



TOWN OF ARLINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
51 GROVE STREET
ARLINGTON, MA 02476

Bid 22-11

Pavement Preservation



Town of Arlington
Engineering Division
3/29/2022



TOWN OF ARLINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
51 GROVE STREET
ARLINGTON, MA 02476

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I. INVITATION FOR BID

Sealed bids are invited and will be received by the Town Manager, Town of Arlington, Massachusetts, until **10:00 A.M., Wednesday, April 13, 2022** at the Office of the Purchasing Agent, Town Hall, Arlington, Massachusetts 02476, at which time and place they will be publicly opened and read.

A BID DEPOSIT IN THE FORM OF CASH, CERTIFIED CHECK, OR TREASURER'S CHECK, shall accompany every bid. The amount of such bid deposit shall be FIVE PERCENT (5%) of the value of the bid.

Specifications and proposal forms will be available at the Office of the Purchasing Agent, Town Hall, Arlington, Massachusetts. All bids must be in sealed envelopes plainly marked: **BID ON: BID #22-11 PAVEMENT PRESERVATION.**

The conditions of employment as set forth in Sections 26 to 27D and 27F of Chapter 149 of the General Laws, as amended, shall prevail in the execution of the work under this contract.

Attention is called to the fact that minimum wage rates and health and welfare and pension fund contributions are established for this contract and are a part of the specifications.

Work under this contract shall be governed by M.G.L.Ch.30, Sec. 39M.

Attestation Forms pursuant to M.G.L. Ch. 62C, Sec. 49A and M.G.L. Ch. 701 of the Acts of 1983 are enclosed and shall be submitted with bids.

Proposals are for placement of an ultra-thin bonded wearing course surface treatment at various locations in the Town of Arlington, MA.

It is the intention of the Owner to award the Contract to the lowest qualified responsive bidder. The bidder must submit a bid on all bid items in the Contract.

All proposals to include prices in both writing and in figures, and must be signed by the bidder with his business address.

An increase or decrease in the quantity of work shall not be regarded as a sufficient ground for an increase in the unit prices.

To receive consideration, bids must be in the hands of the Purchasing Agent or his authorized representative not later than the day and hour *above* mentioned. For further information relative to this bid, please confer with Domenic R. Lanzillotti, Director, Purchasing Department, Town Hall, Arlington, Massachusetts, 02476.

OSHA Construction Training Required: As of July 1, 2006, under M.G.L. -Chapter 30, Section 39s, any person, submitting a bid for, or signing a contract to work on, the construction, reconstruction, alteration, remodeling or repair of any public work by the Commonwealth of Massachusetts/Town of Arlington, and estimated by the awarding Authority to cost more than \$10,000, shall certify on the Bid or Contract, under penalty of perjury, that all employees to be employed at the work 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 10 hours in duration

The Town Manager reserves the right to cancel any invitation for bids, to reject in whole or in part any and all bids, when it is deemed in the best interest of the Town of Arlington to do so.

Adam W. Chapdelaine
Town Manager

Date: _____



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II. INSTRUCTION TO BIDDERS

1. Receipt of Bids

The Town may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informality in or reject any bids. Any bid may be withdrawn before the time for the opening of bids. Any bid received after the time and date specified shall not be considered. No bidder may withdraw his/her bid for a period of 30 days, excluding Saturdays, Sundays, and legal holidays after actual date of the opening thereof.

2. Preparation of Bid

Each bid shall be submitted on the forms attached to these documents. The bid forms may be removed and submitted separately from the other documents. All blank spaces for bid prices must be filled in with the unit price for the item or the lump sum for which the proposal is made. Bidders must bid on each item. All entries in the entire proposal must be made clearly, and prices written in both words and figures in the spaces provided.

Each bid must be in a sealed envelope addressed to the Office of the Purchasing Agent, 730 Massachusetts Avenue, Arlington, Massachusetts, 02476; and bearing on the outside the name of the bidder, his/her address, the name of the project for which the bid is submitted, and the notation **BID ON: BID# 22-11 PAVEMENT PRESERVATION**.

3. Bid Security

Every bid submitted by contractors shall be accompanied by a bid deposit in the form of cash, certified check, treasurer's or cashier's check, or a bid bond issued by a responsible bank or trust company and made payable to the Town of Arlington. The amount of the bid deposit shall be 5% of the amount of the bid. All security except those of the three lowest responsible and eligible bidders will be returned within ten days, Saturdays, Sundays, and legal holidays excluded, after opening of the bid. All bid securities will be returned on the execution of the contract or if no award is made within 30 days, excluding Saturdays, Sundays, and legal holidays, after the actual date of the opening thereof, unless forfeited under the conditions herein stipulated.

In case a party to whom a contract is awarded shall fail or neglect to execute the contract and furnish the satisfactory bond in the time specified, the Town may determine the bidder has abandoned the contract and thereupon the proposal and acceptance shall be null and void, and the bid security accompanying the proposal shall be forfeited to the Town as liquidation damages for such failure or neglect and indemnify the Town for any loss which may be sustained by failure of the bidder to execute the contract and furnish the bonds as aforesaid, provided that, in case of death, disability, or other unforeseen circumstances affecting the bidder, such bid security may be returned to him/her.

After execution of the contract and acceptance of the bonds by the Town, the bid security accompanying the proposal of the successful bidder will be returned.

4. Time of Completion

The bidder must agree to commence work within sixty (60) business days from the date of signing the contract and to fully complete the project within the time specified within the Special Provisions section of this document.

5. Performance and Labor Material Bonds

A bond in the sum of 50% of the total amount of the Contract by the successful bidder and an additional bond in equal amount covering the payment for all labor and materials used in the work will be required. A surety company authorized to do business in Massachusetts and satisfactory to the Town of Arlington must provide these bonds. These



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bonds will be required at the execution of the contract. Attorneys-in-fact who sign contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

6. Laws and Regulations

The bidder's attention is directed to the fact that all applicable State laws, Town of Arlington Bylaws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they shall be deemed to be included in the contract the same as though herein written out in full.

7. Withdrawal of Bids

Upon proper written request and identification, Bids may be withdrawn only as follows:

1. At any time before the designated time for the opening of Bids.
2. Death or serious injury of a principal.
3. With the written approval of the Town of Arlington Office of the Purchasing Director.
4. At any time after the expiration of the period during which withdrawal is prohibited provided the bid has not been accepted by the Town.

8. Execution of Contract

The party to whom the contract is awarded shall be required to execute the contract and furnish the bonds duly executed with a satisfactory surety company within 10 days, excluding Saturdays, Sundays, and legal holidays, of the date of the mailing of the notice to the bidder according to the address given by him/her, that the contract is ready for execution.

9. Obligation of Bidder

At the time of the opening of bids, each bidder shall be presumed to have read and to be thoroughly familiar with the contract documents. The failure or omission of any bidder to receive or examine any form, instrument, or documents shall in no way relieve any bidder from the obligation in respect to his bid.

10. Omissions, Discrepancies, Interpretations and Addenda

Should a bidder find discrepancies in, or omissions from, the drawings or contract documents, or should he/she have questions as to the interpretation of the plans or contract documents he/she shall submit such in writing to the Director of Purchasing at least five (5) days before the date herein set for the opening of bids. An interpretation will be mailed by certified mail to prospective bidders at the addresses given by them on or about two (2) days before the opening of bids. Signed copies of all addenda shall be included with the bid; omission of the signed addendum shall be cause for rejection of the bid.

11. Record of Address

Prospective bidders shall at the time plans and specifications are secured place on file with the Director of Purchasing their address, and are required to make any changes necessary to insure that the record is accurate, complete, and up to date.



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12. Massachusetts Sales and Use Tax

Materials purchased for permanent installation in the work will be exempt from the Massachusetts Sales and Use tax. Each bidder shall consider this exemption in calculating his/her bid for the work.

13. State Tax Affidavit

Prospective bidders are required to certify that all state tax returns have been filed and all state taxes have been paid in order to be eligible to enter into a contract with the Town on this project. The included form is to be used for this purpose and is to be completed and returned as part of the bid and proposal.

14. Minimum Wage Rates

Prevailing rates for wages for work performed under this Contract will be as predetermined by the Commissioner of Labor and Industries of the Commonwealth of Massachusetts in accordance with the provisions of Sections 26 to 27D, inclusive, of c.149 of M.G.L. A schedule of the prevailing wages is included in the Minimum Wage Rates Section.

15. Sub-bids

No sub bids shall be sought in connection with this Contract.

16. Supplemental Information

All bidders shall submit the following supplemental information with a fee proposal:

1. Name, address and phone number of a minimum of three (3) references that can vouch for the performance of the bidder
2. Proof of Liability and Worker's Compensation Insurance Coverage
3. Completed tax attestation form
4. Bid deposit



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III. PROPOSAL

For: **Bid 22-11 Pavement Preservation**

To the Town of Arlington, Massachusetts, acting through its Town Manager the undersigned, as bidder, declares as follows:

- 1) The only persons or parties interested in this proposal as principals are named in this proposal;
- 2) This proposal is made without collusion with any other person, firm or corporation;
- 3) He has carefully examined the location of the proposed work and the annexed proposed form of contract, and the drawings and specifications therein referred to;
- 4) This proposal is based solely on his own investigation and research and not in reliance upon any plans, surveys, measurements, dimensions, calculations, estimates, borings, test pits, soundings, or representations of any employee, officer, or agent of the Town;

and the undersigned proposes and agrees that if this proposal is accepted he will contract with the Town, this Proposal form being part of and included in said contract, to provide all necessary machinery, tools, apparatus and other means of construction and to furnish all the labor, supervision, materials, permits and other requisites not expressly stated, necessary to complete the contract in the manner and time therein prescribed and according to the requirements of the plans and specifications; and that he will take in full payment thereof the following sums to with:

Contract award will be based on Year 1 bid total. Contract will be for one (1) year from date of contract, with an option to renew annually for up to one (1) additional year at the mutual agreement between the Town of Arlington and the successful bidder.



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QUANTITY SHEET: Year 1

Item	Estimate Quantity	Unit	Description	Unit Price	Proposal Amount
1	15,000	SY	Bonded Wearing Course	\$ / SY	\$
2	40,000	SY	Asphalt-Rubber Surface Treatment	\$ / SY	\$
3	15,000	SY	Fog Seal with Cover Aggregate	\$ / SY	\$
4	750	Ton	HMA for Leveling	\$ TON	/ \$
5	200	SY	Cut & Patch Pavement	\$ / SY	\$
6	100	EA	Adjustment of Drainage/Sanitary Structures	\$ / EA	\$
7	75	EA	Adjustment of Water/Gas Gate Boxes	\$ / EA	\$
8	25	EA	Adjustment of Water/Gas Gate Boxes with Risers	\$ / EA	\$
9	12	VF	Rebuild or Repair of Drainage/Sanitary Structures	\$ / VF	\$
10	5,000	SF	Pavement Marking Removal	\$ / SF	\$
Total:					\$



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QUANTITY SHEET: Year 2

Item	Estimate Quantity	Unit	Description	Unit Price	Proposal Amount
1	15,000	SY	Bonded Wearing Course	\$_____ / SY	\$_____
2	40,000	SY	Asphalt-Rubber Surface Treatment	\$_____ / SY	\$_____
3	15,000	SY	Fog Seal with Cover Aggregate	\$_____ / SY	\$_____
4	750	Ton	HMA for Leveling	\$_____ / TON	\$_____
5	200	SY	Cut & Patch Pavement	\$_____ / SY	\$_____
6	100	EA	Adjustment of Drainage/Sanitary Structures	\$_____ / EA	\$_____
7	75	EA	Adjustment of Water/Gas Gate Boxes	\$_____ / EA	\$_____
8	25	EA	Adjustment of Water/Gas Gate Boxes with Risers	\$_____ / EA	\$_____
9	12	VF	Rebuild or Repair of Drainage/Sanitary Structures	\$_____ / VF	\$_____
10	5,000	SF	Pavement Marking Removal	\$_____ / SF	\$_____
Total:					\$_____



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The above estimated quantities are an approximate statement of the extent of the work to be done; the Town does not expressly or by implication agree that the actual amount of work will correspond therewith but reserves the right to increase or decrease the amount of any class or portion of the work or to delete certain items of work, as may be deemed necessary, to keep within available funds.

The undersigned as bidder, agrees that for extra work, if any, he will accept compensation as stipulated in the annexed form of CONTRACT.

If this proposal shall be accepted by the Town, and the undersigned shall fail to execute the contract for the work and deliver same to the Town, together with the duly executed Performance Bond and Labor and Material Payment Bond, with sureties satisfactory to the Town, within ten (10) days from the date of mailing of a notice from the Town to him at the address herein given that the proposed contract is ready for execution, then the Town at its option may determine that the undersigned has abandoned the said contract and thereupon if it so determines, the bid security accompanying this proposal shall become the property of the Town as liquidated damages; otherwise the accompanying security shall be returned to the undersigned.

All bidders will be required to show that they have previously completed projects of the same type in a satisfactory manner, namely, the removal of existing water mains and the installation of new water mains in residential and/or otherwise confined areas congested with numerous structures, conduits, high voltage-oil filled Edison pipe lines, public and private utility lines, manholes, etc. where careful and time consuming excavation and backfilling is required to protect existing lines and structures.

The bidder awarded this contract will have to show that they have successfully completed at least five (5) contracts of similar work in the \$300,000 (dollar) range within the last 5 years.

In addition, if the successful bidder contemplates using sub-contractors, said sub-contractor will be held to the same standards as noted above.

Before starting work, the contractors (includes the general contractor, for itself and its subcontractors, as well as all filed sub-bid contractors) will submit plans for achievement of the equal opportunity goals of the contract. All contractors will be required to make a good faith effort to achieve these goals. The plan will indicate if the contractors expect to achieve the requirements during the first quarter. If there are any reasons why the contractors do not expect to achieve the requirements during the first quarter year of the contract construction phase, then the contractors shall provide a plan calculated to address, to the extent reasonably possible, these obstacles to a good faith effort to achieve such goals.

Not more than ten days following the end of each work quarter, the contractors will report on the achievement of the goals, the detailing the good faith efforts that have been made and will continue to be made and any other appropriate efforts not yet undertaken.

All reports will be signed by an officer or principal of the company who has the authority to contractually obligate the company.

The contractor shall maintain as a goal on this project a not less than five percent ratio of women work force to total project hours in both the general contract and each individual filed sub-bid contract.

A Labor Scheduling Table which will be used as a tool for achieving a range of women work force participation for the entire project in both the general contract and each individual filed sub-bid contractor.

The bidder is required to furnish a financial statement and give references that will enable the Town to judge his business standing.



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CERTIFICATION OF TAX COMPLIANCE

Pursuant to MGL c. 62C, § 49A and requirements of the Town of Arlington, the undersigned acting on behalf of the Contractor certifies under the penalties of perjury that the Contractor is in compliance with all laws of the Commonwealth relating to taxes including payment of all local taxes, fees, assessments, betterments and any other local or municipal charges (unless the Contractor has a pending abatement application or has entered into a payment agreement with the entity to which such charges were owed), reporting of employees and contractors, and withholding and remitting child support.*

**Signature of Individual or Corporate Contractor

Printed Name

***Contractor's Social Security Number or
Federal Identification Number

Date

* The provision in this Certification relating to child support applies only when the Contractor is an individual.

** Approval of a contract or other agreement will not be granted until the City receives a signed copy of this Certification.

*** Your social security number may be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended.



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CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word “person” shall mean any natural person, business, partnership, corporation, union, committee club, or other organization, entity, or group or individuals.

 Signature of Individual submitting bid or proposal

 Name of Individual submitting bid or proposal

 Name of Business/Corporation

 Date

Pursuant to M.G.L. Chapter 62C, Section 49A, I certify under the penalties of perjury that I have complied with all laws of the commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

 Social Security Number or
 Federal Identification Number

 Signature of Individual or Responsible
 Corporate Officer and Title

NON-COLLUSION FORMS
MUST BE SIGNED AND SUBMITTED
WITH BID



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CERTIFICATE OF VOTE

I, _____, Clerk of _____,
(Name) (Corporation)
 hereby certify that, at a meeting of the Board of directors of said Corporation duly held on _____ at which a quorum was present and voting throughout, the following
(Date)
 vote was duly passed is now in full force and effect:

“VOTED” That _____ be and hereby is authorized,
(Name of Officer authorized to sign for corporation)
 directed and empowered for, in the name and on behalf of this Corporation, to sign, seal with the corporate seal, execute, acknowledge and deliver all contracts, bonds and other obligations of this Corporation; by such _____ to be valid and binding upon this Corporation
(Name of Officer)

for all purposes, and that a certificate of the Clerk of this Corporation setting forth this vote shall be delivered to the Town of Arlington; and that this vote shall remain in full force and effect unless and until the same has been altered, amended or revoked by a subsequent vote of such directors and a certificate of such later vote attested by the Clerk of this Corporation is delivered to the Town of Arlington.

I further certify that _____ is the duly elected _____ of said Corporation.
(Name of Officer) (Title)

Signed: _____
(Clerk - Secretary)

Place of Business: _____

Date of Contract: _____

Countersignature: _____
(Name & Title of Officer)



In the event that the Clerk or Secretary is the same person as the Officer authorized to sign that contract or other instrument for the Corporation, this certificate must be countersigned by another officer of the Corporation.



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PERFORMANCE BOND

KNOW BY ALL MEN BY THESE PRESENTS, that _____
as principal, and as surety, are held and firmly bound unto the Town of Arlington, Massachusetts in the sum of
lawful money of the United States of America, to be paid to the Town of Arlington, Massachusetts, 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 contract with the Town of Arlington, acting through its Town Manager bearing
the date of _____. Now the condition of this obligation is such that if the principal shall
well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of said contract on its
part to be kept and performed during the original term of said contract and any extensions thereof that may be granted by
the Owner, with or without notice to the surety, and during the life of 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 obligation 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 Owner, under the provisions of "Item
28 – Completion of Work if Contract is not Fulfilled" in SECTION IV - CONTRACT, said surety hereby further agrees
that said surety shall, if requested in writing by Owner, complete said contract.

IN WITNESS WHEREOF we hereunto set our hands and seals this _____ day of _____
2016.

	SEAL
	SEAL
	PRINCIPAL
	SEAL
	SURETY



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LABOR & MATERIALS BOND

KNOW BY ALL MEN BY THESE PRESENTS, that _____
as principals, and _____ as surety are held and firmly bound unto the
Town of Arlington, in the sum of _____ lawful money of the United
States of America, to be paid to the Town of Arlington, 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 contract with the Town of Arlington bearing the date of
_____, for Installation of an Ultra-Thin Bonded Wearing Course and
Rubber Chip Seal Surface Treatment in the Town of Arlington.

Now the condition of this obligation is such that if the principal shall 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, the provisions of Massachusetts General Laws (Ter. Ed.), Chapter 30, Section 39A
as amended 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 hereunto set our hands and seals this _____ day of _____
2016.

SEAL
SEAL
PRINCIPAL
SEAL
SURETY



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IV. CONTRACT

1. Definitions

Wherever the word "Town", "Contractor", or "Engineer" or pronouns used in place of them occur in this contract, they shall have the following meanings:

1. The word "Town" shall mean the party of the first part above designated, or any board, office, or agent duly authorized to act for said party of the first part in the matter covered by this contract.
2. The word "Contractor" shall mean the party of the second part above designated entering into this contract for the performance of the work required, the legal representative of said party, or the agent appointed to act for said party in performance of the work.
3. The word "Engineer" shall mean the Town Engineer of the Town of Arlington, acting directly or through an authorized representative acting within the scope of the particular duties entrusted to him.

2. Parts of Contract

It is agreed that the Information for Bidders, the Proposal submitted by the Contractor, the General Conditions, the Special Provisions, the Specifications, the Contract Drawings/Plans, and all Addenda are made parts of this contract.

The table of contents, titles, indexes, and headings contained herein and in said documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light on the interpretation of the provisions to which they refer.

3. Obligations of the Contractor

The contractor shall do all the work and furnish all services, tools, equipment, appliances, plant and labor necessary and furnish all materials except as may be otherwise specified herein, necessary or proper for performing and completing the work required by this Contract, with appurtenances of every kind complete in the manner and within the time specified.

All work to be performed and materials to be furnished under this contract shall be performed, furnished and completed pursuant to and strictly in conformance with the contract drawings, sometimes referred to herein as the "plans", the attached specifications, and the directions of the Engineer as given from time to time during the progress of the work. The Contractor shall complete the entire work in accordance with the specifications and drawings herein mentioned and at the prices herein agreed upon and therefore fixed.

4. Liability of the Contractor

The Contractor shall take all responsibility for the work done under this contract, for the protection of the work, and for preventing injuries to persons and damage to property and utilities on or about the work. He shall in no way be relieved of his responsibility by any right of the Engineer to give permission or directions relating to any part of the work, by any such permission or directions given, or by failure of the Engineer to give such permission or direction.

The Contractor shall bear all losses resulting to him or the Town on account of the quantity or character of the work, because the nature of the land in or on which the work is done is different from what was estimated or expected, or on account of the weather, elements, or other causes.



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The Contractor shall assumed the defense of all claims of whatsoever character against the Contractor or the Town and indemnify and save harmless the Town, its officers, or agents against all claims for injury or damage to persons, corporations, or property arising out of the work done under this contract whether said claims arise out of negligence or not, or whether said claims are groundless, false, or fraudulent or not, and from all claims relating to labor and materials furnished for the work.

The Contractor shall conduct his operations so as not to damage existing structures or work installed either by him or by other contractors. In case of any such damage resulting from his operations, he shall repair and make good as new the damaged portions at his own expense with the consent of the damaged party. In the event that consent is not given, the Contractor shall not be relieved thereby of liability for the damage caused.

5. Authority of the Engineer

The Engineer shall have the authority to stop the work whenever such stoppage may be necessary in his opinion to prevent improper execution of the work.

The sequence of execution of the work and the general conduct of the work shall be subject to the approval of the Engineer who shall have authority to direct changes be made in such sequence where public necessity or welfare shall require, which approval or direction shall, however, in no way affect the responsibility of the Contractor in the conduct of the work.

Whenever the Contractor is not present on any part of the work where it may be necessary to give directions, such directions may be given by the Engineer and shall be received and obeyed by the superintendent or foreman who may have charge of the particular work involved.

6. Engineer to Decide

The Engineer shall make all necessary interpretations as to the meaning and intention of the Contract Drawings, Specifications, and other parts of this Contract. He shall give all orders and directions contemplated therein or thereby, and in every case in which a difficult or unforeseen condition shall arise in the performance of the work required by this contract.

The Engineer shall in all cases determine the amount, quality, acceptability and fitness of the several kinds of work and materials which are to be paid under this contract, and shall decide all questions which may arise as to the fulfillment of this contract. In the event that a determination or decision of the Engineer is questioned by the Contractor, the decision of the Engineer shall be a condition precedent to the Contractor's right to receive any money for the work or materials to which the question or difference in opinion relates.

7. Time for Commencing Work

The Contractor shall commence the work within sixty (60) calendar days after signing the contract, or as directed by the Town.

Such time of starting may be postponed by written agreement between the Town and the Contractor because of expected delays in receipt of materials and equipment, if the season is unsuitable for commencement of the work, or because of any other contingency clearly beyond the control or responsibility of the Contractor. Unless stipulated otherwise in said agreement, the Contractor shall commence work at such points as the Engineer may direct or approve within thirty (30) calendar days after the receipt of a written order from the Town to start work.



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8. No Damages for Certain Delays

The Town may delay the commencement of the work, or any part thereof, for the reason that it has not acquired the necessary land or rights of way, or for any other reason. The Contractor shall have no claim for damages on account of such delay, or on account of any delay on the part of the Town in performing any work or furnishing any materials to the Contractor, or due to extra work required, but he shall be entitled to so much additional time in which to complete the whole or any portion of the work required under this contract. The Contractor shall have no claim for damages on account of any delay on the part of another contractor, but shall have such additional time in which to complete the work.

9. Time for Completion

The rate of progress shall be such that the whole work shall be performed in accordance with the terms of this contract before the expiration of the time limit stipulated under special conditions, unless and except as any part may be delayed under the provisions of this contract.

It is agreed that the rate of progress herein required has been purposely made long enough to allow for the ordinary delays incident to construction work of this character. No extension of time will be made for ordinary delays, inclement weather, and accidents, and the occurrence of such will not relieve the Contractor from the necessity of maintaining this rate of progress.

If delays are caused by acts of God, acts of Government or State, strikes, extra work, or other contingencies clearly beyond the control or responsibility of the Contractor, the Contractor shall be entitled to so much additional time where in to perform and complete this contract on his part as the Engineer shall certify in writing to be just.*

*This paragraph will be interpreted to include delays in receipt of equipment provided that the Contractor placed his order and submitted shop drawings for such equipment promptly after execution of the contract, that he has shown diligence in following the progress of the order, and that the time required for delivery is in accordance with conditions generally prevailing in the industry.

The time in which this contract is to be performed and completed is of the essence of this agreement.

10. Competent Men to be Employed

The Contractor shall have as his agent on the work a competent superintendent capable of reading and thoroughly understanding the drawings and specifications. The superintendent on the work shall have full authority to execute the directions of the Engineer without delay and supply promptly such materials, equipment, tools, labor, and incidentals as may be required.

The Contractor shall employ only competent men to do the work, and whenever the Engineer shall notify the Contractor in writing that any man on the work is, in his opinion, incompetent, unfaithful, disorderly or otherwise unsatisfactory, such man shall be discharged from the work and shall not again be employed on it except with the consent of the Engineer.

11. Access to Work

The Town, its agents and employees may at all times enter upon the work or premises used by the Contractor, and the Contractor shall provide safe and proper facilities for such entrance and for the inspection of materials, equipment and workmanship.



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Other contractors of the Town may also, for the purpose which may be required by their contracts or work, enter upon the work and premises used by the Contractor. Any differences or conflicts which may arise between the Contractor and other contractors of the Town in regard to their work shall be determined and adjusted by the Engineer.

12. Defective Work, Materials or Equipment

The inspection of the work shall not relieve the Contractor or any of his obligations to fulfill his contract as herein prescribed, and defective work shall be made good and unsuitable materials or equipment shall be rejected, notwithstanding that such work, and materials or equipment have been previously overlooked by the Engineer and accepted or estimated for payment or paid for. If the work or any part thereof shall be found defective at any time before the final acceptance of the whole work, or the final payment therefore, the Contractor shall forthwith make good such defect, in a manner satisfactory to the Engineer; if any material or equipment brought upon the ground for use in the work, or selected for the same, shall be condemned by the Engineer as unsuitable or not in conformity with the specifications, the Contractor shall forthwith remove such materials or equipment from the vicinity of the work, and any material furnished by the Town which shall be damaged or rendered defective by the handling or improper installation by the Contractor, his agents, or employees shall be made good and replaced at the Contractor's own expense.

13. Mistakes of Contractor

The Contractor shall make good any defects, omissions, or mistakes for which he or his employees are responsible, or he shall pay to the Town all expenses, losses, and damages incurred therefrom as determined by the Engineer.

14. Discrepancies, Errors and Omissions

The drawings and specifications are intended to be explanatory of each other, but, should any discrepancy appear or any misunderstanding arise as to the import of anything contained in either, the interpretation and decision of the Engineer shall be final and binding on both parties to this contract.

Any correction of errors or omissions in drawings and specifications may be made by the Engineer when such correction is necessary for the proper fulfillment of their intention as construed by him. Where said correction of errors or omissions, except as provided in the next two paragraphs below, adds to the amount of work to be done by the Contractor, compensation for said additional work shall be made under the item for Extra Work except, where the additional work may be classed under some item of work for which a unit price is included in the PROPOSAL.

The fact that specific mention of a fixture or of any part of the work is omitted in the specifications, whether intentionally or otherwise, when the same is clearly indicated on the drawings, or is usually and customarily required to complete fully such work as is specified herein, will not entitle the Contractor to consideration in the matter of any claim for extra compensation, but the said fixtures or work or both shall be installed or done the same as if called for both by the drawings and by the specifications.

All work mentioned in the specifications and not indicated on the drawings, or vice versa, and all work and material usual and necessary to make the work complete in all its parts, whether or not they are mentioned in the specifications, or indicated on the drawings, shall be furnished and executed the same as if they were called for both by the specifications and by the drawings.



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15. Right to Materials

All materials shall become the property of the Town after they have been affixed or attached to the soil or to the work, and nothing in this contract shall be construed as vesting in the Contractor any right or property in the materials after their being so affixed or attached.

16. Compliance with Laws, Ordinances, and Regulations

The Contractor shall keep himself 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, the materials used in the work, or the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the plans, drawings, specifications, or contract for this work, in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same to the Engineer in writing. He shall at all times himself observe and comply with, and cause all his agents and employees to observe and comply with, all such existing and future laws, ordinances, regulations, orders and decrees; and he shall protect and indemnify the Town, its officers, and agents against any claim or liability arising from or based upon violation of any such law, ordinance, regulation, order, or decree, whether by himself or his employees.

17. Provisions Required by Law Deemed Inserted

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

18. Night and Sunday Work

No work shall be done at night or on Sunday except:

- 1) Usual protective work, such as pumping and the tending of lights and fires;
- 2) Work done in case of emergency threatening injury to persons or property;
- 3) If all of the conditions set forth in the next paragraph below are met.

No work other than that included in 1 and 2, above, shall be done at night except when:

- a) In the opinion of the Engineer, the work will be of advantage to the Town and can be performed satisfactorily at night;
- b) The work shall be done by a crew organized for regular and continuous night work;
- c) The Engineer has given written permission for such night work.

19. Intoxicating Liquors

The contractor shall not sell and shall neither permit nor suffer the sale, the introduction or use of intoxicating liquors upon or about the work under this contract.



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20. Permits and Notices

The Contractor shall, at his own expense, take out all necessary permits from the county, municipal, or other public authorities; shall give all notices required by law or ordinances; and shall post all bonds and pay all fees and charges incident to the due and lawful prosecution of the work covered by this contract.

21. Patents

The Contractor shall indemnify and save harmless the Town and all persons acting for or on behalf of the Town from all claims and liability of any nature or kind, including costs and expenses, arising from or occasioned by any infringement or alleged infringement of patent rights on any invention process, article, or apparatus, or any part thereof, furnished and installed by said Contractor or arising from or occasioned by the use of manufacture thereof, including their use by the Town.

22. Insurance

The Contractor shall not commence work under this contract until he has obtained all the insurance required under this paragraph and such insurance has been approved by the Town, nor shall the Contractor allow any subcontractor to comment work on his subcontract until the insurance required of the subcontractor has been so obtained and approved.

- A. Compensation Insurance: The Contractor shall procure and shall maintain during the life of this contract Workmen's Compensation Insurance as required by applicable State or territorial law for all of his employees to be engaged in work at the site of the project under this contract and, in case of any such work sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the Contractor's Workmen's Compensation Insurance. In case any class of employees engage in hazardous work on the project under this contract is not protected under the Workmen's Compensation Statue, the Contractor shall provide adequate employer's liability insurance for the protection of such of his employees as are not otherwise protected.
- B. Contractor's Public Liability and Property Damage Insurance: The Contractor shall maintain during the life of this contract Contractor's Public Liability Insurance and Contractor's Property Damage Insurance to the limits specified under SPECIAL CONDITIONS.
- C. Subcontractor's Public Liability and Property Damage Insurance: The Contractor shall either (1) require each of his subcontractors to procure and to maintain during the life of his sub-contract, Subcontractor's Public Liability and Property Damage Insurance of the type and to the limits specified under SPECIAL CONDITIONS or, (2) insure the activities of his subcontractors in his policy, specified in subparagraph (b) hereof.
- D. Scope of Insurance: The insurance required under sub-paragraphs (b) and (c) hereof shall provide adequate protection for the Contractor and his subcontractors, respectively, against damage claims which may arise from operations under this contract, whether such operations be by the insured or by anyone directly or indirectly employed by him.
- E. Proof of Carriage of Insurance: The Contractor shall furnish the Town with certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of policies. Such certificates shall



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also contain substantially the following statement: “The insurance covered by this certificate will not be cancelled or materially altered, except after fifteen (15) days written notice has been received by the Town.” If the initial insurance expires prior to completion of the work, renewal certificates shall be furnished by the date of expiration.

23. Work Not to be Sublet or Assigned

The Contractor shall not give his personal attention constantly to the faithful prosecution of the work, shall keep the same under his personal control, and shall not assign by power of attorney or otherwise, or sublet, the work or any part thereof without the previous written consent of the Town, and shall not, either legally or equitably, assign any of the moneys payable under this agreement, or his claim thereto, unless by and with the like consent of the Town and the Surety on the Bonds.

24. Alterations

The Engineer may be written order, and not otherwise, make alterations in the line, grade, plan, form, dimension or materials of the work, or any part thereof, either before or after the commencement of construction. If such alterations make the work less expensive to the Contractor, a proper deduction shall be made from the contract price, said deduction to be computed on the same basis as that specified under Extra Work for determining the value of approved extra work, unless there be applicable unit prices established by this contract, in which event the unit prices shall prevail.

The Contractor shall have no claims for damages or for anticipated profits on the work that thus may be dispensed with. (If such alterations make the work more expensive, a proper addition computed in the aforementioned manner shall be made to the contract price. Any such deduction or addition shall be determined by the Engineer.)

25. Extra Work

The Contractor shall do any work not herein otherwise provided for, when and as ordered in writing by the Town or his agents specially authorized thereto in writing, and shall, when requested by the Town so to do, furnish itemized statements of the cost of the work ordered and give the Town access to accounts, bills and vouchers relating thereto.

If the Contractor claims compensation for extra work not ordered as aforesaid, or for any damage sustained, he shall within one week after the beginning of any such work or of the sustaining of any such damage, make a written statement of the nature of the work performed or damage sustained, to the Town and shall on or before the fifteenth day of the month succeeding that in which any such extra work shall have been done or any such damage shall have been sustained, file with the Town an itemized statement of the details and amount of such work or damage: and unless such statements shall be made as so required, his claim for compensation shall be void, and he shall not be entitled to payment on account of any such work or damage. The Contractor shall not include in the cost of extra work any cost or rental of small tools, buildings, or any portion of the time of the Contractor, his superintendent, or his office and engineering staff.

In the alternative, the extra work order may provide that the Contractor shall receive an amount equal to the actual cost of such extra work computed on the basis of the foregoing sub-sections (a) through (g) but limited by a predetermined lump sum maximum amount.



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The determination of the Town shall be final upon all questions of the amount and value of extra work, provided that such extra work has been performed under a work order approved in writing by the Town as required by the terms of this contract.

The Town shall pay and the Contractor shall receive for everything furnished and done by the Contractor to the satisfaction of the Town under an approved extra work order a predetermined lump sum amount computed on the basis of the following:

- A. the actual cost of labor employed directly on the work at prevailing rates of wages.
- B. the cost of the amounts of additional premium paid on the required insurance on account of such extra work, of Social Security or other direct assessments upon the Contractor's payroll by Federal or other properly authorized public agencies, and of other approved assessments when such assessments are not normally included in payments made by the Contractor directly to his employees, but are recognized to be part of the cost of doing work.
- C. the reasonable cost of materials incorporated in the work.
- D. the reasonable cost at fair market rental rates for equipment employed directly on the work.
- E. 15% of (a) (b) (c) and (d) for overhead and profit. (On subcontract work, this 15% will be allowed only to the subcontractor).
- F. an additional 5% of (a) (b) (c) (d) and (e) on work performed by a subcontractor of the Contractor.

26. Extension of Time on Account of Extra Work

When extra work is ordered near the completion of the contract or when extra work is ordered at any time during the progress of the work which requires in the opinion of the Engineer an unavoidable increase of time for the completion of the contract, a suitable extension of the time for completion shall be made.

27. Changes Not to Affect Bonds

It is agreed and understood that any changes made in the drawings and specifications for this work (whether such changes increase or decrease the amount thereof) or any change in the manner or time of payments made by the Town to the Contractor shall in no way annul, release, or affect the liability and surety on the bonds given by the Contractor.

28. Completion of Work if Contract is Not Fulfilled

If the Contractor shall be adjudged bankrupt, or if he shall make a general assignment for the benefit of his creditors, or if a receiver shall be appointed of his property, or if the work to be done under this contract shall be abandoned, or if this contract or any part thereof shall be sublet without the previous written consent of the Town, or if the contract or any claim thereunder shall be assigned by the Contractor otherwise than as herein specified, or if at any time the Engineer shall be of the opinion, and shall so certify in writing to the Town that the conditions herein specified as to the rate of progress are not fulfilled, or that the work, or any part thereof, is unnecessarily or unreasonably delayed, or that the Contractor has violated any of the provisions of this contract, the Town may terminate to contract and hold the Contractor and his sureties liable in damages as for a breach of contract by an abandonment thereof by him, or the Town may notify the Contractor to discontinue all work, or any part thereof; and thereupon the Contractor shall discontinue all work, or any part thereof, as the Town may designate and the Town may thereupon, by contract or otherwise, as it may determine, complete the work, or such part thereof, and



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charge the entire expense for so completing the work, or part thereof, to the Contractor: and for such completion the Town, for itself or its contractors, may take possession of and use or cause to be used in the completion of the work or part thereof any of such materials, machinery, implements and tools of every description as may be found upon the line of said work. The Town may, at its option, require the surety or sureties to complete the contract. The Town shall not be liable for any depreciation, loss or damage to said materials, machinery, implements or tools during said use, nor until such as are not incorporated in the work are removed by the Contractor after completion of the work. Unless so removed within fifteen days after mailing of notice so to do, they may be sold at public auction, after publication of notice thereof at least twice in any newspaper published in the county where the work is being performed, and the proceeds credited to the Contractor's account; or they may, at the option of the Town, be stored at the Contractor's expense subject to a lien for the storage charges.

If the Engineer shall certify as aforesaid as to the rate of progress, the Town may, instead of notifying the Contractors to discontinue all work or any part thereof, notify him from time to time to increase the work force, equipment and plant, or any of them, employed on the whole or any part of the work, stating the amount of increase required; and unless he shall, within five days after any such notice, increase his force, equipment and plant to the extent required therein, and maintain and employ the same from day to day until the condition as to the rate of progress shall, in the opinion of the Engineer, be fulfilled, the Town may employ and direct the labors of such additional force, equipment and plant as may, in the opinion of the Engineer, be necessary to insure the completion of the work or such part thereof within the time herein specified, or at the earliest possible date thereafter, and charge the expense thereof to the Contractor. Neither the notice from the Town to the Contractor to increase his force, equipment or plant, nor the employment of additional force, equipment or plant by the Town shall be held to prevent a subsequent notice from the Town to him to discontinue work under the provisions of the preceding portion of this section.

All expenses charged under this section shall be deducted and paid by the Town out of any moneys then due or to become due the Contractor under this contract, or any part thereof; and in such accounting the Town shall not be held to obtain the lowest figures for the work of completing the contract or any part thereof, or for ensuring its proper completion, or for the additional force, equipment or plant that may be employed, but all sums actually paid therefore shall be charged to the Contractor. In case the expenses so charged exceed the sum that would have been payable under this contract if the same had been completed by the Contractor, the Contractor shall pay the amount of the excess to the Town, upon completion of the work, without further demand being made therefore.

29. Compensation for Work

The Town shall pay, and the Contractor shall receive, the prices stipulated in the Proposal attached hereto as full compensation for everything furnished and done by the Contractor under this contract, including all work required but not specifically mentioned, and also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen obstruction or difficulty encountered in the prosecution of the work, and for all risks of every description connected with the work, and for all expenses incurred by or in consequence of the suspension or discontinuance of the work as herein specified and for well and faithfully completing the work, and the whole thereof, as herein provided.

30. Money may be Retained

The Town may keep any money which would otherwise be payable at any time hereunder; may apply the same or so much as may be necessary therefore to the payment of any expenses, losses, or damages incurred by the Town



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and determined as herein provided; and may retain, until all claims are settled, so much of such money as the Town is of the opinion will be required to settle all claims filed with the Town, its officers, and agent relating to this contract.

31. Estimates and Payments

The Engineer shall, on or about the first day of each month, except as hereinafter provided, make an estimate in writing of the total amount and value of the work done to the first of the month by the Contractor. The Town shall retain a percentage of such estimated value, as set forth under SPECIAL CONDITIONS, as part security for fulfillment of this contract by the Contractor and shall deduct from the balance all previous payments and all sums to be retained under the provisions of this contract. The Town shall pay monthly to the Contractor the balance not retained as aforesaid, except that payment may be withheld at any time if the work is not proceeding in accordance with the contract. The Town may cause estimates and payments to be made more frequently than once in each month.

Estimates of lump-sum items shall be based on a schedule dividing each item into its appropriate component parts together with a quantity and a unit price for each part such that the sum of the products or prices and quantities will equal the contract price for the item. This schedule shall be submitted by the Contractor for the approval of the Engineer before the first estimate becomes due.

If the Engineer determines that the progress of the work will be benefited by the delivery to the site of certain materials and equipment, when available, in advance of actual requirement therefore and if such materials and equipment are delivered and properly stored and protected, the cost to the Contractor or subcontractor as established by invoices or other suitable vouchers may be included in the estimates.

The Engineer shall, as soon as practicable (but not more than 65 days) after the completion of the work under this contract, make a final estimate in writing of the quantity of work done under the contract and the amount earned by the Contractor. The Engineer also shall fix the date of completion of said work and incorporate the same into final estimate.

The Town shall pay to the Contractor the entire sum found to be due hereunder after deducting therefrom all previous payments, all amounts to be kept, and all amount to be retained under the provisions of this contract. Such payment shall be made not later than 15 days after, but in no event before the expiration of the time within which claims for labor performed and materials used or employed must be entered under the Lien Law, or, if such time is not specified by law, the expiration of 30 days after the completion of the final estimate.

All quantities shown on progress estimates and all prior payments shall be subject to correction in the final estimate and payment.

32. Partial Payment Not Acceptance

It is agreed that this is an entire contract for one whole and complete work and that no partial payments on account by the Town nor the use of parts of the proposed equipment shall constitute an acceptance of any part of the work before its entire completion and final acceptance.

33. Liens

If at any time before the expiration of the period within which claims must be entered under the Lien Law, or if not otherwise specified by law, within 30 days after the whole work herein agreed to be delivered have been performed, delivered, or completed and accepted by the Town, any person or persons claiming to have performed



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any labor or furnished any materials toward the performance or completion of this contract shall file with the Town suitable notice, the Town shall retain, until the discharge thereof, from the moneys under its control so much of such money as sufficient to satisfy and discharge the amount claimed to be due in such notice, together with the cost of any action or actions brought to enforce such lien created by the filing of such notice.

34. Waiver

Neither the inspection by the Engineer, nor any act of thing done by the Town or its agents other than an express waiver by vote of the Town shall operate as a waiver of any provision of this contract; nor shall any waiver of any breach of this contract be held to be a waiver of any other subsequent breach. Any remedy provided in this contract shall be taken and construed as cumulative; that is in addition to each and every other remedy herein provided.

35. Liability of the Town of Arlington

No person, firm, or corporation, other than the signer of this contract as Contractor, now have any interest hereunder; no claim shall be made or be valid; and neither the Town nor any agent of the Town shall be liable for or be held to pay any money, except as herein provided. The acceptance by the Contractor of the payment of the final estimate shall operate as and shall be a release to the Town and every agent of the Town from all claim and liability to the Contractor for anything done or furnished for or relating to the work or for any act or neglect of the Town or of any person relating to or affecting the work, except the claim against the Town for the remainder, if there is any, of the amounts kept or retained as herein provided.

36. Guarantee

The Contractor guarantees that the work to be done under this contract, and the workmanship performed and the materials and equipment used in the construction of the same, shall be free from defects or flaws, that each item of equipment shall be in accordance with the specifications, that the strength of all parts of all manufactured equipment shall be adequate and that the performance test requirements of the specifications shall be fulfilled. This guarantee shall be for a period of one year from and after the date of completion of the work as stated in the final estimate. The Contractor shall repair or replace as required, promptly and without charge, all work, equipment, and material, or parts thereof, which fail to meet the above guarantee during one year herein quoted.

It is hereby, however, agreed and understood that this guarantee shall not include any repairs or replacements made necessary by any cause or causes other than improper, inadequate, or defective work, workmanship, materials, or design by the Contractor or those employed directly or indirectly by him.

37. Money Retained for Repairs

The Town may retain out of the monies payable to the Contractor under the contract a sum as set for under SPECIAL CONDITIONS and may expend the same, in the manner hereinafter provided, in making such repairs or replacements of said work as the Town may deem expedient.

If at any time within the said period of guarantee any part of the work constructed under the terms of this contract requires repairing or replacement, the Town may notify the Contractor in writing to make the required repairs or replacements. If the Contractor neglects to make such repairs or replacements to the satisfaction of the Town within ten (10) days from the date of receipt of such notice, the Town may employ other persons to make the same. The Town shall pay the expense of the same out of the sum retained for that purpose. Upon expiration of the said period of guarantee, provided that the work at the time is in good order, the Contractor will be entitled to



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receive the whole or such part of the sum last aforesaid as may remain after the expense of making said repairs or replacements, in the manner aforesaid, has been paid therefrom.

It is agreed that the Town may keep the whole or any portion of the sum retained for settlement of all claims arising out of this contract against the Town, its officers, or agents and for all expenses, losses, or damages incurred by the Town by reason of said claims.

38. Address of Contractor

The Contractor's business address and his office at or near the site of the work are both hereby designated as places to which communications shall be delivered. The depositing of any letter, notice, or other communication in a postpaid wrapper directed to the Contractor's business address in a post office box regularly maintained by the Post Office Department or the delivery at either designated address of any letter, notice, or other communication by mail or otherwise shall be deemed sufficient service thereof upon the Contractor. The first-named address may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor and delivered to the Engineer. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or other communication upon the Contractor personally.



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V. GENERAL CONDITIONS

1. Definitions

The words “directed”, “required”, “permitted”, “ordered”, “designated”, “prescribed”, or words to like import shall mane the directions, requirement, permission, order, designation, prescription, etc. of the Engineer and similarly the words “approved”, “acceptable”, or “satisfactory”, or words of like import shall man approved by or acceptable or satisfactory to, the Engineer, subject in each case to the final determination of the Town unless otherwise expressly stated.

The word “rock” wherever used as the name of material excavated or to be excavated, shall man the sound bedrock, properly removed by blasting, wedging or barring, also such boulders exceeding three-quarters of a cubic yard in volume removed from the excavations, also any portions of existing masonry structures removed from the excavations. Sound bedrock shall not include any rock disintegrated or fractured, in the opinion of the Engineer, to such an extent as to be easily removable by pick and shovel. The word “boulders” as used above shall include loose, detached fragments or portions of ledge and only such fragments or portions as exceed the specified three-quarters of a cubic yard limit shall be included in the classification of “rock”.

The word “earth” wherever used as the name of an excavated material or material to be excavated, shall mean all kinds of material not defined as “rock” in the above paragraph.

2. Abbreviations

Wherever in the specifications, or on the drawings, any of the abbreviations which follow are used they shall have the following meaning:

AASHO	- American Association of State Highway Officials
ACI	- American Concrete Institute
AIEE	- American Institute of Electrical Engineers
AISC	- American Institute of Steel Construction
ASA	- American Standards Association
ASCE	- American Society of Civil Engineers
ASH&AE	- American Society of Heating and Air Conditioning Engineers
ASME	- American Society of Mechanical Engineers
ASTM	- American Society for Testing Materials
AWWA	- American Water Works Association
NBS	- National Bureau of Standards
NEC	- National Electrical Code, latest edition
NEMA	- National Electrical Manufacturers Association

3. Handling Materials

The Contractor shall at his own expense handle, haul and distribute all materials and equipment used and employed on the different portions of the works as required. Storage charges and demurrage charges by vendors and transportation companies, which result from delays in handling, shall be borne by the Contractor.



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4. Storage Room

The Contractor shall provide suitable and adequate storage room for all materials during the progress of the work, and shall obtain the consent of the proper parties before entering or occupying with men, tools, or materials, any private land outside of the property or rights of way of the Town.

5. Shop Drawings, Schedules, and Descriptive Matter

The Contractor shall furnish, as hereinafter required, all specified shop and details drawings. All drawings required shall be submitted in triplicate to the Engineer for review and in quadruplicate after review.

The review by the Engineer of such drawings and details will be general and shall not relieve the Contractor of the responsibility for executing the entire work in accordance with the specifications and contract drawings. [Failure on the part of the Engineer to detect errors or omissions on shop drawings shall not relieve the Contractor from the responsibility for such errors or omissions.]

Should the contractor submit for review equipment that requires modifications to the structures, piping, layout, etc. detailed on the contract drawings, he shall also submit for review details of the proposed modifications. If such equipment and modifications are allowed, the Contractor, at not additional cost to the Town, shall do all work necessary to make such modifications.

The Contractor shall also furnish for the Engineer's review, all lists, schedules, and information regarding materials, fixtures and equipment as hereinafter required and specified.

All such lists, schedules, etc., shall be submitted to the Engineer for reviews within fifteen (15) days following execution of the contract. Following review by the Engineer of such materials, fixtures, and equipment, the Contractor shall promptly place orders for the equipment. Order shall be placed within seven (7) days following the Engineer's review and proof of such order shall be furnished to the Engineer.

6. Equivalents

Whenever the specifications define the material or article required by using the name of a proprietary product or of a manufacture or vendor rather than by using descriptive detail of substance and functions, the words "or equivalent" are to be understood to follow immediately the name of the maker, vendor or proprietary product. The words "or equivalent" shall be interpreted as including any material or article which, in the opinion of the Engineer, is equivalent in quality, durability, appearance, strength and design to the article named and which will perform adequately the functions imposed by the general design.

Whenever in the specifications the names of manufacturers are mentioned as indicating that their products will comply with a particular specification, or when specific trade names or plated numbers or letters are mentioned, it is not intended to exclude products of other manufacturers whose names, trade names or symbols have not been mentioned, provided however, that such products otherwise comply, in the opinion of the Engineer, with the specifications. The Engineer's opinion in all cases mentioned in this section shall be final.

7. Materials and Workmanship

All materials and equipment furnished under this contract shall be of standard high-grade quality and of the best workmanship and design. No inferior or low-grade materials will be accepted, and all work must be done in a neat, first-class and workmanlike manner.



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The Engineer shall have the right to test and inspect or require certificates of tests of any materials to be used in the work.

8. Inspection by the Engineer

All materials and equipment furnished and work done by the Contractor shall be subject to inspection by the Engineer, and defective materials shall be removed from the site of the work and defective work repaired or replaced as directed. Facilities for inspection of the work shall at all times be furnished by the Contractor.

9. Documents at Site of Work

The Contractor shall have available at all times, at the site of the work, copies of the contractor documents, any plans and all standard specifications of the various associations which are referred to in the specifications.

10. Lines and Grades

The Engineer shall establish such control stations, base lines and bench marks as may be necessary for the use of the Contractor. It shall be the specific duty of the Contractor to preserve and to protect the control base lines and bench marks so established.

During construction, the Contractor shall use the control stations, base lines and bench marks established by the Engineer to develop his own lines and grades as needed to comply with those specified or shown on the drawings. The Contractor shall be held responsible for all lines and grades which he has developed.

11. Scaffolding and Protection

The Contractor shall provide safe scaffolding to accommodate the work. He shall build all necessary runways, temporary stairs, ladders, barricades, fences, etc.

12. Public Safety and Property of Others

The Contractor shall make all necessary provisions to protect the public safety, and maintain and protect existing structures of whatever kind, and shall repair all damage done to such structures. He shall give ample notification to the proper officials of any city or town, of any public utility, corporation, or other individual before entering upon their respective public ways or rights of way and shall conform to the customary regulations and requirements of said officials, corporations, or individuals.

Extra precautions must be taken to avoid splattering adjoining property, automobiles, or structures. The Contractor shall be fully responsible for all damages to same.

13. Existing Structures, Pipes, Conduits, Etc

Any existing structures, pipes, conduits, wires, etc., shall be protected and if damaged shall be repaired by the Contractor without additional compensation.

14. Sanitary Provisions

The Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees as may be necessary to comply with the requirements of the State Department of Public Health, local health officials, or other authorities having jurisdiction.



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Every precaution shall be taken to prevent contamination or pollution of the ground at the site, or of any material or equipment which is to be incorporated in, or used in the construction of any work under this contract.

15. Cutting and Patching

The Contractor shall do all cutting, patching, drilling, grouting, etc., as necessary to complete the work, whether such work is described in the specifications or not.

16. Debris

Debris shall not be permitted to accumulate but shall be removed from the site of the work and disposed of by the Contractor.

17. Measurement of Quantities

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

For the purposes of measurement and computation of irregular volumes, the prismatic formula shall be deemed a method of precision.

18. Compliance with Occupational Safety and Health Act of 1970

The Contractor shall in the work of this contract comply with all pertinent standards and regulations established by the Occupational Safety and Health Administration, Department of Labor by the authority of the Williams-Steiger Occupational Safety and Health Act of 1970. This project is subject to all of the Safety and Health Regulations (see 29 CFR 1518) as promulgated by the U.S. Department of Labor on April 17, 1971. Contractors are urged to make themselves familiar with the requirements of these regulations.

19. Order of Precedence Governing Specifications

The Standard Specifications for Highways and Bridges of the Commonwealth of Massachusetts, 1973 Edition plus any supplements shall be considered a part of these specifications.

In case of conflict between any sections of these specifications, plans, etc., the following order of precedence shall govern.

1. Special Provisions
2. Plans, Profiles, or Sections
3. Standard Specifications for Construction work in Arlington
4. Standard Specifications, 1973 Edition plus Supplements, for Highways and Bridges of the Commonwealth of Massachusetts.

20. Affirmative Action/Anti-Discrimination

For the purposes of this contract, "minority" refers to Asian-American, Blacks, Spanish, Surnames Americans, North American Indians, and Cape Verdeans. Town refers to the Town of Arlington.

During the performance of this contracts, the Contractor and all of (his) Sub-contractors (hereinafter collectively referred to as the Contractor) for himself, his assignees, and successors in interest, agree as follows:



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1. In connection with the performance of work under this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age 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. The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Town setting forth the provisions of the Fair Employment Practices Law of the Commonwealth (M.G.L. Chapter 151B).
2. In connection with the performance of work under this contract, the Contractors, shall undertake in good faith affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age or sex, and to eliminate and remedy any effects of such discrimination in the past. Such affirmative action shall entail positive and aggressive measures to ensure equal opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, layoff or termination, rate of compensation, and in-service or apprenticeship training programs. This affirmative action shall include all action required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, age or sex. A purpose of this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesman for this and future Town public construction projects.
3. As part of his obligation of remedial action under the foregoing section, the Contractor shall maintain on this project a not less than five percent ration of minority employee man hours to total man hours in each job category including but not limited to bricklayers, carpenters, cement masons, electricians, ironworks, operation engineers and those "classes of work" enumerated in Section 44C of Chapter 149 of the Massachusetts General Laws.
4. In the hiring of minority journeyman, apprentices, trainees and advances trainees, the Contractor shall rely on referrals from a multi-employer affirmative action program approved by the Town, traditional referral methods utilized by the construction industry, and referrals from agencies, not more than three in number at any one time, designated by the Liaison Committee or the Town.
5. At the discretion of the Town there may be established for the life of this contract a body to be known as the Liaison Committee. The Liaison Committee shall be composed of one representative each from the agency or agencies administering this project, hereinafter called the administering agency, the Town and such other representative as may be designated by the Town in conjunction with the administering agency.
6. The Contractor (or his Agent, if any, designated by him as the on-site equal employment opportunity officer) shall recognize the Liaison Committee as an affirmative action body, and shall establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.
7. The Contractor shall prepare projected manning tables on a quarterly basis. These shall be broken down into projections, by week, or workers required in each trade. Copies shall be



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furnished one week in advance of the commencement of the period covered, and also when updated, to the Town or Liaison Committee.

8. Records of employment referral orders, prepared by the Contractor, shall be made available to the Town and to the Liaison Committee on request.
9. The Contractor shall prepare weekly reports in a form approved by Town of hours worked in each trade by each employee, identified as minority or non-minority. Copies of these shall be provided at the end of each such week to the Town and to the Liaison Committee.

If the Contractor shall use any sub-contractor on any work performed under this contract, he shall take affirmative action to negotiate with qualified minority sub-contractors. This affirmative action shall cover both pre-bid and post-bid periods. It shall include notification to the Office of Minority Business Assistance (within the Executive Office of Communities and Development) or its designee, while bids are in preparation, of all products, work or services for which the Contractor intends to negotiate bids.

In the employment of journeymen, apprentices, trainees and advanced trainees, the Contractor shall give preference, first, to citizens of the Commonwealth who have served in the armed forces of the United States in time of war and have been honorably discharged there from or released from active duty therein, and who are qualified to perform the work to which the employment relates, and, secondly, to citizens of the Commonwealth generally, and, if such cannot be obtained in sufficient numbers, then to citizens of the United States.

A designee of the Town and a designee of the Liaison Committee shall each have right of access to the construction site.

21. Compliance with Requirements

The Contractor shall comply with the provisions of Executive Order O, 74, as amended by Executive Order NO. 116 dated May 1, 1975, and of Chapter 151B as amended, of the Massachusetts General Laws, both of which are herein incorporated by reference and made a part of this contract.

22. Non-Discrimination

The Contractor, in the performance of all work after award, and prior to completion of the contract work, will not discriminate on grounds of race, color, religious creed, national origin, age or sex in employment practices, in the selection or retention of sub-contractors, or in the procurement of materials and rentals of equipment.

23. Solicitations for Sub-Contracts, and for the Procurement of Materials and Equipment

In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a sub-contract or for the procurement of materials or equipment, each potential sub-contractor or supplier shall be notified in writing by the Contractor of the Contractor's obligations under this contract relative to non-discrimination and affirmative action.



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24. Bidders Certification Requirement

1. The bidders certification form currently in use will be deleted from all future bid documents.
2. The following certification statement will be inserted in the bid document just above the bidders signature, as a substitute for the present bidder certification form:

“The bidder hereby certifies he shall comply with the minority manpower rations and specific action steps contained in the appendix EEO attached hereto, including compliance with the

minority contractor compliance specified in Section V of said appendix. The contractor receiving the award of the contract shall be required to obtain from each of its sub-contractors and submit to the contracting or administering agency prior to the performance of any work under said contract a certification by said sub-contractor, regardless of tier, that it will comply with the minority manpower ration and specific affirmative action step contained in the appendix EEO.”

25. Contractor’s Certification

The Contractor’s certification form must be signed by all successful low bidder(s) prior to award by the contracting agency. (See attachment).

26. Compliance-Information, Reports and Sanctions

1. The Contractor will provide all information and reports required by the administering agency or the Town on instructions issued by either of them and will permit access to its facilities and nay books, records, accounts and other sources of information which may be determined by Town to the affect the employment of personnel. This provision shall apply only to information pertinent to the Town’s supplementary affirmative action contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the administering agency of the Town as appropriate and shall et forth what efforts he has made to obtain the information.
2. Whenever the administering agency, the Town, or the Liaison Committee believes the General Contractor or any Sub-contractor may not be operating in compliance with the terms of this Section, the Town directly, or through it designated agent, shall conduct an appropriate investigation, and may confer with the parties, to determine if such Contractor is operating in compliance with this Section. If the Town or its agent finds the General Contractor or any Sub-contractor not in compliance, it shall make a preliminary report on non-compliance, and notify such Contractor in writing of such steps as will in the judgment of the Town or its agent bring such Contractor into compliance. In the event that such Contractor fails or refuses to fully perform such steps, the Town shall make a final report of non-compliance, and recommend to the administering agency the imposition of one or more of the sanctions listed below. If, however, the Town believes the General Contractor or any Sub-contractor has taken or is taking every possible measure to achieve compliance, it shall not make a final report of non-compliance. Within fourteen (14) days of the receipt of the recommendations of the Town, the administering agency shall move to impose one or more of the following sanctions, as it may deem appropriate to attain full and effective enforcement:
 - a. The recovery by the administering agency from the General Contractor of 1/100 of 1% of the contract award price or \$1000 whichever sum is greater, in the nature of liquidated damages or, if a Sub-contractor is in non-compliance, the recovery by the administering agency



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from the General Contractor, to be assessed by the General Contractor as a back charge against the Sub-contractor, of 1/10 of 1% of the sub-contract price, or \$400 whichever sum is greater, in the nature of liquidated damages, for each week that such party fails or refuses to comply.

- b. The suspension of any payment or part thereof due under the contract until such time as the General Contractor or any Sub-contractor is able to demonstrate his compliance with the terms of the contract.
 - c. The termination, or cancellation, of the contract, in whole or in part, unless the General Contractor or any Sub-contractor is able to demonstrate within a specified time his compliance with the terms of the contract.
 - d. The denial to the General Contractor or any Sub-contractor of the right to participate in any future contracts awarded by the administering agency for a period of up to three years.
3. If at any time after the imposition of one or more of the above sanctions a Contractor is able to demonstrate that he is in compliance with this Section, he may request the administering agency, in consultation with the Town, to suspend the sanctions conditionally, pending a final determination by the Town as to whether the Contractor is in compliance. Upon final determination of the Town, the administering agency, based on the recommendation of the Town, shall either lift the sanctions or reimpose them.
4. Sanctions enumerated under Sections 2 shall not be imposed by the administering agency except after an adjudicatory proceeding, as that term is used M.G.L. c. 30A has been conducted. No investigation by the Town or its agent shall be initiated without prior notice to the Contractor.

27. Severability

The provisions of this section are severable, and if any of these provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions.



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VI. SPECIAL PROVISIONS

1. Scope of Work

The Work under this Contract consists of furnishing all necessary labor, materials, equipment, & services required for the application of Bonded Wearing Course Surface Treatment on approximately 15,000 square yards of roadways and Asphalt-Rubber Surface Treatment on approximately 40,000 square yards of roadways at various locations in Town. Prior to the commencement of the work, the Town of Arlington Engineering Division will mark the limits and locations of work in the field.

The estimated total value of this contract is projected to be \$550,000, depending on available funding. Quantities are indeterminate and are provided only for the purpose of comparing bids. The Town of Arlington reserves the right to increase or decrease the estimated total value of this contract without any changes in the Contractor's unit bid prices.

All items of work in this contract shall be in conformance with the "Commonwealth of Massachusetts, Highway Department (MHD) Standard Specifications for Highway and Bridges", dated 1988, including the latest supplements and addendum thereto; the 2012 Construction Standards; the Arlington DPW Design & Construction Standards, the 2009 Manual on Uniform Traffic Control Devices and addendum thereto; the 1990 Standard Drawings for Signs and Supports; the 1968 Standard Drawings for Traffic Signals and Highway Lighting; the American Standards for Nursery Stock (ANSI Z 60.1 - 1986); and these Special Provisions.

2. Contract Requirements & Definitions

The words "municipal" or "municipality" in this document shall mean the Town of Arlington.

The materials are subject to inspection prior to the awarding of a Contract. All materials shall meet or exceed the requirements as written in the Specifications.

No contract award will be deemed to be legally made until a completed and signed contract is executed. The Contractor shall comply with all state and local laws, ordinances and regulations governing the type of work called for in these specifications, particularly in reference to safety and fire regulations.

The Contractor must have a project supervisor or superintendent available and on site at all times when work is being completed to direct operations. This supervisor or superintendent will report to the Town any problems as well as give progress reports as requested by the Town.

The Contractor must show by past performance that he is capable of performing a contract of this magnitude and must enclose a list of other contracts he has completed in other cities and towns.

The Contractor agrees not to sublet or assign the Contract in whole or in part without the written approval or the written authorization of the Town. However, nothing contained in this agreement shall create any contractual relationship between a subcontractor and the Town.

3. Schedule & Safety Measures for Construction Impacts

Prior to any construction activities commencing, the Contractor shall coordinate a Pre-Construction meeting with the Town of Arlington Police Department and Town of Arlington Engineering Division to discuss scheduling, notification requirements, traffic management, and other job particulars.



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Work, unless otherwise noted, is restricted to a ten-hour window, five-day week, with the Prime Contractor and all subcontractors working on the same shift. The daily work shift shall begin no sooner than 7:00 A.M. and shall end no later than 5:00 P.M.

No work shall be performed on Saturdays, Sundays, or Holidays without the expressed written approval of the Town and the concurrence of the Chief of Police, except in the situation of On-Call Emergency Services. Such approval shall be requested one week in advance of the date upon which the Contractor wishes to perform work.

All work proposed under this contract shall be completed by November 15 of the contract year. All prices submitted by the Contractor shall be fixed for the entire Contract period.

The Contractor shall perform the work to a schedule prepared by the Contractor and approved by the Town. All work shall be scheduled only at times acceptable to the Town. The Contractor shall indicate the amount of time required to perform the work and present a tentative schedule to complete such work (weather permitting).

The Contractor shall schedule the work in a manner that facilitates the completion of work at one location while starting the work at another. Excavation shall be limited to those areas that the Contractor can finish in a reasonable amount of time.

At the end of each workday, all safety control devices shall be in place so that traffic flow can resume and safety is enhanced. It is the Contractor's responsibility to provide all appropriate warning signs, reflectorized drums, flashers, and other safety control devices necessary. Street closures, lane closures, partial lane closures, and detours are all considered part of the traffic management measures required under the Contract.

Any detours proposed by the contractor must be submitted to the Town, Police and Fire Department of the Town of Arlington at least 72 hours prior to the implementation of the detour. The contractor must receive written approval of the detour prior to the commencement of the scheduled work. Each submitted detour plan shall conform to the relevant section of Part VI of the Manual for Uniform Traffic Control Devices (MUTCD)

4. Qualification

The Contractor shall be responsible for payment of prevailing wages for work performed as determined by the Director of Labor and Industries under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 to 27D.

5. Inspection

One or more inspectors may be assigned by the Town to oversee construction of the work, and shall have the authority to monitor the work. All costs associated with inspection shall be borne by the Town.

All extra work orders will require written approval by the Town before performing the work.

6. Work by Others and Cooperation by the Contractor

Agents of various Public Service Agencies, Municipal and State Departments may be entering on the work site to remove existing facilities, to construct or place new facilities or to make alterations to existing facilities.

The Contractor shall perform the work in cooperation with the various agencies in a manner, which causes the least interference with the operations of the aforementioned agencies and shall have no claim for delay, which may be due, or result, from said work of these agents.



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The Contractor shall be fully responsible for arranging and coordinating his work that is to be performed by others. This coordination and phasing shall be submitted to the Town for his approval.

Work required on all private utilities made necessary by the construction of this project will be accomplished by the respective utility companies at no additional cost to the Town. Each utility company shall be responsible for their own safety control including detail officers if required

7. Public Safety & Convenience

The Contractor's attention is directed to the fact that work on this project is to be performed on streets, which are utilized by pedestrians as well as by vehicles. The Contractor shall be responsible for the installation of adequate precautions and other safety measures and controls deemed necessary by the Town for the Contractor's own personnel. Any automotive equipment not protected by traffic cones or plastic drums that is working on a public way under this project shall have one amber flashing warning light mounted on the cab roof or in the highest practical point of the machinery. This light shall be in operation while the equipment is so working.

The Contractor shall be required, without additional compensation to provide safe and convenient access to all abutters during the prosecution of the work. Necessary access for fire apparatus and other emergency vehicles shall be maintained at all times. Sweeping and cleaning of surfaces beyond the limits of the project to clean up material caused by spillage or vehicular tracking during the various phases of the work shall be considered as incidental to the work being performed under the Contract and there will be no additional compensation.

8. Cleaning Up

During its progress, the work and the adjacent areas affected thereby shall be kept cleaned and all rubbish, surplus materials, and unneeded construction equipment shall be removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.

Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes structures, or elsewhere during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work, and the ditches, channels, drains, pipes, structures, etc., shall, upon completion of the work, be left in a clean and neat condition.

On or before the completion of the work, the Contractor shall, unless otherwise especially directed or permitted in writing, tear down and remove all temporary buildings and structures built by him; shall remove all temporary works, tools, and machinery or other construction equipment furnished by him; shall remove, acceptably disinfect, and cover all organic matter and material containing organic matter in, under, and around privies, houses, and other buildings used by him; shall remove all rubbish from any grounds which he has occupied; and shall leave the roads and all parts of the premises and adjacent property affected by his operations in a neat and satisfactory condition.

The Contractor shall restore or replace, when and as directed by the Town, any public or private property damaged by his work, equipment, or employees, to a condition at least equal to that existing immediately prior to the beginning of operations. To this end the Contractor shall do as required all necessary highway or driveway, walk, and landscaping work.

Suitable materials, equipment, and methods shall be used for such restoration. The restoration of existing property or structures shall be done as promptly as practicable as work progresses and shall not be left until the end of the Contract period.



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9. Provisions for Access at All Locations

The Contractor shall cooperate with the various utility companies, public agencies and the municipality, and provide access through the site if required for their work or to observe work in connection with this project that affects their respective properties, but all official orders and directives to the Contractor will be issued by the Town or its duly appointed representative.

10. Provisions for Travel & Prosecution of the Work

Before starting any work under the contract, the Contractor shall coordinate a pre-construction meeting with the Town of Arlington Engineering Division and Town of Arlington Police Department to discuss job particulars including an anticipated schedule of work. The work schedule shall include a plan of his construction procedures and the safety measures he will use during the prosecution of the work.

This plan shall indicate the temporary barricades, signs, drums, and other traffic control devices to be employed during the period of work to maintain traffic and pedestrian safety. Said plan shall conform to Part VI of the 2009 edition of the MUTCD.

Particular care should be taken to establish and maintain methods and procedures, which will not create unnecessary or unusual hazards to public safety. As necessary and/or as directed by the Town, uniformed traffic police shall be employed for the protection and maintenance of traffic. Reasonable facilities shall be provided by the Contractor for the convenient, safe passage of pedestrians and vehicles through the project, and also to and from properties abutting the site of improvement.

Particular care shall be exercised at all times to establish and maintain such methods of work on any roadway which would interfere with the existing flow of traffic shall be limited to approximately one-half width at any one time. At least one lane in each direction shall be kept open at all times. No detouring of traffic shall be allowed without permission of the Town and the Arlington Police Department.

The Contractor shall give notice in writing to the Town at least seven days in advance of beginning any work affecting the maintenance of traffic where work affects the streets in use by the public. The Contractor must prosecute the work efficiently and with the least possible delay. The Contractor is responsible for furnishing, erecting, and maintaining any the temporary signing of the roadways required of this project, and the proper removal of the signs upon the completion of the project.

Traffic Control devices required only during working hour operations shall be removed at the end of each working day.

Signs having messages that are irrelevant to normal traffic conditions shall be removed or properly covered at the end of each work period. Signs shall be kept clean at all times and legends shall be distinctive and unmarred. The Contractor shall provide all cones, barrels, barricades, signs, and such other devices as deemed necessary by the Town and in conformance with the traffic management plans prepared by the Town's consultant and Section VI of the MUTCD, as amended.

11. Traffic Orders

Uniformed Traffic Officers will be required during the construction period. It shall be the responsibility of the Contractor to arrange for the necessary police details.



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The Town will pay the exact charges for police details directly to the Arlington Police Department for details ordered by the contractor for this project.

If the Contractor fails to cancel any police detail not needed, by the required deadline as set forth by the Arlington Police Department, the cost for such detail as invoiced to the Town shall be deducted from the total reimbursement to the Contractor, unless otherwise waived by the Town due to conditions which are beyond the Contractors control.

12. Work Coordination & Abutter Notification

The Contractor shall provide suitable notification to all immediate abutters of the project at the direction of the Town at no additional cost to the Town. The notification will be required two weeks prior to any construction activities commencing as well as 48-hours prior to the placement of the final surface treatment.

The Contractor shall also post and remove approved "No-Parking" signs on the site as required for the work at no additional cost to the Town. Upon request, appropriate signs can be provided to the Contractor by the Town for use on this project. These signs must be affixed by means acceptable to the Town.

13. Temporary Access to Area Abutters

The Contractor's attention is directed to the fact that the work is in a predominantly residential and commercial business section of the Town and access to all residences and businesses must be maintained at all times.

The Contractor shall provide a safe and ready means of ingress and egress to all stores and shops, public and private buildings, professional offices and any other business or residence in the project area, both day and night, for the duration of the project.

14. Storage of Materials & Equipment

All excavated materials and equipment to be incorporated in the work shall be placed so as not to injure any part of the work or existing facilities and so that free access can be had at all times to all parts of the work and to all public utility installations in the vicinity of the work. Materials and equipment shall be kept neatly piled and compactly stored in such locations as will cause a minimum of inconvenience to public travel and adjoining owners, tenants and occupants.

Excessive stockpiling, as determined by the Town, of excavated materials from construction will not be permitted.

15. Computation of Quantities

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

It is further agreed that the computation of volume of prismoids shall be by the method of average end areas.

16. Water Supply

The Contractor shall obtain water from an approved source for all necessary operations at the site of the work, without charge therefore.



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If possible, the Town will furnish the Contractor upon request with an adequate source and supply of water at no charge, however it will likely not be available at the project site. If, upon request, the Town's water supply is not available or not functioning, the Contractor will be held responsible to furnish adequate supplies at his own cost.

17. Sanitary Regulations

The Contractor shall provide adequate sanitary facilities for the use of those employed on the Work. Such facilities shall be made available when the first employees arrive on the site of the Work, shall be properly secluded from public observation, and shall be constructed and maintained during the progress of the Work in suitable numbers and at such points and in such manner as may be required.

The Contractor shall maintain the sanitary facilities in a satisfactory and sanitary condition at all times and shall enforce their use. He shall rigorously prohibit the committing of nuisances on the site of the Work, on the lands of the Owner, or on adjacent property.

18. Increased or Decreased Contract Quantities

The Town reserves the right to increase or decrease the quantity of any item of work.

Unit prices provided in the Contract Proposal will be used to determine the total added cost or credits for modifications of the work performed on a unit price basis when such work is authorized in advance by the Town. The items shall include furnishing and installing, complete in place, the specified item to the satisfaction of the Town, and in accordance with the Plans, Specifications, and Special Provisions.

No allowances will be made for loss of anticipated profits suffered or claimed by the Contractor resulting directly or indirectly from such increased or decreased quantities or from unbalanced allocation among the Contract items from any other cause.

19. Contract Guarantee & Retainage

The Contractor shall guarantee the completed job relative to workmanship and material for one year from date of project acceptance by the Town.

There will be a retainage of five (5%) percent of the value of all the items of work. The Town will hold the above retainage for a period of one (1) year from the date of satisfactory completion of the work.

20. Precautions under Electric Lines

The Contractor's attention is directed to the AASHTO Guide on Occupational Safety on Highway Construction Projects, Subpart N, 1926.550, relating to construction equipment clearances at overhead electric lines, which states in part "...the minimum clearance between the lines and any part of the crane or load must be at least ten feet from lines rated 50 KV or below, and greater distances for higher voltage..."

For the protection of personnel and equipment, the Contractor shall be aware of this regulation especially during paving operations using large semi-trailer vehicles.

21. Asphalt Cost Adjustment Clause

The Contract Price of any hot mix asphalt product will be paid under the respective items in this Contract. The price adjustment, upwards or downwards, will be made after the work has been performed, using the monthly period price for the month during which work was performed.



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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.

The MassDOT Price Adjustments website (<http://www.mhd.state.ma.us/default.asp?pgid=content/fuelPrices&sid=about>) will be used in adjusting asphalt bid prices when 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 Base Price shall be defined as that posted in the month and year in which the Bid for this work was submitted to the Town of Arlington. The Period Price shall be defined as the time of actual asphalt installation.

The price adjustment shall be a separate payment item. It will be determined by multiplying the number of tons of hot mix asphalt placed during each monthly period times the liquid asphalt content percentage times the variance in price between Base Price and Period Price of liquid asphalt



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VII. SPECIFICATIONS

1. Item 1: Bonded Wearing Course

1.1. Description

The Bonded Wearing Course consists of a warm polymer modified asphalt emulsion bond coat followed immediately with an ultra-thin hot mix asphalt wearing course. The tack coat is spray applied immediately prior to the application of the wearing course to produce a durable wearing surface that can be opened to traffic. The finished surface treatment has a minimum thickness of 1/2". Milling of keyways and other required site preparations shall not be paid separately and shall be considered incidental to the work under this item unless otherwise noted.

Adjustment of manhole structures, catch basin structures, gate boxes, & necessary pavement repairs/patches shall be paid separately under the appropriate items.

1.2. Materials

1.2.1. Mixture Requirements

The contractor shall formulate and submit to the awarding authority, a job mix formula that satisfies the design general limits listed in Table 1 – Mixture Requirements.

Table 1 - Mixture Requirements

AASHTO Standard Sieve Sizes		Total % Passing by Weight
Metric	US	
19 mm	3/4"	-
12.5 mm	1/2"	100
9.5 mm	3/8"	95 - 100
4.75 mm	# 4	40 - 60
2.36 mm	# 8	21 - 34
1.18 mm	# 16	15 - 26
0.60 mm	# 30	10 - 20
0.30 mm	# 50	7 - 16
0.15 mm	# 100	5 - 10
0.075 mm	# 200	4 - 7
% PGB		4.9 - 5.4

*Note: All aggregate percentages are based on the total weight of the aggregate.

1.2.2. Asphalt Binder

Use the appropriate performance graded binder, (PGAB), for the project's geographical location and design traffic level.

1.2.3. Coarse Aggregate

The coarse aggregates selected shall be those typically used for high performance surfaces. Coarse aggregates, such as crushed gravel, limestone, dolomite, sandstone, granite, chert, traprock, ore tailings, slag or other similar materials, or blends of two or more of the above may be acceptable. The single size coarse aggregate shall be nominal 6.3 mm, (1/4") meeting the requirements listed in the Coarse Aggregate



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Properties table below. When coarse aggregates for these mixes are from more than one source or of more than one type of material, they shall be proportioned and blended to provide a uniform mixture.

Table 2 - Coarse Aggregate Properties

	Test Method	Value
LA Abrasion Value, % Loss	AASHTO T96-94	30 Max
Soundness, % Loss - Magnesium Sulfate or Sodium Sulfate	AASHTO T104-94	18 Max 12 Max
Flat and Elongated Ratio, % @ 5:1	ASTM D4791	10 Max
% Crushed, Single Face	ASTM D5821	95 Min
% Crushed, Double Face	ASTM D5821	85 Min
Cleanliness (% passing 0.60 mm (# 30))	ASTM D142	2 Max
Resistance to Stripping*	ASTM D3625	80 Min **

* Anti-Stripping agents may be required to provide resistance to stripping.

** If the awarding authority currently uses a higher value then that value shall apply.

1.2.4. Fine Aggregate

The fine aggregate shall be 100% crushed and have a minimum sand equivalent of 50, (AASHTO T176-86).

1.2.5. Mineral Filler

Hydrated lime, fly ash, baghouse fines and cement are acceptable as mineral filler.

1.2.6. Tack Coat

Use grade CRS-1P polymer modified asphalt emulsion meeting the requirements of AASHTO T208 except as modified in the below table. If latex is used, it is required that it be co-milled at the bulk emulsion facility, to ensure complete and balanced blending.

Property	Method	Minimum	Maximum
Elastic Recovery, 25°C	AASHTO T301	65	
Residue by Distillation, %	AASHTO T59	63	
Penetration of Residue, 25°C, 100g, 5 Sec	AASHTO T49	60	150

1.3. Equipment

1.3.1. Paving

The self-priming paver must be capable of spraying the tack coat, applying the hot asphalt overlay and smoothing the surface of the mat in one pass at the rate of 30-100 feet per minute. The self-priming paver must incorporate a receiving hopper, feed conveyor, insulated storage tank for emulsion, metered tack coat spray bar and a variable width, heated, ironing type screed. The screed must have the ability to be crowned at the center both positively and negatively and have vertically adjustable extensions to accommodate the desired pavement profile.

1.3.2. Compaction

Use steel wheeled double drum roller weighing at least 8 ton, that are equipped with functioning water systems and scrappers to prevent the fresh mix from adhering to the roller drums.



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1.4. Construction Methods

1.4.1. Surface Preparation

All surface preparations shall be completed by the awarding authority unless otherwise noted or bid as separate items.

The awarding authority shall be responsible cleaning and flush filling all cracks and joints greater than 1/4" wide.

The contractor shall place a leveling course on planed, milled or existing surface.

The contractor shall adjust all City-owned roadway castings/utility structures. If required, the City will coordinate the re-setting/adjustment of all non-City-owned utility structures with the various utility companies.

The contractor shall cover all manhole covers, water boxes, gas boxes, catch basins and other such utility structures with plastic or building felt. Reference each for location and uncovering after application.

The contractor shall cut keyways at limits of work and additional locations as directed by the Town to a sufficient depth to create smooth transitions and good ride quality.

The contractor shall thoroughly clean the surface by sweeping immediately prior to application of the bonded wearing course. Prior to sweeping, the awarding authority shall have removed all vegetation and soil that is bound to the roadway surface.

The contractor shall remove all standing water. A damp surface is acceptable if favorable weather conditions are expected during paving operations.

1.4.2. Application

The minimum pavement surface temperature for application of the tack coat and placement of the wearing course is 50° F.

Apply the bond coat at a temperature of 120° - 170°F. Provide a uniform application across the entire width to be overlaid, at a rate of .15 - .25 gallons per square yard. Continuously monitor the rate of spray.

No equipment shall come in contact with the bond coat before the hot mix asphalt concrete wearing course is applied.

Immediately after applying the tack coat, apply the hot mix asphalt overlay across the full width of the bond coat at a temperature of 280° - 335°F.

1.4.3. Compaction

Begin compaction immediately after the application of wearing course. Use a minimum of two passes. The roller(s) will not be allowed to stop on the freshly placed wearing course. Use an adequate number of rollers to complete compaction before the pavement temperature falls below 185° F. Protect the wearing course from traffic until the rolling operation is complete and the material has cooled sufficiently to resist damage.



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1.5. Method of Measurement

The Bonded Wearing Course will be measured as the number of square yards of pavement surfaced in-place and complete.

1.5.1. Basis of Payment

The contract unit bid price per square yard shall include all labor, materials, and equipment necessary to complete the work, including work considered incidental to the placement of the Surface Treatment, such as, but not limited to, the milling of keyways, sweeping & other surface preparation work as outlined unless bid as a separate item.



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2. Item 2: Asphalt-Rubber Surface Treatment

2.1. Description

The Asphalt-Rubber Surface Treatment consists of materials, manufacture, and application of asphalt-rubber as a stress absorbing membrane (SAM). This specification shall consist of an application of a combined reacted mixture of hot paving grade asphalt and ground rubber followed immediately with a cover material.

2.2. Materials

2.2.1. Base Asphalt Binder

The base asphalt binder shall have a PG (Performance Grade) of PG58-28. The supplier may substitute PG64-28 where needed to meet the requirements of ASTM D 6114 (type II). The intended PG must be used in the mix design and for the Asphalt-Rubber blending.

2.2.2. Asphalt-Rubber Binder

The physical requirements for the Asphalt-Rubber binder shall conform to ASTM D 6114 type II specifications. The minimum percentage of ground rubber shall be 15% by weight of the total Asphalt-Rubber binder.

The reclaimed vulcanized rubber shall be produced primarily from the processing of automobile and truck tires. The rubber shall be produced by the ambient temperature grinding processes only.

The specific gravity of reclaimed vulcanized ground rubber shall be not less than 1.10 and not greater than 1.20.

Rubber for use in Asphalt-Rubber binder shall be free of loose fabric, wire and other contaminants. Up to 4 percent (by weight of rubber) calcium carbonate or talc may be added to prevent caking or sticking of the particles together. The ground rubber shall be sufficiently dry so as to be free flowing and not produce foaming when blended with the hot PG binder.

2.2.3. Aggregate

The aggregate shall conform to the requirement of appropriate state or local specifications for crushed stone. Crushed gravel stone will not be permitted. Percentage of wear as determined by the Los Angeles Abrasion Test (AASHTO-T96) shall be a maximum of 35. The aggregate shall be pre-heated to a temperature between 200°F and 300°F, and be pre-coated with 0.4% to 0.8% (by weight of aggregate) of PG 58-28, PG 64-28 or PG 64-22 asphalt binder prior to application. Aggregate shall meet the following gradation as tested by AASHTO T27.

Sieve Size	% Passing – Nominal Size	
	3/8" (9.5 mm)	
5/8" (15.8 mm)	100%	
1/2" (12.5 mm)	100%	
3/8" (9.5 mm)	85 – 100%	
#4 (4.75 mm)	0 – 8%	
#8 (2.36 mm)	0 – 4%	
#200 (0.075 mm)	0 – 2%	

NOTES:

The Flakiness Index shall be less than 30% (NFP 18-561 Test).



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2.3. Asphalt-Rubber Mixing and Reaction

2.3.1. Mixing and Reaction Equipment

The method and equipment for combining the ground rubber and PG asphalt binder shall be so designed and accessible that the Engineer can readily determine the percentage of each material being incorporated into the mixture.

Equipment utilized in the production and proportioning of Asphalt-Rubber binder shall include the following as a minimum:

- An asphalt heating tank or heat exchanger with hot oil heat transfer to heat the PG asphalt binder to the necessary temperature before blending with the ground rubber. This unit shall be equipped with a thermostatic heat control device.
- A mechanical blender shall be utilized for proper proportioning and thorough mixing of the PG asphalt binder and ground rubber. This unit shall have a Coriolis type mass flow meter capable of measuring and recording the total quantity of asphalt binder in tons. The quantity of ground rubber shall be determined by weight utilizing either a hopper equipped with load cells or a feeder equipped with a belt scale. The total weight in tons and percentage of ground rubber based on total asphalt rubber binder shall be recorded. All data shall be reported to the awarding authority as outlined in Section 2.3.4, Reporting.
- A dedicated asphalt rubber reaction/storage tank equipped with a heating system to maintain the proper temperature of the binder and an internal mixing unit capable of maintaining a homogeneous mixture of asphalt and ground rubber

2.3.2. Mixing

The temperature of the asphalt binder shall be between 325°F and 400°F at the time of addition of the ground rubber. Ensure that there are no agglomerations of rubber particles in excess of two inches in the least dimension in the mixing chamber.

The Contractor shall document that the proportions are accurate and that the rubber has been uniformly incorporated into the mixture. Ensure that the crumb rubber and asphalt binder are thoroughly mixed. Rubber floating on the surface or agglomerations of rubber particles is evidence of insufficient mixing. Maintain the temperature of the asphalt-rubber binder immediately after mixing between 325°F and 375°F for a minimum of 45 minutes before use.

2.3.3. Testing and Certification

The materials shall be sampled once per lot at the point of manufacture, tested and certified by an AASHTO resource (formally AMRL) accredited laboratory approved for asphalt rubber binder testing. The laboratory shall certify that the material meets the requirements of ASTM D 6114 type II specifications. A lot shall be defined as each batch produced, but not to exceed the volume of the manufacturer's dedicated asphalt rubber reaction/storage tank.

In addition to the ASTM D 6114 Type II specification, to ensure adequate blending residence time and superior binder quality, every lot shall be tested under:

Test (on the produced asphalt rubber binder)	Result
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AASHTO T315 Original Binder 2mm DSR @ 82:

$G^*/\sin(d) > 1.00$ kPa

All data shall be reported to the awarding authority as outlined in Section 2.3.4, Reporting.

2.3.4. Reporting

Prior to starting the project, the contractor shall submit a Quality Control Plan from the Asphalt Rubber supplier meeting the requirements of AASHTO R-26 format.

The contractor shall submit a weekly manufacturer's report for each lot of asphalt rubber produced that includes the following as a minimum:

- Total quantity of asphalt binder in tons
- Tons and percentage of ground rubber based on total asphalt rubber binder
- ASTM D 6114 certified test results
- AASHTO T315 Original Binder 2mm DSR @ 82.

2.4. Equipment

2.4.1. Distributor Truck

On projects exceeding 35 tons of liquid asphalt rubber, at least two pressure-type bituminous distributor trucks in good condition will be required. The distributor shall be equipped with an internal heating device capable of heating the material evenly up to 425°F; an internal mixing unit capable of maintaining a proper mixture of asphalt cement and granulated rubber; have adequate pump capacity to maintain a high rate of circulation in the tank and to spray the asphalt-rubber at a viscosity of 1,500 to 5,000 centipoise; have adequate pressure devices and suitable manifolds to provide constant positive cut-off to prevent dripping from the nozzles. Distributor shall be equipped with an electronically controlled computerized compensation unit for controlling application rates at various width and speed changes. The application unit shall have electronic controls and a digital read out installed and operated from the inside of the cab of the distributor. The distribution bar on the distributor shall be fully circulating. Any distributor that produces a streaked or irregular distribution of the material shall be promptly repaired or removed from the project.

Distributor equipment shall include a tachometer, pressure gauges, volume measuring devices, and a thermometer for reading temperature of tank contents. Controls for spray bar shall be located in cab of truck, for controlling width and rate of spray of product. It shall be so constructed that uniform applications may be made at the specified rate per square yard with a tolerance of plus or minus 0.05 gallon per square yard.

The distributor shall be equipped with a continuous mechanical means to ensure that all nozzles are clean at all times. If a continuous mechanical means is not present, then a "bootman" shall accompany the distributor and ride in a position so that all spray bar nozzles are in his full view and readily accessible for unplugging.

2.4.2. Hauling Equipment

Tank trucks utilized for the transportation of asphalt rubber shall be equipped with a heating system to maintain the proper temperature of the binder and an internal mixing/agitation unit capable of maintaining a homogeneous mixture of asphalt and ground tire rubber while in transit.



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Trucks for hauling cover material shall be rear discharge conveyor-fed or “live bottom” trucks and shall be equipped with a device to lock onto the hitch at the rear of the chip spreader to prevent aggregate spillage.

Sufficient hauling vehicles will be available to ensure continuous operation of the distributor and chip spreader.

2.4.3. Aggregate Spreader

The aggregate spreader shall be hydrostatically driven and self-propelled. It must be equipped with a hydraulically controlled variable adjustable head that is capable of spreading stone in widths from 4.5 to 18 feet. The spreader shall be mounted on pneumatic tires, and shall apply the stone on the road surface in a manner that ensures that the tires do not contact the road surface until after the stone has been applied. The unit shall be equipped with an electronic radar type sensor used to measure ground speed and will automatically adjust the stone application rate depending on width of application and the speed of chip spreader. It shall have the ability to apply stone on any grade from 0 - 6%. The spreader shall be equipped with an integral hopper with a minimum capacity of 5 tons of stone which shall be filled by trucks in a manner which ensures that the truck tires never come in contact with asphalt treated road surfaces until the stone has been properly applied. To maintain constant stone application, a self-locking truck hitch will permit towing of aggregate trucks without stopping the chip spreader. It will be capable of maintaining positive engagement over irregular terrain.

2.4.4. Pneumatic-Tired Roller

A minimum of two (2) self-propelled, multiple wheel, pneumatic-tired rollers shall be used, and at least one shall weigh a minimum of 12 tons, and shall have a total compacting width of at least 56 inches.

2.4.5. Self-Propelled Rotary Pick-up Sweepers

A minimum of two (2) self-propelled rotary pick-up sweepers shall be used. They shall be designed, maintained, equipped, and operated so that the pavement surface can be swept clean. The rotary sweepers shall be equipped with adjustable down pressure on the sweeper heads and shall be capable of temporarily storing the picked up material from the surface of the pavement for disposal offsite.

2.5. Construction Methods

2.5.1. Surface Preparation

All surface preparations shall be completed by the awarding authority unless otherwise noted or bid as separate items.

The awarding authority shall be responsible for cleaning and flush filling all cracks and joints greater than 1/4” wide.

The contractor shall adjust all City-owned roadway castings/utility structures. If required, the City will coordinate the re-setting/adjustment of all non-City-owned utility structures with the various utility companies.



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The contractor shall cover all manhole covers, water boxes, gas boxes, catch basins and other such utility structures with plastic or building felt. Reference each for location and uncovering after application.

The contractor shall cut keyways at limits of work and additional locations as directed by the Director to a sufficient depth to create smooth transitions and good ride quality.

The contractor shall thoroughly clean the surface by sweeping immediately prior to application of the asphalt rubber surface treatment. Prior to sweeping, the awarding authority shall have removed all vegetation and soil that is bound to the roadway surface.

2.5.2. Seasonal and Weather Limitations

The asphalt-rubber shall not be applied when weather conditions are unfavorable to obtaining a uniform spread. Construction shall proceed only when the atmospheric temperature is at least 50°F and rising. No water shall be present on the road surface.

2.5.3. Asphalt-Rubber Application

The asphalt-rubber mixture shall be applied at a temperature of 325°F to 400°F at a rate of 0.50 to 0.65 gallons per square yard. Exact application rate to be determined by the aggregate gradation, traffic volume and pavement condition.

Longitudinal joints shall be reasonably true to line and parallel to centerline. Where any construction joint occurs, the edges shall be broomed back and blended so there are no gaps and the elevations are the same, and free from ridges and depressions. Longitudinal joints shall be overlapped from 4 to 6 inches.

During application, adequate provision shall be made to prevent marring and discoloration of adjacent pavements, structures, vehicles, foliage or personal property.

2.5.4. Aggregate Application

The application of aggregate shall follow as close as possible behind the application of the hot asphalt-rubber which shall not be spread further in advance of the aggregate spread than can be immediately covered. Construction equipment or other vehicles shall not drive on the uncovered asphalt-rubber. The hot-precoated aggregate shall be spread uniformly by a self-propelled spreader at a rate of spread directed by the Agency, generally between 30 to 40 pounds per square yard. Any deficient areas shall be covered with additional material.

2.5.5. Rolling

A minimum of two (2) pneumatic-tired rollers shall be used for aggregate embedment into the hot asphalt-rubber. Rolling shall commence immediately following spread of aggregate. There shall be at least three coverages by the pneumatic-tired roller to embed the aggregate particles firmly into the asphalt-rubber. Coverage shall be as many passes as are necessary to cover the entire width being spread with a pass being one movement of a roller in either direction.

2.5.6. Sweeping

When the maximum amount of aggregate has been embedded into the asphalt-rubber and the pavement has cooled, all loose material shall be swept or otherwise removed by the contractor. Contractor shall supply two (2) sweepers for the day of application. This will be done at a time and in a manner, which



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will not displace any embedded aggregate or damage the asphalt-rubber. The material removed by sweeping shall be disposed of offsite.

Contractor shall also supply a laborer working with the sweeping operation to assure sidewalks, curb, curb ramps, and driveway aprons are clear of loose materials resulting from the surface treatment application.

Pre-sweeping or post-sweeping at a later date is the responsibility of the awarding authority unless bid as a separate bid item.

2.5.7. Traffic Control

Traffic control is the sole responsibility of the awarding authority. Unless otherwise specified, the roadway shall be kept open to traffic at all times, with traffic discontinued on the lane being surface treated. Controlled traffic may be permitted as soon as the final layer is applied and rolled. A recommended maximum speed of 20 mph, should be maintained for a period of two (2) hours.

2.6. Method of Measurement

The Asphalt-Rubber Surface Treatment will be measured as the number of square yards of pavement surfaced in-place and complete.

2.6.1. Basis of Payment

The contract unit bid price per square yard shall include all labor, materials, and equipment necessary to complete the work, including work considered incidental to the placement of the Surface Treatment, such as, but not limited to, the milling of keyways, sweeping & other surface preparation work as outlined unless bid as a separate item.

3. Item 3: Fog Seal with Cover Aggregate

3.1. Description

The Fog Seal with Cover Aggregate consist of furnishing and applying a diluted asphalt emulsion and cover aggregate on properly prepared bituminous streets.

3.2. Materials

3.2.1. Asphalt Emulsion

The base asphalt emulsion grade shall be either: CRS-1h, CSS-1h, CRS-1hP, RS-1h or SS-1h conforming to AASHTO specifications M208 or M140. The base asphalt emulsion shall be diluted at the emulsion manufacturing facility and certified to meet the criteria below.

Test requirements for diluted material	Range
Sieve test %	0 – 0.10
Residue by distillation, %	35 – 50
Penetration	40 - 90



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3.2.2. Cover Aggregate:

The cover aggregate shall be a reclaimed vulcanized rubber produced primarily from the processing of automobile and truck tires. The rubber shall be produced by the ambient temperature grinding processes only. The specific gravity of reclaimed vulcanized ground rubber shall be not less than 1.10 and not greater than 1.20. Rubber for use as the cover aggregate shall be free of loose fabric, wire and other contaminants. Up to 4 percent (by weight of rubber) calcium carbonate or talc may be added to prevent caking or sticking of the particles together. The ground rubber shall be sufficiently dry so as to be free flowing and shall meet the following gradation:

Sieve	% Passing
2.38 mm (#8)	100
1.19 mm (#16)	10 – 50
0.595 mm (#30)	0 - 10

3.3. Equipment

3.3.1. Distributor Truck

The asphalt distributor shall contain suitable mechanical circulating and heating mechanisms to provide a uniform approved temperature of the entire mass of material. The distributor shall be equipped with a radar type sensor used to measure ground speed, and feed a Digital Volumetric Accumulator capable of measuring liters applied and distance traveled. It shall be capable of applying asphalt material in accurately measured quantities at any rate between 0.1 to 2.0 gallons per square yard, of roadway surface, at any length of spray bar up to 16 feet. The distributor shall be capable of maintaining a uniform rate of distribution of asphalt material regardless of change in grade, width or direction of the road. It shall be equipped with an electronic control for setting asphalt pump discharge rate and on/off switching of spray for nozzles in one (1) foot, increments which shall be located in the truck cab. The spray nozzles and pressure system shall provide a sufficient and uniform fan-shaped spray of asphalt material throughout the entire length of the spray bar at all times while operating. The spray shall completely cover the roadway surface receiving the treatment.

3.3.2. Aggregate Spreader

The aggregate spreader shall be mounted on the asphalt distributor. It shall have a minimum capacity of 3000lbs. The hopper shall have vibratory agitation to facilitate material flow. The cover aggregate spinners shall be variable speed, capable of distributing cover aggregate consistently over variable roadway widths in a single pass. All controls shall be cab-mounted and capable of being operated during the application of the asphalt emulsion by the distributor operator.



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3.4. Construction Methods

3.4.1. Surface Preparation

All surface preparations shall be completed by the awarding authority unless otherwise noted or bid as separate items.

The awarding authority shall be responsible for cleaning and flush filling all cracks and joints greater than 1/4" wide.

The contractor shall cover all manhole covers, water boxes, gas boxes, catch basins and other such utility structures with plastic or building felt. Reference each for location and uncovering after application.

The contractor shall thoroughly clean the surface by sweeping immediately prior to application of the asphalt rubber surface treatment. Prior to sweeping, the awarding authority shall have removed all vegetation and soil that is bound to the roadway surface.

3.4.2. Seasonal and Weather Limitations

No work shall be completed in wet conditions, or when wet weather conditions are forecasted within a 4 hour period after application. The ambient temperature must be 50°F and rising.

3.4.3. Aggregate Storage

The awarding authority shall be responsible for providing the Contractor with an acceptable aggregate storage area near the job site.

3.4.4. Aggregate Application

The asphalt emulsion and cover aggregate shall be applied simultaneously at the material quantities as designated below:

Material	Application Rate
Asphalt Emulsion	0.08 to 0.12 gallons per SY
Cover Aggregate	0.3 to 1.0 pounds per SY

The asphalt emulsion shall be applied at 120 - 170°F.

Application shall not commence when water or moisture is present on the pavement surface.

3.4.5. Traffic Control

Traffic control is the sole responsibility of the awarding authority. Traffic control is the sole responsibility of the awarding authority. Unless otherwise specified, the roadway shall be kept open to one-way traffic at all times, with traffic discontinued on the lane being fog sealed. All traffic shall be kept off of the treated areas until curing is complete. The fog seal will be considered cured when the emulsion does not track off the treated surface. All requirements for signage, safety cones, and other traffic control requirements shall be in place prior to commencement of the work.



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3.5. Method of Measurement

The Asphalt-Rubber Surface Treatment will be measured as the number of square yards of pavement surfaced in-place and complete.

3.5.1. Basis of Payment

The contract unit bid price per square yard shall include all labor, materials, and equipment necessary to complete the work, including work considered incidental to the placement of the Fog Seal, such as, but not limited to, the milling of keyways, sweeping & other surface preparation work as outlined unless bid as a separate item.

4. Item 4: Hot Mix Asphalt for Leveling

4.2. Description

Work under this item shall include placing bituminous concrete for patching as needed in preparation of placement of the Bonded Wearing Course or asphalt rubber surface treatment. HMA for Leveling will be paid for at the contract unit price per ton complete in place. Work under this item shall be in conformance with Section 472 the “Commonwealth of Massachusetts, Highway Department (MHD) Standard Specifications for Highway and Bridges”, dated 1988, including the latest supplements and addendum thereto.

4.3. Method of Measurement

HMA for Leveling will be measured per ton complete in place.

4.3.1. Basis of Payment

HMA for Leveling will be paid for at the contract unit bid price per ton complete in place which shall include all labor, materials and equipment necessary to complete the work as necessary or as directed by the Town.

5. Item 5: Cut & Patch Asphalt Repair

5.2. Description

Work under this contract includes all labor and materials to perform bituminous concrete roadway cut & patch repairs at various locations. Road pavement surfaces deemed in need of repair or as determined by the Engineer, shall be saw cut to limits reviewed and specified by the Engineer. Existing asphalt and deleterious material shall be removed and disposed of by the contractor.

Sub-grade condition shall be evaluated and material removed if necessary or at the direction of the Engineer. Suitable sub-base material shall be placed in repair location and compacted to a level providing suitable elevation to install MassDOT State mix in 2 courses. Binder course shall be 2-1/2 inches of 3/4” mix and top course shall be 1-1/2” 3/8” mix, or as directed by the Engineer.



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Work under this item shall be in conformance with Section 472 the “Commonwealth of Massachusetts, Highway Department (MHD) Standard Specifications for Highway and Bridges”, dated 1988, including the latest supplements and addendum thereto and as directed by Engineer.

5.3. Method of Measurement

Cut and Patch Asphalt Repair will be measured per square yard in place.

5.3.1. Basis of Payment

The unit bid price per each shall include all labor, materials and equipment necessary to complete the work as necessary or as directed by the Owner.



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6. Item 6: Adjustment of Drainage/Sanitary Structures

6.2. Description

Work under this item shall include adjusting sewer manhole castings, stormwater manhole castings, and catch basins castings to the proposed finished grade of the final surface. Adjustment of Drainage/Sanitary Structures to grade when the change is 6 inches or less will be measured in place by the unit each, complete and approved. Work under this item shall be in conformance with Section 220 of the “Commonwealth of Massachusetts, Highway Department (MHD) Standard Specifications for Highway and Bridges”, dated 1988, including the latest supplements and addendum thereto.

6.3. Method of Measurement

Adjustment of Drainage/Sanitary Structures shall be measured in place by the unit each, complete and approved.

6.3.1. Basis of Payment

The unit bid price per each shall include all labor, materials and equipment necessary to complete the work as necessary or as directed by the Owner.

7. Item 7: Adjustment of Water/Gas Gate Boxes

7.2. Description

Work under this item shall include adjusting water & gas gate and service boxes to the proposed finished grade of the final surface. Adjustment of Water/Gas Gate Boxes to grade when the change is 6 inches or less will be measured in place by the unit each, complete and approved. Work under this item shall be in conformance with the “Commonwealth of Massachusetts, Highway Department (MHD) Standard Specifications for Highway and Bridges”, dated 1988, including the latest supplements and addendum thereto.

7.3. Method of Measurement

Adjustment of Water/Gas Gate Boxes shall be measured in place by the unit each, complete and approved.

7.3.1. Basis of Payment

The unit bid price per each shall include all labor, materials and equipment necessary to complete the work as necessary or as directed by the Owner.

8. Item 8: Adjustment of Water/Gas Gate Boxes by Riser

8.2. Description

Work under this item shall include adjusting water & gas gate and service boxes to the proposed finished grade of the final surface utilizing riser insert and ring(s). The specified risers shall be 6” E-Z Rise Slide Riser and corresponding E-Z Rise Ring(s) to meet appropriate grade.



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8.3. Method of Measurement

Adjustment of Water/Gas Gate Boxes by Riser shall be measured in place by the unit each, complete and approved.

8.3.1. Basis of Payment

The unit bid price per each shall include all labor, materials and equipment necessary to complete the work as necessary or as directed by the Owner.

9. Item 9: Rebuild of Drainage/Sanitary Structures

9.2. Description

Work under this item shall include rebuilding of existing masonry sewer manhole structures, stormwater manhole structures, and catch basin structures in preparation of placement of the Bonded Wearing Course or asphalt rubber surface treatment. The casting and deteriorated masonry shall be removed in a neat manner until a clean, sound base is obtained upon which concrete blocks and clay bricks may be set to rebuild the structure. Rebuild of Drainage/Sanitary Structures will be paid for at the contract unit price per vertical foot complete in place. Work under this item shall be in conformance with Section 220 of the "Commonwealth of Massachusetts, Highway Department (MHD) Standard Specifications for Highway and Bridges", dated 1988, including the latest supplements and addendum thereto.

9.3. Method of Measurement

Rebuild of Drainage/Sanitary Structures will be measured per vertical foot complete in place.

9.3.1. Basis of Payment

Rebuild of Drainage/Sanitary Structures will be paid for at the contract unit bid price per vertical foot complete in place which shall include all labor, materials and equipment necessary to complete the work as necessary or as directed by the Town.

10. Item 10: Pavement Marking Removal

10.2. Description

Work under this item shall consist of furnishing services to remove existing pavement markings in accordance with the specifications and the Massachusetts Department of Transportation Standard Specifications Section 850. This Item shall consist of obliterating pavement markings within the limits of the final roadway application materials. Pavement marking removal methods shall not cause damage to the pavement or cause drastic change in texture, which could be construed as delineation at night, and shall be approved by the Engineer.

10.3. Method of Measurement

Pavement Marking Removal will be measured per square foot complete in place.



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10.3.1. Basis of Payment

Pavement Marking Removal will be paid for at the contract unit bid price per square foot in place which shall include all labor, materials and equipment necessary to complete the work as necessary or as directed by the Town.



**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**

CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

ROSALIN ACOSTA
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority: Town of Arlington
Contract Number: 22-11 **City/Town:** ARLINGTON
Description of Work: Pavement Preservation/various locations, resurfacing including Bonded Wearing Course/Asphalt Rubber Treatment for a period on one (1) year from date of contract, option to renew for a second year.
Job Location: Various Locations

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 criminal penalties.

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2021	\$37.05	\$13.41	\$16.01	\$0.00	\$66.47
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2021	\$37.12	\$13.41	\$16.01	\$0.00	\$66.54
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2021	\$37.24	\$13.41	\$16.01	\$0.00	\$66.66
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$103.05	\$9.40	\$23.12	\$0.00	\$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.93	\$9.10	\$17.57	\$0.00	\$68.60
	06/01/2022	\$42.93	\$9.10	\$17.57	\$0.00	\$69.60
	12/01/2022	\$43.93	\$9.10	\$17.57	\$0.00	\$70.60
	06/01/2023	\$44.93	\$9.10	\$17.57	\$0.00	\$71.60
	12/01/2023	\$46.18	\$9.10	\$17.57	\$0.00	\$72.85
For apprentice rates see "Apprentice- LABORER"						
AIR TRACK OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.93	\$9.10	\$17.57	\$0.00	\$68.60
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. <i>HEAT & FROST INSULATORS LOCAL 6 (BOSTON)</i>	12/01/2020	\$38.10	\$12.80	\$9.45	\$0.00	\$60.35
ASPHALT RAKER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
ASPHALT RAKER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.93	\$9.10	\$17.57	\$0.00	\$68.60
	06/01/2022	\$42.93	\$9.10	\$17.57	\$0.00	\$69.60
	12/01/2022	\$43.93	\$9.10	\$17.57	\$0.00	\$70.60
	06/01/2023	\$44.93	\$9.10	\$17.57	\$0.00	\$71.60
	12/01/2023	\$46.18	\$9.10	\$17.57	\$0.00	\$72.85
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i> For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"	12/01/2021	\$41.93	\$9.10	\$17.57	\$0.00	\$68.60
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2020	\$46.10	\$7.07	\$17.98	\$0.00	\$71.15

Apprentice - BOILERMAKER - Local 29

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) <i>BRICKLAYERS LOCAL 3 (BOSTON)</i>	02/01/2022	\$57.15	\$11.39	\$22.34	\$0.00	\$90.88
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Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Boston

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.58	\$11.39	\$22.34	\$0.00	\$62.31
2	60	\$34.29	\$11.39	\$22.34	\$0.00	\$68.02
3	70	\$40.01	\$11.39	\$22.34	\$0.00	\$73.74
4	80	\$45.72	\$11.39	\$22.34	\$0.00	\$79.45
5	90	\$51.44	\$11.39	\$22.34	\$0.00	\$85.17

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$42.33	\$9.10	\$17.72	\$0.00	\$69.15
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For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$41.18	\$9.10	\$17.72	\$0.00	\$68.00
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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$41.18	\$9.10	\$17.72	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	03/01/2022	\$44.53	\$8.68	\$19.97	\$0.00	\$73.18
	09/01/2022	\$45.18	\$8.68	\$19.97	\$0.00	\$73.83
	03/01/2023	\$45.78	\$8.68	\$19.97	\$0.00	\$74.43

Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.27	\$8.68	\$1.73	\$0.00	\$32.68
2	60	\$26.72	\$8.68	\$1.73	\$0.00	\$37.13
3	70	\$31.17	\$8.68	\$14.78	\$0.00	\$54.63
4	75	\$33.40	\$8.68	\$14.78	\$0.00	\$56.86
5	80	\$35.62	\$8.68	\$16.51	\$0.00	\$60.81
6	80	\$35.62	\$8.68	\$16.51	\$0.00	\$60.81
7	90	\$40.08	\$8.68	\$18.24	\$0.00	\$67.00
8	90	\$40.08	\$8.68	\$18.24	\$0.00	\$67.00

Effective Date - 09/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.59	\$8.68	\$1.73	\$0.00	\$33.00
2	60	\$27.11	\$8.68	\$1.73	\$0.00	\$37.52
3	70	\$31.63	\$8.68	\$14.78	\$0.00	\$55.09
4	75	\$33.89	\$8.68	\$14.78	\$0.00	\$57.35
5	80	\$36.14	\$8.68	\$16.51	\$0.00	\$61.33
6	80	\$36.14	\$8.68	\$16.51	\$0.00	\$61.33
7	90	\$40.66	\$8.68	\$18.24	\$0.00	\$67.58
8	90	\$40.66	\$8.68	\$18.24	\$0.00	\$67.58

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
Step 1&2 \$30.45/ 3&4 \$36.57/ 5&6 \$56.36/ 7&8 \$62.54

Apprentice to Journeyworker Ratio:1:5

CARPENTER WOOD FRAME <i>CARPENTERS-ZONE 3 (Wood Frame)</i>	04/01/2021	\$23.16	\$7.21	\$4.80	\$0.00	\$35.17
	04/01/2022	\$23.66	\$7.21	\$4.80	\$0.00	\$35.67
	04/01/2023	\$24.16	\$7.21	\$4.80	\$0.00	\$36.17

All Aspects of New Wood Frame Work

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - CARPENTER (Wood Frame) - Zone 3

Effective Date - 04/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$13.90	\$7.21	\$0.00	\$0.00	\$21.11
2	60	\$13.90	\$7.21	\$0.00	\$0.00	\$21.11
3	65	\$15.05	\$7.21	\$0.00	\$0.00	\$22.26
4	70	\$16.21	\$7.21	\$0.00	\$0.00	\$23.42
5	75	\$17.37	\$7.21	\$3.80	\$0.00	\$28.38
6	80	\$18.53	\$7.21	\$3.80	\$0.00	\$29.54
7	85	\$19.69	\$7.21	\$3.80	\$0.00	\$30.70
8	90	\$20.84	\$7.21	\$3.80	\$0.00	\$31.85

Effective Date - 04/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$14.20	\$7.21	\$0.00	\$0.00	\$21.41
2	60	\$14.20	\$7.21	\$0.00	\$0.00	\$21.41
3	65	\$15.38	\$7.21	\$0.00	\$0.00	\$22.59
4	70	\$16.56	\$7.21	\$0.00	\$0.00	\$23.77
5	75	\$17.75	\$7.21	\$3.80	\$0.00	\$28.76
6	80	\$18.93	\$7.21	\$3.80	\$0.00	\$29.94
7	85	\$20.11	\$7.21	\$3.80	\$0.00	\$31.12
8	90	\$21.29	\$7.21	\$3.80	\$0.00	\$32.30

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$17.63/ 3&4 \$19.95/ 5&6 \$27.22/ 7&8 \$29.54

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 (BOSTON)	01/01/2020	\$49.07	\$12.75	\$22.41	\$0.62	\$84.85
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Apprentice - CEMENT MASONRY/PLASTERING - Eastern Mass (Boston)

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.54	\$12.75	\$15.41	\$0.00	\$52.70
2	60	\$29.44	\$12.75	\$17.41	\$0.62	\$60.22
3	65	\$31.90	\$12.75	\$18.41	\$0.62	\$63.68
4	70	\$34.35	\$12.75	\$19.41	\$0.62	\$67.13
5	75	\$36.80	\$12.75	\$20.41	\$0.62	\$70.58
6	80	\$39.26	\$12.75	\$21.41	\$0.62	\$74.04
7	90	\$44.16	\$12.75	\$22.41	\$0.62	\$79.94

Notes:

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

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CHAIN SAW OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$52.38	\$14.00	\$16.05	\$0.00	\$82.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$33.69	\$14.00	\$16.05	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 2</i>	01/01/2022	\$53.66	\$8.65	\$23.05	\$0.00	\$85.36
	07/01/2022	\$54.86	\$8.65	\$23.05	\$0.00	\$86.56
	01/01/2023	\$56.06	\$8.65	\$23.05	\$0.00	\$87.76
	07/01/2023	\$57.26	\$8.65	\$23.05	\$0.00	\$88.96
	01/01/2024	\$58.46	\$8.65	\$23.05	\$0.00	\$90.16
	07/01/2024	\$59.66	\$8.65	\$23.05	\$0.00	\$91.36
	01/01/2025	\$60.86	\$8.65	\$23.05	\$0.00	\$92.56

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.83	\$8.65	\$0.00	\$0.00	\$35.48
2	55	\$29.51	\$8.65	\$6.27	\$0.00	\$44.43
3	60	\$32.20	\$8.65	\$6.84	\$0.00	\$47.69
4	65	\$34.88	\$8.65	\$7.41	\$0.00	\$50.94
5	70	\$37.56	\$8.65	\$19.63	\$0.00	\$65.84
6	75	\$40.25	\$8.65	\$20.20	\$0.00	\$69.10
7	80	\$42.93	\$8.65	\$20.77	\$0.00	\$72.35
8	90	\$48.29	\$8.65	\$21.91	\$0.00	\$78.85

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.43	\$8.65	\$0.00	\$0.00	\$36.08
2	55	\$30.17	\$8.65	\$6.27	\$0.00	\$45.09
3	60	\$32.92	\$8.65	\$6.84	\$0.00	\$48.41
4	65	\$35.66	\$8.65	\$7.41	\$0.00	\$51.72
5	70	\$38.40	\$8.65	\$19.63	\$0.00	\$66.68
6	75	\$41.15	\$8.65	\$20.20	\$0.00	\$70.00
7	80	\$43.89	\$8.65	\$20.77	\$0.00	\$73.31
8	90	\$49.37	\$8.65	\$21.91	\$0.00	\$79.93

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN LABORERS - ZONE 1	12/01/2021	\$41.33	\$9.10	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	12/01/2023	\$45.58	\$9.10	\$17.57	\$0.00	\$72.25

For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 1	12/01/2021	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	06/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	12/01/2022	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	06/01/2023	\$45.33	\$9.10	\$17.57	\$0.00	\$72.00
	12/01/2023	\$46.58	\$9.10	\$17.57	\$0.00	\$73.25

For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS LABORERS - ZONE 1	12/01/2021	\$42.08	\$9.10	\$17.57	\$0.00	\$68.75
	06/01/2022	\$43.08	\$9.10	\$17.57	\$0.00	\$69.75
	12/01/2022	\$44.08	\$9.10	\$17.57	\$0.00	\$70.75
	06/01/2023	\$45.08	\$9.10	\$17.57	\$0.00	\$71.75
	12/01/2023	\$46.33	\$9.10	\$17.57	\$0.00	\$73.00

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 1</i>	12/01/2021	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	06/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	12/01/2022	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	06/01/2023	\$45.33	\$9.10	\$17.57	\$0.00	\$72.00
	12/01/2023	\$46.58	\$9.10	\$17.57	\$0.00	\$73.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$42.08	\$9.10	\$17.57	\$0.00	\$68.75
	06/01/2022	\$43.08	\$9.10	\$17.57	\$0.00	\$69.75
	12/01/2022	\$44.08	\$9.10	\$17.57	\$0.00	\$70.75
	06/01/2023	\$45.08	\$9.10	\$17.57	\$0.00	\$71.75
	12/01/2023	\$46.33	\$9.10	\$17.57	\$0.00	\$73.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.33	\$9.10	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	12/01/2023	\$45.58	\$9.10	\$17.57	\$0.00	\$72.25
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$68.70	\$9.40	\$23.12	\$0.00	\$101.22
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$49.07	\$9.40	\$23.12	\$0.00	\$81.59
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$73.60	\$9.40	\$23.12	\$0.00	\$106.12
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$103.05	\$9.40	\$23.12	\$0.00	\$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) <i>DRAWBRIDGE - SEIU LOCAL 888</i>	07/01/2020	\$26.77	\$6.67	\$3.93	\$0.16	\$37.53
ELECTRICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2022	\$57.32	\$13.00	\$20.82	\$0.00	\$91.14
	09/01/2022	\$58.76	\$13.00	\$20.86	\$0.00	\$92.62
	03/01/2023	\$60.43	\$13.00	\$20.91	\$0.00	\$94.34

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ELECTRICIAN - Local 103

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$22.93	\$13.00	\$0.69	\$0.00	\$36.62
2	40	\$22.93	\$13.00	\$0.69	\$0.00	\$36.62
3	45	\$25.79	\$13.00	\$15.62	\$0.00	\$54.41
4	45	\$25.79	\$13.00	\$15.62	\$0.00	\$54.41
5	50	\$28.66	\$13.00	\$16.10	\$0.00	\$57.76
6	55	\$31.53	\$13.00	\$16.58	\$0.00	\$61.11
7	60	\$34.39	\$13.00	\$17.04	\$0.00	\$64.43
8	65	\$37.26	\$13.00	\$17.52	\$0.00	\$67.78
9	70	\$40.12	\$13.00	\$17.98	\$0.00	\$71.10
10	75	\$42.99	\$13.00	\$18.46	\$0.00	\$74.45

Effective Date - 09/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$23.50	\$13.00	\$0.71	\$0.00	\$37.21
2	40	\$23.50	\$13.00	\$0.71	\$0.00	\$37.21
3	45	\$26.44	\$13.00	\$15.64	\$0.00	\$55.08
4	45	\$26.44	\$13.00	\$15.64	\$0.00	\$55.08
5	50	\$29.38	\$13.00	\$16.12	\$0.00	\$58.50
6	55	\$32.32	\$13.00	\$16.60	\$0.00	\$61.92
7	60	\$35.26	\$13.00	\$17.07	\$0.00	\$65.33
8	65	\$38.19	\$13.00	\$17.55	\$0.00	\$68.74
9	70	\$41.13	\$13.00	\$18.01	\$0.00	\$72.14
10	75	\$44.07	\$13.00	\$18.49	\$0.00	\$75.56

Notes :
 App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80

Apprentice to Journeyworker Ratio:2:3***

ELEVATOR CONSTRUCTOR	01/01/2022	\$65.62	\$16.03	\$20.21	\$0.00	\$101.86
ELEVATOR CONSTRUCTORS LOCAL 4						

Apprentice - ELEVATOR CONSTRUCTOR - Local 4

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$32.81	\$16.03	\$0.00	\$0.00	\$48.84
2	55	\$36.09	\$16.03	\$20.21	\$0.00	\$72.33
3	65	\$42.65	\$16.03	\$20.21	\$0.00	\$78.89
4	70	\$45.93	\$16.03	\$20.21	\$0.00	\$82.17
5	80	\$52.50	\$16.03	\$20.21	\$0.00	\$88.74

Notes:

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

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER <i>ELEVATOR CONSTRUCTORS LOCAL 4</i>	01/01/2022	\$45.93	\$16.03	\$20.21	\$0.00	\$82.17
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"						
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2021	\$46.53	\$13.75	\$15.80	\$0.00	\$76.08
	05/01/2022	\$47.86	\$13.75	\$15.80	\$0.00	\$77.41
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2021	\$48.06	\$13.75	\$15.80	\$0.00	\$77.61
	05/01/2022	\$49.22	\$13.75	\$15.80	\$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>	11/01/2021	\$23.16	\$13.75	\$15.80	\$0.00	\$52.71
	05/01/2022	\$23.83	\$13.75	\$15.80	\$0.00	\$53.38
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 103</i>	03/01/2022	\$57.32	\$13.00	\$20.82	\$0.00	\$91.14
	09/01/2022	\$58.76	\$13.00	\$20.86	\$0.00	\$92.62
	03/01/2023	\$60.43	\$13.00	\$20.91	\$0.00	\$94.34
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE <i>LOCAL 103</i>	03/01/2022	\$44.71	\$13.00	\$18.74	\$0.00	\$76.45
	09/01/2022	\$46.42	\$13.00	\$18.87	\$0.00	\$78.29
	03/01/2023	\$48.34	\$13.00	\$19.01	\$0.00	\$80.35
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$41.76	\$14.00	\$16.05	\$0.00	\$71.81
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$24.50	\$9.10	\$17.57	\$0.00	\$51.17
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE 1</i>	03/01/2022	\$49.93	\$8.68	\$20.27	\$0.00	\$78.88

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - FLOORCOVERER - Local 2168 Zone I

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.97	\$8.68	\$1.79	\$0.00	\$35.44
2	55	\$27.46	\$8.68	\$1.79	\$0.00	\$37.93
3	60	\$29.96	\$8.68	\$14.90	\$0.00	\$53.54
4	65	\$32.45	\$8.68	\$14.90	\$0.00	\$56.03
5	70	\$34.95	\$8.68	\$16.69	\$0.00	\$60.32
6	75	\$37.45	\$8.68	\$16.69	\$0.00	\$62.82
7	80	\$39.94	\$8.68	\$18.48	\$0.00	\$67.10
8	85	\$42.44	\$8.68	\$18.48	\$0.00	\$69.60

Notes: Steps are 750 hrs.
 % After 10/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)
 Step 1&2 \$32.94/ 3&4 \$39.66/ 5&6 \$60.32/ 7&8 \$67.10

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GENERATOR/LIGHTING PLANT/HEATERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$33.69	\$14.00	\$16.05	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) <i>GLAZIERS LOCAL 35 (ZONE 2)</i>	01/01/2022	\$43.16	\$8.65	\$23.05	\$0.00	\$74.86
	07/01/2022	\$44.36	\$8.65	\$23.05	\$0.00	\$76.06
	01/01/2023	\$45.56	\$8.65	\$23.05	\$0.00	\$77.26
	07/01/2023	\$46.76	\$8.65	\$23.05	\$0.00	\$78.46
	01/01/2024	\$47.96	\$8.65	\$23.05	\$0.00	\$79.66
	07/01/2024	\$49.16	\$8.65	\$23.05	\$0.00	\$80.86
	01/01/2025	\$50.36	\$8.65	\$23.05	\$0.00	\$82.06

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - GLAZIER - Local 35 Zone 2

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.58	\$8.65	\$0.00	\$0.00	\$30.23
2	55	\$23.74	\$8.65	\$6.27	\$0.00	\$38.66
3	60	\$25.90	\$8.65	\$6.84	\$0.00	\$41.39
4	65	\$28.05	\$8.65	\$7.41	\$0.00	\$44.11
5	70	\$30.21	\$8.65	\$19.63	\$0.00	\$58.49
6	75	\$32.37	\$8.65	\$20.20	\$0.00	\$61.22
7	80	\$34.53	\$8.65	\$20.77	\$0.00	\$63.95
8	90	\$38.84	\$8.65	\$21.91	\$0.00	\$69.40

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.18	\$8.65	\$0.00	\$0.00	\$30.83
2	55	\$24.40	\$8.65	\$6.27	\$0.00	\$39.32
3	60	\$26.62	\$8.65	\$6.84	\$0.00	\$42.11
4	65	\$28.83	\$8.65	\$7.41	\$0.00	\$44.89
5	70	\$31.05	\$8.65	\$19.63	\$0.00	\$59.33
6	75	\$33.27	\$8.65	\$20.20	\$0.00	\$62.12
7	80	\$35.49	\$8.65	\$20.77	\$0.00	\$64.91
8	90	\$39.92	\$8.65	\$21.91	\$0.00	\$70.48

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS OPERATING ENGINEERS LOCAL 4	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
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Apprentice - OPERATING ENGINEERS - Local 4

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$28.26	\$14.00	\$0.00	\$0.00	\$42.26
2	60	\$30.83	\$14.00	\$16.05	\$0.00	\$60.88
3	65	\$33.40	\$14.00	\$16.05	\$0.00	\$63.45
4	70	\$35.97	\$14.00	\$16.05	\$0.00	\$66.02
5	75	\$38.54	\$14.00	\$16.05	\$0.00	\$68.59
6	80	\$41.10	\$14.00	\$16.05	\$0.00	\$71.15
7	85	\$43.67	\$14.00	\$16.05	\$0.00	\$73.72
8	90	\$46.24	\$14.00	\$16.05	\$0.00	\$76.29

Notes:

Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 17 - A	02/01/2022	\$53.70	\$13.80	\$25.60	\$2.79	\$95.89
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For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 103	03/01/2022	\$57.32	\$13.00	\$20.82	\$0.00	\$91.14
	09/01/2022	\$58.76	\$13.00	\$20.86	\$0.00	\$92.62
	03/01/2023	\$60.43	\$13.00	\$20.91	\$0.00	\$94.34

For apprentice rates see "Apprentice- ELECTRICIAN"

HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 17 - A	02/01/2022	\$53.70	\$13.80	\$25.60	\$2.79	\$95.89
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For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (TESTING AND BALANCING -WATER) PIPEFITTERS LOCAL 537	03/01/2021	\$57.94	\$11.70	\$20.24	\$0.00	\$89.88
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For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

HVAC MECHANIC PIPEFITTERS LOCAL 537	03/01/2021	\$57.94	\$11.70	\$20.24	\$0.00	\$89.88
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For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

HYDRAULIC DRILLS LABORERS - ZONE 1	12/01/2021	\$41.93	\$9.10	\$17.57	\$0.00	\$68.60
	06/01/2022	\$42.93	\$9.10	\$17.57	\$0.00	\$69.60
	12/01/2022	\$43.93	\$9.10	\$17.57	\$0.00	\$70.60
	06/01/2023	\$44.93	\$9.10	\$17.57	\$0.00	\$71.60
	12/01/2023	\$46.18	\$9.10	\$17.57	\$0.00	\$72.85

For apprentice rates see "Apprentice- LABORER"

HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS - ZONE 1 (HEAVY & HIGHWAY)	12/01/2021	\$41.93	\$9.10	\$17.57	\$0.00	\$68.60
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For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 (BOSTON)	09/01/2021	\$51.40	\$13.80	\$17.14	\$0.00	\$82.34
	09/01/2022	\$53.85	\$13.80	\$17.14	\$0.00	\$84.79

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.70	\$13.80	\$12.42	\$0.00	\$51.92
2	60	\$30.84	\$13.80	\$13.36	\$0.00	\$58.00
3	70	\$35.98	\$13.80	\$14.31	\$0.00	\$64.09
4	80	\$41.12	\$13.80	\$15.25	\$0.00	\$70.17

Effective Date - 09/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.93	\$13.80	\$12.42	\$0.00	\$53.15
2	60	\$32.31	\$13.80	\$13.36	\$0.00	\$59.47
3	70	\$37.70	\$13.80	\$14.31	\$0.00	\$65.81
4	80	\$43.08	\$13.80	\$15.25	\$0.00	\$72.13

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (BOSTON AREA)</i>	03/16/2022	\$50.60	\$8.20	\$26.50	\$0.00	\$85.30
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Apprentice - IRONWORKER - Local 7 Boston

Effective Date - 03/16/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$30.36	\$8.20	\$26.50	\$0.00	\$65.06
2	70	\$35.42	\$8.20	\$26.50	\$0.00	\$70.12
3	75	\$37.95	\$8.20	\$26.50	\$0.00	\$72.65
4	80	\$40.48	\$8.20	\$26.50	\$0.00	\$75.18
5	85	\$43.01	\$8.20	\$26.50	\$0.00	\$77.71
6	90	\$45.54	\$8.20	\$26.50	\$0.00	\$80.24

Notes:

** Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:**

JACKHAMMER & PAVING BREAKER OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER LABORERS - ZONE 1	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.43	\$9.10	\$17.57	\$0.00	\$72.10

Apprentice - LABORER - Zone 1

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.71	\$9.10	\$17.57	\$0.00	\$51.38
2	70	\$28.83	\$9.10	\$17.57	\$0.00	\$55.50
3	80	\$32.94	\$9.10	\$17.57	\$0.00	\$59.61
4	90	\$37.06	\$9.10	\$17.57	\$0.00	\$63.73

Effective Date - 06/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$25.31	\$9.10	\$17.57	\$0.00	\$51.98
2	70	\$29.53	\$9.10	\$17.57	\$0.00	\$56.20
3	80	\$33.74	\$9.10	\$17.57	\$0.00	\$60.41
4	90	\$37.96	\$9.10	\$17.57	\$0.00	\$64.63

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER (HEAVY & HIGHWAY) LABORERS - ZONE 1 (HEAVY & HIGHWAY)	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
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Apprentice - LABORER (Heavy & Highway) - Zone 1

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.71	\$9.10	\$17.57	\$0.00	\$51.38
2	70	\$28.83	\$9.10	\$17.57	\$0.00	\$55.50
3	80	\$32.94	\$9.10	\$17.57	\$0.00	\$59.61
4	90	\$37.06	\$9.10	\$17.57	\$0.00	\$63.73

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER LABORERS - ZONE 1	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.43	\$9.10	\$17.57	\$0.00	\$72.10

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: CEMENT FINISHER TENDER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.43	\$9.10	\$17.57	\$0.00	\$72.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.33	\$9.10	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	12/01/2023	\$45.58	\$9.10	\$17.57	\$0.00	\$72.25
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	06/01/2024	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.43	\$9.10	\$17.57	\$0.00	\$72.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.43	\$9.10	\$17.57	\$0.00	\$72.10
This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	02/01/2022	\$43.69	\$11.39	\$20.37	\$0.00	\$75.45

Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.85	\$11.39	\$20.37	\$0.00	\$53.61
2	60	\$26.21	\$11.39	\$20.37	\$0.00	\$57.97
3	70	\$30.58	\$11.39	\$20.37	\$0.00	\$62.34
4	80	\$34.95	\$11.39	\$20.37	\$0.00	\$66.71
5	90	\$39.32	\$11.39	\$20.37	\$0.00	\$71.08

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS, TILELAYERS & TERRAZZO MECH BRICKLAYERS LOCAL 3 - MARBLE & TILE	02/01/2022	\$57.17	\$11.39	\$22.31	\$0.00	\$90.87
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Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.59	\$11.39	\$22.31	\$0.00	\$62.29
2	60	\$34.30	\$11.39	\$22.31	\$0.00	\$68.00
3	70	\$40.02	\$11.39	\$22.31	\$0.00	\$73.72
4	80	\$45.74	\$11.39	\$22.31	\$0.00	\$79.44
5	90	\$51.45	\$11.39	\$22.31	\$0.00	\$85.15

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 4	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE OPERATING ENGINEERS LOCAL 4	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 1) MILLWRIGHTS LOCAL 1121 - Zone 1	01/03/2022	\$45.52	\$8.58	\$21.57	\$0.00	\$75.67
	01/02/2023	\$47.27	\$8.58	\$21.57	\$0.00	\$77.42

Apprentice - MILLWRIGHT - Local 1121 Zone 1

Effective Date - 01/03/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$25.04	\$8.58	\$5.72	\$0.00	\$39.34
2	65	\$29.59	\$8.58	\$17.93	\$0.00	\$56.10
3	75	\$34.14	\$8.58	\$18.98	\$0.00	\$61.70
4	85	\$38.69	\$8.58	\$20.01	\$0.00	\$67.28

Effective Date - 01/02/2023

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$26.00	\$8.58	\$5.72	\$0.00	\$40.30
2	65	\$30.73	\$8.58	\$17.93	\$0.00	\$57.24
3	75	\$35.45	\$8.58	\$18.98	\$0.00	\$63.01
4	85	\$40.18	\$8.58	\$20.01	\$0.00	\$68.77

Notes: Step 1&2 Appr. indentured after 1/6/2020 receive no pension, but do receive annuity. (Step 1 \$5.72, Step 2 \$6.66)
Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:4

MORTAR MIXER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35

For apprentice rates see "Apprentice- LABORER"

OILER (OTHER THAN TRUCK CRANES,GRADALLS) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$23.48	\$14.00	\$16.05	\$0.00	\$53.53
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OILER (TRUCK CRANES, GRADALLS) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$28.44	\$14.00	\$16.05	\$0.00	\$58.49
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OTHER POWER DRIVEN EQUIPMENT - CLASS II <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS) <i>PAINTERS LOCAL 35 - ZONE 2</i>	01/01/2022	\$53.66	\$8.65	\$23.05	\$0.00	\$85.36
	07/01/2022	\$54.86	\$8.65	\$23.05	\$0.00	\$86.56
	01/01/2023	\$56.06	\$8.65	\$23.05	\$0.00	\$87.76
	07/01/2023	\$57.26	\$8.65	\$23.05	\$0.00	\$88.96
	01/01/2024	\$58.46	\$8.65	\$23.05	\$0.00	\$90.16
	07/01/2024	\$59.66	\$8.65	\$23.05	\$0.00	\$91.36
	01/01/2025	\$60.86	\$8.65	\$23.05	\$0.00	\$92.56

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.83	\$8.65	\$0.00	\$0.00	\$35.48
2	55	\$29.51	\$8.65	\$6.27	\$0.00	\$44.43
3	60	\$32.20	\$8.65	\$6.84	\$0.00	\$47.69
4	65	\$34.88	\$8.65	\$7.41	\$0.00	\$50.94
5	70	\$37.56	\$8.65	\$19.63	\$0.00	\$65.84
6	75	\$40.25	\$8.65	\$20.20	\$0.00	\$69.10
7	80	\$42.93	\$8.65	\$20.77	\$0.00	\$72.35
8	90	\$48.29	\$8.65	\$21.91	\$0.00	\$78.85

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.43	\$8.65	\$0.00	\$0.00	\$36.08
2	55	\$30.17	\$8.65	\$6.27	\$0.00	\$45.09
3	60	\$32.92	\$8.65	\$6.84	\$0.00	\$48.41
4	65	\$35.66	\$8.65	\$7.41	\$0.00	\$51.72
5	70	\$38.40	\$8.65	\$19.63	\$0.00	\$66.68
6	75	\$41.15	\$8.65	\$20.20	\$0.00	\$70.00
7	80	\$43.89	\$8.65	\$20.77	\$0.00	\$73.31
8	90	\$49.37	\$8.65	\$21.91	\$0.00	\$79.93

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2022	\$44.56	\$8.65	\$23.05	\$0.00	\$76.26
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.PAINTERS LOCAL 35 - ZONE 2	07/01/2022	\$45.76	\$8.65	\$23.05	\$0.00	\$77.46
	01/01/2023	\$46.96	\$8.65	\$23.05	\$0.00	\$78.66
	07/01/2023	\$48.16	\$8.65	\$23.05	\$0.00	\$79.86
	01/01/2024	\$49.36	\$8.65	\$23.05	\$0.00	\$81.06
	07/01/2024	\$50.56	\$8.65	\$23.05	\$0.00	\$82.26
	01/01/2025	\$51.76	\$8.65	\$23.05	\$0.00	\$83.46

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.28	\$8.65	\$0.00	\$0.00	\$30.93
2	55	\$24.51	\$8.65	\$6.27	\$0.00	\$39.43
3	60	\$26.74	\$8.65	\$6.84	\$0.00	\$42.23
4	65	\$28.96	\$8.65	\$7.41	\$0.00	\$45.02
5	70	\$31.19	\$8.65	\$19.63	\$0.00	\$59.47
6	75	\$33.42	\$8.65	\$20.20	\$0.00	\$62.27
7	80	\$35.65	\$8.65	\$20.77	\$0.00	\$65.07
8	90	\$40.10	\$8.65	\$21.91	\$0.00	\$70.66

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.88	\$8.65	\$0.00	\$0.00	\$31.53
2	55	\$25.17	\$8.65	\$6.27	\$0.00	\$40.09
3	60	\$27.46	\$8.65	\$6.84	\$0.00	\$42.95
4	65	\$29.74	\$8.65	\$7.41	\$0.00	\$45.80
5	70	\$32.03	\$8.65	\$19.63	\$0.00	\$60.31
6	75	\$34.32	\$8.65	\$20.20	\$0.00	\$63.17
7	80	\$36.61	\$8.65	\$20.77	\$0.00	\$66.03
8	90	\$41.18	\$8.65	\$21.91	\$0.00	\$71.74

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2022	\$42.62	\$8.65	\$23.05	\$0.00	\$74.32
PAINTERS LOCAL 35 - ZONE 2	07/01/2022	\$43.82	\$8.65	\$23.05	\$0.00	\$75.52
	01/01/2023	\$45.02	\$8.65	\$23.05	\$0.00	\$76.72
	07/01/2023	\$46.22	\$8.65	\$23.05	\$0.00	\$77.92
	01/01/2024	\$47.42	\$8.65	\$23.05	\$0.00	\$79.12
	07/01/2024	\$48.62	\$8.65	\$23.05	\$0.00	\$80.32
	01/01/2025	\$49.82	\$8.65	\$23.05	\$0.00	\$81.52

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.31	\$8.65	\$0.00	\$0.00	\$29.96
2	55	\$23.44	\$8.65	\$6.27	\$0.00	\$38.36
3	60	\$25.57	\$8.65	\$6.84	\$0.00	\$41.06
4	65	\$27.70	\$8.65	\$7.41	\$0.00	\$43.76
5	70	\$29.83	\$8.65	\$19.63	\$0.00	\$58.11
6	75	\$31.97	\$8.65	\$20.20	\$0.00	\$60.82
7	80	\$34.10	\$8.65	\$20.77	\$0.00	\$63.52
8	90	\$38.36	\$8.65	\$21.91	\$0.00	\$68.92

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.91	\$8.65	\$0.00	\$0.00	\$30.56
2	55	\$24.10	\$8.65	\$6.27	\$0.00	\$39.02
3	60	\$26.29	\$8.65	\$6.84	\$0.00	\$41.78
4	65	\$28.48	\$8.65	\$7.41	\$0.00	\$44.54
5	70	\$30.67	\$8.65	\$19.63	\$0.00	\$58.95
6	75	\$32.87	\$8.65	\$20.20	\$0.00	\$61.72
7	80	\$35.06	\$8.65	\$20.77	\$0.00	\$64.48
8	90	\$39.44	\$8.65	\$21.91	\$0.00	\$70.00

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, NEW) *	01/01/2022	\$43.16	\$8.65	\$23.05	\$0.00	\$74.86
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	07/01/2022	\$44.36	\$8.65	\$23.05	\$0.00	\$76.06
	01/01/2023	\$45.56	\$8.65	\$23.05	\$0.00	\$77.26
	07/01/2023	\$46.76	\$8.65	\$23.05	\$0.00	\$78.46
	01/01/2024	\$47.96	\$8.65	\$23.05	\$0.00	\$79.66
	07/01/2024	\$49.16	\$8.65	\$23.05	\$0.00	\$80.86
	01/01/2025	\$50.36	\$8.65	\$23.05	\$0.00	\$82.06

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.58	\$8.65	\$0.00	\$0.00	\$30.23
2	55	\$23.74	\$8.65	\$6.27	\$0.00	\$38.66
3	60	\$25.90	\$8.65	\$6.84	\$0.00	\$41.39
4	65	\$28.05	\$8.65	\$7.41	\$0.00	\$44.11
5	70	\$30.21	\$8.65	\$19.63	\$0.00	\$58.49
6	75	\$32.37	\$8.65	\$20.20	\$0.00	\$61.22
7	80	\$34.53	\$8.65	\$20.77	\$0.00	\$63.95
8	90	\$38.84	\$8.65	\$21.91	\$0.00	\$69.40

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.18	\$8.65	\$0.00	\$0.00	\$30.83
2	55	\$24.40	\$8.65	\$6.27	\$0.00	\$39.32
3	60	\$26.62	\$8.65	\$6.84	\$0.00	\$42.11
4	65	\$28.83	\$8.65	\$7.41	\$0.00	\$44.89
5	70	\$31.05	\$8.65	\$19.63	\$0.00	\$59.33
6	75	\$33.27	\$8.65	\$20.20	\$0.00	\$62.12
7	80	\$35.49	\$8.65	\$20.77	\$0.00	\$64.91
8	90	\$39.92	\$8.65	\$21.91	\$0.00	\$70.48

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT)	01/01/2022	\$41.22	\$8.65	\$23.05	\$0.00	\$72.92
PAINTERS LOCAL 35 - ZONE 2	07/01/2022	\$42.42	\$8.65	\$23.05	\$0.00	\$74.12
	01/01/2023	\$43.62	\$8.65	\$23.05	\$0.00	\$75.32
	07/01/2023	\$44.82	\$8.65	\$23.05	\$0.00	\$76.52
	01/01/2024	\$46.02	\$8.65	\$23.05	\$0.00	\$77.72
	07/01/2024	\$47.22	\$8.65	\$23.05	\$0.00	\$78.92
	01/01/2025	\$48.42	\$8.65	\$23.05	\$0.00	\$80.12

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.61	\$8.65	\$0.00	\$0.00	\$29.26
2	55	\$22.67	\$8.65	\$6.27	\$0.00	\$37.59
3	60	\$24.73	\$8.65	\$6.84	\$0.00	\$40.22
4	65	\$26.79	\$8.65	\$7.41	\$0.00	\$42.85
5	70	\$28.85	\$8.65	\$19.63	\$0.00	\$57.13
6	75	\$30.92	\$8.65	\$20.20	\$0.00	\$59.77
7	80	\$32.98	\$8.65	\$20.77	\$0.00	\$62.40
8	90	\$37.10	\$8.65	\$21.91	\$0.00	\$67.66

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.21	\$8.65	\$0.00	\$0.00	\$29.86
2	55	\$23.33	\$8.65	\$6.27	\$0.00	\$38.25
3	60	\$25.45	\$8.65	\$6.84	\$0.00	\$40.94
4	65	\$27.57	\$8.65	\$7.41	\$0.00	\$43.63
5	70	\$29.69	\$8.65	\$19.63	\$0.00	\$57.97
6	75	\$31.82	\$8.65	\$20.20	\$0.00	\$60.67
7	80	\$33.94	\$8.65	\$20.77	\$0.00	\$63.36
8	90	\$38.18	\$8.65	\$21.91	\$0.00	\$68.74

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) LABORERS - ZONE 1 (HEAVY & HIGHWAY) For apprentice rates see "Apprentice- LABORER (Heavy and Highway)	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
PANEL & PICKUP TRUCKS DRIVER TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2021	\$36.88	\$13.41	\$16.01	\$0.00	\$66.30
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) PILE DRIVER LOCAL 56 (ZONE 1) For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2020	\$49.07	\$9.40	\$23.12	\$0.00	\$81.59
PILE DRIVER PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2020	\$49.07	\$9.40	\$23.12	\$0.00	\$81.59

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PILE DRIVER - Local 56 Zone 1

Effective Date - 08/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.54	\$9.40	\$23.12	\$0.00	\$57.06
2	60	\$29.44	\$9.40	\$23.12	\$0.00	\$61.96
3	70	\$34.35	\$9.40	\$23.12	\$0.00	\$66.87
4	75	\$36.80	\$9.40	\$23.12	\$0.00	\$69.32
5	80	\$39.26	\$9.40	\$23.12	\$0.00	\$71.78
6	80	\$39.26	\$9.40	\$23.12	\$0.00	\$71.78
7	90	\$44.16	\$9.40	\$23.12	\$0.00	\$76.68
8	90	\$44.16	\$9.40	\$23.12	\$0.00	\$76.68

Notes:
 % Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$34.01/ 3&4 \$41.46/ 5&6 \$62.80/ 7&8 \$69.25

Apprentice to Journeyworker Ratio:1:5

PIPEFITTER & STEAMFITTER PIPEFITTERS LOCAL 537	03/01/2021	\$57.94	\$11.70	\$20.24	\$0.00	\$89.88
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Apprentice - PIPEFITTER - Local 537

Effective Date - 03/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$23.18	\$11.70	\$8.25	\$0.00	\$43.13
2	45	\$26.07	\$11.70	\$20.24	\$0.00	\$58.01
3	60	\$34.76	\$11.70	\$20.24	\$0.00	\$66.70
4	70	\$40.56	\$11.70	\$20.24	\$0.00	\$72.50
5	80	\$46.35	\$11.70	\$20.24	\$0.00	\$78.29

Notes:
 ** 1:3; 3:15; 1:10 thereafter / Steps are 1 yr.
 Refrig/AC Mechanic **1:1;1:2;2:4;3:6;4:8;5:10;6:12;7:14;8:17;9:20;10:23(Max)

Apprentice to Journeyworker Ratio:**

PIPELAYER LABORERS - ZONE 1	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35

For apprentice rates see "Apprentice- LABORER"

PIPELAYER (HEAVY & HIGHWAY) LABORERS - ZONE 1 (HEAVY & HIGHWAY)	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
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For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PLUMBERS & GASFITTERS <i>PLUMBERS & GASFITTERS LOCAL 12</i>	03/01/2022	\$61.79	\$14.07	\$18.36	\$0.00	\$94.22
	09/04/2022	\$63.49	\$14.07	\$18.36	\$0.00	\$95.92
	02/26/2023	\$65.19	\$14.07	\$18.36	\$0.00	\$97.62
	09/03/2023	\$66.94	\$14.07	\$18.36	\$0.00	\$99.37
	03/03/2024	\$68.74	\$14.07	\$18.36	\$0.00	\$101.17
	09/01/2024	\$70.54	\$14.07	\$18.36	\$0.00	\$102.97
	03/02/2025	\$72.34	\$14.07	\$18.36	\$0.00	\$104.77

Apprentice - PLUMBER/GASFITTER - Local 12

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$21.63	\$14.07	\$6.63	\$0.00	\$42.33
2	40	\$24.72	\$14.07	\$7.52	\$0.00	\$46.31
3	55	\$33.98	\$14.07	\$10.24	\$0.00	\$58.29
4	65	\$40.16	\$14.07	\$12.04	\$0.00	\$66.27
5	75	\$46.34	\$14.07	\$13.85	\$0.00	\$74.26

Effective Date - 09/04/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$22.22	\$14.07	\$6.63	\$0.00	\$42.92
2	40	\$25.40	\$14.07	\$7.52	\$0.00	\$46.99
3	55	\$34.92	\$14.07	\$10.24	\$0.00	\$59.23
4	65	\$41.27	\$14.07	\$12.04	\$0.00	\$67.38
5	75	\$47.62	\$14.07	\$13.85	\$0.00	\$75.54

Notes:

** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr
Step4 with lic\$69.00, Step5 with lic\$76.87

Apprentice to Journeyworker Ratio:**

PNEUMATIC CONTROLS (TEMP.) <i>PIPEFITTERS LOCAL 537</i>	03/01/2021	\$57.94	\$11.70	\$20.24	\$0.00	\$89.88
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For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35

For apprentice rates see "Apprentice- LABORER"

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
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For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

POWDERMAN & BLASTER <i>LABORERS - ZONE 1</i>	12/01/2021	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	06/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	12/01/2022	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	06/01/2023	\$45.18	\$9.10	\$17.57	\$0.00	\$71.85
	12/01/2023	\$46.43	\$9.10	\$17.57	\$0.00	\$73.10

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER (HEAVY & HIGHWAY) LABORERS - ZONE 1 (HEAVY & HIGHWAY)	12/01/2021	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE OPERATING ENGINEERS LOCAL 4	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) OPERATING ENGINEERS LOCAL 4	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) OPERATING ENGINEERS LOCAL 4	12/01/2021	\$33.69	\$14.00	\$16.05	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY MIX CONCRETE DRIVERS after 4/30/12 (Drivers Hired After 4/30/2012)TEAMSTERS 25 (Metro) - Aggregate	08/01/2021	\$29.15	\$11.41	\$15.25	\$0.00	\$55.81
	05/01/2022	\$30.40	\$11.41	\$15.25	\$0.00	\$57.06
	08/01/2022	\$30.40	\$11.91	\$15.25	\$0.00	\$57.56
READY-MIX CONCRETE DRIVER TEAMSTERS 25 (Metro) - Aggregate	08/01/2021	\$33.66	\$11.41	\$15.25	\$0.00	\$60.32
	05/01/2022	\$34.41	\$11.41	\$15.25	\$0.00	\$61.07
	08/01/2022	\$34.41	\$11.91	\$15.25	\$0.00	\$61.57
RECLAIMERS OPERATING ENGINEERS LOCAL 4	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RIDE-ON MOTORIZED BUGGY OPERATOR LABORERS - ZONE 1	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE OPERATING ENGINEERS LOCAL 4	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofing Waterproofing &Roofing Damproofg) ROOFERS LOCAL 33	02/01/2022	\$47.03	\$12.28	\$19.45	\$0.00	\$78.76

Apprentice - ROOFER - Local 33

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.52	\$12.28	\$5.21	\$0.00	\$41.01
2	60	\$28.22	\$12.28	\$19.45	\$0.00	\$59.95
3	65	\$30.57	\$12.28	\$19.45	\$0.00	\$62.30
4	75	\$35.27	\$12.28	\$19.45	\$0.00	\$67.00
5	85	\$39.98	\$12.28	\$19.45	\$0.00	\$71.71

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 ROOFERS LOCAL 33	02/01/2022	\$47.28	\$12.28	\$19.45	\$0.00	\$79.01
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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- ROOFER"						
SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 17 - A	02/01/2022	\$53.70	\$13.80	\$25.60	\$2.79	\$95.89

Apprentice - SHEET METAL WORKER - Local 17-A

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	42	\$22.55	\$13.80	\$6.01	\$0.00	\$42.36
2	42	\$22.55	\$13.80	\$6.01	\$0.00	\$42.36
3	47	\$25.24	\$13.80	\$11.26	\$1.51	\$51.81
4	47	\$25.24	\$13.80	\$11.26	\$1.51	\$51.81
5	52	\$27.92	\$13.80	\$12.23	\$1.62	\$55.57
6	52	\$27.92	\$13.80	\$12.48	\$1.63	\$55.83
7	60	\$32.22	\$13.80	\$13.87	\$1.80	\$61.69
8	65	\$34.91	\$13.80	\$14.84	\$1.91	\$65.46
9	75	\$40.28	\$13.80	\$16.77	\$2.13	\$72.98
10	85	\$45.65	\$13.80	\$18.20	\$2.33	\$79.98

Notes:

Steps are 6 mos.

Apprentice to Journeyworker Ratio:1:4

SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2021	\$37.34	\$13.41	\$16.01	\$0.00	\$66.76
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2021	\$37.63	\$13.41	\$16.01	\$0.00	\$67.05
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1	03/01/2022	\$64.36	\$10.44	\$22.10	\$0.00	\$96.90
	10/01/2022	\$66.06	\$10.44	\$22.10	\$0.00	\$98.60
	03/01/2023	\$67.76	\$10.44	\$22.10	\$0.00	\$100.30
	10/01/2023	\$69.51	\$10.44	\$22.10	\$0.00	\$102.05
	03/01/2024	\$71.31	\$10.44	\$22.10	\$0.00	\$103.85
	10/01/2024	\$73.11	\$10.44	\$22.10	\$0.00	\$105.65
	03/01/2025	\$74.91	\$10.44	\$22.10	\$0.00	\$107.45

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$22.53	\$10.44	\$12.35	\$0.00	\$45.32
2	40	\$25.74	\$10.44	\$13.10	\$0.00	\$49.28
3	45	\$28.96	\$10.44	\$13.85	\$0.00	\$53.25
4	50	\$32.18	\$10.44	\$14.60	\$0.00	\$57.22
5	55	\$35.40	\$10.44	\$15.35	\$0.00	\$61.19
6	60	\$38.62	\$10.44	\$16.10	\$0.00	\$65.16
7	65	\$41.83	\$10.44	\$16.85	\$0.00	\$69.12
8	70	\$45.05	\$10.44	\$17.60	\$0.00	\$73.09
9	75	\$48.27	\$10.44	\$18.35	\$0.00	\$77.06
10	80	\$51.49	\$10.44	\$19.10	\$0.00	\$81.03

Effective Date - 10/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$23.12	\$10.44	\$12.35	\$0.00	\$45.91
2	40	\$26.42	\$10.44	\$13.10	\$0.00	\$49.96
3	45	\$29.73	\$10.44	\$13.85	\$0.00	\$54.02
4	50	\$33.03	\$10.44	\$14.60	\$0.00	\$58.07
5	55	\$36.33	\$10.44	\$15.35	\$0.00	\$62.12
6	60	\$39.64	\$10.44	\$16.10	\$0.00	\$66.18
7	65	\$42.94	\$10.44	\$16.85	\$0.00	\$70.23
8	70	\$46.24	\$10.44	\$17.60	\$0.00	\$74.28
9	75	\$49.55	\$10.44	\$18.35	\$0.00	\$78.34
10	80	\$52.85	\$10.44	\$19.10	\$0.00	\$82.39

Notes: Apprentice entered prior 9/30/10:
40/45/50/55/60/65/70/75/80/85
Steps are 850 hours

Apprentice to Journeyworker Ratio:1:3

STEAM BOILER OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2022	\$44.71	\$13.00	\$18.74	\$0.00	\$76.45
	09/01/2022	\$46.42	\$13.00	\$18.87	\$0.00	\$78.29
	03/01/2023	\$48.34	\$13.00	\$19.01	\$0.00	\$80.35

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$20.12	\$13.00	\$0.60	\$0.00	\$33.72
2	45	\$20.12	\$13.00	\$0.60	\$0.00	\$33.72
3	50	\$22.36	\$13.00	\$15.06	\$0.00	\$50.42
4	50	\$22.36	\$13.00	\$15.06	\$0.00	\$50.42
5	55	\$24.59	\$13.00	\$15.43	\$0.00	\$53.02
6	60	\$26.83	\$13.00	\$15.79	\$0.00	\$55.62
7	65	\$29.06	\$13.00	\$16.16	\$0.00	\$58.22
8	70	\$31.30	\$13.00	\$16.53	\$0.00	\$60.83
9	75	\$33.53	\$13.00	\$16.91	\$0.00	\$63.44
10	80	\$35.77	\$13.00	\$17.27	\$0.00	\$66.04

Effective Date - 09/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$20.89	\$13.00	\$0.63	\$0.00	\$34.52
2	45	\$20.89	\$13.00	\$0.63	\$0.00	\$34.52
3	50	\$23.21	\$13.00	\$15.13	\$0.00	\$51.34
4	50	\$23.21	\$13.00	\$15.13	\$0.00	\$51.34
5	55	\$25.53	\$13.00	\$15.51	\$0.00	\$54.04
6	60	\$27.85	\$13.00	\$15.88	\$0.00	\$56.73
7	65	\$30.17	\$13.00	\$16.26	\$0.00	\$59.43
8	70	\$32.49	\$13.00	\$16.62	\$0.00	\$62.11
9	75	\$34.82	\$13.00	\$17.00	\$0.00	\$64.82
10	80	\$37.14	\$13.00	\$17.37	\$0.00	\$67.51

Notes:

Apprentice to Journeyworker Ratio:1:1

TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 - MARBLE & TILE	02/01/2022	\$56.09	\$11.39	\$22.34	\$0.00	\$89.82
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Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.05	\$11.39	\$22.34	\$0.00	\$61.78
2	60	\$33.65	\$11.39	\$22.34	\$0.00	\$67.38
3	70	\$39.26	\$11.39	\$22.34	\$0.00	\$72.99
4	80	\$44.87	\$11.39	\$22.34	\$0.00	\$78.60
5	90	\$50.48	\$11.39	\$22.34	\$0.00	\$84.21

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$42.58	\$9.10	\$17.72	\$0.00	\$69.40
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For apprentice rates see "Apprentice- LABORER"

TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$41.30	\$9.10	\$17.72	\$0.00	\$68.12
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For apprentice rates see "Apprentice- LABORER"

TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$41.18	\$9.10	\$17.72	\$0.00	\$68.00
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For apprentice rates see "Apprentice- LABORER"

TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2021	\$37.92	\$13.41	\$16.01	\$0.00	\$67.34
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TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	12/01/2021	\$53.41	\$9.10	\$18.17	\$0.00	\$80.68
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For apprentice rates see "Apprentice- LABORER"

TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	12/01/2021	\$55.41	\$9.10	\$18.17	\$0.00	\$82.68
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For apprentice rates see "Apprentice- LABORER"

TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2021	\$45.48	\$9.10	\$18.17	\$0.00	\$72.75
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For apprentice rates see "Apprentice- LABORER"

TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2021	\$47.48	\$9.10	\$18.17	\$0.00	\$74.75
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For apprentice rates see "Apprentice- LABORER"

VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2021	\$37.34	\$13.41	\$16.01	\$0.00	\$66.76
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WAGON DRILL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
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	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
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	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
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	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
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	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
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For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WAGON DRILL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS & GASFITTERS LOCAL 12</i>	03/01/2022	\$63.39	\$13.57	\$17.26	\$0.00	\$94.22
	09/04/2022	\$63.49	\$14.07	\$18.36	\$0.00	\$95.92
	02/26/2023	\$65.19	\$14.07	\$18.36	\$0.00	\$97.62
	09/03/2023	\$66.94	\$14.07	\$18.36	\$0.00	\$99.37
	03/03/2024	\$68.74	\$14.07	\$18.36	\$0.00	\$101.17
	09/01/2024	\$70.54	\$14.07	\$18.36	\$0.00	\$102.97
	03/02/2025	\$72.34	\$14.07	\$18.36	\$0.00	\$104.77
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						

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.