of Department Acceptance inspection for Quality Control purposes.

The micromilled surface shall meet the requirements of 415.62.

Compensation

415.80 Method of Measurement.

Micromilling - Micromilling will be measured for payment by the number of square yards (square meters) of area from which the milling of existing HMA pavement has been completed and the work accepted. No area deductions will be made for minor unmilled areas such as catch basin inlets, manholes, utility boxes and any similar utility structures.

ITEM 415. (Continued)

415.81 Basis of Payment.

Micromilling - Micromilling, removal and disposal of existing HMA pavement will be paid for at the contract unit price per square yard (square meter). This price shall include all equipment, tools, labor, and materials incidental thereto. No additional payments will be made for multiple passes with the milling machine to remove the existing HMA surface to the grade specified.

No separate payments will be made for: performing handwork removal of existing pavement and providing protection around catch basin inlets, manholes, utility valve boxes and any similar structures; repairing surface defects as a result of the Contractor's negligence; providing protection to underground utilities from the vibration of the milling operation; sawcutting micromilled limits; installing and removing any temporary transition; removing and disposing of millings; furnishing a sweeper and sweeping after milling. The costs for these items shall be included in the contract unit price for Pay Item 415., Pavement Micromilling.

415.82 Payment Items.

415.	Pavement Micromilling	Square Yard
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<u>ITEM 450.22</u>	<u>SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)</u>	<u>TON</u>
<u>ITEM 450.52</u>	<u>SUPERPAVE LEVELING COURSE – 12.5 (SLC – 12.5)</u>	<u>TON</u>
<u>ITEM 451.</u>	<u>HMA FOR PATCHING</u>	<u>TON</u>
<u>ITEM 452.</u>	<u>ASPHALT EMULSION FOR TACK COAT</u>	<u>GALLON</u>
<u>ITEM 453.</u>	<u>HMA JOINT SEALANT</u>	<u>FOOT</u>

The work under these items shall conform to the relevant provisions of Document 00717 SUPERPAVE REQUIREMENTS contained herein and the following:

The Equivalent Single Axle Loads (ESALs) for the design travel lane over a 20-year period is **0.3 to 3.0** Million 18-kip (80-kn) ESALs. The PGAB Grade selected for this Contract is **PG 64-28**

The emulsion under this specification shall be Grade RS-1H. The emulsion shall meet the requirements of AASHTO M 140 for Grade RS-1, except the 16 penetration of residue shall be at least 50 and no more than 100.

The proposed leveling course shall be placed at the minimum thickness necessary to fill existing ruts and only at locations with existing rutting. The pavement overlay shall be place immediately following placement of the proposed leveling course.

All required sawcutting in the existing pavement in accordance Section 450 (Document 00717) will be included in the contract unit price for each HMA pavement course.

ITEM 470.2**HOT MIX ASPHALT BERM, TYPE A - MODIFIED****FOOT**

Work under this Item shall conform to the relevant provisions of Section 470 of the Standard Specifications and the following:

Construction Method

Hot Mix Asphalt Berm, Type A – Modified, shall be constructed by means of an approved extrusion machine in conformance with the dimensions and at the locations shown on the Plans.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Hot Mix Asphalt Berm, Type A – Modified will be measured for payment by the foot, complete in place.

Hot Mix Asphalt Berm, Type A – Modified will be paid at the Contract unit price per foot, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

ITEM 482.03 **HOT APPLIED ASPHALTIC CRACK FILLER (CMCR)** **GALLON**

The work covered by this section of the specification consists of furnishing all plant, labor, equipment and materials necessary to performs all operation in connection with cleaning and sealing of construction and random cracks in bituminous concrete pavement, and vegetation cracks in bituminous concrete pavement, and vegetation removal and sterilization of cracks where necessary.

Material

Crack sealant shall be a modified asphalt-fiber compound designed especially for improving strength and performance of the parent asphalt sealant.

- a) The asphalt binder shall consist of a blend of neat asphalt binder and chemically modified crumb rubber (CMCR) that meets the following specifications:
 - a. PG 64-34 or PG 70-34 after modification
 - b. Viscosity of not more than 3PaS at 300 degrees F
 - c. Modification at a minimum shall consist of 5% CMCR and the maximum particle size for the CMCR shall be 80 mesh (#80 sieve)
 - d. The performance grade of the neat asphalt binder shall not exceed a PG 58-XX
 - e. The asphalt supplier shall provide testing for the neat asphalt binder and modified asphalt binder in accordance with AASHTO M320
- b) Fiber reinforcing materials shall be short-length polyester fibers having the following properties:
 - a. Length*25in.+0.02
 - b. Elongation at break; ASTM D2256-90... 38%
 - c. Melting point; ASTM D3418-82..... >475 degrees F (246 degrees C)
 - d. Crimps/Inc; ASTM D3937-90..... None
 - e. Cross Section.....Round
 - f. Denier; ASTM D1577.....4.5 Nominal dpf
 - g. Tensile Strength; ASTM D2256-90.....>70,000 psi
 - h. Diameter.....0.0085 in.**
 - i. Specific Gravity; ASTM D792-91.....1.32 to 1.40

*At temperature ranging from ambient to maximum finished product mix temperature

**Subject to Normal Variations

Modified asphalt fiber compound shall be mixed at a rate of 8% fiber weight of asphalt cement. This compound having the same chemical base provides compatibility and exhibits excellent bond strengths. The fiber function to redistribute high stress and strain concentration that are imposed on the sealant thermal sources, Traffic loading, etc.

Equipment

Equipment used in the performance of the work required by this section of the specification shall be subject to engineer approval and maintained in a satisfactory working condition at all times.

ITEM 482.03 (Continued)

- a) Air compressor: Air compressors shall be portable and capable of furnishing not less than 100 cubic feet of air per minute at not less than 90 psi pressure at the nozzle. The compressor shall be equipped with traps that shall maintain the compressed air free of oil and water.
- b) Manually operated, gas powered air-broom or self-propelled sweeper designed especially for use in cleaning highway and airfield pavement shall be used to remove debris, dirt and dust from the cracks.
- c) Melter: The unit used to melt or maintain crack sealant compound at the recommended application temperature shall be the indirect fired type. It shall be equipped with a remote heat exchanger and hot oil circulation pump capable of maintaining a consistent temperature of the heat transfer oil. The heat transfer oil shall be circulated to all sides and the bottom of the vat containing the crack sealant compound making a continuous loop back to the heat exchanger and having a flash point of not less than 600 degrees F. The melter shall be equipped with a satisfactory means of agitating the crack sealant at all times. This may be accomplished by continuous stirring with mechanically operated paddles and/or by a circulating gear pump attached to the melter. The melter must be equipped with a thermostatic control calibrated between 200 degrees F. and 550 degree F. and must be capable of pumping an 8% fiber content blend.

Preparation of Cracks

- a) Debris and vegetation removal: All cracks shall be blown clean and sterilized by use of a propane air torch generating 2000 degrees F. and 3000 foot/second veloTown to eliminate all vegetation, dirt, moisture and seeds. All debris removed from the cracks shall be removed from the pavement surface immediately by means of a power sweeper, hand or air broom.
- b) General: no crack sealant material shall be applied in wet cracks or where frost, snow or ice is present nor when ambient temperature is below 25 degrees F.

Preparation and Placement of Sealant

- a) The asphalt fiber compound shall be thoroughly mixed for a minimum of one hour before application can begin. Whenever material is added to the tank, sealing operations shall be suspended for 1 hour to allow for the minimum required mixing time. Minimum application temperature shall be 320 degrees F.
- b) Sealant shall be delivered to the pavement cracks through a high-pressure hose line and applicator shoe. Diameter of the applicator shoe is not to exceed 3.5 inches. When the pavement cracks are sealed the width of the sealant on the pavement (overbanding) shall be no greater than 3 inches. When traffic requires immediate use of the roadway, a boiler slag aggregate shall be broadcast over the cracks to prevent sealant from being picked up.

ITEM 482.03 (Continued)

Workmanship

All workmanship shall be of the highest quality, and any excess of spilled sealant shall be removed from the pavement by approved methods and discarded.

Any workmanship determined to be below the high standards of the particular craft involved shall not be accepted, and shall be corrected and/or replaced as required by the engineer in charge.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 482.03 shall be measured and paid for at the contract unit price per gallon and shall be full compensation for furnishing, preparing, placing the material specified and furnishing of all labor, equipment and incidentals for the satisfactory completion of this item.

ITEM 697.1**SILT SACK****EACH**

Work under this item shall conform to the relevant provisions of Section 670 of the Standard Specifications, Section 227 of the Supplemental Specifications and the following:

The 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. Devices shall be ACF Environmental (800)-448-3636; Reed & Graham, Inc. Geosynthetics (888)-381-0800; The BMP Store (800)-644-9223; or approved equal.

CONSTRUCTION

Silt sacks shall be installed in retained existing and proposed catch basins and drop inlets within the project limits and as required by the Engineer.

The silt sack shall be as manufactured to fit the opening of the drainage structure under regular flow conditions, and shall be mounted under the grate. The insert shall be secured from the surface such that the grate can be removed without the insert discharging into the structure. The filter material shall be installed and maintained in accordance with the manufacturer's written literature and as directed by the Engineer.

Silt sacks shall remain in place until the placement of the pavement overlay or top course and the graded areas have become permanently stabilized by vegetative growth. All materials used for the filter fabric shall become the property of the Contractor and shall be removed from the site.

The Contractor shall inspect the condition of silt sacks after each rainstorm and during major rain events. Silt sacks shall be cleaned periodically to remove and disposed of accumulated debris as required. Silt sacks, which become damaged during construction operations, shall be repaired or replaced immediately at no additional cost to the Department.

When emptying the silt sack, the contractor shall take all due care to prevent sediment from entering the structure. Any silt or other debris found in the drainage system at the end of construction shall be removed at the Contractors expense. The silt and sediment from the silt sack shall be legally disposed of offsite. Under no condition shall silt and sediment from the insert be deposited on site and used in construction.

All curb openings shall be blocked to prevent stormwater from bypassing the device.

All debris accumulated in silt sacks shall be handled and disposed of as specified in Section 227.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 697.1 shall be measured and paid at the Contract unit price per each, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

ITEM 697.1 (Continued)

No separate payment shall be made for removal and disposal of the sediment from the insert, regardless of the frequency of removal and disposal, but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 698.1**GEOTEXTILE FABRIC FOR STABILIZATION****SQUARE YARD**

The work to be done under this Item includes furnishing and installing filter fabric for slope stabilization, as directed by the Engineer. In trenches and drainpipe applications, the Contractor shall install geotextile filter fabric for trenches as shown in the Construction Standard Drawing No. E209.1.0. In slope treatment applications, the geotextile filter fabric shall be used in areas where the proposed roadway embankment is equal to or steeper than 2:1 (horizontal/vertical) and as directed by the Engineer. Excavation and embankment construction shall conform to the relevant provisions of Sections 120 and 150. The fabric shall be rolled out so that the seams between rolls are perpendicular to the roadway. All seams between rolls shall be either lapped a minimum of 6-inches or sewn in accordance with manufacturer's specifications. The fabric shall be placed on scarified soil and pinned into place with 6-inch plastic around the fabric's perimeter and at intermediate intervals at 12-inches on center. The fabric's edges shall be trimmed to meet the limit of treatment (meeting with existing slope) assuring that the edges of the fabric are completely covered by the loam and/or topsoil being placed on top of it. Loam and/or topsoil shall be placed in accordance with the relevant provisions of Section 751. Loam and/or topsoil carefully over the fabric at a thickness specified by the Engineer in a manner that will insure the fabric will remain in place.

MATERIAL

This material shall meet the requirements of M9.50 and the following:

Filter fabric shall be a non-woven geotextile specially designed for drainage and materials separation applications, and shall be composed of biodegradable materials. The fabric shall be composed of continuous or discontinuous (staple) fibers held together through needle punching. The edges of the fabric shall be salvaged or otherwise finished to prevent these outer fibers from pulling away from the fabric. The fabric shall meet the requirements of AASHTO M288 for the intended application.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 698.1 will be measured and paid at the Contract unit price per Square Yard, complete in place, which price shall include all labor, tools, equipment, materials required to complete the work as required by the Engineer. Overlaps shall be measured as a single layer of cloth. Any required excavation, embankment construction and loam/topsoil spreading shall be paid for under the applicable contract bid Items.

ITEM 703.**HOT MIX ASPHALT DRIVEWAY****TON**

The work under this Item shall conform to the relevant provisions of Section 701, and Sections 450 and 455 of Document 00717 and to the following:

The surface course shall be a compacted thickness of 1 1/2 inches Superpave Surface Course – 9.5 (SSC–9.5). The intermediate course shall be a compacted thickness of 2 inches Superpave Intermediate Course – 9.5 (SIC–9.5).

All Superpave HMA mixtures under this item shall be either 50 or 65 gyration mixtures. This item shall not be subject to the Quality Assurance requirements of Section 450 Hot Mix Asphalt Pavement.

Existing pavements shall be sawcut in accordance with the requirements of Subsection 450.57 as shown on the plans and as required by the Engineer.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 703 shall be measured and paid as per Subsections 701.80 and 701.81 including all sawcutting.

ITEM 767.121**SEDIMENT CONTROL BARRIER****FOOT**

The Work under this item shall conform to the relevant provisions of Sections 751 and 767 of the Standard Specifications and Section 670 of the Standard Supplemental Specifications and shall include the furnishing and placement of a sediment control barrier. Sediment Control Barrier shall be installed prior to disturbing upslope soil.

The purpose of the sediment control barrier is to slow runoff velocity and filter suspended sediments from storm water flow. Sediment barrier may be used to contain stockpile sediments, to break slope length, and to slow or prevent upgradient or water off road surfaces from flowing into a work zone. Contractor shall be responsible for ensuring that barriers fulfill the intent of adequately controlling siltation and runoff.

Twelve-inch diameter (after installation) compost filter tubes are intended to be the primary sedimentation control barrier.

For small areas of disturbance with minimal slope and slope length, the Engineer may approve the following sediment control methods;

- Straw tubes/wattles which shall be trenched
- Straw bales which shall be trenched

Additional barriers (adding depth or height) shall be used at specific locations of concentrated flow such as at gully points, steep slopes, or identified failure points in the sediment capture line.

Where specified or required by permits, silt fence shall be used in addition to compost filter tubes or straw bales and shall be incidental to the item.

MATERIALS AND CONSTRUCTION

Prior to initial placement of barriers, the Contractor and the Engineer shall review locations specified on the plans to ensure that the placement will provide maximum effectiveness.

Barriers shall be stacked, trenched and/or wedged as specified herein and shall be securely in contact with existing soil such that there is no flow beneath the barrier.

Compost Filter Tube

Compost material inside the filter tube shall meet M1.06.0, except for the following: no manure or bio-solids shall be used; no kiln dried wood or construction debris shall be allowed; material shall pass through a 2-inch sieve; and the C:N ratio shall be disregarded.

Outer tube fabric shall be a knitted mesh with 1/8 – 3/8” openings and made of 100% biodegradable materials (i.e. cotton, hemp or jute).

ITEM 767.121 (Continued)

Compost Filter tubes shall be a minimum of 12 inches in diameter installed. Tubes shall be placed, filled, and stacked in place as required to ensure stability against water flows. All tubes shall be tamped, but not trenched, to ensure good contact with soil.

Where reinforcement is necessary, additional tubes shall be installed as shown on plans.

Straw Bales

Straw bales shall conform to the requirements of section M6.04.3 of the Standard Specifications and the following:

Bales should be a minimum size of 12 x 16 x 36 inches and shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another.

The bales shall be trenched and backfilled. The trench shall be excavated with the width of the bale and the length of the proposed barrier to a depth of 4 inches. After the bales are stacked the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 4 inches against the uphill side of the barrier.

Straw Wattle

Straw wattle shall be a minimum of 12 inches in diameter. Straw filling shall conform to the requirements of Section M6.04.3, shall be encased in durable netting, and shall have a density of 3 lb/foot.

Straw wattle shall be trenched in 3 inches deep and staked according to the plans. The wattles shall be sufficiently secure on the upstream side to prevent water flowing underneath the wattle.

Silt Fence

Materials and Installation shall be per Section 670.40 of the Standard Supplemental Specifications and the following:

Silt fence shall be used when specified by Orders of Condition or other permitting.

When used with compost filter tubes, the tube shall be placed on a minimum of 8 inches of folded fabric on the upslope side of the fence. Fabric does not need to be trenched.

When used with straw bales, an 8-inch deep and 4-inch wide trench or V-trench shall be dug on the upslope side of the fence line. One foot of fabric shall be placed in the bottom of the trench followed by backfilling with compacted earth or gravel. Stakes shall be driven 16 inches into the ground on the down slope side of the trench and shall be spaced such that the fence remains vertical and effective.

Width of fabric shall be sufficient to provide a 36-inch high barrier after fabric is folded or trenched. Sagging fabric will require additional staking or other anchoring.

ITEM 767.121 (Continued)

Stakes

Stakes for anchoring Compost Filter Tubes, Straw Wattles, and Straw Bales shall be as shown on the plans and shall be a minimum of 1x1 inch diameter x 4 feet hardwood stakes.

When used with Silt Fence, stakes for Compost Filter Tubes shall be driven 12 inches into the ground, Stakes for Straw Bales shall be driven 16 inches into the ground.

Stakes of other material of equivalent strength may be used if approved by the Engineer.

MAINTENANCE

Maintenance of Sediment Control Barriers shall be per Section 670.40 of the Standard Supplemental Specifications or per the Stormwater Pollution Prevention Plan (SWPPP).

The contractor shall inspect the sediment barrier after each rain event and as specified in relevant permits to ensure that they are working effectively and as intended. Contractor shall be responsible for ensuring that an effective barrier is in place for all phases of the contract.

Barriers that decompose naturally due to weatherization over time such that they no longer provide the function required shall be repaired or replaced as directed. If the resulting berm of compost within the fabric tube is sufficiently intact and continues to provide water and sediment control, barrier does not necessarily require replacement.

DISMANTLING & REMOVING

Barriers shall be dismantled and/or removed when construction work is complete and when site conditions are sufficiently stable to prevent surface erosion and after receiving permission to do so from the Engineer.

For all instances, all nonbiodegradable material, including photo-biodegradable fabric, plastic netting, nylon twine, and silt fence, shall be removed and disposed off-site by the Contractor regardless of site context.

For naturalized areas, biodegradable, natural fabric and material may be left in place to decompose on-site. Compost filter tubes may be left as they are with stakes removed. Straw bales shall be broken down and spread evenly. All nylon or nonbiodegradable twine shall be removed along with silt fence. Wooden stakes may be left on site, placed neatly and discreetly.

On urban, residential, and other locations where aesthetics is a concern, the following shall apply:

- Filter tube fabric shall be cut and removed, and compost shall be raked to blend evenly (similar to a soil amendment or mulch). Not more than a 2-inch depth shall be left on soil substrate.

ITEM 767.121 (Continued)

- Straw bales shall be removed and disposed off-site by the Contractor. Areas of trenching shall be raked smooth and disturbed soils stabilized with a seed mix matching adjacent grasses (i.e., lawn or native grass mix).
- Silt fence, stakes, and other debris shall be removed and disposed off-site. Site shall look neat and clean upon completion.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 767.121 will be measured and paid for at the contract unit price per foot of sediment control barrier which price shall include all labor, equipment, materials, maintenance, dismantling, removal, restoration of soil, and all incidental costs required to complete work

Silt fence, when used in conjunction with compost filter tubes or straw bales, will be incidental to this item.

Additional barrier, such as double or triple stacking of compost filter tubes, shall be paid for per foot of tube to be installed.

Barriers that have been driven over or otherwise damaged by construction activities shall be repaired or replaced as directed by the Engineer at the Contractors expense.

ITEM 859.1**REFLECTORIZED DRUMS WITH SEQUENTIAL
FLASHING WARNING LIGHTS****DAY****GENERAL**

Work under this Section consists of furnishing, installing, maintaining in proper operating conditions, and removing reflectorized drums, and any necessary ballast, equipped with sequential warning lights.

MATERIALS

Reflectorized drums shall be listed on the MassDOT Qualified Traffic Control Equipment List.

Reflective sheeting on drums shall meet or exceed ASTM D4956 Type VIII. All drums shall be maintained in a satisfactory manner including the removal of oils, dirt, and debris that may cause reduced retroreflectivity.

The Contractor shall use one of the following sequential flashing warning light systems unless otherwise approved by the Engineer:

1. Empco-Lite LWCS D.
2. pi-Lit® Sequential Barricade-Style Lamp; or
3. Unipart Dorman SynchroGUIDE.

Sequential flashing warning lights shall be secured to reflectorized drums per the light manufacturer's specifications.

Construction Methods

The first ten drums in any merging or shifting taper as designated in the Temporary Traffic Control Plan shall be equipped with sequential flashing warning lights. These lights shall be operating, at a minimum, between dusk and dawn when the taper is deployed.

The successive flashing of the sequential warning lights shall occur from the upstream end of the merging or shifting taper to the downstream end of the taper in order to identify the desired vehicle path. Each warning light in the sequence shall be flashed at a rate of not less than 55, nor more than 75 times per minute.

Warning lights shall be powered off when drums are not deployed in a taper.

Method of Measurement

A group of ten (10) reflectorized drums with sequential flashing warning lights is considered one (1) unit and will be measured by the day. Each period of up to 24 hours during which this unit is in use will be measured as one day regardless of the number of times that the drums are positioned, repositioned, removed, or returned to service.

ITEM 859.1 (Continued)

Basis of Payment

Reflectorized Drums with Sequential Flashing Warning Lights will be paid for at the contract unit price per day, which shall include full compensation for furnishing, positioning, repositioning, and removing the group of ten (10) drums as directed by the Engineer.

ITEM 874.2**TRAFFIC SIGN REMOVED AND RESET****EACH****GENERAL**

Work under this item shall conform to the relevant provisions under Section 828 of the standard specifications and the following:

The Contractor shall carefully remove and reset all designated existing signs including attachment hardware and sign support posts located as needed and where directed by the Engineer.

Work shall include the dismantling, removal, transporting, storing and resetting of existing traffic signs at the locations shown on the plans. The Contractor shall completely remove the sign and post and reset said sign and post at the new location. If existing sign and/or post are not suitable for reuse as determined by the Engineer, the contractor shall provide new sign and/or post at no additional cost. New attachment hardware shall be furnished as necessary to replace any missing or unusable existing hardware.

Existing sign and/or post damaged by the contractor's operations shall be replaced in-kind by the Contractor at no additional compensation.

Included under this item are warning, regulatory, and route marker signs and miscellaneous directional signs.

The Contractor shall backfill with compacted gravel all holes resulting from the removal of the existing signs and their foundations and restore the area to match existing conditions of adjacent areas.

Method of Measurement and Basis of Payment

Measurement and payment for this item shall be made at the Contract Unit Price per each traffic sign removed and reset complete in place. Payment shall constitute full compensation for dismantling, loading, transporting and resetting of the signs as designated above, gravel backfill.

Measurement and payment for this item shall be made at the Contract Unit Price per each traffic sign removed and reset complete in place. Payment shall constitute full compensation for dismantling, loading, transporting and resetting of the signs as designated above, gravel backfill and incidental costs required to complete the work.

APPENDIX A – PRICE ADJUSTMENTS

MONTHLY PRICE ADJUSTMENT FOR HOT MIX ASPHALT (HMA) MIXTURES

Please note the MassDOT price adjustment clause for liquid asphalt will be added to this contract and please find the attached form. Please refer to MassDOT website for price adjustments.

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DOCUMENT 00811
SPECIAL PROVISIONS
MONTHLY PRICE ADJUSTMENT FOR HOT MIX ASPHALT (HMA) MIXTURES
ENGLISH AND METRIC UNITS
Revised: 07/08/2016

This provision applies to all projects using greater than 100 tons (91 megagrams) of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in the Notice to Contractors section of the bid documents.

Price Adjustments will be based on the variance in price, for the liquid asphalt component only, between the Base Price and the Period Price. They shall not include transportation or other charges. Price Adjustments will occur on a monthly basis.

Base Price

The Base Price of liquid asphalt on a project as listed in the Notice to Contractors section of the bid documents is a fixed price determined by the Department at the time of the bid using the same method as the determination of the Period Price detailed below. The Base Price shall be used in all bids.

Period Price

The Period Price is the price of liquid asphalt for each monthly period as determined by the Department using the average selling price per standard ton of PG64-28 paving grade (primary binder classification) asphalt, FOB manufacturer's terminal, as listed under the "East Coast Market - New England, Boston, Massachusetts area" section of the Poten & Partners, Inc. "Asphalt Weekly Monitor". This average selling price is listed in the issue having a publication date of the second Friday of the month and will be posted as the Period Price for that month. The Department will post this Period Price on its website at <http://www.mhd.state.ma.us/> within two (2) business days following its receipt of the relevant issue of the "Asphalt Weekly Monitor". Poten and Partners has granted the Department the right to publish this specific asphalt price information sourced from the Asphalt Weekly Monitor. This method of period price determination was formerly called the New Asphalt Period Price Method. Separate website postings using both the New Asphalt Period Price Method and the Old Asphalt Period Price Method were discontinued after June 2013.

Price Adjustment Determination, Calculation and Payment

The Contract Price of the HMA mixture will be paid under the respective item in the Contract. Price Adjustments, as herein provided, either upwards or downwards, will be made after the work has been performed using the monthly period price for the month during which the work was performed.

Price Adjustments will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

The Price Adjustment applies only to the actual virgin liquid asphalt content in the mixture placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M3.11.03.

Price Adjustments will be separate payment items. The pay item numbers are 999.401 for a positive price adjustment (a payment) and 999.402 for a negative price adjustment (a deduction). Price Adjustments will be calculated using the following equation:

Price Adjustment = Tons of HMA Placed X Liquid Asphalt Content % X RAP Factor X (Period Price - Base Price)

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

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APPENDIX B – PREVAILING WAGE RATES

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CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

**As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H**

ROSALIN ACOSTA
Secretary
WILLIAM D MCKINNEY
Director

Awarding Authority: Town of Sutton
Contract Number: **City/Town:** SUTTON
Description of Work: Town of Sutton is seeking written quotes to perform roadway improvements and repave approximately 2 miles of Central Turnpike between Fuller Road and Silver ledge Drive per the specifications.
Job Location: Central Turnpike, Sutton, MA

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the "Wage Request Number" on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule from the Department of Labor Standards ("DLS") if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Department of Labor Standards, Division of Apprentice Standards (DLS/DAS). Apprentice must keep his/her apprentice identification card on his/her person during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DLS/DAS regardless of whether or not they are registered with any other federal, state, local, or private agency must be paid the journeyworker's rate for the trade.**
- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule. Awarding authorities are required to request these updates no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. Contractors are required to obtain the wage schedules from awarding authorities, and to pay no less than these rates to covered workers. The annual update requirement is not applicable to 27F "rental of equipment" contracts.
- Every contractor or subcontractor which performs construction work on the project is required to submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. A sample of a payroll reporting form may be obtained at <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2019	\$34.25	\$11.91	\$12.70	\$0.00	\$58.86
	08/01/2019	\$34.25	\$12.41	\$12.70	\$0.00	\$59.36
	12/01/2019	\$34.25	\$12.41	\$13.72	\$0.00	\$60.38
	06/01/2020	\$35.15	\$12.41	\$13.72	\$0.00	\$61.28
	08/01/2020	\$35.15	\$12.91	\$13.72	\$0.00	\$61.78
	12/01/2020	\$35.15	\$12.91	\$14.82	\$0.00	\$62.88
	06/01/2021	\$35.95	\$12.91	\$14.82	\$0.00	\$63.68
	08/01/2021	\$35.95	\$13.41	\$14.82	\$0.00	\$64.18
	12/01/2021	\$35.95	\$13.41	\$16.01	\$0.00	\$65.37
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2019	\$34.32	\$11.91	\$12.70	\$0.00	\$58.93
	08/01/2019	\$34.32	\$12.41	\$12.70	\$0.00	\$59.43
	12/01/2019	\$34.32	\$12.41	\$13.72	\$0.00	\$60.45
	06/01/2020	\$35.22	\$12.41	\$13.72	\$0.00	\$61.35
	08/01/2020	\$35.22	\$12.91	\$13.72	\$0.00	\$61.85
	12/01/2020	\$35.22	\$12.91	\$14.82	\$0.00	\$62.95
	06/01/2021	\$36.02	\$12.91	\$14.82	\$0.00	\$63.75
	08/01/2021	\$36.02	\$13.41	\$14.82	\$0.00	\$64.25
	12/01/2021	\$36.02	\$13.41	\$16.01	\$0.00	\$65.44
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2019	\$34.44	\$11.91	\$12.70	\$0.00	\$59.05
	08/01/2019	\$34.44	\$12.41	\$12.70	\$0.00	\$59.55
	12/01/2019	\$34.44	\$12.41	\$13.72	\$0.00	\$60.57
	06/01/2020	\$35.34	\$12.41	\$13.72	\$0.00	\$61.47
	08/01/2020	\$35.34	\$12.91	\$13.72	\$0.00	\$61.97
	12/01/2020	\$35.34	\$12.91	\$14.82	\$0.00	\$63.07
	06/01/2021	\$36.14	\$12.91	\$14.82	\$0.00	\$63.87
	08/01/2021	\$36.14	\$13.41	\$14.82	\$0.00	\$64.37
	12/01/2021	\$36.14	\$13.41	\$16.01	\$0.00	\$65.56
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2018	\$97.80	\$9.90	\$21.15	\$0.00	\$128.85
	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$35.14	\$7.85	\$14.44	\$0.00	\$57.43
	12/01/2019	\$36.00	\$7.85	\$14.44	\$0.00	\$58.29
	06/01/2020	\$36.89	\$7.85	\$14.44	\$0.00	\$59.18
	12/01/2020	\$37.78	\$7.85	\$14.44	\$0.00	\$60.07
	06/01/2021	\$38.70	\$7.85	\$14.44	\$0.00	\$60.99
	12/01/2021	\$39.61	\$7.85	\$14.44	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS WORKER (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)</i>	06/01/2019	\$36.40	\$12.50	\$8.50	\$0.00	\$57.40
	12/01/2019	\$37.40	\$12.50	\$8.50	\$0.00	\$58.40
	06/01/2020	\$38.40	\$12.50	\$8.50	\$0.00	\$59.40
	12/01/2020	\$39.40	\$12.50	\$8.50	\$0.00	\$60.40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ASPHALT RAKER <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 2</i>	06/01/2019	\$35.14	\$7.85	\$14.44	\$0.00	\$57.43
	12/01/2019	\$36.00	\$7.85	\$14.44	\$0.00	\$58.29
	06/01/2020	\$36.89	\$7.85	\$14.44	\$0.00	\$59.18
	12/01/2020	\$37.78	\$7.85	\$14.44	\$0.00	\$60.07
	06/01/2021	\$38.70	\$7.85	\$14.44	\$0.00	\$60.99
	12/01/2021	\$39.61	\$7.85	\$14.44	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2019	\$44.71	\$7.07	\$17.72	\$0.00	\$69.50
	01/01/2020	\$46.10	\$7.07	\$17.98	\$0.00	\$71.15

Apprentice - BOILERMAKER - Local 29**Effective Date - 01/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$29.06	\$7.07	\$11.52	\$0.00	\$47.65
2	65	\$29.06	\$7.07	\$11.52	\$0.00	\$47.65
3	70	\$31.30	\$7.07	\$12.40	\$0.00	\$50.77
4	75	\$33.53	\$7.07	\$13.30	\$0.00	\$53.90
5	80	\$35.77	\$7.07	\$14.18	\$0.00	\$57.02
6	85	\$38.00	\$7.07	\$15.07	\$0.00	\$60.14
7	90	\$40.24	\$7.07	\$15.95	\$0.00	\$63.26
8	95	\$42.47	\$7.07	\$16.84	\$0.00	\$66.38

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$29.97	\$7.07	\$11.69	\$0.00	\$48.73
2	65	\$29.97	\$7.07	\$11.69	\$0.00	\$48.73
3	70	\$32.27	\$7.07	\$12.59	\$0.00	\$51.93
4	75	\$34.58	\$7.07	\$13.49	\$0.00	\$55.14
5	80	\$36.88	\$7.07	\$14.38	\$0.00	\$58.33
6	85	\$39.19	\$7.07	\$15.29	\$0.00	\$61.55
7	90	\$41.49	\$7.07	\$16.18	\$0.00	\$64.74
8	95	\$43.80	\$7.07	\$17.09	\$0.00	\$67.96

Notes:**Apprentice to Journeyworker Ratio:1:4**

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	02/01/2019	\$51.41	\$10.75	\$20.06	\$0.00	\$82.22
BRICKLAYERS LOCAL 3 (WORCESTER)	08/01/2019	\$52.76	\$10.75	\$20.20	\$0.00	\$83.71
	02/01/2020	\$53.36	\$10.75	\$20.20	\$0.00	\$84.31
	08/01/2020	\$54.71	\$10.75	\$20.35	\$0.00	\$85.81
	02/01/2021	\$55.31	\$10.75	\$20.35	\$0.00	\$86.41
	08/01/2021	\$56.71	\$10.75	\$20.51	\$0.00	\$87.97
	02/01/2022	\$57.29	\$10.75	\$20.51	\$0.00	\$88.55

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Worcester

Effective Date - 02/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.71	\$10.75	\$20.06	\$0.00	\$56.52
2	60	\$30.85	\$10.75	\$20.06	\$0.00	\$61.66
3	70	\$35.99	\$10.75	\$20.06	\$0.00	\$66.80
4	80	\$41.13	\$10.75	\$20.06	\$0.00	\$71.94
5	90	\$46.27	\$10.75	\$20.06	\$0.00	\$77.08

Effective Date - 08/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.38	\$10.75	\$20.20	\$0.00	\$57.33
2	60	\$31.66	\$10.75	\$20.20	\$0.00	\$62.61
3	70	\$36.93	\$10.75	\$20.20	\$0.00	\$67.88
4	80	\$42.21	\$10.75	\$20.20	\$0.00	\$73.16
5	90	\$47.48	\$10.75	\$20.20	\$0.00	\$78.43

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN	06/01/2019	\$40.75	\$7.85	\$15.55	\$0.00	\$64.15
LABORERS - FOUNDATION AND MARINE	12/01/2019	\$41.75	\$7.85	\$15.55	\$0.00	\$65.15
	06/01/2020	\$42.74	\$7.85	\$15.55	\$0.00	\$66.14
	12/01/2020	\$43.72	\$7.85	\$15.55	\$0.00	\$67.12
	06/01/2021	\$44.74	\$7.85	\$15.55	\$0.00	\$68.14
	12/01/2021	\$45.75	\$7.85	\$15.55	\$0.00	\$69.15
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER	06/01/2019	\$39.60	\$7.85	\$15.55	\$0.00	\$63.00
LABORERS - FOUNDATION AND MARINE	12/01/2019	\$40.60	\$7.85	\$15.55	\$0.00	\$64.00
	06/01/2020	\$41.59	\$7.85	\$15.55	\$0.00	\$64.99
	12/01/2020	\$42.57	\$7.85	\$15.55	\$0.00	\$65.97
	06/01/2021	\$43.59	\$7.85	\$15.55	\$0.00	\$66.99
	12/01/2021	\$44.60	\$7.85	\$15.55	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2019	\$39.60	\$7.85	\$15.55	\$0.00	\$63.00
	12/01/2019	\$40.60	\$7.85	\$15.55	\$0.00	\$64.00
	06/01/2020	\$41.59	\$7.85	\$15.55	\$0.00	\$64.99
	12/01/2020	\$42.57	\$7.85	\$15.55	\$0.00	\$65.97
	06/01/2021	\$43.59	\$7.85	\$15.55	\$0.00	\$66.99
	12/01/2021	\$44.60	\$7.85	\$15.55	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	03/01/2019	\$42.35	\$9.90	\$17.50	\$0.00	\$69.75

Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 03/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.18	\$9.90	\$1.73	\$0.00	\$32.81
2	60	\$25.41	\$9.90	\$1.73	\$0.00	\$37.04
3	70	\$29.65	\$9.90	\$12.31	\$0.00	\$51.86
4	75	\$31.76	\$9.90	\$12.31	\$0.00	\$53.97
5	80	\$33.88	\$9.90	\$14.04	\$0.00	\$57.82
6	80	\$33.88	\$9.90	\$14.04	\$0.00	\$57.82
7	90	\$38.12	\$9.90	\$15.77	\$0.00	\$63.79
8	90	\$38.12	\$9.90	\$15.77	\$0.00	\$63.79

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
Step 1&2 \$30.69/ 3&4 \$36.59/ 5&6 \$53.59/ 7&8 \$59.55

Apprentice to Journeyworker Ratio:1:5

CARPENTER WOOD FRAME <i>CARPENTERS -ZONE 2 (Wood Frame)</i>	04/01/2019	\$27.52	\$7.07	\$7.86	\$0.00	\$42.45
	10/01/2019	\$27.95	\$7.07	\$7.86	\$0.00	\$42.88
All Aspects of New Wood Frame Work						

Apprentice - CARPENTER (Wood Frame) - Zone 2**Effective Date - 04/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$16.51	\$7.07	\$0.00	\$0.00	\$23.58
2	60	\$16.51	\$7.07	\$0.00	\$0.00	\$23.58
3	65	\$17.89	\$7.07	\$7.86	\$0.00	\$32.82
4	70	\$19.26	\$7.07	\$7.86	\$0.00	\$34.19
5	75	\$20.64	\$7.07	\$7.86	\$0.00	\$35.57
6	80	\$22.02	\$7.07	\$7.86	\$0.00	\$36.95
7	85	\$23.39	\$7.07	\$7.86	\$0.00	\$38.32
8	90	\$24.77	\$7.07	\$7.86	\$0.00	\$39.70

Effective Date - 10/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$16.77	\$7.07	\$0.00	\$0.00	\$23.84
2	60	\$16.77	\$7.07	\$0.00	\$0.00	\$23.84
3	65	\$18.17	\$7.07	\$7.86	\$0.00	\$33.10
4	70	\$19.57	\$7.07	\$7.86	\$0.00	\$34.50
5	75	\$20.96	\$7.07	\$7.86	\$0.00	\$35.89
6	80	\$22.36	\$7.07	\$7.86	\$0.00	\$37.29
7	85	\$23.76	\$7.07	\$7.86	\$0.00	\$38.69
8	90	\$25.16	\$7.07	\$7.86	\$0.00	\$40.09

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$19.45/ 3&4 \$26.96/ 5&6 \$34.19/ 7&8 \$36.95

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING

BRICKLAYERS LOCAL 3 (WORCESTER)

01/01/2019

\$45.62

\$12.50

\$22.41

\$0.30

\$80.83

07/01/2019

\$46.30

\$12.50

\$22.41

\$0.30

\$81.51

01/01/2020

\$47.71

\$12.50

\$22.41

\$0.30

\$82.92

Classification

Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate

Apprentice - CEMENT MASONRY/PLASTERING - Worcester
Effective Date - 01/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.81	\$12.50	\$15.41	\$0.00	\$50.72
2	60	\$27.37	\$12.50	\$17.41	\$0.30	\$57.58
3	65	\$29.65	\$12.50	\$18.41	\$0.30	\$60.86
4	70	\$31.93	\$12.50	\$19.41	\$0.30	\$64.14
5	75	\$34.22	\$12.50	\$20.41	\$0.30	\$67.43
6	80	\$36.50	\$12.50	\$21.41	\$0.30	\$70.71
7	90	\$41.06	\$12.50	\$22.41	\$0.30	\$76.27

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.15	\$12.50	\$15.41	\$0.00	\$51.06
2	60	\$27.78	\$12.50	\$17.41	\$0.30	\$57.99
3	65	\$30.10	\$12.50	\$18.41	\$0.30	\$61.31
4	70	\$32.41	\$12.50	\$19.41	\$0.30	\$64.62
5	75	\$34.73	\$12.50	\$20.41	\$0.30	\$67.94
6	80	\$37.04	\$12.50	\$21.41	\$0.30	\$71.25
7	90	\$41.67	\$12.50	\$22.41	\$0.30	\$76.88

Notes:

Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

Apprentice to Journeyworker Ratio:1:3

CHAIN SAW OPERATOR LABORERS - ZONE 2	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES OPERATING ENGINEERS LOCAL 4	06/01/2019	\$49.18	\$12.00	\$15.60	\$0.00	\$76.78
	12/01/2019	\$50.33	\$12.00	\$15.60	\$0.00	\$77.93
	06/01/2020	\$51.43	\$12.00	\$15.60	\$0.00	\$79.03
	12/01/2020	\$52.58	\$12.00	\$15.60	\$0.00	\$80.18
	06/01/2021	\$53.68	\$12.00	\$15.60	\$0.00	\$81.28
	12/01/2021	\$54.83	\$12.00	\$15.60	\$0.00	\$82.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 4	06/01/2019	\$32.28	\$12.00	\$15.60	\$0.00	\$59.88
	12/01/2019	\$33.07	\$12.00	\$15.60	\$0.00	\$60.67
	06/01/2020	\$33.82	\$12.00	\$15.60	\$0.00	\$61.42
	12/01/2020	\$34.60	\$12.00	\$15.60	\$0.00	\$62.20
	06/01/2021	\$35.35	\$12.00	\$15.60	\$0.00	\$62.95
	12/01/2021	\$36.14	\$12.00	\$15.60	\$0.00	\$63.74

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) PAINTERS LOCAL 35 - ZONE 2	01/01/2019	\$50.36	\$8.15	\$20.85	\$0.00	\$79.36
	07/01/2019	\$50.66	\$8.20	\$21.45	\$0.00	\$80.31
	01/01/2020	\$50.96	\$8.20	\$22.10	\$0.00	\$81.26
	07/01/2020	\$52.06	\$8.20	\$22.10	\$0.00	\$82.36
	01/01/2021	\$53.16	\$8.20	\$22.10	\$0.00	\$83.46

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.18	\$8.15	\$0.00	\$0.00	\$33.33
2	55	\$27.70	\$8.15	\$5.64	\$0.00	\$41.49
3	60	\$30.22	\$8.15	\$6.15	\$0.00	\$44.52
4	65	\$32.73	\$8.15	\$6.66	\$0.00	\$47.54
5	70	\$35.25	\$8.15	\$17.78	\$0.00	\$61.18
6	75	\$37.77	\$8.15	\$18.29	\$0.00	\$64.21
7	80	\$40.29	\$8.15	\$18.80	\$0.00	\$67.24
8	90	\$45.32	\$8.15	\$19.83	\$0.00	\$73.30

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.33	\$8.20	\$0.00	\$0.00	\$33.53
2	55	\$27.86	\$8.20	\$5.78	\$0.00	\$41.84
3	60	\$30.40	\$8.20	\$6.30	\$0.00	\$44.90
4	65	\$32.93	\$8.20	\$6.83	\$0.00	\$47.96
5	70	\$35.46	\$8.20	\$18.30	\$0.00	\$61.96
6	75	\$38.00	\$8.20	\$18.83	\$0.00	\$65.03
7	80	\$40.53	\$8.20	\$19.35	\$0.00	\$68.08
8	90	\$45.59	\$8.20	\$20.40	\$0.00	\$74.19

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN LABORERS - ZONE 2	06/01/2019	\$39.80	\$7.85	\$15.35	\$0.00	\$63.00
	12/01/2019	\$40.80	\$7.85	\$15.35	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 2	06/01/2019	\$40.80	\$7.85	\$15.35	\$0.00	\$64.00
	12/01/2019	\$41.80	\$7.85	\$15.35	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: BURNERS LABORERS - ZONE 2	06/01/2019	\$40.55	\$7.85	\$15.35	\$0.00	\$63.75
	12/01/2019	\$41.55	\$7.85	\$15.35	\$0.00	\$64.75
For apprentice rates see "Apprentice- LABORER"						
DEMO: CONCRETE CUTTER/SAWYER LABORERS - ZONE 2	06/01/2019	\$40.80	\$7.85	\$15.35	\$0.00	\$64.00
	12/01/2019	\$41.80	\$7.85	\$15.35	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$40.55	\$7.85	\$15.35	\$0.00	\$63.75
For apprentice rates see "Apprentice- LABORER"	12/01/2019	\$41.55	\$7.85	\$15.35	\$0.00	\$64.75
DEMO: WRECKING LABORER <i>LABORERS - ZONE 2</i>	06/01/2019	\$39.80	\$7.85	\$15.35	\$0.00	\$63.00
For apprentice rates see "Apprentice- LABORER"	12/01/2019	\$40.80	\$7.85	\$15.35	\$0.00	\$64.00
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2018	\$65.20	\$9.90	\$21.15	\$0.00	\$96.25
For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2019	\$68.52	\$9.90	\$21.15	\$0.00	\$99.57
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2018	\$46.57	\$9.90	\$21.15	\$0.00	\$77.62
For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2018	\$69.86	\$9.90	\$21.15	\$0.00	\$100.91
For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2019	\$73.41	\$9.90	\$21.15	\$0.00	\$104.46
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2018	\$97.80	\$9.90	\$21.15	\$0.00	\$128.85
For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
ELECTRICIAN <i>ELECTRICIANS LOCAL 96</i>	06/01/2019	\$44.57	\$10.17	\$16.11	\$0.00	\$70.85

Apprentice - ELECTRICIAN - Local 96

Effective Date - 06/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.83	\$10.17	\$0.53	\$0.00	\$28.53
2	43	\$19.17	\$10.17	\$0.58	\$0.00	\$29.92
3	48	\$21.39	\$10.17	\$12.86	\$0.00	\$44.42
4	55	\$24.51	\$10.17	\$13.31	\$0.00	\$47.99
5	65	\$28.97	\$10.17	\$13.93	\$0.00	\$53.07
6	80	\$35.66	\$10.17	\$14.86	\$0.00	\$60.69

Notes:

Steps 1-2 are 1000 hrs; Steps 3-6 are 1500 hrs.

Apprentice to Journeyworker Ratio:2:3***

ELEVATOR CONSTRUCTOR <i>ELEVATOR CONSTRUCTORS LOCAL 41</i>	01/01/2019	\$53.11	\$15.58	\$17.51	\$0.00	\$86.20
	01/01/2020	\$54.85	\$15.73	\$18.41	\$0.00	\$88.99
	01/01/2021	\$56.69	\$15.88	\$19.31	\$0.00	\$91.88
	01/01/2022	\$58.62	\$16.03	\$20.21	\$0.00	\$94.86

Apprentice - ELEVATOR CONSTRUCTOR - Local 41

Effective Date - 01/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.56	\$15.58	\$0.00	\$0.00	\$42.14
2	55	\$29.21	\$15.58	\$17.51	\$0.00	\$62.30
3	65	\$34.52	\$15.58	\$17.51	\$0.00	\$67.61
4	70	\$37.18	\$15.58	\$17.51	\$0.00	\$70.27
5	80	\$42.49	\$15.58	\$17.51	\$0.00	\$75.58

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.43	\$15.73	\$0.00	\$0.00	\$43.16
2	55	\$30.17	\$15.73	\$18.41	\$0.00	\$64.31
3	65	\$35.65	\$15.73	\$18.41	\$0.00	\$69.79
4	70	\$38.40	\$15.73	\$18.41	\$0.00	\$72.54
5	80	\$43.88	\$15.73	\$18.41	\$0.00	\$78.02

Notes:

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER	01/01/2019	\$37.18	\$15.58	\$17.51	\$0.00	\$70.27
ELEVATOR CONSTRUCTORS LOCAL 41	01/01/2020	\$38.40	\$15.73	\$18.41	\$0.00	\$72.54
	01/01/2021	\$39.68	\$15.88	\$19.31	\$0.00	\$74.87
	01/01/2022	\$41.03	\$16.03	\$20.21	\$0.00	\$77.27

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

FENCE & GUARD RAIL ERECTOR	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
LABORERS - ZONE 2	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	05/01/2019	\$43.68	\$11.50	\$15.60	\$0.00	\$70.78
OPERATING ENGINEERS LOCAL 4	11/01/2019	\$44.68	\$11.50	\$15.60	\$0.00	\$71.78
	05/01/2020	\$45.83	\$11.50	\$15.60	\$0.00	\$72.93
	11/01/2020	\$46.83	\$11.50	\$15.60	\$0.00	\$73.93
	05/01/2021	\$47.98	\$11.50	\$15.60	\$0.00	\$75.08
	11/01/2021	\$48.98	\$11.50	\$15.60	\$0.00	\$76.08
	05/01/2022	\$50.13	\$11.50	\$15.60	\$0.00	\$77.23

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2019	\$45.17	\$11.50	\$15.60	\$0.00	\$72.27
	11/01/2019	\$46.18	\$11.50	\$15.60	\$0.00	\$73.28
	05/01/2020	\$47.33	\$11.50	\$15.60	\$0.00	\$74.43
	11/01/2020	\$48.34	\$11.50	\$15.60	\$0.00	\$75.44
	05/01/2021	\$49.50	\$11.50	\$15.60	\$0.00	\$76.60
	11/01/2021	\$50.51	\$11.50	\$15.60	\$0.00	\$77.61
	05/01/2022	\$51.67	\$11.50	\$15.60	\$0.00	\$78.77
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2019	\$22.48	\$11.50	\$15.60	\$0.00	\$49.58
	11/01/2019	\$23.07	\$11.50	\$15.60	\$0.00	\$50.17
	05/01/2020	\$23.74	\$11.50	\$15.60	\$0.00	\$50.84
	11/01/2020	\$24.33	\$11.50	\$15.60	\$0.00	\$51.43
	05/01/2021	\$25.01	\$11.50	\$15.60	\$0.00	\$52.11
	11/01/2021	\$25.61	\$11.50	\$15.60	\$0.00	\$52.71
	05/01/2022	\$26.28	\$11.50	\$15.60	\$0.00	\$53.38
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 96</i>	06/01/2019	\$44.57	\$10.17	\$16.11	\$0.00	\$70.85
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINT/COMMISSIONING <i>ELECTRICIANS LOCAL 96</i>	06/01/2019	\$44.57	\$10.17	\$16.11	\$0.00	\$70.85
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$39.54	\$12.00	\$15.60	\$0.00	\$67.14
	12/01/2019	\$40.49	\$12.00	\$15.60	\$0.00	\$68.09
	06/01/2020	\$41.40	\$12.00	\$15.60	\$0.00	\$69.00
	12/01/2020	\$42.35	\$12.00	\$15.60	\$0.00	\$69.95
	06/01/2021	\$43.26	\$12.00	\$15.60	\$0.00	\$70.86
	12/01/2021	\$44.21	\$12.00	\$15.60	\$0.00	\$71.81
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER <i>LABORERS - ZONE 2</i>	06/01/2019	\$22.50	\$7.85	\$14.44	\$0.00	\$44.79
	12/01/2019	\$23.50	\$7.85	\$14.44	\$0.00	\$45.79
	06/01/2020	\$23.50	\$7.85	\$14.44	\$0.00	\$45.79
	12/01/2020	\$24.50	\$7.85	\$14.44	\$0.00	\$46.79
	06/01/2021	\$24.50	\$7.85	\$14.44	\$0.00	\$46.79
	12/01/2021	\$24.50	\$7.85	\$14.44	\$0.00	\$46.79
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE II</i>	03/01/2016	\$39.82	\$9.80	\$17.62	\$0.00	\$67.24

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - FLOORCOVERER - Local 2168 Zone II
Effective Date - 03/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.91	\$9.80	\$1.79	\$0.00	\$31.50
2	55	\$21.90	\$9.80	\$1.79	\$0.00	\$33.49
3	60	\$23.89	\$9.80	\$12.25	\$0.00	\$45.94
4	65	\$25.88	\$9.80	\$12.25	\$0.00	\$47.93
5	70	\$27.87	\$9.80	\$14.04	\$0.00	\$51.71
6	75	\$29.87	\$9.80	\$14.04	\$0.00	\$53.71
7	80	\$31.86	\$9.80	\$15.83	\$0.00	\$57.49
8	85	\$33.85	\$9.80	\$15.83	\$0.00	\$59.48

Notes: Steps are 750 hrs.

% After 09/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)

Step 1&2 \$29.51/ 3&4 \$35.22/ 5&6 \$51.71/ 7&8 \$57.49

Apprentice to Journeyworker Ratio:1:1
FORK LIFT/CHERRY PICKER
OPERATING ENGINEERS LOCAL 4

06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GENERATOR/LIGHTING PLANT/HEATERS
OPERATING ENGINEERS LOCAL 4

06/01/2019	\$32.28	\$12.00	\$15.60	\$0.00	\$59.88
12/01/2019	\$33.07	\$12.00	\$15.60	\$0.00	\$60.67
06/01/2020	\$33.82	\$12.00	\$15.60	\$0.00	\$61.42
12/01/2020	\$34.60	\$12.00	\$15.60	\$0.00	\$62.20
06/01/2021	\$35.35	\$12.00	\$15.60	\$0.00	\$62.95
12/01/2021	\$36.14	\$12.00	\$15.60	\$0.00	\$63.74

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)
GLAZIERS LOCAL 35 (ZONE 2)

01/01/2019	\$39.86	\$8.15	\$20.85	\$0.00	\$68.86
07/01/2019	\$40.16	\$8.20	\$21.45	\$0.00	\$69.81
01/01/2020	\$40.46	\$8.20	\$22.10	\$0.00	\$70.76
07/01/2020	\$41.56	\$8.20	\$22.10	\$0.00	\$71.86
01/01/2021	\$42.66	\$8.20	\$22.10	\$0.00	\$72.96

Apprentice - GLAZIER - Local 35 Zone 2**Effective Date - 01/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.93	\$8.15	\$0.00	\$0.00	\$28.08
2	55	\$21.92	\$8.15	\$5.64	\$0.00	\$35.71
3	60	\$23.92	\$8.15	\$6.15	\$0.00	\$38.22
4	65	\$25.91	\$8.15	\$6.66	\$0.00	\$40.72
5	70	\$27.90	\$8.15	\$17.78	\$0.00	\$53.83
6	75	\$29.90	\$8.15	\$18.29	\$0.00	\$56.34
7	80	\$31.89	\$8.15	\$18.80	\$0.00	\$58.84
8	90	\$35.87	\$8.15	\$19.83	\$0.00	\$63.85

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.08	\$8.20	\$0.00	\$0.00	\$28.28
2	55	\$22.09	\$8.20	\$5.78	\$0.00	\$36.07
3	60	\$24.10	\$8.20	\$6.30	\$0.00	\$38.60
4	65	\$26.10	\$8.20	\$6.83	\$0.00	\$41.13
5	70	\$28.11	\$8.20	\$18.30	\$0.00	\$54.61
6	75	\$30.12	\$8.20	\$18.83	\$0.00	\$57.15
7	80	\$32.13	\$8.20	\$19.35	\$0.00	\$59.68
8	90	\$36.14	\$8.20	\$20.40	\$0.00	\$64.74

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS

OPERATING ENGINEERS LOCAL 4

06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - OPERATING ENGINEERS - Local 4
Effective Date - 06/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$26.50	\$12.00	\$0.00	\$0.00	\$38.50
2	60	\$28.91	\$12.00	\$15.60	\$0.00	\$56.51
3	65	\$31.32	\$12.00	\$15.60	\$0.00	\$58.92
4	70	\$33.73	\$12.00	\$15.60	\$0.00	\$61.33
5	75	\$36.14	\$12.00	\$15.60	\$0.00	\$63.74
6	80	\$38.54	\$12.00	\$15.60	\$0.00	\$66.14
7	85	\$40.95	\$12.00	\$15.60	\$0.00	\$68.55
8	90	\$43.36	\$12.00	\$15.60	\$0.00	\$70.96

Effective Date - 12/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$27.13	\$12.00	\$0.00	\$0.00	\$39.13
2	60	\$29.60	\$12.00	\$15.60	\$0.00	\$57.20
3	65	\$32.06	\$12.00	\$15.60	\$0.00	\$59.66
4	70	\$34.53	\$12.00	\$15.60	\$0.00	\$62.13
5	75	\$37.00	\$12.00	\$15.60	\$0.00	\$64.60
6	80	\$39.46	\$12.00	\$15.60	\$0.00	\$67.06
7	85	\$41.93	\$12.00	\$15.60	\$0.00	\$69.53
8	90	\$44.40	\$12.00	\$15.60	\$0.00	\$72.00

Notes:
Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 63	01/01/2019	\$34.74	\$10.64	\$16.22	\$1.77	\$63.37
	07/01/2019	\$35.74	\$10.64	\$16.22	\$1.77	\$64.37
	01/01/2020	\$36.99	\$10.64	\$16.22	\$1.77	\$65.62
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 96	06/01/2019	\$44.57	\$10.17	\$16.11	\$0.00	\$70.85
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 63	01/01/2019	\$34.74	\$10.64	\$16.22	\$1.77	\$63.37
	07/01/2019	\$35.74	\$10.64	\$16.22	\$1.77	\$64.37
	01/01/2020	\$36.99	\$10.64	\$16.22	\$1.77	\$65.62
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (TESTING AND BALANCING -WATER) PLUMBERS LOCAL 4	03/01/2019	\$44.81	\$9.80	\$15.21	\$0.00	\$69.82
	09/01/2019	\$45.61	\$9.80	\$15.21	\$0.00	\$70.62
	03/01/2020	\$46.41	\$9.80	\$15.21	\$0.00	\$71.42
	09/01/2020	\$47.41	\$9.80	\$15.21	\$0.00	\$72.42
	03/01/2021	\$48.41	\$9.80	\$15.21	\$0.00	\$73.42
	09/01/2021	\$49.41	\$9.80	\$15.21	\$0.00	\$74.42
	03/01/2022	\$50.41	\$9.80	\$15.21	\$0.00	\$75.42
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"	130					

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC MECHANIC <i>PLUMBERS LOCAL 4</i>	03/01/2019	\$44.81	\$9.80	\$15.21	\$0.00	\$69.82
	09/01/2019	\$45.61	\$9.80	\$15.21	\$0.00	\$70.62
	03/01/2020	\$46.41	\$9.80	\$15.21	\$0.00	\$71.42
	09/01/2020	\$47.41	\$9.80	\$15.21	\$0.00	\$72.42
	03/01/2021	\$48.41	\$9.80	\$15.21	\$0.00	\$73.42
	09/01/2021	\$49.41	\$9.80	\$15.21	\$0.00	\$74.42
	03/01/2022	\$50.41	\$9.80	\$15.21	\$0.00	\$75.42
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS <i>LABORERS - ZONE 2</i>	06/01/2019	\$35.14	\$7.85	\$14.44	\$0.00	\$57.43
	12/01/2019	\$36.00	\$7.85	\$14.44	\$0.00	\$58.29
	06/01/2020	\$36.89	\$7.85	\$14.44	\$0.00	\$59.18
	12/01/2020	\$37.78	\$7.85	\$14.44	\$0.00	\$60.07
	06/01/2021	\$38.70	\$7.85	\$14.44	\$0.00	\$60.99
	12/01/2021	\$39.61	\$7.85	\$14.44	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)</i>	09/01/2018	\$42.38	\$12.50	\$15.60	\$0.00	\$70.48
	09/01/2019	\$44.63	\$12.50	\$15.60	\$0.00	\$72.73

Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Worcester

Effective Date - 09/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.19	\$12.50	\$11.40	\$0.00	\$45.09
2	60	\$25.43	\$12.50	\$12.24	\$0.00	\$50.17
3	70	\$29.67	\$12.50	\$13.08	\$0.00	\$55.25
4	80	\$33.90	\$12.50	\$13.92	\$0.00	\$60.32

Effective Date - 09/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.32	\$12.50	\$11.40	\$0.00	\$46.22
2	60	\$26.78	\$12.50	\$12.24	\$0.00	\$51.52
3	70	\$31.24	\$12.50	\$13.08	\$0.00	\$56.82
4	80	\$35.70	\$12.50	\$13.92	\$0.00	\$62.12

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (WORCESTER AREA)</i>	03/16/2019	\$46.36	\$8.00	\$23.50	\$0.00	\$77.86
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Apprentice - IRONWORKER - Local 7 Worcester

Effective Date - 03/16/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$27.82	\$8.00	\$23.50	\$0.00	\$59.32
2	70	\$32.45	\$8.00	\$23.50	\$0.00	\$63.95
3	75	\$34.77	\$8.00	\$23.50	\$0.00	\$66.27
4	80	\$37.09	\$8.00	\$23.50	\$0.00	\$68.59
5	85	\$39.41	\$8.00	\$23.50	\$0.00	\$70.91
6	90	\$41.72	\$8.00	\$23.50	\$0.00	\$73.22

Notes:
Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:

JACKHAMMER & PAVING BREAKER OPERATOR	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
LABORERS - ZONE 2	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

LABORER	06/01/2019	\$34.39	\$7.85	\$14.44	\$0.00	\$56.68
LABORERS - ZONE 2	12/01/2019	\$35.25	\$7.85	\$14.44	\$0.00	\$57.54
	06/01/2020	\$36.14	\$7.85	\$14.44	\$0.00	\$58.43
	12/01/2020	\$37.03	\$7.85	\$14.44	\$0.00	\$59.32
	06/01/2021	\$37.95	\$7.85	\$14.44	\$0.00	\$60.24
	12/01/2021	\$38.86	\$7.85	\$14.44	\$0.00	\$61.15

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - LABORER - Zone 2

Effective Date - 06/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.63	\$7.85	\$14.44	\$0.00	\$42.92
2	70	\$24.07	\$7.85	\$14.44	\$0.00	\$46.36
3	80	\$27.51	\$7.85	\$14.44	\$0.00	\$49.80
4	90	\$30.95	\$7.85	\$14.44	\$0.00	\$53.24

Effective Date - 12/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$21.15	\$7.85	\$14.44	\$0.00	\$43.44
2	70	\$24.68	\$7.85	\$14.44	\$0.00	\$46.97
3	80	\$28.20	\$7.85	\$14.44	\$0.00	\$50.49
4	90	\$31.73	\$7.85	\$14.44	\$0.00	\$54.02

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER	06/01/2019	\$34.39	\$7.85	\$14.44	\$0.00	\$56.68
LABORERS - ZONE 2	12/01/2019	\$35.25	\$7.85	\$14.44	\$0.00	\$57.54
	06/01/2020	\$36.14	\$7.85	\$14.44	\$0.00	\$58.43
	12/01/2020	\$37.03	\$7.85	\$14.44	\$0.00	\$59.32
	06/01/2021	\$37.95	\$7.85	\$14.44	\$0.00	\$60.24
	12/01/2021	\$38.86	\$7.85	\$14.44	\$0.00	\$61.15

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER	06/01/2019	\$34.39	\$7.85	\$14.44	\$0.00	\$56.68
LABORERS - ZONE 2	12/01/2019	\$35.25	\$7.85	\$14.44	\$0.00	\$57.54
	06/01/2020	\$36.14	\$7.85	\$14.44	\$0.00	\$58.43
	12/01/2020	\$37.03	\$7.85	\$14.44	\$0.00	\$59.32
	06/01/2021	\$37.95	\$7.85	\$14.44	\$0.00	\$60.24
	12/01/2021	\$38.86	\$7.85	\$14.44	\$0.00	\$61.15

For apprentice rates see "Apprentice- LABORER"

LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	06/01/2019	\$34.59	\$7.85	\$14.39	\$0.00	\$56.83
LABORERS - ZONE 2	12/01/2019	\$35.45	\$7.85	\$14.39	\$0.00	\$57.69

For apprentice rates see "Apprentice- LABORER"

LABORER: MASON TENDER	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
LABORERS - ZONE 2	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.39	\$7.85	\$14.44	\$0.00	\$56.68
	12/01/2019	\$35.25	\$7.85	\$14.44	\$0.00	\$57.54
	06/01/2020	\$36.14	\$7.85	\$14.44	\$0.00	\$58.43
	12/01/2020	\$37.03	\$7.85	\$14.44	\$0.00	\$59.32
	06/01/2021	\$37.95	\$7.85	\$14.44	\$0.00	\$60.24
	12/01/2021	\$38.86	\$7.85	\$14.44	\$0.00	\$61.15
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.39	\$7.85	\$14.44	\$0.00	\$56.68
	12/01/2019	\$35.25	\$7.85	\$14.44	\$0.00	\$57.54
	06/01/2020	\$36.14	\$7.85	\$14.44	\$0.00	\$58.43
	12/01/2020	\$37.03	\$7.85	\$14.44	\$0.00	\$59.32
	06/01/2021	\$37.95	\$7.85	\$14.44	\$0.00	\$60.24
	12/01/2021	\$38.86	\$7.85	\$14.44	\$0.00	\$61.15
This classification applies to all tree work associated with the removal of standing trees, and trimming and removal of branches and limbs when the work is not done for a utility company for the purpose of operation, maintenance or repair of utility company equipment. For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	02/01/2019	\$40.91	\$10.75	\$18.97	\$0.00	\$70.63
	08/01/2019	\$41.99	\$10.75	\$19.11	\$0.00	\$71.85
	02/01/2020	\$42.50	\$10.75	\$19.11	\$0.00	\$72.36
	08/01/2020	\$43.58	\$10.75	\$19.26	\$0.00	\$73.59
	02/01/2021	\$44.09	\$10.75	\$19.26	\$0.00	\$74.10
	08/01/2021	\$45.21	\$10.75	\$19.42	\$0.00	\$75.38
	02/01/2022	\$45.68	\$10.75	\$19.42	\$0.00	\$75.85

Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile**Effective Date -** 02/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.46	\$10.75	\$18.97	\$0.00	\$50.18
2	60	\$24.55	\$10.75	\$18.97	\$0.00	\$54.27
3	70	\$28.64	\$10.75	\$18.97	\$0.00	\$58.36
4	80	\$32.73	\$10.75	\$18.97	\$0.00	\$62.45
5	90	\$36.82	\$10.75	\$18.97	\$0.00	\$66.54

Effective Date - 08/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.00	\$10.75	\$19.11	\$0.00	\$50.86
2	60	\$25.19	\$10.75	\$19.11	\$0.00	\$55.05
3	70	\$29.39	\$10.75	\$19.11	\$0.00	\$59.25
4	80	\$33.59	\$10.75	\$19.11	\$0.00	\$63.45
5	90	\$37.79	\$10.75	\$19.11	\$0.00	\$67.65

Notes:**Apprentice to Journeyworker Ratio:1:3**MARBLE MASONS, TILELAYERS & TERRAZZO MECH
BRICKLAYERS LOCAL 3 - MARBLE & TILE

02/01/2019	\$53.57	\$10.75	\$20.66	\$0.00	\$84.98
08/01/2019	\$54.92	\$10.75	\$20.80	\$0.00	\$86.47
02/01/2020	\$55.55	\$10.75	\$20.80	\$0.00	\$87.10
08/01/2020	\$56.90	\$10.75	\$20.95	\$0.00	\$88.60
02/01/2021	\$57.54	\$10.75	\$20.95	\$0.00	\$89.24
08/01/2021	\$58.94	\$10.75	\$21.11	\$0.00	\$90.80
02/01/2022	\$59.51	\$10.75	\$21.11	\$0.00	\$91.37

Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile

Effective Date - 02/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.79	\$10.75	\$20.66	\$0.00	\$58.20
2	60	\$32.14	\$10.75	\$20.66	\$0.00	\$63.55
3	70	\$37.50	\$10.75	\$20.66	\$0.00	\$68.91
4	80	\$42.86	\$10.75	\$20.66	\$0.00	\$74.27
5	90	\$48.21	\$10.75	\$20.66	\$0.00	\$79.62

Effective Date - 08/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.46	\$10.75	\$20.80	\$0.00	\$59.01
2	60	\$32.95	\$10.75	\$20.80	\$0.00	\$64.50
3	70	\$38.44	\$10.75	\$20.80	\$0.00	\$69.99
4	80	\$43.94	\$10.75	\$20.80	\$0.00	\$75.49
5	90	\$49.43	\$10.75	\$20.80	\$0.00	\$80.98

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES)	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 3)	04/01/2019	\$37.11	\$9.90	\$18.50	\$0.00	\$65.51
MILLWRIGHTS LOCAL 1121 - Zone 3						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Apprentice - MILLWRIGHT - Local 1121 Zone 3						
Effective Date - 04/01/2019						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$20.41	\$9.90	\$5.31	\$0.00	\$35.62
2	65	\$24.12	\$9.90	\$15.13	\$0.00	\$49.15
3	75	\$27.83	\$9.90	\$16.10	\$0.00	\$53.83
4	85	\$31.54	\$9.90	\$17.06	\$0.00	\$58.50
Notes:						
Steps are 2,000 hours						
Apprentice to Journeyworker Ratio:1:5						
MORTAR MIXER	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
LABORERS - ZONE 2	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	06/01/2019	\$23.11	\$12.00	\$15.60	\$0.00	\$50.71
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$23.68	\$12.00	\$15.60	\$0.00	\$51.28
	06/01/2020	\$24.23	\$12.00	\$15.60	\$0.00	\$51.83
	12/01/2020	\$24.80	\$12.00	\$15.60	\$0.00	\$52.40
	06/01/2021	\$25.35	\$12.00	\$15.60	\$0.00	\$52.95
	12/01/2021	\$25.93	\$12.00	\$15.60	\$0.00	\$53.53
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS)	06/01/2019	\$27.57	\$12.00	\$15.60	\$0.00	\$55.17
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$28.24	\$12.00	\$15.60	\$0.00	\$55.84
	06/01/2020	\$28.89	\$12.00	\$15.60	\$0.00	\$56.49
	12/01/2020	\$29.57	\$12.00	\$15.60	\$0.00	\$57.17
	06/01/2021	\$30.21	\$12.00	\$15.60	\$0.00	\$57.81
	12/01/2021	\$30.89	\$12.00	\$15.60	\$0.00	\$58.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS)	01/01/2019	\$50.36	\$8.15	\$20.85	\$0.00	\$79.36
PAINTERS LOCAL 35 - ZONE 2	07/01/2019	\$50.66	\$8.20	\$21.45	\$0.00	\$80.31
	01/01/2020	\$50.96	\$8.20	\$22.10	\$0.00	\$81.26
	07/01/2020	\$52.06	\$8.20	\$22.10	\$0.00	\$82.36
	01/01/2021	\$53.16	\$8.20	\$22.10	\$0.00	\$83.46

Apprentice - PAINTER Local 35 - BRIDGES/TANKS**Effective Date -** 01/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.18	\$8.15	\$0.00	\$0.00	\$33.33
2	55	\$27.70	\$8.15	\$5.64	\$0.00	\$41.49
3	60	\$30.22	\$8.15	\$6.15	\$0.00	\$44.52
4	65	\$32.73	\$8.15	\$6.66	\$0.00	\$47.54
5	70	\$35.25	\$8.15	\$17.78	\$0.00	\$61.18
6	75	\$37.77	\$8.15	\$18.29	\$0.00	\$64.21
7	80	\$40.29	\$8.15	\$18.80	\$0.00	\$67.24
8	90	\$45.32	\$8.15	\$19.83	\$0.00	\$73.30

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.33	\$8.20	\$0.00	\$0.00	\$33.53
2	55	\$27.86	\$8.20	\$5.78	\$0.00	\$41.84
3	60	\$30.40	\$8.20	\$6.30	\$0.00	\$44.90
4	65	\$32.93	\$8.20	\$6.83	\$0.00	\$47.96
5	70	\$35.46	\$8.20	\$18.30	\$0.00	\$61.96
6	75	\$38.00	\$8.20	\$18.83	\$0.00	\$65.03
7	80	\$40.53	\$8.20	\$19.35	\$0.00	\$68.08
8	90	\$45.59	\$8.20	\$20.40	\$0.00	\$74.19

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SIGN, PICTORIAL & DISPLAY)

06/01/2013

\$25.81

\$7.07

\$7.05

\$0.00

\$39.93

PAINTERS LOCAL 35 - ZONE 2

Apprentice - PAINTER SIGN - Local 35 Zone 2**Effective Date - 06/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$12.91	\$7.07	\$0.00	\$0.00	\$19.98
2	55	\$14.20	\$7.07	\$2.45	\$0.00	\$23.72
3	60	\$15.49	\$7.07	\$2.45	\$0.00	\$25.01
4	65	\$16.78	\$7.07	\$2.45	\$0.00	\$26.30
5	70	\$18.07	\$7.07	\$7.05	\$0.00	\$32.19
6	75	\$19.36	\$7.07	\$7.05	\$0.00	\$33.48
7	80	\$20.65	\$7.07	\$7.05	\$0.00	\$34.77
8	85	\$21.94	\$7.07	\$7.05	\$0.00	\$36.06
9	90	\$23.23	\$7.07	\$7.05	\$0.00	\$37.35

Notes:

Steps are 4 mos.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *

* If 30% or more of surfaces to be painted are new construction,
NEW paint rate shall be used. *PAINTERS LOCAL 35 - ZONE 2*

01/01/2019	\$41.26	\$8.15	\$20.85	\$0.00	\$70.26
07/01/2019	\$41.56	\$8.20	\$21.45	\$0.00	\$71.21
01/01/2020	\$41.86	\$8.20	\$22.10	\$0.00	\$72.16
07/01/2020	\$42.96	\$8.20	\$22.10	\$0.00	\$73.26
01/01/2021	\$44.06	\$8.20	\$22.10	\$0.00	\$74.36

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New
Effective Date - 01/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.63	\$8.15	\$0.00	\$0.00	\$28.78
2	55	\$22.69	\$8.15	\$5.64	\$0.00	\$36.48
3	60	\$24.76	\$8.15	\$6.15	\$0.00	\$39.06
4	65	\$26.82	\$8.15	\$6.66	\$0.00	\$41.63
5	70	\$28.88	\$8.15	\$17.78	\$0.00	\$54.81
6	75	\$30.95	\$8.15	\$18.29	\$0.00	\$57.39
7	80	\$33.01	\$8.15	\$18.80	\$0.00	\$59.96
8	90	\$37.13	\$8.15	\$19.83	\$0.00	\$65.11

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.78	\$8.20	\$0.00	\$0.00	\$28.98
2	55	\$22.86	\$8.20	\$5.78	\$0.00	\$36.84
3	60	\$24.94	\$8.20	\$6.30	\$0.00	\$39.44
4	65	\$27.01	\$8.20	\$6.83	\$0.00	\$42.04
5	70	\$29.09	\$8.20	\$18.30	\$0.00	\$55.59
6	75	\$31.17	\$8.20	\$18.83	\$0.00	\$58.20
7	80	\$33.25	\$8.20	\$19.35	\$0.00	\$60.80
8	90	\$37.40	\$8.20	\$20.40	\$0.00	\$66.00

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2019	\$39.32	\$8.15	\$20.85	\$0.00	\$68.32
PAINTERS LOCAL 35 - ZONE 2	07/01/2019	\$39.62	\$8.20	\$21.45	\$0.00	\$69.27
	01/01/2020	\$39.92	\$8.20	\$22.10	\$0.00	\$70.22
	07/01/2020	\$41.02	\$8.20	\$22.10	\$0.00	\$71.32
	01/01/2021	\$42.12	\$8.20	\$22.10	\$0.00	\$72.42

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint**Effective Date - 01/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.66	\$8.15	\$0.00	\$0.00	\$27.81
2	55	\$21.63	\$8.15	\$5.64	\$0.00	\$35.42
3	60	\$23.59	\$8.15	\$6.15	\$0.00	\$37.89
4	65	\$25.56	\$8.15	\$6.66	\$0.00	\$40.37
5	70	\$27.52	\$8.15	\$17.78	\$0.00	\$53.45
6	75	\$29.49	\$8.15	\$18.29	\$0.00	\$55.93
7	80	\$31.46	\$8.15	\$18.80	\$0.00	\$58.41
8	90	\$35.39	\$8.15	\$19.83	\$0.00	\$63.37

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.81	\$8.20	\$0.00	\$0.00	\$28.01
2	55	\$21.79	\$8.20	\$5.78	\$0.00	\$35.77
3	60	\$23.77	\$8.20	\$6.30	\$0.00	\$38.27
4	65	\$25.75	\$8.20	\$6.83	\$0.00	\$40.78
5	70	\$27.73	\$8.20	\$18.30	\$0.00	\$54.23
6	75	\$29.72	\$8.20	\$18.83	\$0.00	\$56.75
7	80	\$31.70	\$8.20	\$19.35	\$0.00	\$59.25
8	90	\$35.66	\$8.20	\$20.40	\$0.00	\$64.26

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (TRAFFIC MARKINGS)

LABORERS - ZONE 2

06/01/2019	\$34.39	\$7.85	\$14.44	\$0.00	\$56.68
12/01/2019	\$35.25	\$7.85	\$14.44	\$0.00	\$57.54
06/01/2020	\$36.14	\$7.85	\$14.44	\$0.00	\$58.43
12/01/2020	\$37.03	\$7.85	\$14.44	\$0.00	\$59.32
06/01/2021	\$37.95	\$7.85	\$14.44	\$0.00	\$60.24
12/01/2021	\$38.86	\$7.85	\$14.44	\$0.00	\$61.15

For Apprentice rates see "Apprentice- LABORER"

PAINTER / TAPER (BRUSH, NEW) *

* If 30% or more of surfaces to be painted are new construction,

NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2

01/01/2019	\$39.86	\$8.15	\$20.85	\$0.00	\$68.86
07/01/2019	\$40.16	\$8.20	\$21.45	\$0.00	\$69.81
01/01/2020	\$40.46	\$8.20	\$22.10	\$0.00	\$70.76
07/01/2020	\$41.56	\$8.20	\$22.10	\$0.00	\$71.86
01/01/2021	\$42.66	\$8.20	\$22.10	\$0.00	\$72.96

Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW**Effective Date - 01/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.93	\$8.15	\$0.00	\$0.00	\$28.08
2	55	\$21.92	\$8.15	\$5.64	\$0.00	\$35.71
3	60	\$23.92	\$8.15	\$6.15	\$0.00	\$38.22
4	65	\$25.91	\$8.15	\$6.66	\$0.00	\$40.72
5	70	\$27.90	\$8.15	\$17.78	\$0.00	\$53.83
6	75	\$29.90	\$8.15	\$18.29	\$0.00	\$56.34
7	80	\$31.89	\$8.15	\$18.80	\$0.00	\$58.84
8	90	\$35.87	\$8.15	\$19.83	\$0.00	\$63.85

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.08	\$8.20	\$0.00	\$0.00	\$28.28
2	55	\$22.09	\$8.20	\$5.78	\$0.00	\$36.07
3	60	\$24.10	\$8.20	\$6.30	\$0.00	\$38.60
4	65	\$26.10	\$8.20	\$6.83	\$0.00	\$41.13
5	70	\$28.11	\$8.20	\$18.30	\$0.00	\$54.61
6	75	\$30.12	\$8.20	\$18.83	\$0.00	\$57.15
7	80	\$32.13	\$8.20	\$19.35	\$0.00	\$59.68
8	90	\$36.14	\$8.20	\$20.40	\$0.00	\$64.74

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT)

PAINTERS LOCAL 35 - ZONE 2

01/01/2019	\$37.92	\$8.15	\$20.85	\$0.00	\$66.92
07/01/2019	\$38.22	\$8.20	\$21.45	\$0.00	\$67.87
01/01/2020	\$38.52	\$8.20	\$22.10	\$0.00	\$68.82
07/01/2020	\$39.62	\$8.20	\$22.10	\$0.00	\$69.92
01/01/2021	\$40.72	\$8.20	\$22.10	\$0.00	\$71.02

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT
Effective Date - 01/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.96	\$8.15	\$0.00	\$0.00	\$27.11
2	55	\$20.86	\$8.15	\$5.64	\$0.00	\$34.65
3	60	\$22.75	\$8.15	\$6.15	\$0.00	\$37.05
4	65	\$24.65	\$8.15	\$6.66	\$0.00	\$39.46
5	70	\$26.54	\$8.15	\$17.78	\$0.00	\$52.47
6	75	\$28.44	\$8.15	\$18.29	\$0.00	\$54.88
7	80	\$30.34	\$8.15	\$18.80	\$0.00	\$57.29
8	90	\$34.13	\$8.15	\$19.83	\$0.00	\$62.11

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.11	\$8.20	\$0.00	\$0.00	\$27.31
2	55	\$21.02	\$8.20	\$5.78	\$0.00	\$35.00
3	60	\$22.93	\$8.20	\$6.30	\$0.00	\$37.43
4	65	\$24.84	\$8.20	\$6.83	\$0.00	\$39.87
5	70	\$26.75	\$8.20	\$18.30	\$0.00	\$53.25
6	75	\$28.67	\$8.20	\$18.83	\$0.00	\$55.70
7	80	\$30.58	\$8.20	\$19.35	\$0.00	\$58.13
8	90	\$34.40	\$8.20	\$20.40	\$0.00	\$63.00

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PANEL & PICKUP TRUCKS DRIVER	06/01/2019	\$34.08	\$11.91	\$12.70	\$0.00	\$58.69
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	08/01/2019	\$34.08	\$12.41	\$12.70	\$0.00	\$59.19
	12/01/2019	\$34.08	\$12.41	\$13.72	\$0.00	\$60.21
	06/01/2020	\$34.98	\$12.41	\$13.72	\$0.00	\$61.11
	08/01/2020	\$34.98	\$12.91	\$13.72	\$0.00	\$61.61
	12/01/2020	\$34.98	\$12.91	\$14.82	\$0.00	\$62.71
	06/01/2021	\$35.78	\$12.91	\$14.82	\$0.00	\$63.51
	08/01/2021	\$35.78	\$13.41	\$14.82	\$0.00	\$64.01
	12/01/2021	\$35.78	\$13.41	\$16.01	\$0.00	\$65.20
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	08/01/2018	\$42.93	\$9.90	\$21.15	\$0.00	\$73.98
PILE DRIVER LOCAL 56 (ZONE 2)	08/01/2019	\$44.61	\$9.90	\$21.15	\$0.00	\$75.66
For apprentice rates see "Apprentice- PILE DRIVER"						
PILE DRIVER	08/01/2018	\$42.93	\$9.90	\$21.15	\$0.00	\$73.98
PILE DRIVER LOCAL 56 (ZONE 2)	08/01/2019	\$44.61	\$9.90	\$21.15	\$0.00	\$75.66

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PILE DRIVER - Local 56 Zone 2
Effective Date - 08/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Notes: Apprentice wages shall be no less than the following Steps;
(Same as set in Zone 1)
1\$54.34/2\$58.99/3\$63.65/4\$65.98/5\$68.31/6\$68.31/7\$72.96/8\$72.96

Apprentice to Journeyworker Ratio:1:5

PIPELAYER	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
LABORERS - ZONE 2	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

PLUMBER & PIPEFITTER	03/01/2019	\$44.81	\$9.80	\$15.21	\$0.00	\$69.82
PLUMBERS LOCAL 4	09/01/2019	\$45.61	\$9.80	\$15.21	\$0.00	\$70.62
	03/01/2020	\$46.41	\$9.80	\$15.21	\$0.00	\$71.42
	09/01/2020	\$47.41	\$9.80	\$15.21	\$0.00	\$72.42
	03/01/2021	\$48.41	\$9.80	\$15.21	\$0.00	\$73.42
	09/01/2021	\$49.41	\$9.80	\$15.21	\$0.00	\$74.42
	03/01/2022	\$50.41	\$9.80	\$15.21	\$0.00	\$75.42

Apprentice - PLUMBER/PIPEFITTER - Local 4
Effective Date - 03/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.92	\$9.80	\$0.00	\$0.00	\$27.72
2	50	\$22.41	\$9.80	\$0.00	\$0.00	\$32.21
3	60	\$26.89	\$9.80	\$0.00	\$0.00	\$36.69
4	70	\$31.37	\$9.80	\$5.50	\$0.00	\$46.67
5	80	\$35.85	\$9.80	\$5.50	\$0.00	\$51.15

Effective Date - 09/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$18.24	\$9.80	\$0.00	\$0.00	\$28.04
2	50	\$22.81	\$9.80	\$0.00	\$0.00	\$32.61
3	60	\$27.37	\$9.80	\$0.00	\$0.00	\$37.17
4	70	\$31.93	\$9.80	\$5.50	\$0.00	\$47.23
5	80	\$36.49	\$9.80	\$5.50	\$0.00	\$51.79

Notes:
Steps - 2000 hrs; Step 4 w/lic 75%, Step 5 w/lic 85%
Step 4 w/lic \$49.50, Step 5 w/lic \$54.07

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PNEUMATIC CONTROLS (TEMP.) <i>PLUMBERS LOCAL 4</i>	03/01/2019	\$44.81	\$9.80	\$15.21	\$0.00	\$69.82
	09/01/2019	\$45.61	\$9.80	\$15.21	\$0.00	\$70.62
	03/01/2020	\$46.41	\$9.80	\$15.21	\$0.00	\$71.42
	09/01/2020	\$47.41	\$9.80	\$15.21	\$0.00	\$72.42
	03/01/2021	\$48.41	\$9.80	\$15.21	\$0.00	\$73.42
	09/01/2021	\$49.41	\$9.80	\$15.21	\$0.00	\$74.42
	03/01/2022	\$50.41	\$9.80	\$15.21	\$0.00	\$75.42
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER <i>LABORERS - ZONE 2</i>	06/01/2019	\$35.39	\$7.85	\$14.44	\$0.00	\$57.68
	12/01/2019	\$36.25	\$7.85	\$14.44	\$0.00	\$58.54
	06/01/2020	\$37.14	\$7.85	\$14.44	\$0.00	\$59.43
	12/01/2020	\$38.03	\$7.85	\$14.44	\$0.00	\$60.32
	06/01/2021	\$38.95	\$7.85	\$14.44	\$0.00	\$61.24
	12/01/2021	\$39.86	\$7.85	\$14.44	\$0.00	\$62.15
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$32.28	\$12.00	\$15.60	\$0.00	\$59.88
	12/01/2019	\$33.07	\$12.00	\$15.60	\$0.00	\$60.67
	06/01/2020	\$33.82	\$12.00	\$15.60	\$0.00	\$61.42
	12/01/2020	\$34.60	\$12.00	\$15.60	\$0.00	\$62.20
	06/01/2021	\$35.35	\$12.00	\$15.60	\$0.00	\$62.95
	12/01/2021	\$36.14	\$12.00	\$15.60	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 170</i>	01/01/2019	\$25.12	\$10.41	\$8.56	\$0.00	\$44.09
	12/01/2019	\$25.15	\$10.41	\$8.56	\$0.00	\$44.12
	01/01/2020	\$25.15	\$10.46	\$8.56	\$0.00	\$44.17

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg) <i>ROOFERS LOCAL 33</i>	02/01/2019	\$43.36	\$11.50	\$15.90	\$0.00	\$70.76

Apprentice - ROOFER - Local 33

Effective Date - 02/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.68	\$11.50	\$3.69	\$0.00	\$36.87
2	60	\$26.02	\$11.50	\$15.90	\$0.00	\$53.42
3	65	\$28.18	\$11.50	\$15.90	\$0.00	\$55.58
4	75	\$32.52	\$11.50	\$15.90	\$0.00	\$59.92
5	85	\$36.86	\$11.50	\$15.90	\$0.00	\$64.26

Notes: ** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1
Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.
(Hot Pitch Mechanics' receive \$1.00 hr. above ROOFER)

Apprentice to Journeyworker Ratio:**

ROOFER SLATE / TILE / PRECAST CONCRETE <i>ROOFERS LOCAL 33</i>	02/01/2019	\$43.61	\$11.50	\$15.90	\$0.00	\$71.01
For apprentice rates see "Apprentice- ROOFER"						
SHEETMETAL WORKER <i>SHEETMETAL WORKERS LOCAL 63</i>	01/01/2019	\$34.74	\$10.64	\$16.22	\$1.77	\$63.37
	07/01/2019	\$35.74	\$10.64	\$16.22	\$1.77	\$64.37
	01/01/2020	\$36.99	\$10.64	\$16.22	\$1.77	\$65.62

Apprentice - SHEET METAL WORKER - Local 63**Effective Date - 01/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$15.63	\$6.21	\$4.67	\$0.00	\$26.51
2	50	\$17.37	\$6.55	\$5.19	\$0.00	\$29.11
3	55	\$19.11	\$6.88	\$9.33	\$1.06	\$36.38
4	60	\$20.84	\$7.22	\$9.33	\$1.12	\$38.51
5	65	\$22.58	\$7.55	\$9.33	\$1.18	\$40.64
6	70	\$24.32	\$7.88	\$9.33	\$1.25	\$42.78
7	75	\$26.06	\$8.22	\$9.33	\$1.31	\$44.92
8	80	\$27.79	\$9.30	\$15.18	\$1.57	\$53.84
9	85	\$29.53	\$9.64	\$15.18	\$1.63	\$55.98
10	90	\$31.27	\$9.98	\$15.18	\$1.69	\$58.12

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$16.08	\$6.21	\$4.67	\$0.00	\$26.96
2	50	\$17.87	\$6.55	\$5.19	\$0.00	\$29.61
3	55	\$19.66	\$6.88	\$9.33	\$1.08	\$36.95
4	60	\$21.44	\$7.22	\$9.33	\$1.14	\$39.13
5	65	\$23.23	\$7.55	\$9.33	\$1.20	\$41.31
6	70	\$25.02	\$7.88	\$9.33	\$1.27	\$43.50
7	75	\$26.81	\$8.22	\$9.33	\$1.33	\$45.69
8	80	\$28.59	\$9.30	\$15.18	\$1.59	\$54.66
9	85	\$30.38	\$9.64	\$15.18	\$1.66	\$56.86
10	90	\$32.17	\$9.98	\$15.18	\$1.72	\$59.05

Notes:**Apprentice to Journeyworker Ratio:1:3**

SPECIALIZED EARTH MOVING EQUIP < 35 TONS

TEAMSTERS JOINT COUNCIL NO. 10 ZONE B

06/01/2019	\$34.54	\$11.91	\$12.70	\$0.00	\$59.15
08/01/2019	\$34.54	\$12.41	\$12.70	\$0.00	\$59.65
12/01/2019	\$34.54	\$12.41	\$13.72	\$0.00	\$60.67
06/01/2020	\$35.44	\$12.41	\$13.72	\$0.00	\$61.57
08/01/2020	\$35.44	\$12.91	\$13.72	\$0.00	\$62.07
12/01/2020	\$35.44	\$12.91	\$14.82	\$0.00	\$63.17
06/01/2021	\$36.24	\$12.91	\$14.82	\$0.00	\$63.97
08/01/2021	\$36.24	\$13.41	\$14.82	\$0.00	\$64.47
12/01/2021	\$36.24	\$13.41	\$16.01	\$0.00	\$65.66

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2019	\$34.83	\$11.91	\$12.70	\$0.00	\$59.44
	08/01/2019	\$34.83	\$12.41	\$12.70	\$0.00	\$59.94
	12/01/2019	\$34.83	\$12.41	\$13.72	\$0.00	\$60.96
	06/01/2020	\$35.73	\$12.41	\$13.72	\$0.00	\$61.86
	08/01/2020	\$35.73	\$12.91	\$13.72	\$0.00	\$62.36
	12/01/2020	\$35.73	\$12.91	\$14.82	\$0.00	\$63.46
	06/01/2021	\$36.53	\$12.91	\$14.82	\$0.00	\$64.26
	08/01/2021	\$36.53	\$13.41	\$14.82	\$0.00	\$64.76
	12/01/2021	\$36.53	\$13.41	\$16.01	\$0.00	\$65.95
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 669</i>	01/01/2019	\$41.51	\$10.02	\$13.08	\$0.00	\$64.61

Apprentice - SPRINKLER FITTER - Local 669

Effective Date - 01/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.68	\$7.75	\$0.00	\$0.00	\$26.43
2	50	\$20.76	\$7.75	\$0.00	\$0.00	\$28.51
3	55	\$22.83	\$10.02	\$7.25	\$0.00	\$40.10
4	60	\$24.91	\$10.02	\$7.25	\$0.00	\$42.18
5	65	\$26.98	\$10.02	\$7.50	\$0.00	\$44.50
6	70	\$29.06	\$10.02	\$7.50	\$0.00	\$46.58
7	75	\$31.13	\$10.02	\$7.50	\$0.00	\$48.65
8	80	\$33.21	\$10.02	\$7.50	\$0.00	\$50.73
9	85	\$35.28	\$10.02	\$7.50	\$0.00	\$52.80
10	90	\$37.36	\$10.02	\$7.50	\$0.00	\$54.88

Notes:

Apprentice to Journeyworker Ratio:1:1

STEAM BOILER OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TERRAZZO FINISHERS	02/01/2019	\$52.49	\$10.75	\$20.66	\$0.00	\$83.90
BRICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2019	\$53.84	\$10.75	\$20.80	\$0.00	\$85.39
	02/01/2020	\$54.48	\$10.75	\$20.80	\$0.00	\$86.03
	08/01/2020	\$55.83	\$10.75	\$20.95	\$0.00	\$87.53
	02/01/2021	\$56.47	\$10.75	\$20.95	\$0.00	\$88.17
	08/01/2021	\$57.87	\$10.75	\$21.11	\$0.00	\$89.73
	02/01/2022	\$58.46	\$10.75	\$21.11	\$0.00	\$90.32

Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile

Effective Date - 02/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.25	\$10.75	\$20.03	\$0.00	\$57.03
2	60	\$31.49	\$10.75	\$20.03	\$0.00	\$62.27
3	70	\$36.74	\$10.75	\$20.03	\$0.00	\$67.52
4	80	\$41.99	\$10.75	\$20.03	\$0.00	\$72.77
5	90	\$47.24	\$10.75	\$20.03	\$0.00	\$78.02

Effective Date - 08/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.92	\$10.75	\$20.80	\$0.00	\$58.47
2	60	\$32.30	\$10.75	\$20.80	\$0.00	\$63.85
3	70	\$37.69	\$10.75	\$20.80	\$0.00	\$69.24
4	80	\$43.07	\$10.75	\$20.80	\$0.00	\$74.62
5	90	\$48.46	\$10.75	\$20.80	\$0.00	\$80.01

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER	06/01/2019	\$41.00	\$7.85	\$15.55	\$0.00	\$64.40
LABORERS - FOUNDATION AND MARINE	12/01/2019	\$42.00	\$7.85	\$15.55	\$0.00	\$65.40
	06/01/2020	\$42.99	\$7.85	\$15.55	\$0.00	\$66.39
	12/01/2020	\$43.97	\$7.85	\$15.55	\$0.00	\$67.37
	06/01/2021	\$44.99	\$7.85	\$15.55	\$0.00	\$68.39
	12/01/2021	\$46.00	\$7.85	\$15.55	\$0.00	\$69.40

For apprentice rates see "Apprentice- LABORER"

TEST BORING DRILLER HELPER	06/01/2019	\$39.72	\$7.85	\$15.55	\$0.00	\$63.12
LABORERS - FOUNDATION AND MARINE	12/01/2019	\$40.72	\$7.85	\$15.55	\$0.00	\$64.12
	06/01/2020	\$41.71	\$7.85	\$15.55	\$0.00	\$65.11
	12/01/2020	\$42.69	\$7.85	\$15.55	\$0.00	\$66.09
	06/01/2021	\$43.71	\$7.85	\$15.55	\$0.00	\$67.11
	12/01/2021	\$44.72	\$7.85	\$15.55	\$0.00	\$68.12

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2019	\$39.60	\$7.85	\$15.55	\$0.00	\$63.00
	12/01/2019	\$40.60	\$7.85	\$15.55	\$0.00	\$64.00
	06/01/2020	\$41.59	\$7.85	\$15.55	\$0.00	\$64.99
	12/01/2020	\$42.57	\$7.85	\$15.55	\$0.00	\$65.97
	06/01/2021	\$43.59	\$7.85	\$15.55	\$0.00	\$66.99
	12/01/2021	\$44.60	\$7.85	\$15.55	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2019	\$35.12	\$11.91	\$12.70	\$0.00	\$59.73
	08/01/2019	\$35.12	\$12.41	\$12.70	\$0.00	\$60.23
	12/01/2019	\$35.12	\$12.41	\$13.72	\$0.00	\$61.25
	06/01/2020	\$36.02	\$12.41	\$13.72	\$0.00	\$62.15
	08/01/2020	\$36.02	\$12.91	\$13.72	\$0.00	\$62.65
	12/01/2020	\$36.02	\$12.91	\$14.82	\$0.00	\$63.75
	06/01/2021	\$36.82	\$12.91	\$14.82	\$0.00	\$64.55
	08/01/2021	\$36.82	\$13.41	\$14.82	\$0.00	\$65.05
	12/01/2021	\$36.82	\$13.41	\$16.01	\$0.00	\$66.24
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	06/01/2019	\$51.88	\$7.85	\$15.95	\$0.00	\$75.68
	12/01/2019	\$52.88	\$7.85	\$15.95	\$0.00	\$76.68
	06/01/2020	\$53.87	\$7.85	\$15.95	\$0.00	\$77.67
	12/01/2020	\$54.85	\$7.85	\$15.95	\$0.00	\$78.65
	06/01/2021	\$55.87	\$7.85	\$15.95	\$0.00	\$79.67
	12/01/2021	\$56.88	\$7.85	\$15.95	\$0.00	\$80.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	06/01/2019	\$53.88	\$7.85	\$15.95	\$0.00	\$77.68
	12/01/2019	\$54.88	\$7.85	\$15.95	\$0.00	\$78.68
	06/01/2020	\$55.87	\$7.85	\$15.95	\$0.00	\$79.67
	12/01/2020	\$56.85	\$7.85	\$15.95	\$0.00	\$80.65
	06/01/2021	\$57.87	\$7.85	\$15.95	\$0.00	\$81.67
	12/01/2021	\$58.88	\$7.85	\$15.95	\$0.00	\$82.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2019	\$43.95	\$7.85	\$15.95	\$0.00	\$67.75
	12/01/2019	\$44.95	\$7.85	\$15.95	\$0.00	\$68.75
	06/01/2020	\$45.94	\$7.85	\$15.95	\$0.00	\$69.74
	12/01/2020	\$46.92	\$7.85	\$15.95	\$0.00	\$70.72
	06/01/2021	\$47.94	\$7.85	\$15.95	\$0.00	\$71.74
	12/01/2021	\$48.95	\$7.85	\$15.95	\$0.00	\$72.75
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2019	\$45.95	\$7.85	\$15.95	\$0.00	\$69.75
	12/01/2019	\$46.95	\$7.85	\$15.95	\$0.00	\$70.75
	06/01/2020	\$47.94	\$7.85	\$15.95	\$0.00	\$71.74
	12/01/2020	\$48.92	\$7.85	\$15.95	\$0.00	\$72.72
	06/01/2021	\$49.94	\$7.85	\$15.95	\$0.00	\$73.74
	12/01/2021	\$50.95	\$7.85	\$15.95	\$0.00	\$74.75
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2019	\$34.54	\$11.91	\$12.70	\$0.00	\$59.15
	08/01/2019	\$34.54	\$12.41	\$12.70	\$0.00	\$59.65
	12/01/2019	\$34.54	\$12.41	\$13.72	\$0.00	\$60.67
	06/01/2020	\$35.44	\$12.41	\$13.72	\$0.00	\$61.57
	08/01/2020	\$35.44	\$12.91	\$13.72	\$0.00	\$62.07
	12/01/2020	\$35.44	\$12.91	\$14.82	\$0.00	\$63.17
	06/01/2021	\$36.24	\$12.91	\$14.82	\$0.00	\$63.97
	08/01/2021	\$36.24	\$13.41	\$14.82	\$0.00	\$64.47
	12/01/2021	\$36.24	\$13.41	\$16.01	\$0.00	\$65.66
VOICE-DATA-VIDEO TECHNICIAN <i>ELECTRICIANS LOCAL 96</i>	06/01/2019	\$30.60	\$10.07	\$14.17	\$0.00	\$54.84

Apprentice - VOICE-DATA-VIDEO TECHNICIAN - Local 96

Effective Date - 06/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$15.30	\$10.07	\$3.84	\$0.00	\$29.21
2	55	\$16.83	\$10.07	\$3.88	\$0.00	\$30.78
3	60	\$18.36	\$10.07	\$13.80	\$0.00	\$42.23
4	65	\$19.89	\$10.07	\$13.85	\$0.00	\$43.81
5	70	\$21.42	\$10.07	\$13.89	\$0.00	\$45.38
6	75	\$22.95	\$10.07	\$13.94	\$0.00	\$46.96
7	80	\$24.48	\$10.07	\$13.98	\$0.00	\$48.53
8	85	\$26.01	\$10.07	\$14.03	\$0.00	\$50.11

Notes:

Apprentice to Journeyworker Ratio:1:1

WAGON DRILL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.64	\$7.85	\$14.44	\$0.00	\$56.93
	12/01/2019	\$35.50	\$7.85	\$14.44	\$0.00	\$57.79
	06/01/2020	\$36.39	\$7.85	\$14.44	\$0.00	\$58.68
	12/01/2020	\$37.28	\$7.85	\$14.44	\$0.00	\$59.57
	06/01/2021	\$38.20	\$7.85	\$14.44	\$0.00	\$60.49
	12/01/2021	\$39.11	\$7.85	\$14.44	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS LOCAL 4</i>	03/01/2019	\$44.81	\$9.80	\$15.21	\$0.00	\$69.82
	09/01/2019	\$45.61	\$9.80	\$15.21	\$0.00	\$70.62
	03/01/2020	\$46.41	\$9.80	\$15.21	\$0.00	\$71.42
	09/01/2020	\$47.41	\$9.80	\$15.21	\$0.00	\$72.42
	03/01/2021	\$48.41	\$9.80	\$15.21	\$0.00	\$73.42
	09/01/2021	\$49.41	\$9.80	\$15.21	\$0.00	\$74.42
	03/01/2022	\$50.41	\$9.80	\$15.21	\$0.00	\$75.42
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
Outside Electrical - East						
CABLE TECHNICIAN (Power Zone) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$27.14	\$7.75	\$1.81	\$0.00	\$36.70
For apprentice rates see "Apprentice- LINEMAN"						
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$38.45	\$7.75	\$9.53	\$0.00	\$55.73
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$31.66	\$7.75	\$9.44	\$0.00	\$48.85
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$24.88	\$7.75	\$1.75	\$0.00	\$34.38
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$38.45	\$7.75	\$13.61	\$0.00	\$59.81
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$33.92	\$7.75	\$10.21	\$0.00	\$51.88
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$24.88	\$7.75	\$1.75	\$0.00	\$34.38
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$20.35	\$7.75	\$1.61	\$0.00	\$29.71
For apprentice rates see "Apprentice- LINEMAN"						
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$45.23	\$7.75	\$16.61	\$0.00	\$69.59

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - LINEMAN (Outside Electrical) - East Local 104

Effective Date - 09/03/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$27.14	\$7.75	\$3.31	\$0.00	\$38.20
2	65	\$29.40	\$7.75	\$3.38	\$0.00	\$40.53
3	70	\$31.66	\$7.75	\$3.45	\$0.00	\$42.86
4	75	\$33.92	\$7.75	\$5.02	\$0.00	\$46.69
5	80	\$36.18	\$7.75	\$5.09	\$0.00	\$49.02
6	85	\$38.45	\$7.75	\$5.15	\$0.00	\$51.35
7	90	\$40.71	\$7.75	\$7.22	\$0.00	\$55.68

Notes:

Apprentice to Journeyworker Ratio:1:2

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/04/2019	\$30.73	\$4.70	\$3.17	\$0.00	\$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/04/2019	\$28.93	\$4.70	\$3.14	\$0.00	\$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/04/2019	\$28.93	\$4.70	\$3.14	\$0.00	\$36.77
TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/31/2016	\$18.51	\$3.55	\$0.00	\$0.00	\$22.06
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is not on the ground. This classification does not apply to wholesale tree removal.						
TREE TRIMMER GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/31/2016	\$16.32	\$3.55	\$0.00	\$0.00	\$19.87
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is on the ground. This classification does not apply to wholesale tree removal.						

Additional Apprentice Information:

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours.)

Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified.

** Multiple ratios are listed in the comment field.

*** APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.

**** APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.

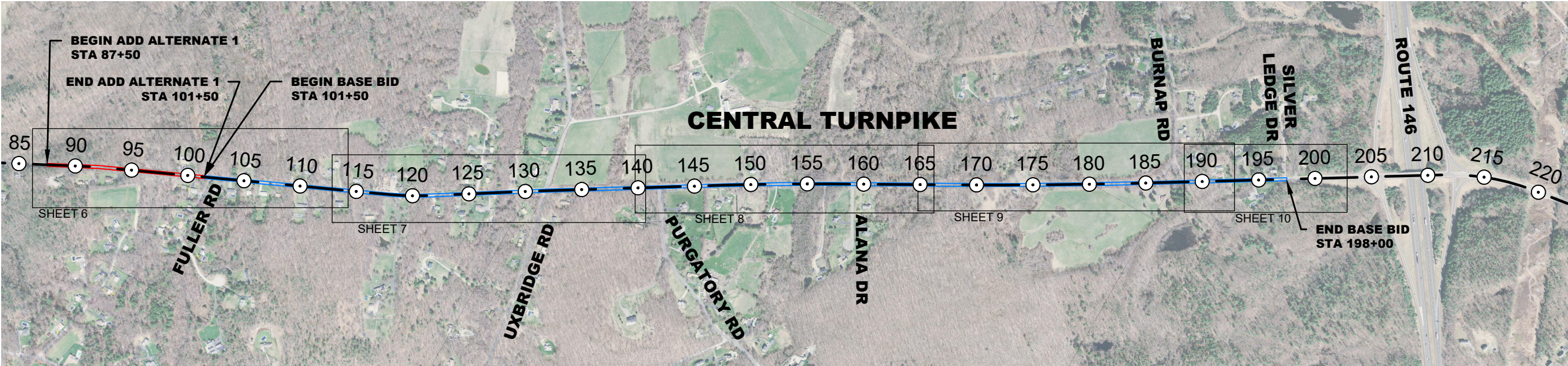
APPENDIX C – PROJECT PLANS

PREPARED BY: TEC, INC.
DATED: MAY 28, 2019

INDEX

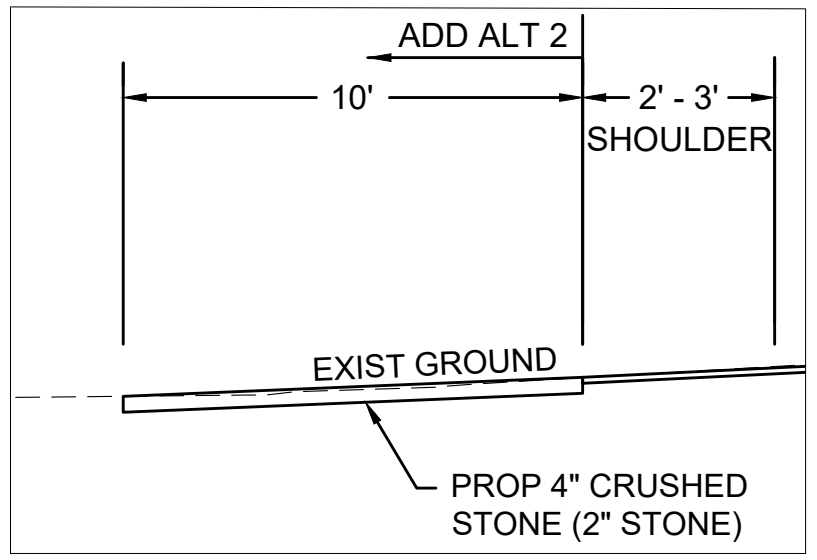
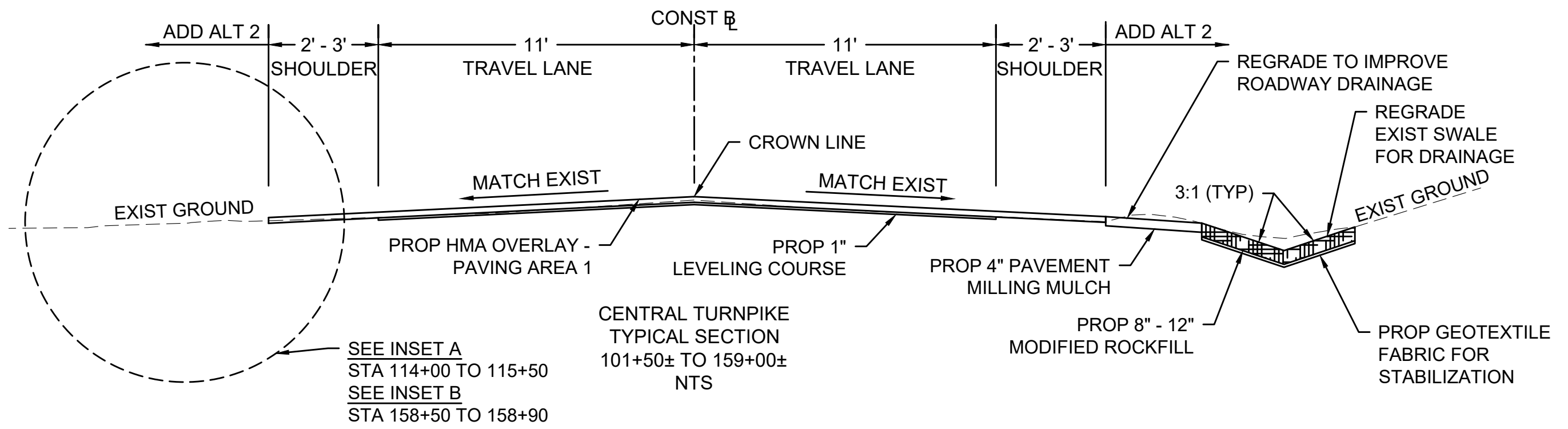
<u>DESCRIPTION</u>	<u>SHEET NO.</u>
LOCUS & KEY PLAN	1
TYPICAL SECTIONS	2-5
CONSTRUCTION PLANS	6-10
TEMPORARY TRAFFIC CONTROL PLANS	11-12

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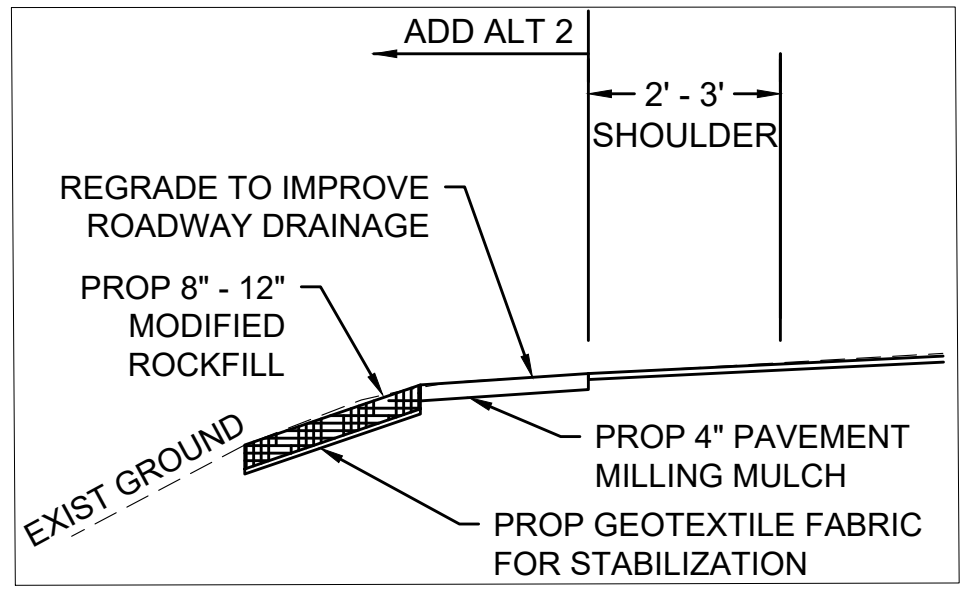


SCALE: 1" = 1000'

T0881 - TYPICAL SECTIONS.DWG Printed on 30-May-2019 4:48 PM

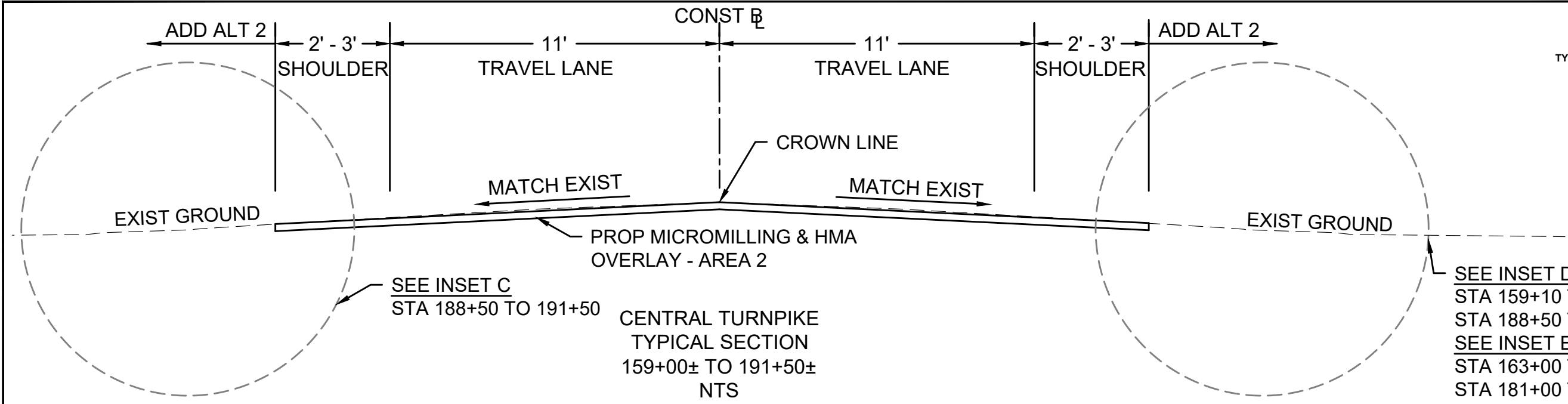


INSET A
STA 114+00 TO 115+50

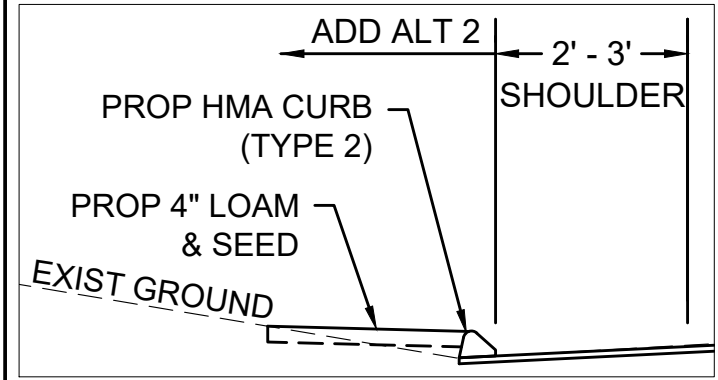


INSET B
STA 158+50 TO 158+90

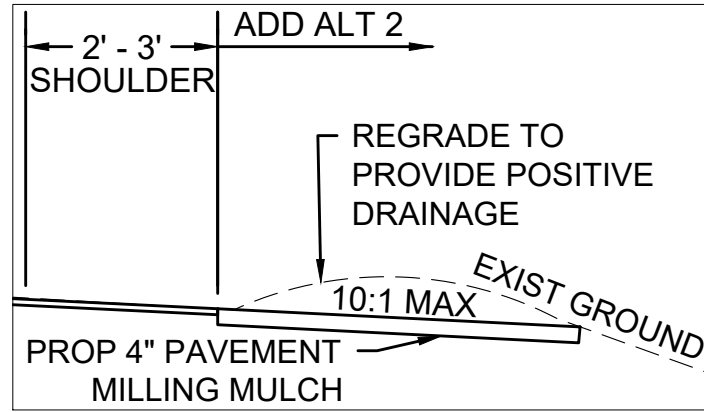
SEE SHEET NO.5 FOR PAVEMENT NOTES



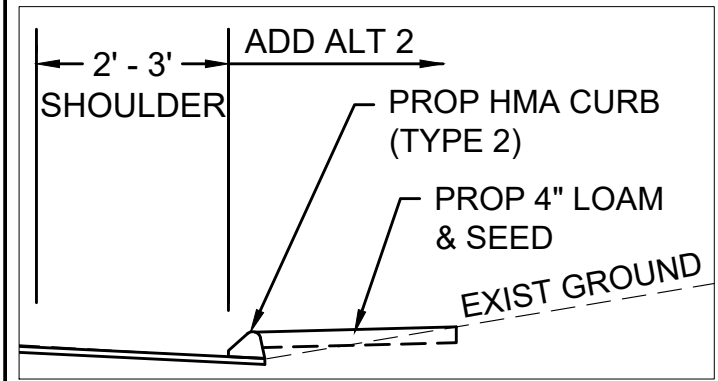
SEE INSET D
STA 159+10 TO 161+80 &
STA 188+50 TO 191+50
SEE INSET E
STA 163+00 TO 165+00 &
STA 181+00 TO 184+50
SEE INSET F
STA 161+80 TO 162+20 &
STA 165+00 TO 166+00
SEE INSET G
STA 167+50 TO 169+50 &
STA 173+00 TO 176+50



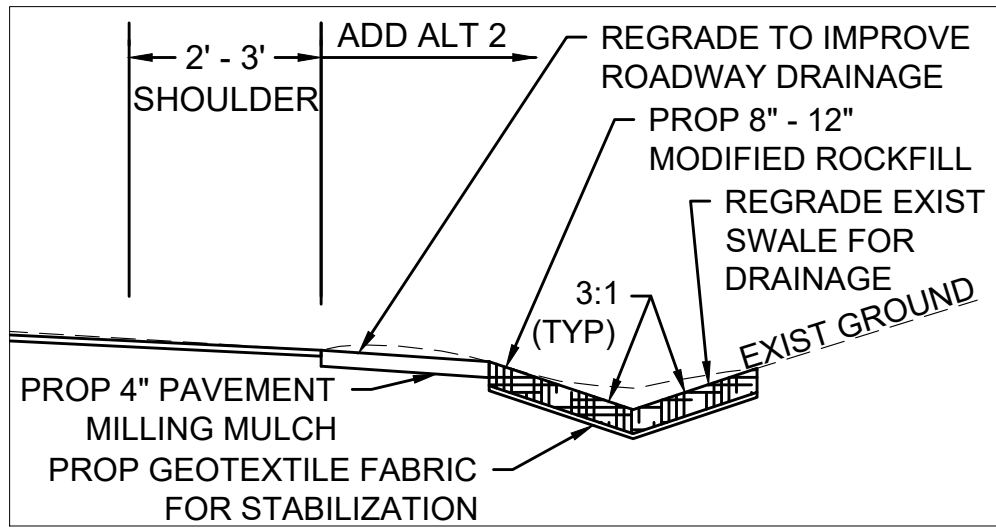
INSET C
STA 188+50 TO 191+50



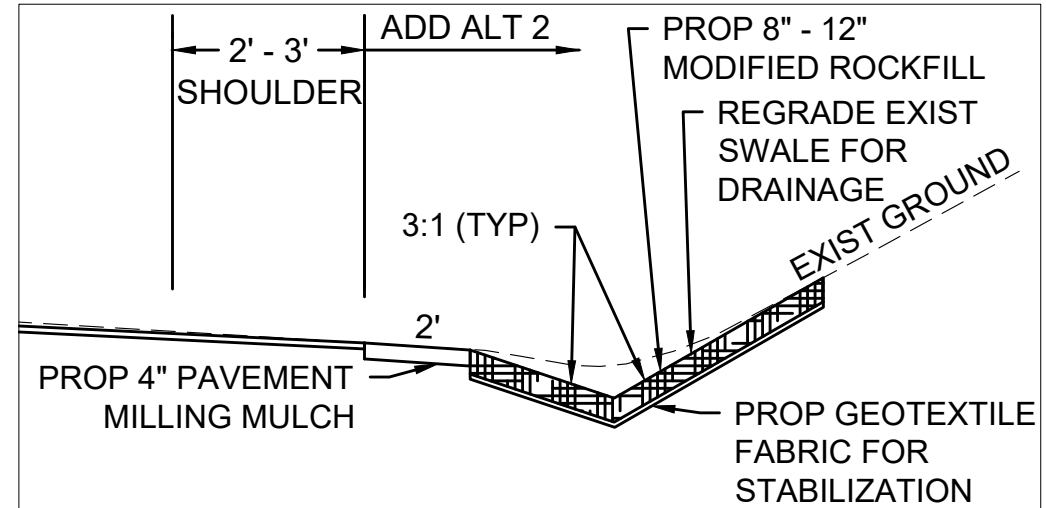
INSET E
STA 163+00 TO 165+00 &
STA 181+00 TO 184+50



INSET D
STA 159+10 TO 161+80 &
STA 188+50 TO 191+50

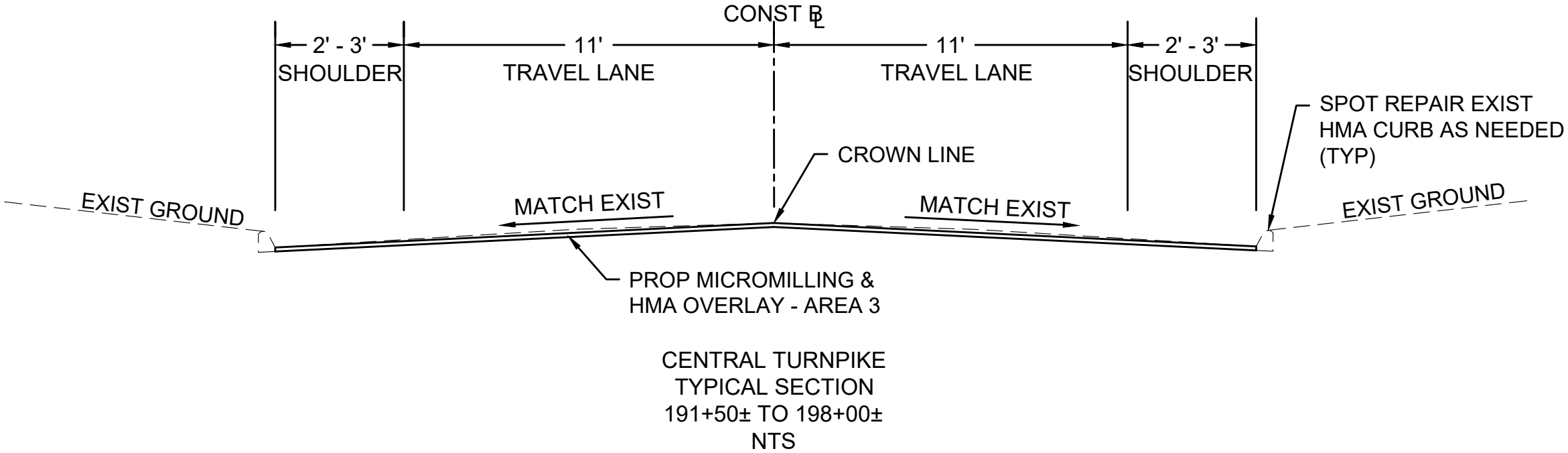


INSET F
STA 161+80 TO 162+20 &
STA 165+00 TO 166+00

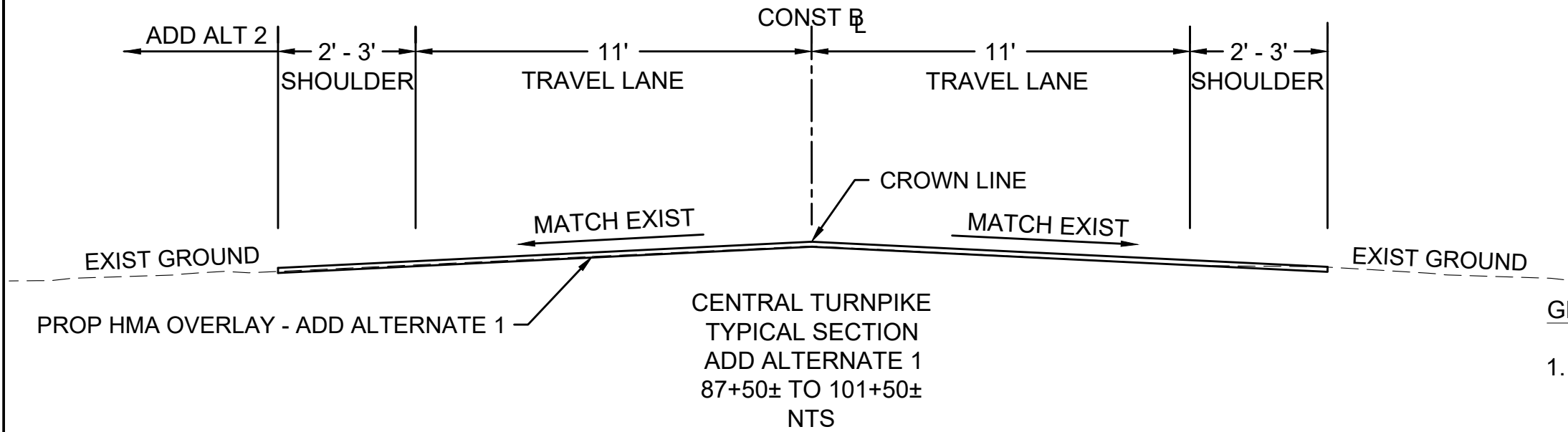


INSET G
STA 167+50 TO 169+50 &
STA 173+00 TO 176+50

SEE SHEET NO.5 FOR PAVEMENT NOTES



SEE SHEET NO.5 FOR PAVEMENT NOTES



CENTRAL TURNPIKE PAVEMENT NOTES:

PROPOSED AREA 1

SURFACE: 1³/₄" SUPERPAVE SURFACE COURSE -
12.5 (SSC - 12.5) OVER
1" SUPERPAVE LEVELING COURSE -
12.5 (SLC - 12.5) OVER
HOT APPLIED ASPHALTIC CRACK FILLER

PROPOSED AREA 2

SURFACE: 2" SUPERPAVE SURFACE COURSE -
12.5 (SSC - 12.5) OVER
HOT APPLIED ASPHALTIC CRACK FILLER OVER
1" PAVEMENT MICROMILLING

PROPOSED AREA 3

SURFACE: 1³/₄" SUPERPAVE SURFACE COURSE -
12.5 (SSC - 12.5) OVER
HOT ASPHALTIC CRACK FILLER OVER
1³/₄" PAVEMENT MICROMILLING

ADD ALTERNATE 1

SURFACE: 1³/₄" SUPERPAVE SURFACE COURSE -
12.5 (SSC - 12.5) OVER
HOT APPLIED ASPHALTIC CRACK FILLER

PROPOSED HMA DRIVEWAY (TO MATCH EXISTING)

SURFACE: 1¹/₂" HMA SURFACE COURSE OVER
2" HMA INTERMEDIATE COURSE

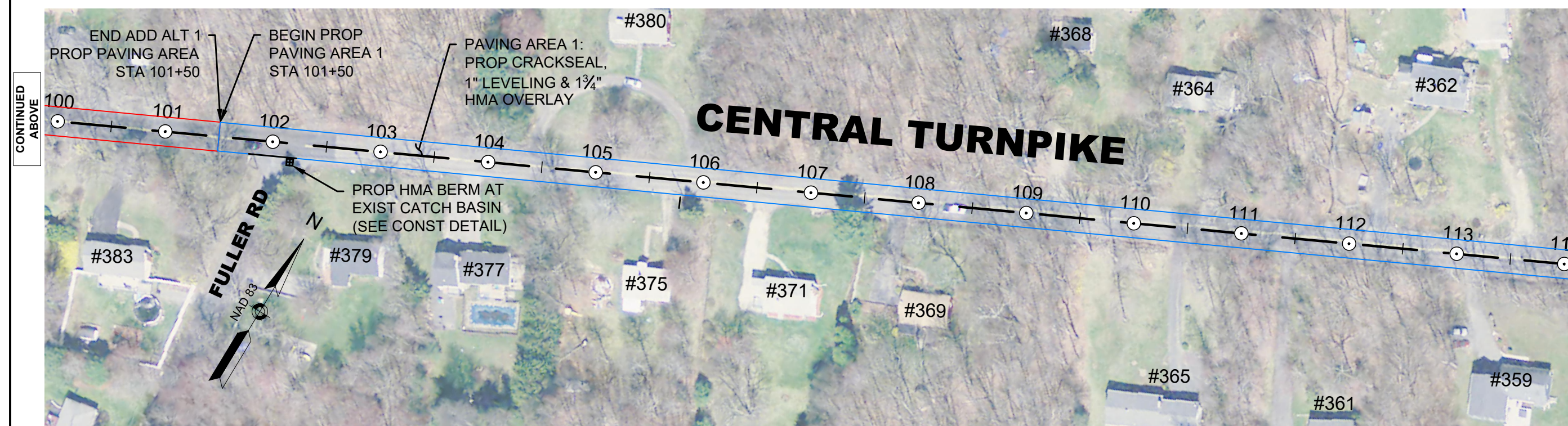
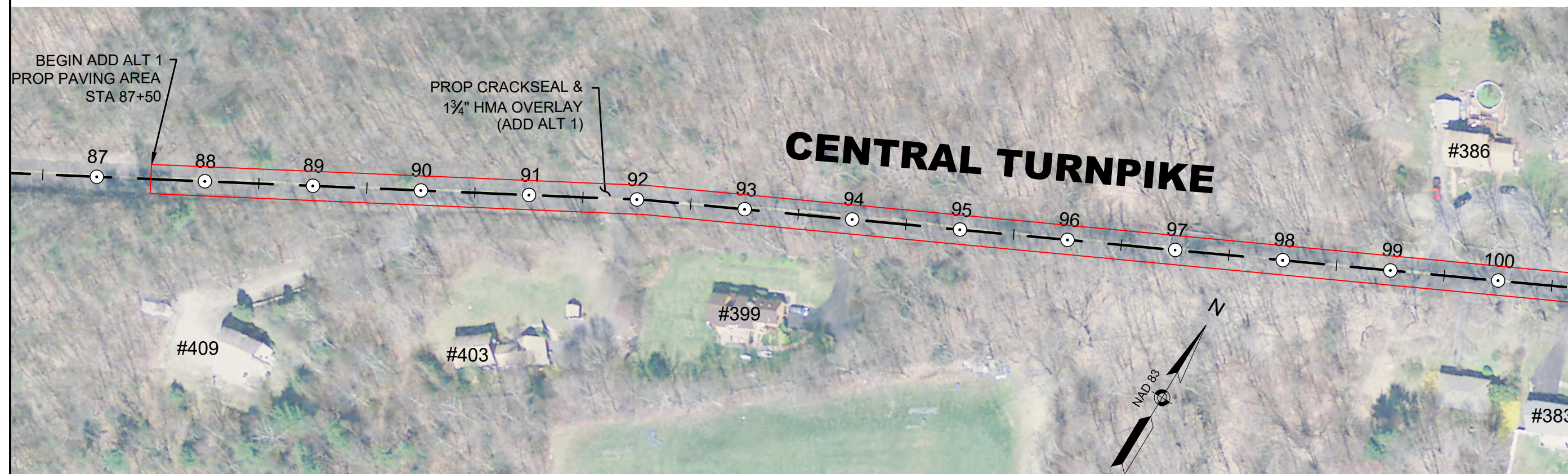
SUBBASE: EXCAVATE EXISTING HMA TO SAWCUT LINE;
FINE GRADE AND COMPACT EXISTING BASE;
ADD GRAVEL BORROW, TYPE b AS REQUIRED TO
MATCH PROPOSED GRADES

GENERAL PAVEMENT NOTES:

1. ASPHALT EMULSION FOR TACK COAT SHALL BE APPLIED BETWEEN ALL ASPHALT SURFACES AND SAWCUT JOINTS BEFORE PAVING. HMA JOINT SEALANT SHALL BE APPLIED TO ALL COLD JOINTS (LONGITUDINAL AND TRANSVERSE) BEFORE PAVING SURFACE COURSE. ASPHALT EMULSION FOR TACK COAT SHALL BE APPLIED AT A RATE OF 0.05 GAL/SY, EXCEPT OVER MILLED AND CEMENT CONCRETE SURFACES, WHERE THE APPLICATION RATE SHALL BE 0.07 GAL/SY. ALL SURFACES SHALL BE CLEAN OF ALL ORGANICS, DEBRIS, AND SAND PRIOR TO PAVING.
2. ALL HMA SHALL BE PRODUCED WITH WMA ADDITIVE.
3. ALL HMA SHALL BE IN ACCORDANCE WITH SECTION 450.
4. ASPHALT EMULSION FOR TACK COAT SHALL BE RS-1H TO RESIST TRACKING OF TACK BY HAUL VEHICLES.
5. HMA FOR DRIVEWAYS SHALL BE IN ACCORDANCE WITH SECTION 700.

PROPOSED PAVING AREA FOR ADD ALT #1
STA 87+50 to 101+50

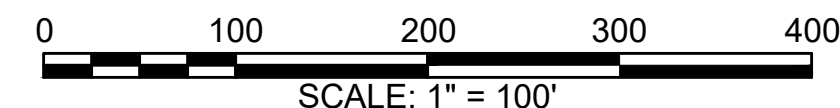
SUTTON
CENTRAL TURNPIKE
CONSTRUCTION PLANS - 1 OF 5
SHEET 6 OF 12



PROPOSED PAVING AREA FOR ADD ALT 1
STA 87+50 to 101+50

PROPOSED PAVING AREA 1
STA 101+50 to 159+00

PROPOSED DRAINAGE SWALE (ADD ALT 2)
STA 101+50 TO 159+00 RT

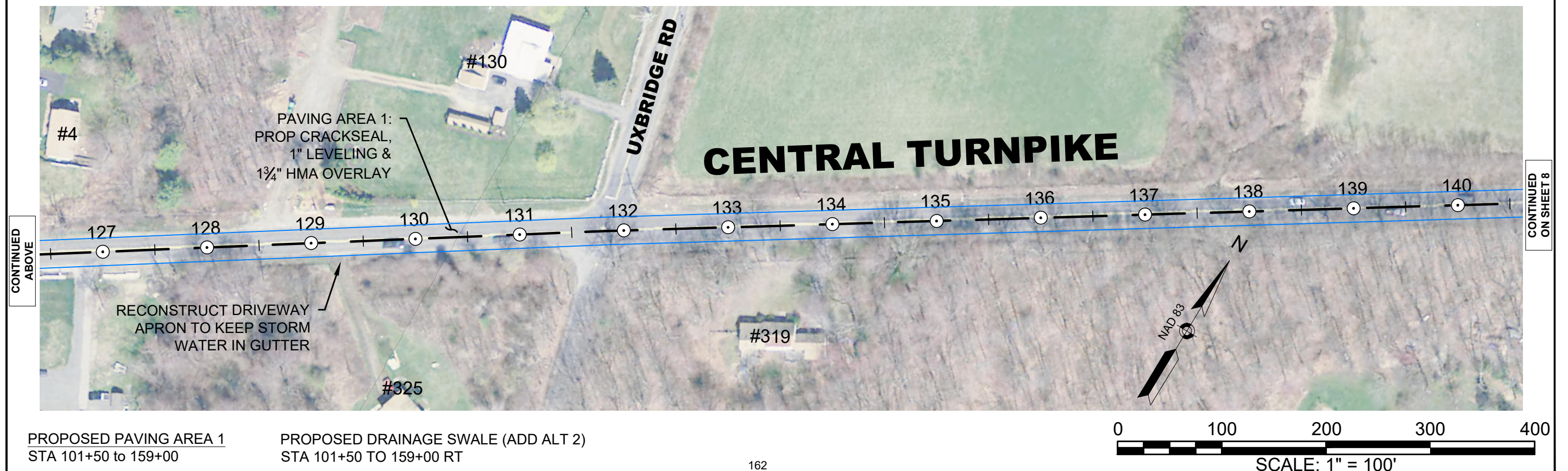
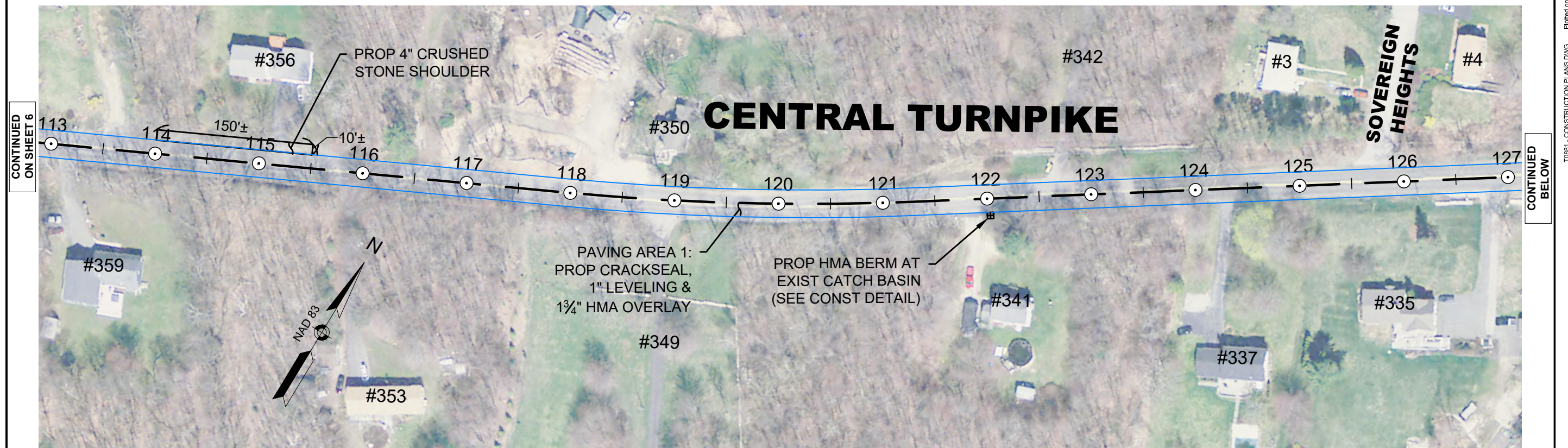


PROPOSED PAVING AREA 1
STA 101+50 to 159+00

CRUSHED STONE EDGE TREATMENT (ADD ALT 2)
STA 114+00 to 115+50 LT

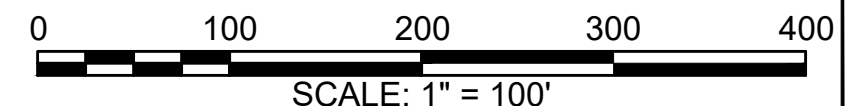
PROPOSED DRAINAGE SWALE (ADD ALT 2)
STA 101+50 TO 159+00 RT

SUTTON
CENTRAL TURNPIKE
CONSTRUCTION PLANS - 2 OF 5
SHEET 7 OF 12



PROPOSED PAVING AREA 1
STA 101+50 to 159+00

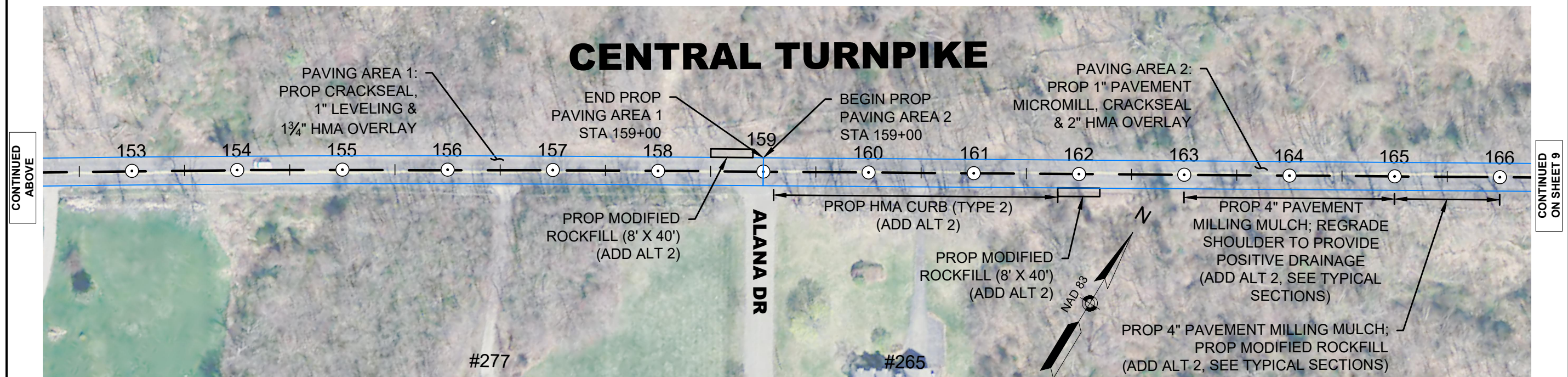
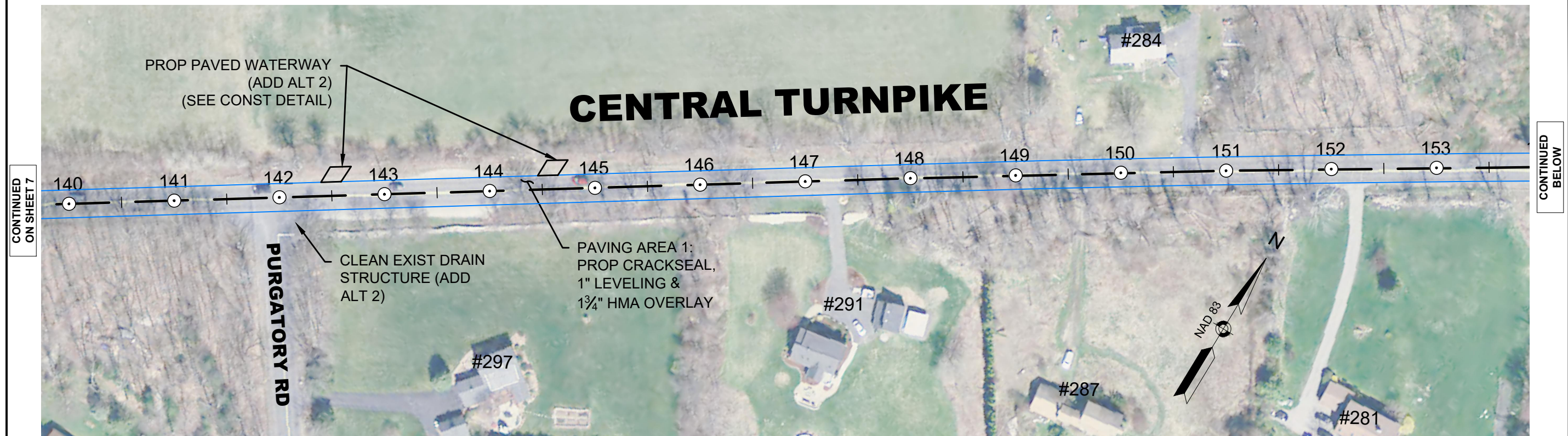
PROPOSED DRAINAGE SWALE (ADD ALT 2)
STA 101+50 TO 159+00 RT



PROPOSED PAVING AREA 1
STA 101+50 TO 159+00

PROPOSED DRAINAGE SWALE (ADD ALT 2)
STA 101+50 TO 159+00 RT

SUTTON
CENTRAL TURNPIKE
CONSTRUCTION PLANS - 3 OF 5
SHEET 8 OF 12



PROPOSED PAVING AREA 1
STA 101+50 TO 159+00

PROPOSED PAVING AREA 2
STA 159+00 TO 191+50

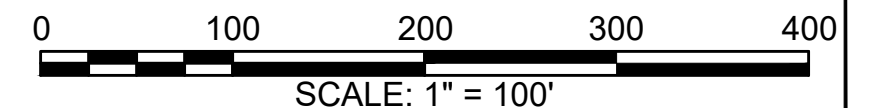
PROPOSED HMA CURB (ADD ALT 2)
STA 159+10 TO 161+80 RT

PROPOSED MODIFIED ROCKFILL (ADD ALT 2)
STA 158+50 TO 158+90 LT, STA 161+80 TO 162+20 RT

PROPOSED DRAINAGE SWALE (ADD ALT 2)
STA 101+50 TO 159+00 RT

REGRADE SHOULDER W/ MILLING MULCH (ADD ALT 2)
STA 163+00 TO 165+00 RT

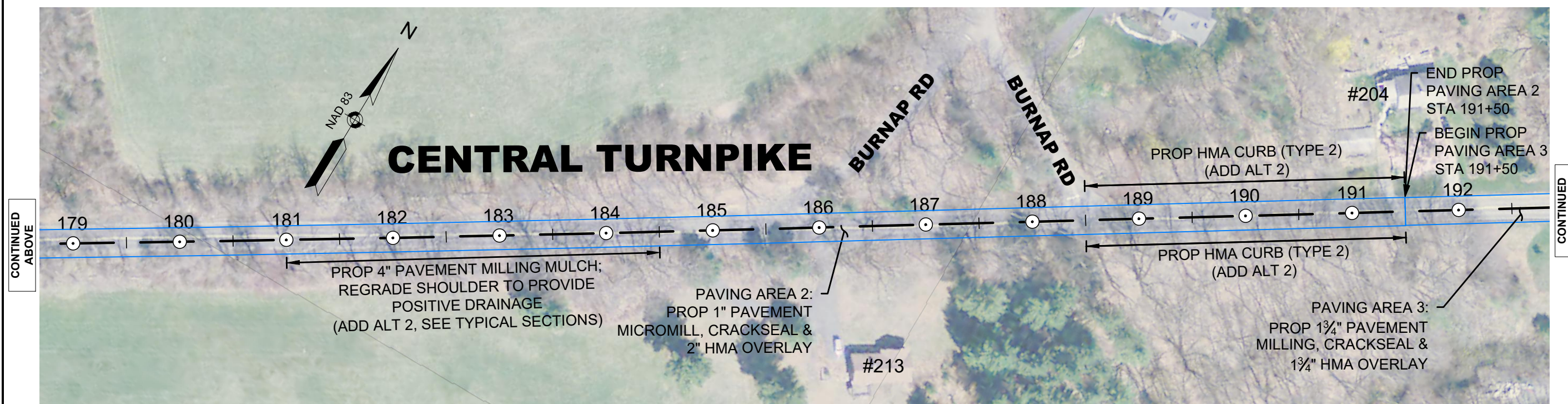
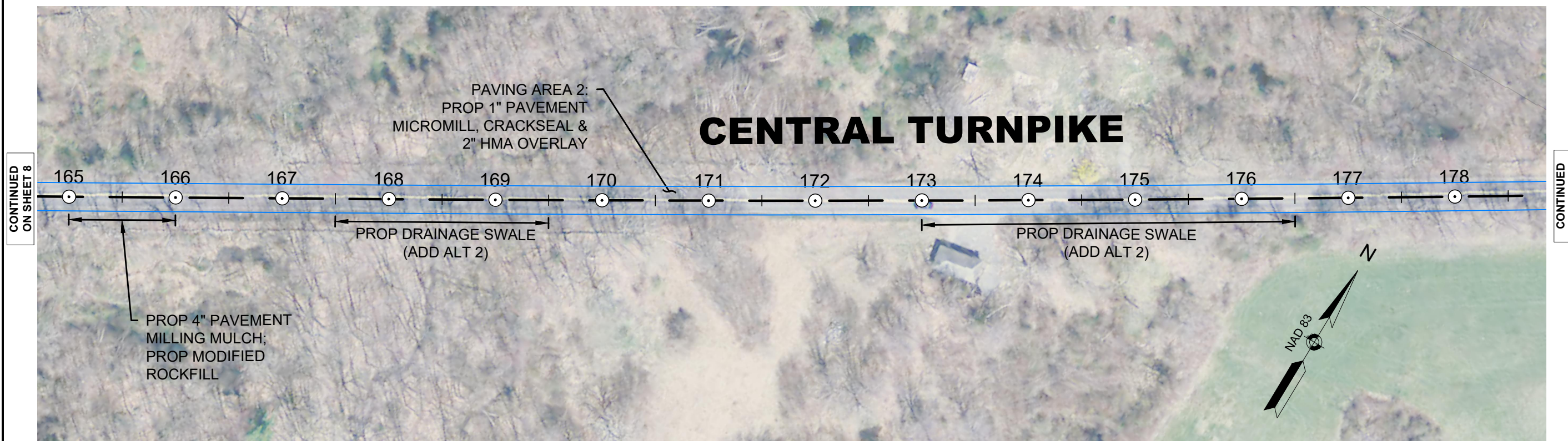
REGRADE SHOULDER W/ MODIFIED ROCKFILL (ADD ALT 2)
STA 165+00 TO 166+00 RT



PROPOSED PAVING AREA 2
STA 159+00 to 191+50

PROPOSED DRAINAGE SWALE (ADD ALT 2)
STA 167+50 to 169+50, 173+00 to 176+50 RT

SUTTON
CENTRAL TURNPIKE
CONSTRUCTION PLANS - 4 OF 5
SHEET 9 OF 12

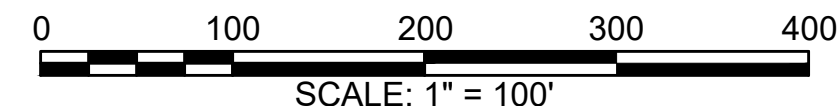


PROPOSED PAVING AREA 2
STA 159+00 to 191+50

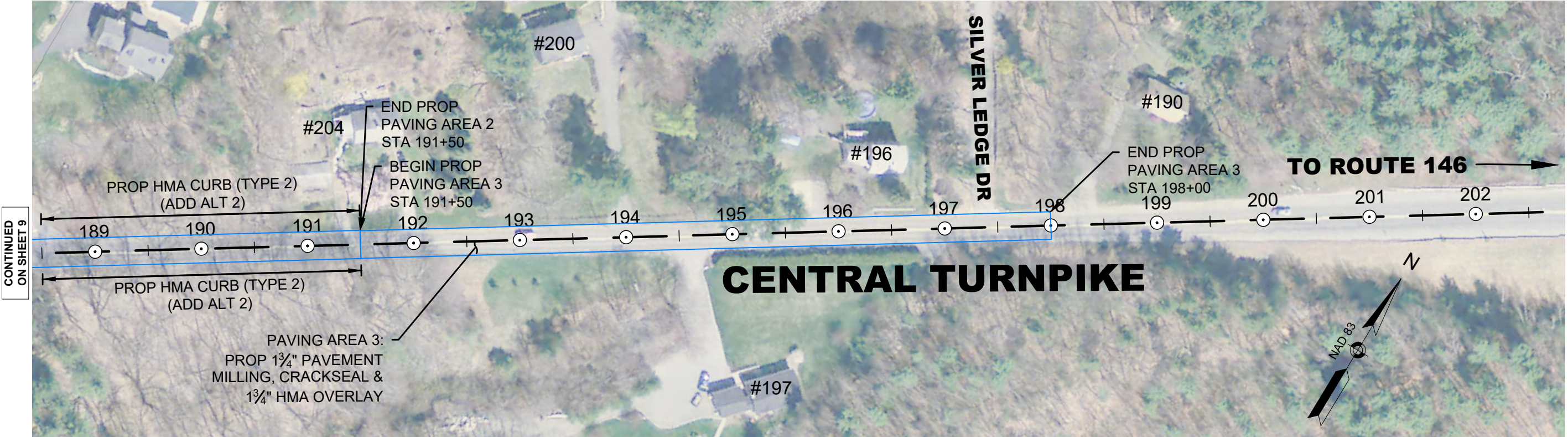
PROPOSED PAVING AREA 3
STA 191+50 to 198+00















REGRADE SHOULDER W/ MILLING MULCH (ADD ALT 2)
STA 181+00 to 184+50 RT

ADD HMA CURB (TYPE 2) TO MEET EXIST @ STA 191+50
STA 188+50 to 191+50 LT&RT



PROPOSED PAVING AREA 2
STA 159+00 to 191+50
PROPOSED PAVING AREA 3
STA 191+50 to 198+00

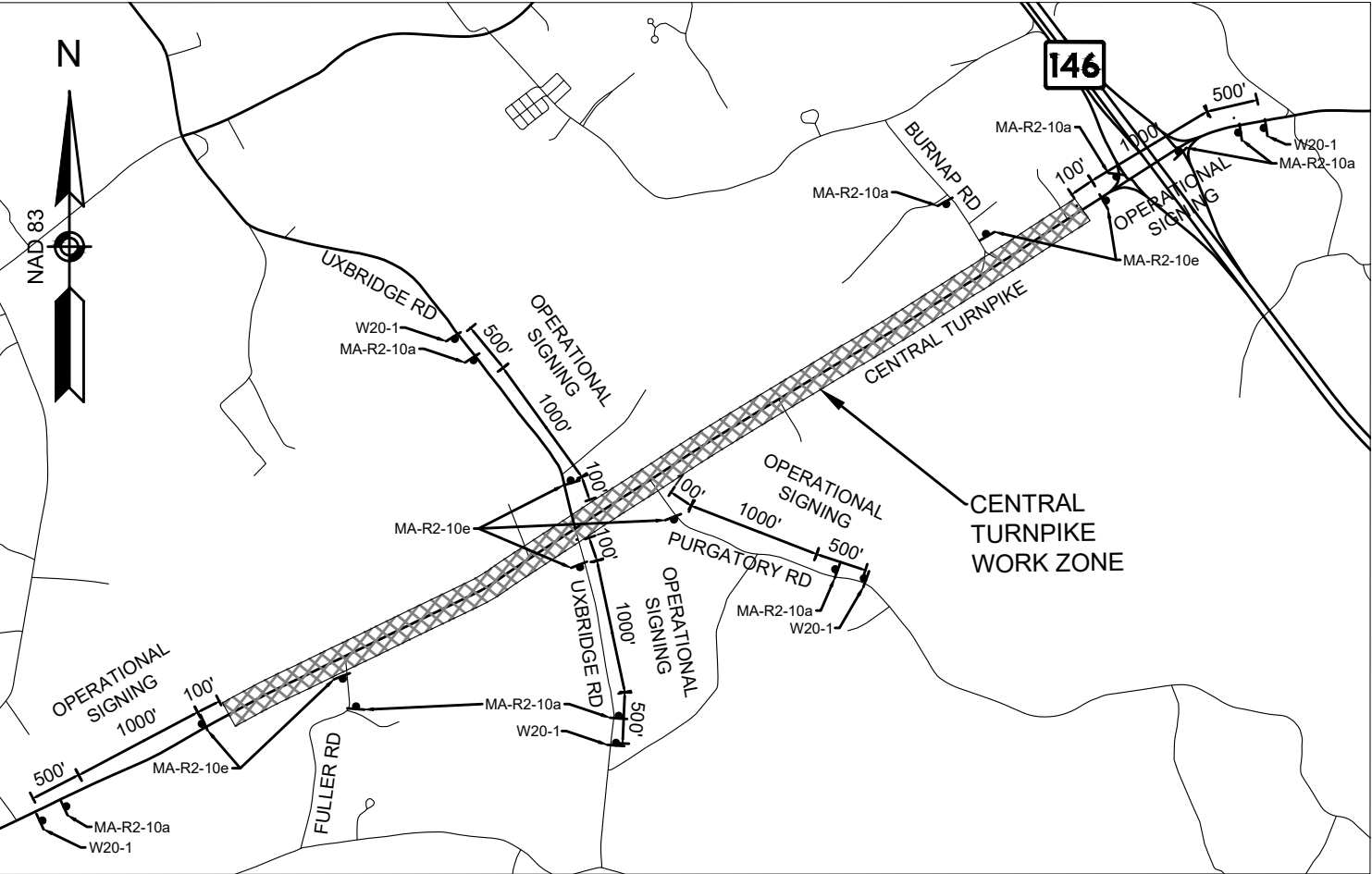


TRAFFIC SIGN SUMMARY												
IDENTIFICATION NUMBER	SIZE OF SIGN (in)		LEGEND	TEXT DIMENSIONS (in)			COLOR			NUMBER OF SIGNS REQUIRED	UNIT AREA (SF)	TOTAL AREA (SF)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR	BACK-GROUND	LEGEND	BORDER			
MA-R2-10a	48	36		MASSDOT STANDARD SIGN			FL. ORANGE WHITE	BLACK BLACK	BLACK BLACK	9	12.00	108.00
MA-R2-10e	36	48		MASSDOT STANDARD SIGN			FL. ORANGE WHITE	BLACK BLACK	BLACK BLACK	7	12.00	84.00
W1-4L	36	36		SEE 2009 MUTCD			FL. ORANGE	BLACK	BLACK	2	9.00	18.00
W1-4R	36	36					FL. ORANGE	BLACK	BLACK	2	9.00	18.00
W5-1	36	36					FL. ORANGE	BLACK	BLACK	2	9.00	18.00
W8-1	36	36					FL. ORANGE	BLACK	BLACK	2	9.00	18.00
W8-3	36	36					FL. ORANGE	BLACK	BLACK	2	9.00	18.00
W8-15	36	36					FL. ORANGE	BLACK	BLACK	2	9.00	18.00
W13-1p	24	24					FL. ORANGE	BLACK	BLACK	2	4.00	8.00
W20-1	36	36					FL. ORANGE	BLACK	BLACK	4	9.00	36.00
W20-4	36	36					FL. ORANGE	BLACK	BLACK	4	9.00	36.00
W20-7	36	36					FL. ORANGE	BLACK	BLACK	2	9.00	18.00
MA-W20-7b	36	36		MASSDOT STANDARD SIGN			FL. ORANGE	BLACK	BLACK	2	9.00	18.00
W21-5a	36	36		SEE 2009 MUTCD			FL. ORANGE	BLACK	BLACK	1	9.00	9.00

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS, UNLESS SUPERCEDED BY THESE PLANS.
2. ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
3. TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
4. TEMPORARY CONSTRUCTION SIGNING, BARRICADES, AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
5. SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN THE "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
6. CONTRACTORS SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT, AND SIMILAR OPERATIONS.
7. THE FIRST TEN PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A SEQUENTIAL WARNING LIGHTS.
8. THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
9. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
10. MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
11. MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
12. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.

SUTTON
CENTRAL TURNPIKE
TEMPORARY TRAFFIC CONTROL PLANS - 1 OF 2
SHEET 11 OF 12



ADVANCED SIGNING SCHEMATIC

N.T.S.

● REFLECTORIZED PLASTIC DRUM OR 36" CONE	 WORK ZONE	 WORK VEHICLE
P/F POLICE/FLAGGER DETAIL	 DIRECTION OF TRAFFIC	 TRUCK MOUNTED ATTENUATOR
 TYPE III BARRICADE	 IMPACT ATTENUATOR	 TRAFFIC OR PEDESTRIAN SIGNAL
 CHANGEABLE MESSAGE SIGN	 MEDIAN BARRIER	 SIGN
 ARROW BOARD	 MEDIAN BARRIER WITH WARNING LIGHTS	

ROAD TYPE	DISTANCE BETWEEN SIGNS (FEET)		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS	350	350	350
MOST OTHER ROADWAYS	500	500	500
FREEWAYS AND EXPRESSWAYS	1,000	1,500	2,640

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH (L)
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.33L
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FT MIN. 100 FT MAX.
DOWNSTREAM TAPER	50 FT MIN. 100 FT MAX. PER LANE

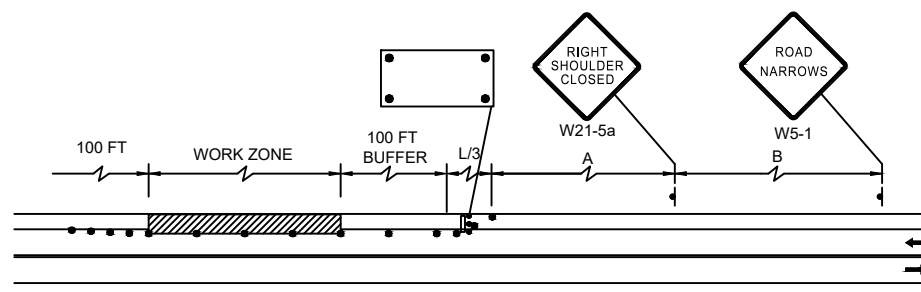
FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S)	TAPER LENGTH (L) FEET
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

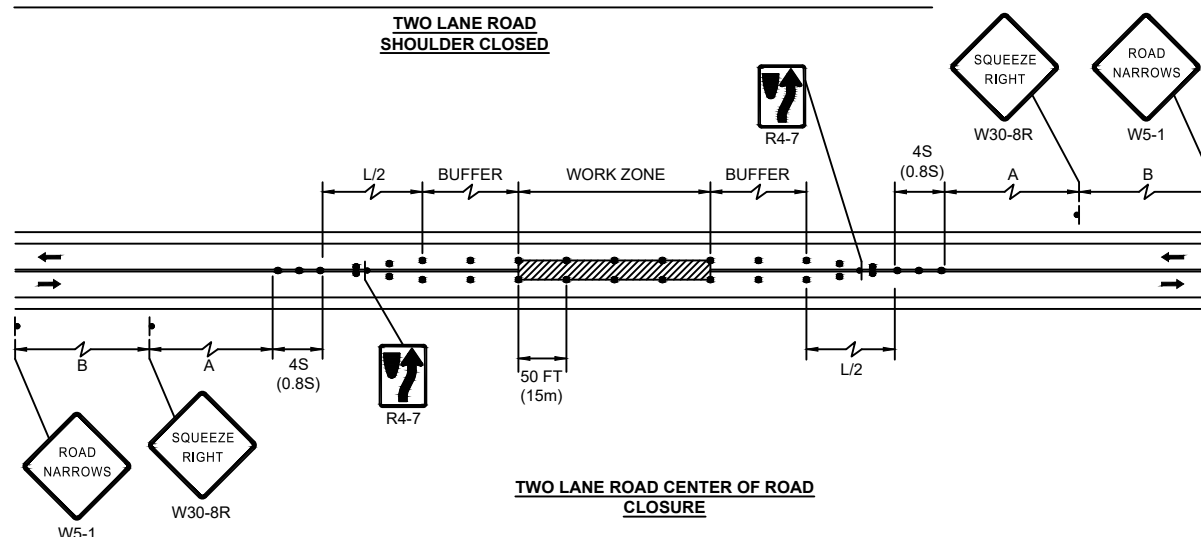
WHERE: L = TAPER LENGTH IN FEET

W = WIDTH OF OFFSET IN FEET

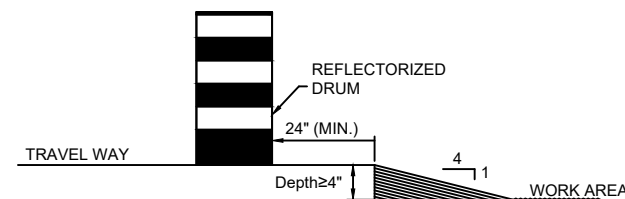
S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH



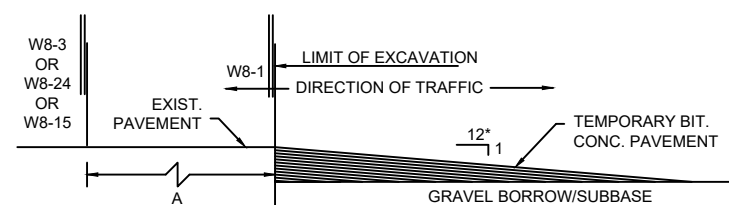
TWO LANE ROAD
SHOULDER CLOSED



TWO LANE ROAD CENTER OF ROAD
CLOSURE

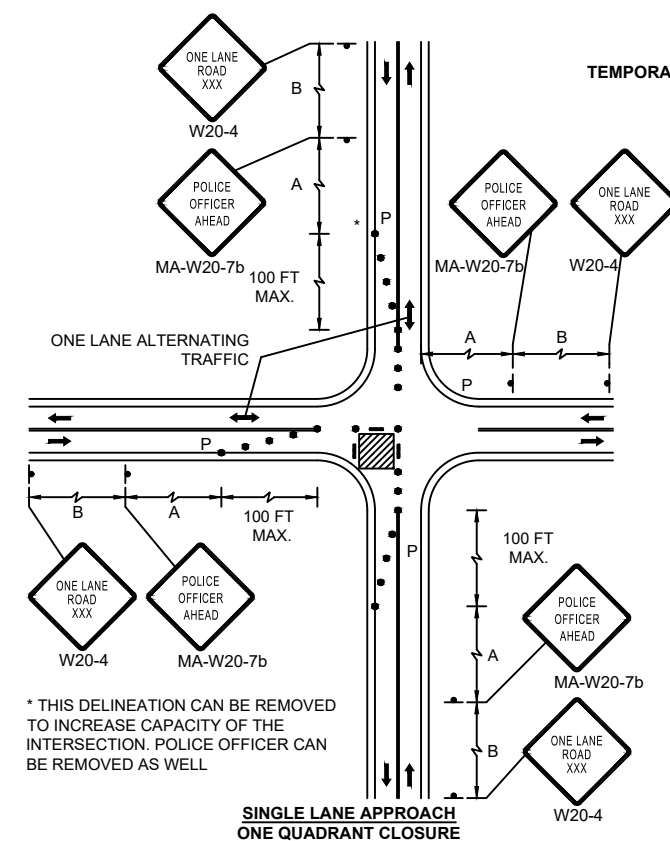


LATERAL DROP-OFF DETAIL
NOT TO SCALE



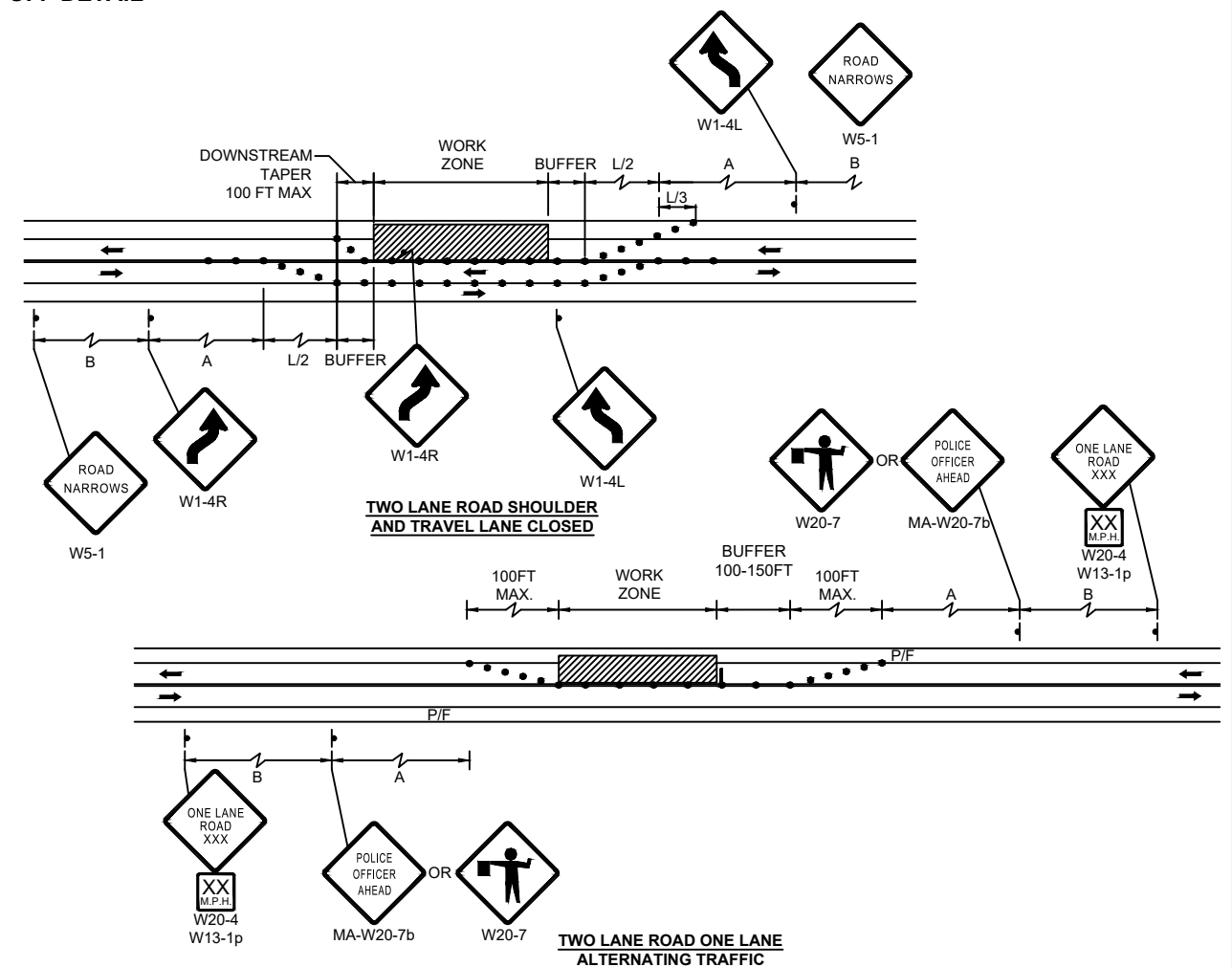
LONGITUDINAL DROP-OFF DETAIL
NOT TO SCALE

* - INCREASE SLOPE RATIO
FOR HIGHER SPEEDS



SINGLE LANE APPROACH ONE QUADRANT CLOSURE

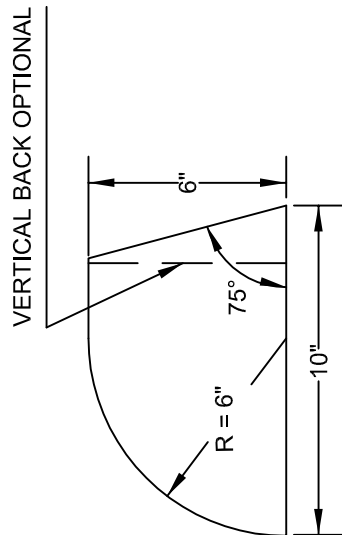
* THIS DELINEATION CAN BE REMOVED
TO INCREASE CAPACITY OF THE
INTERSECTION. POLICE OFFICER CAN
BE REMOVED AS WELL



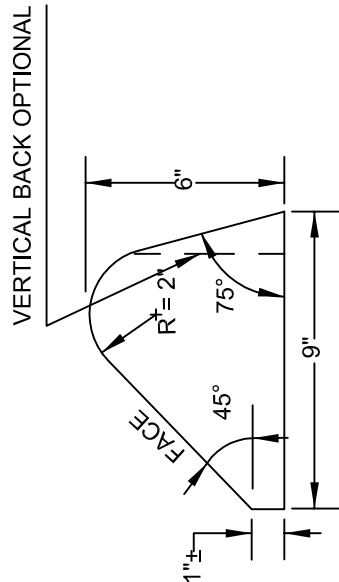
TWO LANE ROAD ONE LANE
ALTERNATING TRAFFIC

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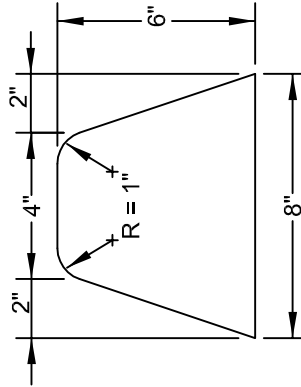
APPENDIX D – CONSTRUCTION DETAILS



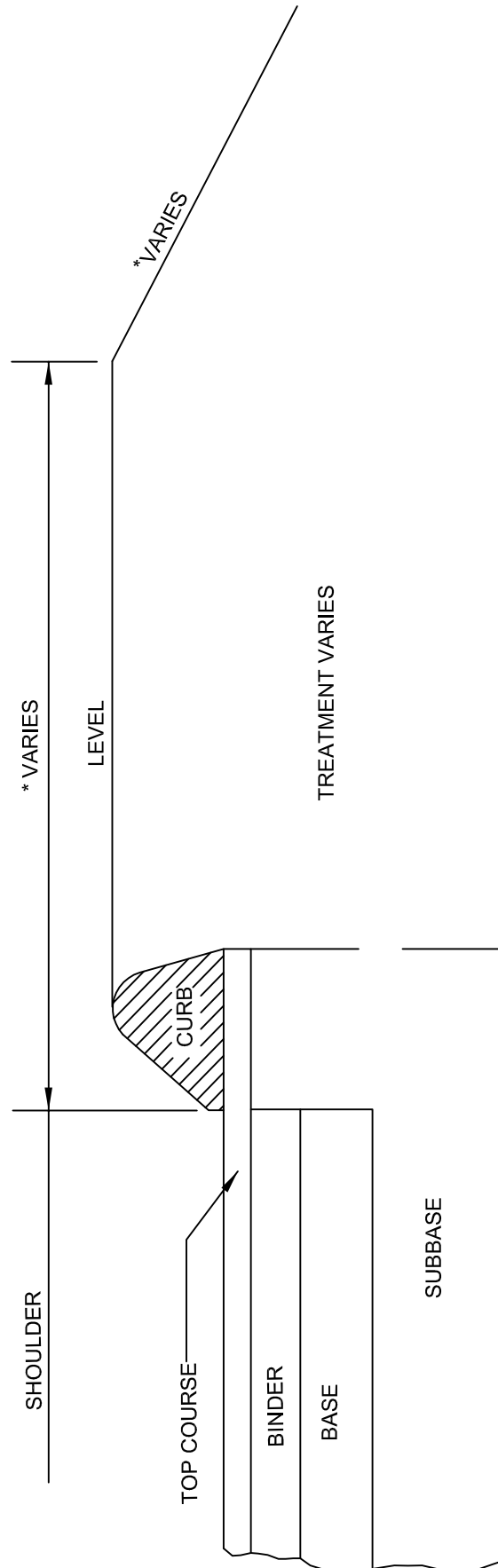
TYPE - 1



TYPE - 2

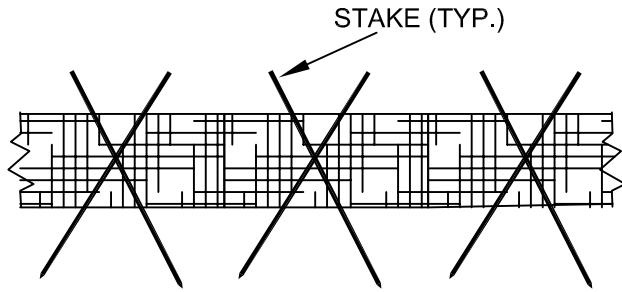


TYPE - 3

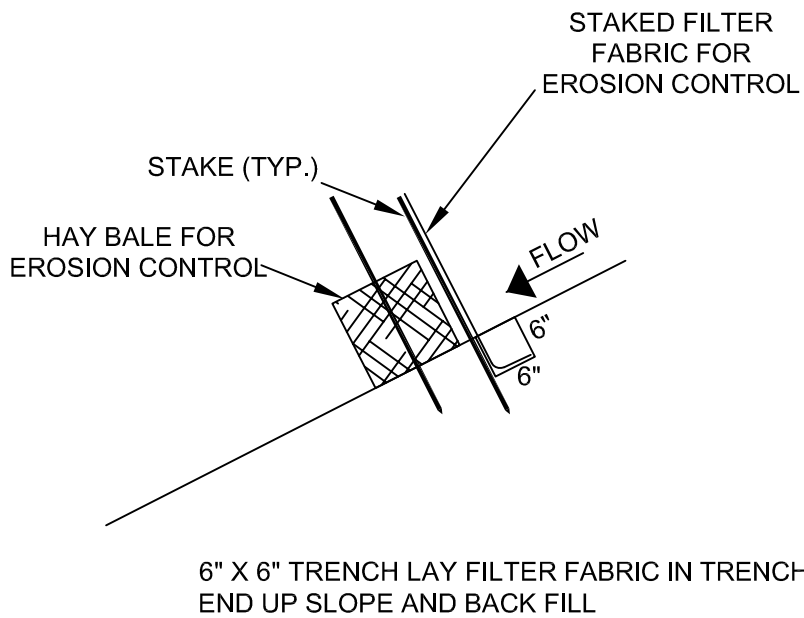
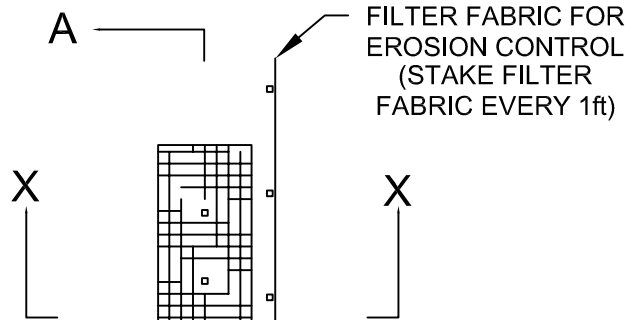


METHOD OF SETTING-TYPICAL FOR ALL TYPES

* SEE TYPICAL SECTIONS FOR PROJECT.



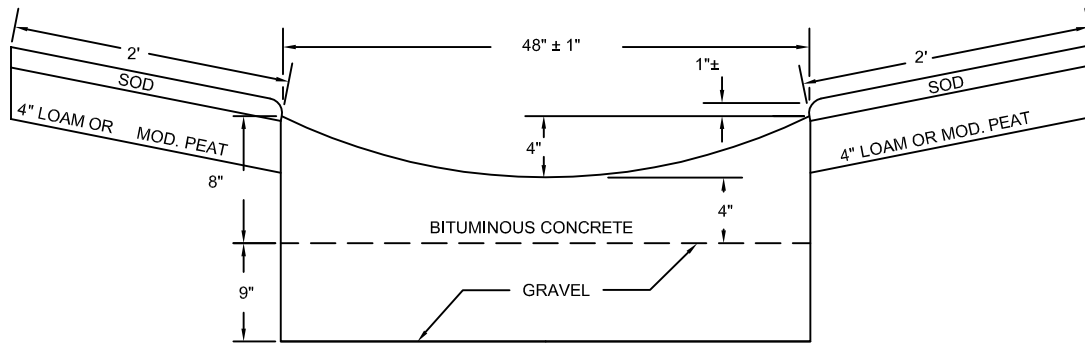
SECTION A-A



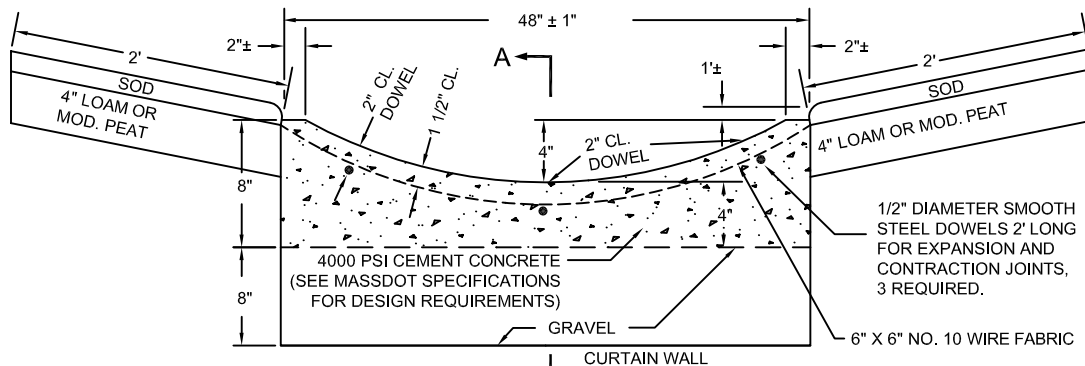
SECTION X-X

HAY BALES FOR
EROSION CONTROL
(2 STAKES
PER BALE)

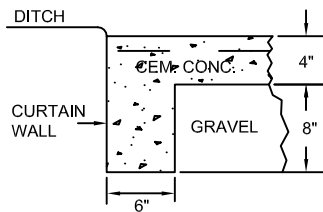
A



BITUMINOUS CONCRETE

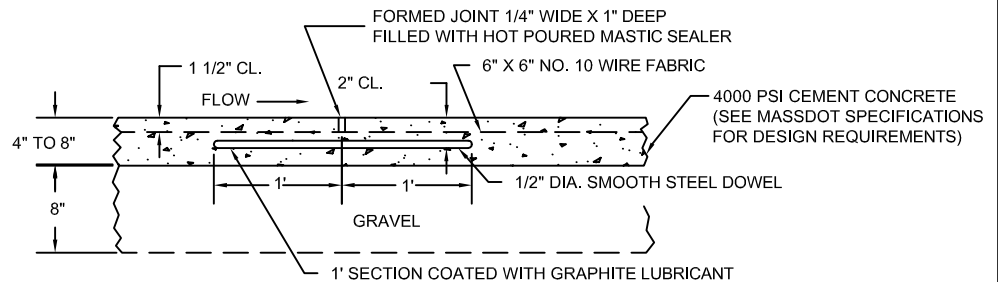


CEMENT CONCRETE



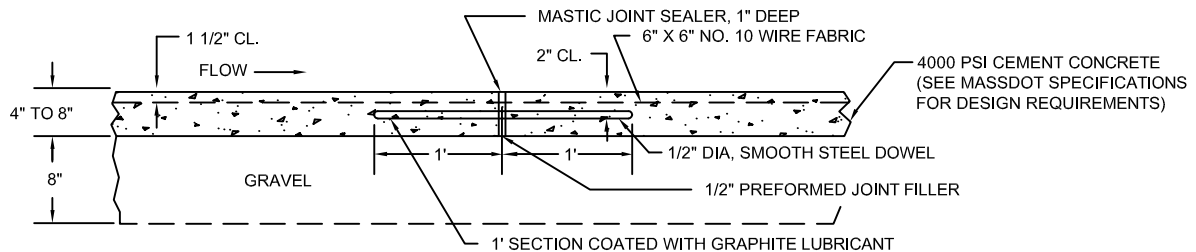
CURTAIN WALL TO BE INSTALLED
AT TERMINI OF PAVING

SECTION A-A



CONTRACTION JOINT TO BE PLACED 30' MAXIMUM CENTER TO CENTER

DETAILS OF CONTRACTION JOINTS

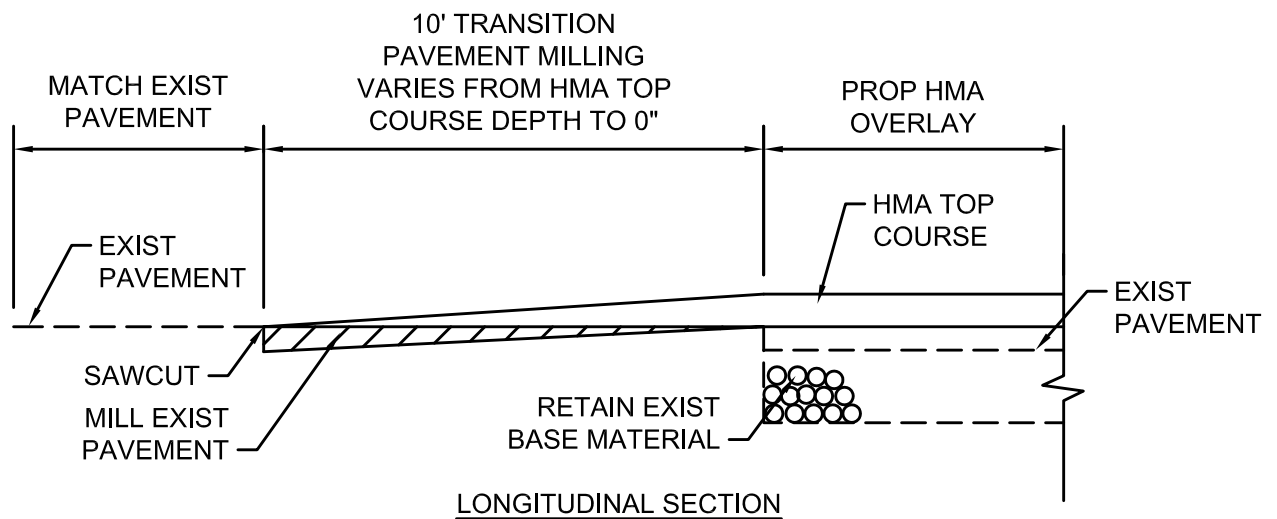


EXPANSION JOINTS TO BE INSTALLED AT APPROACHES TO STRUCTURES

DETAILS OF EXPANSION JOINTS

NOTES:

1. ON CURVED ALIGNMENT, WATERWAYS SHALL BE BANKED AS DIRECTED.
2. FOR DESCRIPTIONS, MATERIALS AND CONSTRUCTION METHODS, SEE LATEST STANDARD SPECIFICATIONS.



HMA OVERLAY TRANSITION

N.T.S.



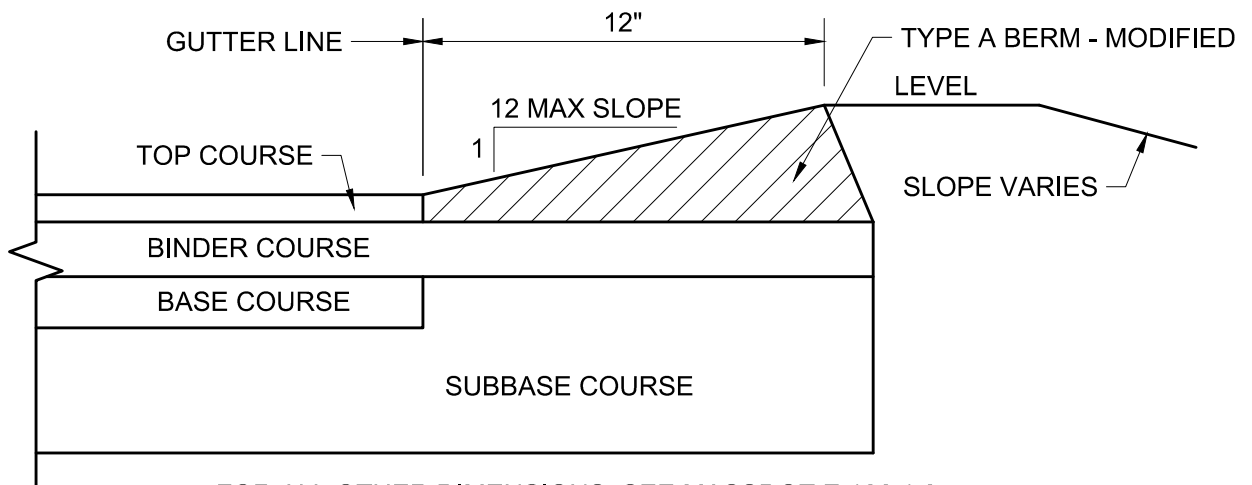
STANDARD DETAILS

HOT MIX ASPHALT OVERLAY TRANSITION

173

DATE OF ISSUE
MAY 2013

DRAWING NUMBER
HS.460D



FOR ALL OTHER DIMENSIONS, SEE MASSDOT E 106.1.0

HOT MIX ASPHALT BERM, TYPE A - MODIFIED

N.T.S.



STANDARD DETAILS

HOT MIX ASPHALT BERM, TYPE A - MODIFIED

174

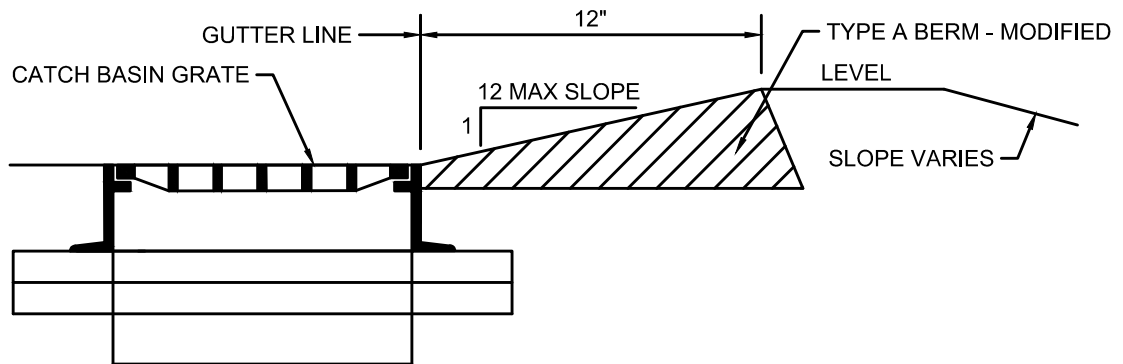
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MAY 2013

DRAWING NUMBER

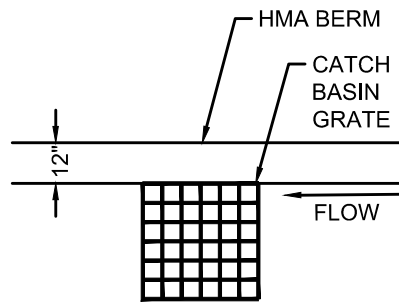
HS.470

HS.470A - HOT MIX ASPHALT BERM AT CATCH BASIN.dwg 5/30/2019 4:41:30 PM



FOR ALL OTHER DIMENSIONS, SEE MASSDOT E 106.1.0

SECTION VIEW



PLAN VIEW

HOT MIX ASPHALT BERM AT CATCH BASIN

N.T.S.



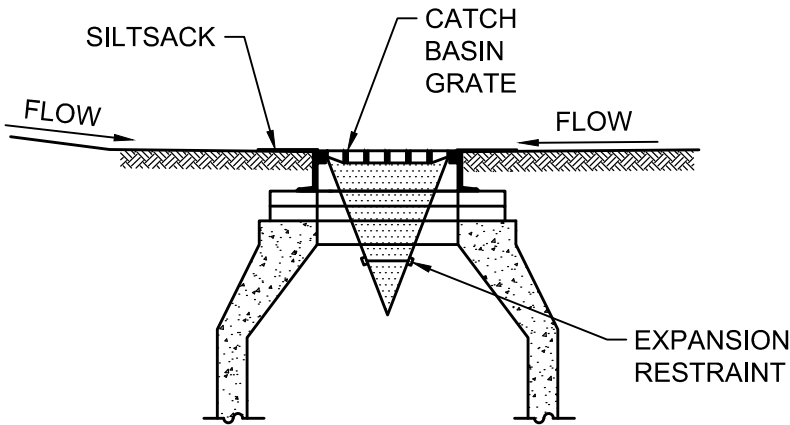
STANDARD DETAILS

HOT MIX ASPHALT BERM AT
CATCH BASIN

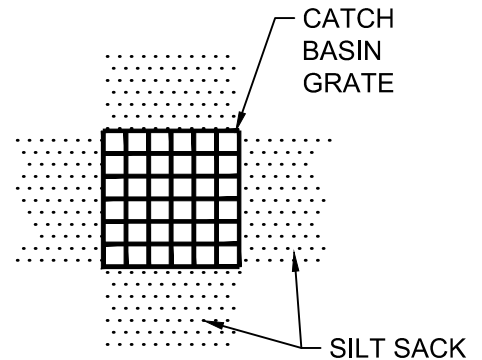
175

DATE OF ISSUE
MAY 2019

DRAWING NUMBER
HS.470A



SECTION VIEW



PLAN VIEW

NOTES:

1. INSTALL SILT SACK IN EXISTING CATCH BASINS BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. GRATE TO BE PLACED OVER SILT SACK.
3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

INLET PROTECTION SILT SACK IN CATCH BASIN

N.T.S.



STANDARD DETAILS

**INLET PROTECTION SILT
SACK IN CATCH BASIN**

176

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MARCH 2014

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HS.697