

**CONTRACT DOCUMENTS AND SPECIFICATIONS**

**for**

**2011 Annual Paving Project**

**Bid Proposal #34-11**

John P. Bohenko, City Manager

City of Portsmouth, New Hampshire

Prepared by:

City of Portsmouth  
Engineering Division  
Public Works Department

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City of Portsmouth  
Portsmouth, New Hampshire  
Department of Public Works

## 2011 Annual Paving Project

### INVITATION TO BID

**Sealed** bid proposals, **plainly marked, 2011 Annual Paving Project**, Bid Proposal #34-11 **on the outside of the mailing envelope as well as the sealed bid envelope**, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire, 03801, will be accepted until **2:00 p.m. April 28, 2011**; at which time all bids will be publicly opened and read aloud.

This project consists of the pavement repair of several roads in Portsmouth, NH. Specifically, the work includes hot bituminous paving, cold planing, reclaiming, structure adjustment & replacement, fine grading, resetting curbing, pavement striping, traffic signal detector loops and other ancillary tasks.

Specifications may be obtained from the City's web site: [www.cityofportsmouth.com](http://www.cityofportsmouth.com), by contacting the Finance/Purchasing Department on the third floor at the above address, or by calling the Purchasing Coordinator at 603-610-7227. Addenda to this bid document, if any, including written answers to questions, will be posted on the City of Portsmouth website at <http://www.cityofportsmouth.com/finance/purchasing.htm> under the project heading. Addenda and updates will **NOT** be sent directly to vendors. Questions may be addressed to the Purchasing Coordinator.

Work may begin after June 6, 2011. Streets are to be completed within 28 days once work on them is begun. All sections of the work shall be completed by September 15, 2011. Liquidated damages shall be assessed at \$100.00 per day.

Bidders must determine the quantities of work required and the conditions under which the work will be performed.

The City reserves the right, after bid opening and prior to award of the contract, to modify the amount of the work in the event that bids exceed budgeted amounts. The City of Portsmouth further reserves the right to reject any or all bids, to waive technical or legal deficiencies, to re-bid, and to accept any bid that it may deem to be in the best interest of the City.

Each Bidder shall furnish a bid security in the amount of ten percent (10%) of the bid. The Bid Security may be in the form of a certified check drawn upon a bank within the State of New Hampshire or a bid bond executed by a surety company authorized to do business in the State of New Hampshire, made payable to the City of Portsmouth, N.H.

Bidders must be pre-qualified by the New Hampshire Department of Transportation for Paving work. Any Bid submitted by a Bidder not pre-qualified will be rejected as non-conforming. Any subcontractor working on the project will be pre-approved by the City prior to the start of construction.

The General Contractor will be permitted to subcontract portions of the work not to exceed an aggregate dollar value of 50% of the total contract bid amount in complete accordance with Section 108 of the State of New Hampshire Standard Specifications for Road and Bridge Construction.

## INSTRUCTIONS TO BIDDERS

### **BIDDING REQUIREMENTS AND CONDITIONS**

1. Special Notice to Bidders

Appended to these instructions is a complete set of bidding and general contract forms. These forms may be detached and executed for the submittal of bids. The plans, specifications, and other documents designated in the proposal form will be considered as part of the proposal, whether attached or not.

The bidders must submit a statement of bidder's qualifications, if requested, subsequent to bid opening but prior to award.

Addenda to this proposal, if any, including written answers to questions, will be posted on the City of Portsmouth website at <http://www.cityofportsmouth.com/finance/purchasing.htm> under the project heading. Addenda and updates will **NOT** be sent directly to firms. Contractors submitting a proposal should check the web site daily for addenda and updates after the release date. Firms should print out, sign and return addenda with the proposal. Failure to do so may result in disqualification

2. Interpretation of Quantities in Bid Schedules

The quantities appearing in the bid schedule are approximate only and are prepared for the comparison of bids. Payment to the contractor will be made only for actual work performed and accepted in accordance with the contract. Any scheduled item of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided, and no claim for loss, anticipated profits or costs incurred in anticipation of work not ultimately performed will be allowed due to such increase or decrease.

3. Examination of Plans, Specifications and Site Work

The bidder is expected to examine carefully the site of the proposed work, the plans, standard specifications, supplemental specifications, special provisions and contract forms before submitting a proposal. The submission of a bid shall be considered conclusive evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the contract. It will be conclusive evidence that the bidder has also investigated and is satisfied with the sources of supply for all materials.

Plans, surveys, measurements, dimensions, calculations, estimates and statements as to the condition under which the work is to be performed are believed to be correct, but the contractors must examine for themselves, as no allowance will be made for any errors or inaccuracies that maybe found therein.

4. Familiarity with Laws

The bidder is assumed to have made himself or herself familiar with all federal and state laws and all local by-laws, ordinances and regulations which in any manner affect those engaged or employed on the work or affect the materials or equipment used in the work or affect the conduct of the work, and the bidder, if awarded the contract, shall be obligated to perform the work in conformity with said laws, by-laws, ordinances and regulations notwithstanding its ignorance thereof. If the bidder shall discover any provision in the plans or specifications which is in conflict with any such law, by-law, ordinance or regulation the bidder shall forthwith report it to the engineer in writing.

5. Preparation of Proposal

a) The bidder shall submit its proposal upon the forms furnished by the Owner. The bidder shall specify a lump sum price in figures, for each pay item for which a quantity is given and shall also show the products of the respective prices and quantities written in figures in the column provided for that purpose and the total amount of the proposal obtained by adding the amount of the several items. All words and figures shall be in ink or typed. If a unit price or a lump sum bid already entered by the bidder on the proposal form is to be altered it should be crossed out with ink, the new unit price or lump sum bid entered above or below it and initialed by the bidder, also with ink.

b) The bidder's proposal must be signed with ink by the individual, by one or more general partners of a partnership, by one or more members or officers of each firm representing a joint venture; by one or more officers of a corporation, by one or more members (if member-managed) or managers (if manager-managed) of a limited liability company, or by an agent of the contractor legally qualified and acceptable to the owner. If the proposal is made by an individual, his or her name and post office address must be shown, by a partnership the name and post office address of each general and limited partner must be shown; as a joint venture, the name and post office address of each venturer must be shown; by a corporation, the name of the corporation and its business address must be shown, together with the name of the state in which it is incorporated, and the names, titles and business addresses of the president, secretary and treasurer.

6. Nonconforming Proposals

Proposals will be considered nonconforming and may be rejected in the Owner's sole discretion for any of the following reasons:

- If the proposal is on a form other than that furnished by the Owner, or if the form is altered or any portion thereof is detached;
- If there are unauthorized additions, conditional or altered bids, or irregularities of any kind which may tend to make the proposal or any portion thereof incomplete, indefinite or ambiguous as to its meaning;
- If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award; or
- If the proposal does not contain a unit price for each pay item listed except in the case of authorized alter pay items.

7. Proposal Guaranty

No proposal will be considered unless accompanied by a bid bond, surety, or similar guaranty of the types and in an amount not less than the amount indicated in the Invitation to Bid. All sureties shall be made payable to the "City of Portsmouth". If a bid bond is used by the bidder it shall be:

- In a form satisfactory to the Owner;
- With a surety company licensed, authorized to do business in, and subject to the jurisdiction of the courts of the State of New Hampshire; and
- Conditioned upon the faithful performance by the principal of the agreements contained in the sub-bid or the general bid.

In the event any irregularities are contained in the proposal guaranty, the bidder will have four business days (not counting the day of opening) to correct any irregularities. The corrected guaranty must be received by 4:00 p.m. If irregularities are not corrected to the satisfaction of the Owner, the Owner, in its sole discretion, may rejected the bid.

8. Delivery of Proposals

When sent by mail, the sealed proposal shall be addressed to the Owner at the address and in the care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the invitation for bids. Proposals received after the time for opening of the bids will be returned to the bidder, unopened.

9. Withdrawal of Proposals

A bidder will be permitted to withdraw his or her proposal unopened after it has been submitted if the Owner receives a request for withdrawal in writing prior to the time specified for opening the proposals.

10. Public Opening of Proposals

Proposals will be opened and read publicly at the time and place indicated in the invitation for bids. Bidders, their authorized agents, and other interested parties are invited to be present.

11. Disqualification of Bidders

Any or all of the following reasons may be deemed by Owner in its sole discretion as being sufficient for the disqualification of a bidder and the rejection of his proposal:

- More than one proposal for the same work from an individual, firm, or corporation under the same or different name;
- Evidence of collusion among bidders;
- Failure to submit all required information requested in the bid specifications;
- If the Contractor is not listed with the New Hampshire Department of Transportation as a pre-qualified contractor under the classification of Paving;
- Lack of competency or of adequate machinery, plant or other equipment, as revealed by the statement of bidders qualification or otherwise;
- Uncompleted work which, in the judgment of the owner, might hinder or prevent the prompt completion of additional work if awarded;
- Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts;
- Default or unsatisfactory performance on previous contracts; or
- Such disqualification would be in the best interests of the Owner.

12. Material Guaranty and Samples

Before any contract is awarded, the bidder may be required to furnish a complete statement of the origin, composition and manufacture of any or all materials to be used in the construction of the work, and the Owner may, in its sole discretion, reject the bid based on the contents of the statement or as a result of the failure of the bidder to submit the statement.

## AWARD AND EXECUTION OF CONTRACT

### 1. Consideration of Proposals

a) After the proposals are opened and read, they will be compared on the basis of the total price for all sections of work to be charged to perform the work and any such additional considerations as may be identified in the bid documents. The results of such comparisons will be immediately available to the public. In case of a discrepancy between the prices written in words and those written figures, the prices written in words shall govern. In case of a discrepancy between the total shown in the proposal and that obtained by adding the products of the quantities of items and unit bid prices, the latter shall govern.

b) The Owner reserves the right to reject any or all proposals, to waive technicalities or to advertise for new proposals, if, in the sole discretion of the Owner, the best interest of the City of Portsmouth will be promoted thereby.

### 2. Award of Contract

Within 30 calendar days after the opening of proposals, if a contract is to be awarded, the award will be made to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified, in writing, mailed to the address on his or her proposal, that his or her bid has been accepted and that the bidder has been awarded the contract.

The award shall not be considered official until such time that a Purchase Order, fully executed contract or an award letter has been issued by the Finance Director. No presumption of award shall be made by the bidder until such documents are in hand. Verbal notification of award is not considered official. Any action by the bidder to assume otherwise is done so at his/her own risk and the City will not be held liable for any expense incurred by a bidder that has not received an official award.

**Determination of the lowest bidder will be based on the total price for the work described on the bid proposal form. Due to fluctuating prices and possible budget limitations, the City reserves the right to delete portions of the work prior to contract execution.**

### 3. Cancellation of Award

The Owner reserves the right to cancel the award of any contract at any time before the execution of such contract by all parties without any liability of the Owner.

### 4. Return of Proposal Guaranty

All proposal guaranties, except those of the three lowest bidders, will be returned upon request following the opening and checking of the proposals. The proposal guaranties of the three lowest bidders will be returned within ten days following the award of the contract if requested.

### 5. Contract Bond

At the time of the execution of the contract, the successful bidder shall furnish:

- Labor and materials payment bond in the sum equal to 100 percent of the contract amount.

At the time of project completion, the Owner may, in its sole discretion, permit the Contractor to substitute a maintenance bond in lieu of holding retainage for the entire guaranty period. If a bond is furnished it shall meet the following criteria:

- The bond shall be in an amount equal to 20 percent of the contract amount. Such bond shall guarantee the repair of all damage due to faulty materials or workmanship provided or done by the contractor. The guarantee shall remain in effect for a period of one year after the date of final acceptance of the job by the Owner.

Each bond shall be: (1) in a form satisfactory to the Owner; (2) with a surety company licensed and authorized to do business and with a resident agent designated for services of process in the State of New Hampshire; and (3) conditioned upon the faithful performance by the principal of the agreements contained in the original bid. All premiums for the contract bonds are to be paid by the contractor.

6. Execution and Approval of Contract

The successful bidder is required to present all contract bonds, to provide proof of insurance, and to execute the contract within 10 days following receipt of the City's notification of acceptance of the bid. No contract shall be considered as in effect until it has been fully executed by all parties.

7. Failure to Execute Contract

Failure to execute the contract and file an acceptable bond within 10 days after notification of acceptance of bid shall be just cause for the cancellation of the award and the forfeiture of the proposal guarantee which shall become the property of the Owner, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible bidder, or the work may be re-advertised as the Owner may determine in its sole discretion.



**PROPOSAL FORM**

**2011 Annual Paving Project**

CITY OF PORTSMOUTH, N.H.

To the City of Portsmouth, New Hampshire, herein called the Owner.

The undersigned, as Bidder, herein referred to as singular and masculine declares as follows:

1. All interested in the Bid as Principals are named herein;
2. This bid is not made jointly, or in conjunction, cooperation or collusion with any other person, firm, corporation, or other legal entity;
3. No officer, agent or employee of the Owner is directly or indirectly interested in this Bid;
4. The bidder has carefully examined the sites of the proposed work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this Bid, and the bidder has carefully read and examined the Drawings, Agreement, Specifications and other Contract Documents therein referred to and knows and understands the terms and provisions thereof;
5. The bidder understands that the quantities of work calculated in the Bid or indicated on the Drawings or in the Specifications or other Contract Documents are approximate and are subject to increase or decrease or deletion as deemed necessary by the Portsmouth City Engineer. Any such changes will not result in or be justification for any penalty or increase in contract prices; and agrees that, if the Bid is accepted the bidder will contract with the Owner, as provided in the Contract Documents, this Bid Form being part of said Contract Documents, and that the bidder will supply or perform all labor, services, plant, machinery, apparatus, appliances, tools, supplies and all other activities required by the Contract Documents in the manner and within the time therein set forth, and that the bidder will take in full payment therefor the following item prices; and
6. It is the intention of this contract that the items listed above describe completely and thoroughly the entirety of the work as shown on the plans and as described in the specifications. All other items required to accomplish the above items are considered to be subsidiary work, unless shown as a pay item.

**PROPOSAL FORM** (continued)

(See spreadsheets in technical specification section for specific locations of items)

<b>ITEM #</b>	<b>EST. QTY.</b>	<b>UNITS</b>	<b>ITEM DESCRIPTION</b>	<b>UNIT PRICE IN FIGURES</b>	<b>ITEM TOTAL IN FIGURES</b>
214	6,765	SY	Fine Grading	_____	_____
304.3	40	CY	Crushed Gravel for Curbing	_____	_____
304.32	400	CY	Shoulder Gravel	_____	_____
306.208	6,765	SY	8" Reclaim Stab. Base (Remove & Rehandle)	_____	_____
403.11	4,411	Ton	Machine Pave	_____	_____
403.119	6283	Ton	Machine Pave (Night)	_____	_____
403.12	120	Ton	Hand Pave (Type F)	_____	_____
410.22	95,127	SY	Tack Coat	_____	_____
410.74	63,717	SY	Fibermat Process	_____	_____
417	35,177	SY	Cold Plane	_____	_____
417A	720	SY	Cold Plane (Small Butt Joints)	_____	_____
417B	1050	SY	Cold Plane (Bridge)	_____	_____
520.2	15	CY	Class B Curb Backfill	_____	_____
603	180	LF	18" PVC Culverts	_____	_____
603.8108	220	LF	8" PVC Drain Pipe	_____	_____
604	8	EA	Rebuild CB	_____	_____
604.45	51	EA	Adjust CB Covers	_____	_____
604.45A	22	EA	Provide & Adjust CB Covers	_____	_____
604.55	27	EA	Adjust Manhole Covers	_____	_____
604.55 A	8	EA	Provide & Adjust Manhole Covers	_____	_____
608.24	1100	SF	4" Concrete for Traffic Islands	_____	_____
608.26	60	SF	6" Concrete Handicapped Ramp	_____	_____
609.01	20	LF	New Straight Granite Curb	_____	_____

**PROPOSAL FORM** (continued)

(See spreadsheets in technical specification section for specific locations of items)

609.216	450	LF	6" High Sloped Granite Curb	_____	_____
609.5	30	LF	Reset Curb as required	_____	_____
611.90001	34	EA	Adjust Gate Valves	_____	_____
615	4	Ea	R4-7 24x30 Traffic Island Signs	_____	_____
616.65	8	Ea	6' x 50' Traffic Signal Loops	_____	_____
618.6	120	Hrs	Portsmouth Police (Traffic Control)	<u>\$51.25</u>	<u>\$6,150.00</u>
618.7	680	Hrs	Flaggers	<u>\$18.00</u>	<u>\$12,240.00</u>
619	1	U	Maintenance of Traffic	_____	_____
632.0104	71,850	LF	4" Painted Lane Striping	_____	_____
632.0112	270	LF	12" Painted Line Striping	_____	_____
632.3112	1,280	LF	12" Thermoplastic Striping (Stop Bars/xwalks)	_____	_____
632.3124	200	LF	24" Thermoplastic Striping (Stop Bar)	_____	_____
632.32	620	SF	Thermoplastic Words & Symbols	_____	_____
670	1	LS	Miscellaneous Tools	_____	_____
692	1	U	Mobilization	_____	_____

**The City reserves the right to delete any portion of the work/reduce the quantities of work represented in this bid proposal form.**

Total in Figures \$ \_\_\_\_\_

In Words \$ \_\_\_\_\_

The undersigned agrees that for extra work, if any, performed in accordance with the terms and provisions of the Contract Documents, the bidder will accept compensation as stipulated therein.

**PROPOSAL FORM** (continued)

(See spreadsheets in technical specification section for specific locations of items)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company

By: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Business Address

Title: \_\_\_\_\_

\_\_\_\_\_  
City, State, Zip Code

Telephone: \_\_\_\_\_

The Bidder has received and acknowledged Addenda No. \_\_\_\_\_ through \_\_\_\_\_.

All Bids are to be submitted on this form and in a sealed envelope, plainly marked on the outside with the Bidder's name and address and the Project name as it appears at the top of the Proposal Form.

We certify that the Company is currently pre-qualified with the State of New Hampshire for Paving Work.

By: \_\_\_\_\_  
Signature

In order to follow the City's sustainability practices, future bid invitations/specifications may be sent electronically. Please provide an email address as to where I could email future bid invitations/specifications of this type. Thank you in advance for your cooperation.

Email  
Address: \_\_\_\_\_

**BID SECURITY BOND**

(This format provided for convenience, actual Bid Bond is acceptable in lieu of, if compatible.)

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned

\_\_\_\_\_, as Principal, and

\_\_\_\_\_, as Surety, are hereby

held and firmly bound unto \_\_\_\_\_

IN THE SUM OF \_\_\_\_\_

as liquidated damages for payment of which, well and truly to be made we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of this obligation is such that whereas the Principal has submitted to the

\_\_\_\_\_ A CERTAIN Bid attached hereto and hereby made a part hereof to enter into a contract in writing, hereinafter referred to as the "AGREEMENT" and or "CONTRACT", for

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOW THEREFORE,

- (a) If said Bid shall be rejected or withdrawn as provided in the INFORMATION FOR BIDDERS attached hereto or, in the alternative,
- (b) If said Bid shall be accepted and the Principal shall duly execute and deliver the form of AGREEMENT attached hereto and shall furnish the specified bonds for the faithful performance of the AGREEMENT and/or CONTRACT and for the payment for labor and materials furnished for the performance of the AGREEMENT and or CONTRACT,

then this obligation shall be void , otherwise it shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder in no event shall exceed the amount of this obligation.

**BID SECURITY BOND** (continued)

The Surety, for value received, hereby agrees that the obligation of said surety and its bond shall be in no way impaired or affected by any extensions of the time within such BID may be accepted, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the parties hereto have duly executed

this bond on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
(Name of Principal) L.S.

(SEAL)

BY \_\_\_\_\_

\_\_\_\_\_  
(Name of Surety)

BY \_\_\_\_\_

**STATEMENT OF BIDDER'S QUALIFICATIONS**

**Note: This is a required submittal, fill out completely.**

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. Add separate sheets if necessary

1. Name of Bidder
2. Permanent Main Office Address
3. Form of Entity
4. When Organized
5. Where Organized
6. How many years have you been engaged in the contracting business under your present name; also state names and dates of previous firm names, if any.
7. Contracts on hand; (schedule these, showing gross amount of each contract and the approximate anticipated dates of completion).
8. General character of work performed by your company.
9. Have you ever failed to complete any work awarded to you? \_\_\_\_\_(no)\_\_\_\_\_(yes). If so, where and why?
10. Have you ever defaulted on a contract?  
\_\_\_\_\_ (no)\_\_\_\_\_ (yes). If so, where and why?
11. Have you ever failed to complete a project in the time allotment according to the \_\_\_\_\_ Contract Documents?  
\_\_\_\_\_ (no)\_\_\_\_\_ (yes). If so, where and why?
12. List the most important contracts recently executed by your company, stating approximate cost for each, and the month and year completed.
13. List your major equipment available for this contract.
14. List your key personnel such as project superintendent and foremen available for this contract.

**STATEMENT OF BIDDERS QUALIFICATIONS** (continued)

- 15. List any subcontractors whom you will use for the following (unless this work is to be done by your own organization, if so please state).
  - a. Hand Paving \_\_\_\_\_
  - b. Adjusting Structures \_\_\_\_\_
  - c. Pavement Markings \_\_\_\_\_
  - d. Curbing \_\_\_\_\_

(The City reserves the right to approve subcontractors for this project)

- 16. With what banks do you do business?
  - a. Do you grant the Owner permission to contact this/these institutions?  
 \_\_\_\_ (yes) \_\_\_\_ (no).

b. Latest Financial Statements, certified audited if available, prepared by an independent certified public accountant, may be requested by Owner. If requested, such statements must be provided within five (5) business days or the bid proposal will be rejected. Certified Audited Statement are preferred. Internal statements may be attached only if independent statements were not prepared.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Name of Bidder

BY \_\_\_\_\_

TITLE \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

\_\_\_\_\_ being duly sworn, deposes and

says that the bidder is \_\_\_\_\_ of \_\_\_\_\_  
(Name of Organization)

and answers to the foregoing questions and all statements contained therein are true and correct.

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary of Public

My Commission expires \_\_\_\_\_



**CONTRACT AGREEMENT****2011 Annual Paving Project**

THIS AGREEMENT made as of the XX<sup>th</sup> day of XX in the year **2011**, by and between the City of Portsmouth, New Hampshire (hereinafter call the Owner) and XXXXXXXXX (hereinafter called the Contractor),

WITNESSETH; that the Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

**ARTICLE I - Work** - The Contractor shall perform all work as specified or indicated in the Contract Documents for the pavement repair of several roads in Portsmouth (roads to be designated by owner). The Contractor shall provide, at his expense, all labor, materials, equipment and incidentals as may be necessary for the expeditious and proper execution of the Project.

**ARTICLE II - ENGINEER** - The City Engineer, or his authorized representative will act as engineer in connection with completion of the Project in accordance with the Contract Documents.

**ARTICLE III - CONTRACT TIME** - The work will commence in accordance with the Notice to Proceed. Work may begin after June 6, 2011. Streets are to be completed within 28 days once work on them is begun. All sections of the work shall be completed by September 15, 2011.

**ARTICLE IV - CONTRACT PRICE** - Owner shall pay Contractor for pavement repair for only those roads designated for repair by Owner. Owner makes no representation that it will undertake all the pavement repairs estimated in the bid proposal form. Contractor will be paid only for work performed in accordance with the Contract Documents as shown under item prices in the Bid Proposal.

**ARTICLE V - PAYMENT** - Partial payments will be made in accordance with the Contract Documents. Upon final acceptance of the work and settlement of all claims, Owner shall pay the Contractor the unpaid balance of the Contract Price, subject to additions and deductions provided for in the Contract Documents.

**ARTICLE VI - RETAINAGE** - To insure the proper performance of this Contract, the Owner shall retain certain amounts in the percentage of the Contract Price and for the time specified as provided in the Contract Documents.

**ARTICLE VII - LIQUIDATED DAMAGES** - In event the Contractor fails to successfully execute the work within the specified contract time the Owner shall assess the Contractor liquidated damages in the amount of **one hundred dollars (\$100)** for each calendar day beyond the specified completion date for each section of work. Liquidated damages shall be deducted from the Contract Price prior to final payment of the Contractor.

**CONTRACT AGREEMENT** (continued)

**ARTICLE VIII – CONTRACT DOCUMENTS** – The Contract Documents which comprise the contract between Owner and Contractor are attached hereto and made a part hereof and consist of the following:

- 8.1 This Agreement
- 8.2 Contractor's Bid and Bonds
- 8.3 Notice of Award, Notice to Proceed
- 8.4 Instruction to Bidders
- 8.5 General Requirements, Control of Work, Temporary Facilities, Measurement and Payment, Standard Specifications
- 8.6 Insurance Requirements
- 8.7 Standard and Technical Specifications
- 8.8 Drawings
- 8.9 Special Provisions
- 8.10 Stormwater Pollution Prevention Plan
- 8.11 Any modifications, including change orders, duly delivered after execution of this Agreement.

**ARTICLE IX – TERMINATION FOR DEFAULT** – Should contractor at any time refuse, neglect, or otherwise fail to supply a sufficient number or amount of properly skilled workers, materials, or equipment, or fail in any respect to prosecute the work with promptness and diligence, or fail to perform any of its obligations set forth in the Contract, Owner may, at its election, terminate the employment of Contractor, giving notice to Contractor in writing of such election, and enter on the premises and take possession, for the purpose of completing the work included under this Agreement, of all the materials, tools and appliances belonging to Contractor, and to employ any other persons to finish the work and to provide the materials therefore at the expense of the Contractor.

**ARTICLE X – INDEMNIFICATION OF OWNER** – Contractor will indemnify Owner against all suits, claims, judgments, awards, loss, cost or expense (including without limitation attorneys fees) arising in any way out of the Contractor's negligent performance or non-performance of its obligations under this Contract. Contractor will defend all such actions with counsel satisfactory to Owner at its own expense, including attorney's fees, and will satisfy any judgment rendered against Owner in such action.

**ARTICLE XI – PERMITS** – The Contractor will secure at its own expense, all permits and consents required by law as necessary to perform the work and will give all notices and pay all fees and otherwise comply with all applicable City, State, and Federal laws, ordinances, rules and regulations.

**ARTICLE XII – INSURANCE** – The Contractor shall secure and maintain, until acceptance of the work, insurance with limits not less than those specified in the Contract.

**ARTICLE XIII – MISCELLANEOUS** –

- A. Neither Owner nor Contractor shall, without the prior written consent of the other, assign, sublet or delegate, in whole or in part, any of its rights or obligations under any

of the Contract Documents; and, specifically not assign any monies due, or to become due, without the prior written consent of Owner.

- B. Owner and Contractor each binds himself, his partners, successors, assigns and legal representatives, to the other party hereto in respect to all covenants, agreements and obligations contained in the Contract Documents.
- C. The Contract Documents constitute the entire Agreement between Owner and Contractor and may only be altered amended or repealed by a duly executed written instrument.
- D. The laws of the State of New Hampshire shall govern this Contract without reference to the conflict of law principles thereof.
- E. Venue for any dispute shall be the Rockingham County Superior Court unless the parties otherwise agree.

IN WITNESS WHEREOF, the parties hereunto executed this AGREEMENT the day and year first above written.

**BIDDER:**

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

**CITY OF PORTSMOUTH, N.H.**

BY: \_\_\_\_\_

John P. Bohenko

TITLE: City Manager

**NOTICE OF INTENT TO AWARD**

Date:

TO:

IN AS MUCH as you were the low responsible bidder for work entitled:

<b>2011 Annual Paving Project</b>
-----------------------------------

You are hereby notified that the City intends to award the aforesaid project to you.

Immediately take the necessary steps to execute the Contract and to provide required bonds and proof of insurance within ten (15) calendar days from the date of this Notice.

The City reserves the right to revoke this Notice if you fail to take the necessary steps to execute this Contract.

City of Portsmouth  
Portsmouth, New Hampshire

Judie Belanger,  
Finance Director

**NOTICE TO PROCEED**

DATE:

PROJECT: **2011 Annual Paving**

TO:

YOU ARE HEREBY NOTIFIED TO COMMENCE WORK IN ACCORDANCE  
WITH THE AGREEMENT DATED, ON OR

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

ALL WORK SHALL BE COMPLETED PRIOR TO SEPTEMBER 15, 2011.

CITY OF PORTSMOUTH, N.H.

\_\_\_\_\_  
BY: Steven F. Parkinson, PE

TITLE: Public Works Director

**ACCEPTANCE OF NOTICE**

RECEIPT OF THE ABOVE NOTICE TO  
PROCEED IS HEREBY ACKNOWLEDGED BY

\_\_\_\_\_  
This the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

**CHANGE ORDER**

Change Order #

Date of Issuance:

Owner: CITY OF PORTSMOUTH, N.H

Contractor:

You are directed to make the following changes in the  
Contract Documents: Add items to contract

Description:

Purpose of Change Order:

Attachments:

CHANGE IN CONTRACT PRICE

CHANGE IN CONTRACT TIME

Original Contract Price:  
\$

Original Completion Date:

Contract Price prior to this  
Change Order:  
\$

Contract Time prior to this  
Change Order:

Net Increase of  
this Change Order:  
\$

Net Increase or Decrease of  
this Change Order:

Contract Price with all  
approved Change Orders:  
\$

Contract Time with all  
approved Change Orders:

RECOMMENDED:

APPROVED:

APPROVED:

by \_\_\_\_\_ by \_\_\_\_\_ by \_\_\_\_\_ by \_\_\_\_\_

PW Director

City Finance

City Manager

Contractor

**LABOR AND MATERIAL PAYMENT BOND**

(This format provided for convenience, actual Labor and Material Bond is acceptable in lieu, if compatible)

Bond Number \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS:

that \_\_\_\_\_

as Principal, hereinafter called Contractor, and \_\_\_\_\_ (Surety Company) a corporation organized and existing under the laws of the State of

\_\_\_\_\_ and authorized to do business in the State of New Hampshire hereinafter called Surety, are held and firmly bound unto the City of Portsmouth, N.H. Obligee, hereinafter called Owner, for the use and benefit of claimants as herein below defined, in the

amount of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated \_\_\_\_\_ entered into a

contract with Owner for \_\_\_\_\_ in accordance with drawings and specifications prepared by the Public Works Department, 680 Peverly Hill Road, Portsmouth, N.H. 03801, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract and for the hire of all equipment, tools, and all other things contracted for or used in connection therewith, then this obligation shall be void, otherwise it shall remain in full force and effect, subject however, to the following conditions:

(1) A claimant is defined as one having a direct contract with the Principal or, with a subcontractor of the Principal for labor, material, equipment, or other things used or reasonably required for use in the performance of the Contract. "Labor and material" shall include but not be limited to that part of water, gas, power, light, heat, oil and gasoline, telephone service or rental of equipment applicable to the Contract.

(2) The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such a claimant, may sue on this bond for the use of such claimant, prosecute the suit by final judgment for such sum or sums as may be

**LABOR AND MATERIAL PAYMENT BOND** (continued)

justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any such suit or any costs or expenses of any such suit, and principal and surety shall jointly and severally indemnify, defend and hold the Owner harmless for any such suit, costs or expenses.

(3) No suit or action shall be commenced hereunder by any claimant:

(a) Unless Claimant, other than one having a direct contract with the Principal, shall have given notice to all the following:

The Principal, the Owner and the Surety above named, within six (6) calendar months after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner, and Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State of New Hampshire save that such service need not be made by a public officer.

(b) After the expiration of one (1) year following the date on which Principal ceased all work on said contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

(c) Other than in a State court of competent jurisdiction in and for the county or other political subdivision of the State in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere. (4) The amount of this bond may be reduced by and to the extent of any payment of payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed on record against said improvement, whether or not claim for the amount of such lien by presented under and against this bond.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_. In the presence of:

\_\_\_\_\_  
(Witness) BY: \_\_\_\_\_  
(Principal) (Seal)

\_\_\_\_\_  
(Surety Company)

\_\_\_\_\_  
(Witness) BY: \_\_\_\_\_  
(Title) (Seal)



**LABOR AND MATERIAL PAYMENT BOND** (continued)

Note:

If the Principal (Contractor) is a partnership, the Bond should be signed by each of the partners.

If the Principal (Contractor) is a corporation, the Bond should be signed in its correct corporate name by its duly authorized Officer or Officers.

If this bond is signed on behalf of the Surety by an attorney-in-fact, there should be attached to it a duly certified copy of his Power of Attorney showing his authority to sign such Bonds.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Agreement.

**MAINTENANCE BOND**

At the Owner's election, a maintenance bond may be substituted for retainage at the completion of the project. If the Owner permits a maintenance bond, it shall be in the amount of **Twenty Percent (20%)** of the contract price with a corporate surety approved by the Owner. Such bond shall be provided at the time of Contract completion and shall guarantee the repair of all damage due to faulty materials or workmanship provided or done by the Contractor. This guarantee shall remain in effect for a period of one year after the date of final acceptance of the job by the Owner.

**CONTRACTOR'S AFFIDAVIT**

STATE OF \_\_\_\_\_:

COUNTY OF \_\_\_\_\_:

Before me, the undersigned, a \_\_\_\_\_  
(Notary Public, Justice of the Peace)

in and for said County and State personally appeared, \_\_\_\_\_  
(Individual, Partner, or duly authorized representative of Corporate)

who, being duly sworn, according to law deposes and says that the cost of labor, material, and equipment and outstanding claims and indebtedness of whatever nature arising out of the performance of the Contract between

CITY OF PORTSMOUTH, NEW HAMPSHIRE

and \_\_\_\_\_  
(Contractor)

of \_\_\_\_\_

Dated: \_\_\_\_\_

has been paid in full for Construction of: **2011 Annual Paving Project**

\_\_\_\_\_  
(Individual, Partner, or  
duly authorized  
representative of  
Corporate Contractor)

Sworn to and subscribed  
before me this \_\_\_\_\_ day  
of \_\_\_\_\_ 20\_\_\_\_

\_\_\_\_\_

**CONTRACTOR'S RELEASE**

KNOW ALL MEN BY THESE PRESENTS that \_\_\_\_\_(C  
ontractor) of \_\_\_\_\_, County of \_\_\_\_\_ and State of  
\_\_\_\_\_ does hereby acknowledge  
that \_\_\_\_\_(Contractor)

has on this day had, and received from the CITY OF PORTSMOUTH NEW HAMPSHIRE, final and completed  
payment for the Construction of:

**2011 Annual Paving Project**

NOW THEREFORE, the said \_\_\_\_\_  
(Contractor)

for myself, my heirs, executors, and administrators) (for itself, its successors and assigns)  
do/does by these presents remise, release, quit-claim and forever discharge the City of  
Portsmouth, New Hampshire, its successors and assigns, of and from all claims and demands  
arising from or in connection with the said Contract dated \_\_\_\_\_, and of and from  
all, and all manners of action and actions, cause and causes of action and actions, suits, debts,  
dues, duties, sum and sums of money, accounts, reckonings, bonds, bills, specifications,  
covenants, contracts, agreements, promises, variances, damages, judgments, extents, executions,  
claims and demand, whatsoever in law of equity, or otherwise, against the City of Portsmouth,  
New Hampshire, its successors and assigns, which (I, my heirs, executors, or administrators) (it,  
its successors and assigns) ever had, now have or which (I, my heirs, executors, or  
administrators) (it, its successors and assigns) hereafter can shall or may have, for, upon or by  
reason of any matter, cause, or thing whatsoever; from the beginning of record time to the date of  
these presents.

IN WITNESS WHEREOF,

Contractor:

\_\_\_\_\_  
print name of witness: \_\_\_\_\_

By: \_\_\_\_\_  
Its Duly Authorized \_\_\_\_\_

Dated: \_\_\_\_\_

## GENERAL REQUIREMENTS

### **SCOPE OF WORK**

#### 1. INTENT OF CONTRACT

The intent of the Contract is to provide for the construction and completion in every detail of the work described. The Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies required to complete the work in accordance with the terms of the Contract. The Contractor shall be required to conform to the intent of the plans and specifications. No extra claims shall be allowed for portions of the work not specifically addressed in the plans and specifications but required to produce a whole and complete project, such work will be considered subsidiary to the bid items.

#### 2. INCIDENTAL WORK

Incidental work items for which separate payment is not measured includes, but is not limited to, the following items:

- a. Clearing, grubbing and stripping (unless otherwise paid for)
- b. Clean up
- c. Plugging existing sewers and manholes
- d. Signs
- e. Mobilization/Demobilization (unless otherwise paid for)
- f. Restoration of property
- g. Cooperation with other contractors, abutters and utilities.
- h. Utility crossings, (unless otherwise paid for)
- i. Minor items - such as replacement of fences, guardrails, rock wall, etc.
- j. Steel and/or wood sheeting as required.
- k. Accessories and fasteners or components required to make items paid for under unit prices or lump sum items complete and functional.

#### 3. ALTERATION OF PLANS OR OF CHARACTER OF WORK

The Owner reserves the right, without notice to Surety, to make such alterations of the plans or of the character of the work as may be necessary or desirable to complete fully and acceptably the proposed construction; provided that such alterations do not increase or decrease the contract cost. Within these cost limits, the alterations authorized in writing by the Owner shall not impair or affect any provisions of the Contract or bond and such increases or decreases of the quantities as a result from these alterations or deletions of certain items, shall not be the basis of claim for loss or for anticipated profits by the contractor. The contractor shall perform the work as altered at the contract unit price or prices.

#### 4. EXTRA WORK ITEMS

Extra work shall be performed by the Contractor in accordance with the specifications and as directed, and will be paid for at a price as provided in the Contract documents or if such pay items are not applicable than at a price negotiated between the contractor and the Owner or at the unit bid price. If the Owner determines that extra work is to be performed, a change order will be issued.

## 5. CHANGE ORDERS

The Owner reserves the right to issue a formal change order for any increase, decrease, deletion, or addition of work or any increase in contract time or price. The contractor shall be required to sign the change order and it shall be considered as part of the Contract documents.

## 6. FINAL CLEANING UP

Before acceptance of the work, the contractor shall remove from the site all machinery, equipment, surplus materials, rubbish, temporary buildings, barricades and signs. All parts of the work shall be left in a neat and presentable condition. On all areas used or occupied by the contractor, regardless of the contract limits, the bidder shall clean-up all sites and storage grounds.

The items prescribed herein will not be paid for separately, but shall be paid for as part of the total contract price.

## 7. ERRORS AND INCONSISTENCY IN CONTRACT DOCUMENTS

Any provisions in any of the Contract Documents that may be in conflict with the paragraphs in these General Requirements shall be subject to the following order of precedence for interpretation.

1. Standard Specifications for Road & Bridge Construction without regard to Section 100 "General Conditions" of those Standard Specifications will govern General Requirements.
2. Technical Specifications will govern Standard Specifications.
3. Special Provisions will govern Technical Specifications, Standard Specifications and General Requirements.

## **CONTROL OF WORK**

### 1. AUTHORITY OF ENGINEER

(a) All work shall be done under supervision of the City Engineer and to his satisfaction. The City Engineer will decide all questions which may arise as to the quality and acceptability of materials furnished and work performed and as to the rate of progress of the work; all questions that may arise as to the interpretation of the plans and specifications; and all questions as to the acceptable fulfillment of the Contract by the Contractor.

(b) The City Engineer will have the authority to suspend the work wholly or in part for such periods as he may deem necessary due to the failure of the Contractor to correct conditions unsafe for workers or the general public; for failure to carry out provisions of the Contract; for failure to carry out orders; for conditions considered unsuitable for the prosecution of the work, including unfit weather; or for any other condition or reason deemed to be in the public interest. The Contractor shall not be entitled any additional payments arising out of any such suspensions.

(c) The Owner reserves the right to demand a certificate of compliance for a material or product used on the project. When the certificate of compliance is determined to be unacceptable to the City Engineer the Contractor may be required to provide engineering and testing services to guarantee that the material or product is suitable for use in the project, at its expense (see Sample of Certificate of Compliance).

### 2. PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPES

(a) The Contractor shall use every precaution to prevent injury or damage to wires, poles, or other property of public utilities; trees, shrubbery, crops, and fences along and adjacent to the right-of-way, all underground structures such as pipes and conduits, within or outside of the right-of-way; and the Contractor shall protect and carefully preserve all property marks until an authorized agent has witnessed or otherwise referenced their location.

(b) The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the work, or at any time due to defective work or materials, and said responsibility will not be released until the project shall have been completed and accepted.

(c) When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or as a result of the failure to perform work by the Contractor, the Contractor shall restore, at its own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing rebuilding, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in an acceptable manner.

(d) The Contractor shall paint with tree paint all scars made on fruit or ornamental trees by equipment, construction operations, or the removal of limbs larger than one inch in diameter. Damaged trees must be replaced if so determined by the City Arborist, in his or her sole discretion.

(e) If the Contractor fails to repair, rebuild or otherwise restore such property as may be deemed necessary, the Owner, after 48 hours notice, may proceed to do so, and the cost thereof may be deducted from any money due or which may become due the Contractor under the contract.

(f) It is the intent of the Parties that the Contractor preserve, to as great an extent as possible, the natural features of the site.

### **CONTROL OF WORK** (continued)

(g) Manhole and/or catch basin castings, frames, covers, and grates shall be protected and preserved during construction. A careful inventory shall be kept regarding which frames and covers/grates were removed so they can be replaced in the proper location. Any damaged or missing frames, covers, or grates shall be replaced by the contractor at no cost to the owner.

### **3. MAINTENANCE DURING CONSTRUCTION**

The Contractor shall maintain the work during construction and until the project is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and workers to ensure that the structure is kept in satisfactory conditions at all times.

### **4. SAFETY PRECAUTIONS**

Upon commencement of work, the Contractor shall be responsible for initiating, maintaining and supervising all safety precautions necessary to ensure the safety of employees on the site, other persons who may be affected thereby, including the public, and other property at the site or adjacent thereto.

### **5. PERMITS**

It will be the responsibility of the Contractor to obtain all permits required for the operation of equipment in, or on, all city streets and public ways.

6. BARRICADES, WARNING SIGNS AND TRAFFIC OFFICERS

(a) The Contractor shall provide, erect and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs and other traffic control devices, and shall take all necessary precautions for the protection of the work and safety of the public. Roadway closed to traffic shall be protected by effective barricades. Obstructions shall be illuminated during hours of darkness. Suitable warning signs shall be provided to control and direct traffic in a proper manner, as approved by the engineer.

(b) The Contractor will be held responsible for all damage to the work from traffic, pedestrians, animals or any other cause due to lack of adequate controlling devices.

(c) The Contractor shall provide such police officers as the City Engineer deems necessary for the direction and control of traffic within the site of project.

The work prescribed herein will not be paid for separately but will be paid for as part of the Contract Price unless specifically appearing as a bid item.



**TEMPORARY FACILITIES**

**1. STORAGE FACILITIES**

(a) The Contractor shall not store materials or equipment in a public right-of-way beyond the needs of one working day. Equipment and materials shall be stored in an approved location.

(b) The Contractor shall protect all stored materials from damage by weather or accident and shall insure adequate drainage at and about the storage location.

(c) Prior to final acceptance of the work all temporary storage facilities and surplus stored materials shall be removed from the site.

**2. SANITARY FACILITIES**

(a) The Contractor shall provide for toilet facilities for the use of the workers employed on the work.

(b) Temporary toilet facilities may be installed provided that the installation and maintenance conform with all State and local laws, codes, regulations and ordinances governing such work. They shall be properly lit and ventilated, and shall be kept clean at all times.

(c) Prior to final acceptance of the work all temporary toilet facilities shall be removed from the site.

**3. TEMPORARY WATER**

The Contractor shall make all arrangements with the local water department for obtaining water connections to provide the water necessary for construction operations and shall pay all costs.

**4. TEMPORARY ELECTRICITY**

The Contractor shall make all arrangements with the Public Service Company for obtaining electrical connections to provide the electrical power necessary for construction operations and security lighting and shall pay all electrical connection and power costs.

The Contractor shall be responsible with obtaining an electrical permit from the City Electrical Inspector.

**INSURANCE REQUIREMENTS**

Insurance shall be in such form as will protect the Contractor from all claims and liabilities for damages for bodily injury, including accidental death, and for property damage, which may arise from operations under this contract whether such operation by himself or by anyone directly or indirectly employed by him.

**AMOUNT OF INSURANCE**

- A) Comprehensive General Liability:  
 Bodily injury or Property Damage - \$2,000,000  
 Per occurrence and general aggregate
- B) Automobile and Truck Liability:  
 Bodily Injury or Property Damage - \$2,000,000  
 Per occurrence and general aggregate

Additionally, the Contractor shall purchase and maintain the following types of insurance:

- A) At least \$1,000,000 in Workers Comprehensive Insurance coverage for all people employed by the Contractor to perform work on this project.
- B) Contractual Liability Insurance coverage in the amounts specified above under Comprehensive General Liability.
- C) Product and Completed Operations coverage to be included in the amounts specified above under Comprehensive General Liability.

**ADDITIONAL INSURED**

All liability policies (including any excess policies used to meet coverage requirements) shall include the City of Portsmouth, New Hampshire as named Additional Insured.

- 1) The contractor's insurance shall be primary in the event of a loss.
- 2) The Additional Insured endorsement must include language specifically stating that the entity is to be covered for all activities performed by, or on behalf of, the contractor, including the City of Portsmouth's general supervision of the contractor.
- 3) City of Portsmouth shall be listed as a Certificate Holder and Additional Insured. The City shall be identified as follows:

City of Portsmouth  
 Attn: Legal Department  
 1 Junkins Avenue  
 Portsmouth, NH 03801

## MEASUREMENT AND PAYMENT

### 1. MEASUREMENT OF QUANTITIES

- (a) All work completed under the contract will be measured according to the United States standard measure.
- (b) The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice. Unless otherwise stated all quantities measured for payment shall be computed or adjusted for "in place" conditions.
- (c) Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures having an area of 9 square feet or less. Unless otherwise specified, transverse measurements for area computations will be the dimensions shown on the plans or ordered in writing.
- (d) Structures will be measured according to lines shown on the plans or as ordered unless otherwise provided for elsewhere in the specifications.
- (e) In computing volumes of excavation, embankment, and borrow, the average end area method will be used. Where it is impracticable to measure by the cross-section method, acceptable methods involving three-dimensional measurement may be used. When measurement of borrow in vehicles is permitted, the quantity will be determined as 80 percent of the loose volume.
- (f) In computing volumes of concrete, stone and masonry, the prismatic method will be used. The term "ton" will mean the short ton consisting of 2,000 pounds avoirdupois.
- (g) Except as specified below, all materials that are measured or proportioned by weight shall be weighed on scales which the Contractor has had sealed by the State or by a repairman registered by the Commissioner of Agriculture. All weighing shall be performed in a manner prescribed under the Rules and Regulations of the Bureau of Weights and Measures of the New Hampshire Department of Agriculture.
- (h) Weighing of materials on scales located outside New Hampshire will be permitted for materials produced or stored outside the state, when requested by the Contractor and approved. Out-of-state weighing in order to be approved, must be performed by a licensed public weigh master or a person of equal authority in the state concerned on scales accepted in the concerned state.
- (i) Each truck used to haul material being paid for by weight shall bear a plainly legible identification mark, and if required, shall be weighed empty daily at such times as directed.
- (j) When material is weighed, the individual weight slips, which shall be furnished by the Contractor, for trucks, trailers, or distributors, shall show the following information: the date; the project; the material or commodity; the dealer or vendor; the Contractor or Subcontractor; the location of the scales; the vehicle registration number or other approved legible identification mark; the tare and net weights, with gross weights when applicable; and the weigher's signature or his signed initials.

**MEASUREMENT AND PAYMENT** (continued)

(k) The right is reserved to weight any truck, trailer, or distributor, at locations designated, before and after making deliveries to the project.

(l) Bituminous materials will be measured by the gallon or ton.

(m) When material is specified to be measured by the cubic yard but measurement by weight is approved, such material may be weighed and the weight converted to cubic yards for payment purposes. Necessary conversion factors will be determined by the Owner.

(n) The term "lump sum" when used as an item of payment will mean complete payment for the work described in the item.

(o) When a complete structure or structural unit (in effect, "lump sum" work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories, so as to provide the item complete and functional. Except as may be otherwise provided, partial payments for lump sum items will be made approximately in proportion to the amount of the work completed on those items.

(p) Material wasted without authority will not be included in the final estimate.

**2. SCOPE OF PAYMENT**

(a) The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials and for performing all work under the contract in a complete and acceptable manner and for all risk, loss, damage or expense of whatever character arising out of the nature of the work or the prosecution thereof.

(b) The Contractor shall be liable to the Owner for failure to repair, correct, renew or replace, at his own expense, all damage due or attributable to defects or imperfections in the construction which defects or imperfections may be discovered before or at the time of the final inspection and acceptance of the work.

(c) No monies, payable under the contract or any part thereof, except the first estimate, shall become due or payable if the Owner so elects, until the Contractor shall satisfy the Owner that the Contractor has fully settled or paid all labor performed or furnished for all equipment hired, including trucks, for all materials used, and for fuels, lubricants, power tools, hardware and supplies purchased by the Contractor and used in carrying out said contract and for labor and parts furnished upon the order of said Contractor for the repair of equipment used in carrying out said contract; and the Owner, if he so elects, may pay any and all such bills, in whole or in part, and deduct the amount of amounts so paid from any partial or final estimate, excepting the first estimate.

**MEASUREMENT AND PAYMENT** (continued)**3. COMPENSATION FOR ALTERED QUANTITIES**

(a) Except as provided for under the particular contract item, when the accepted quantities of work vary from the quantities in the bid schedule the Contractor shall accept as payment in full, so far as contract items are concerned, at the original contract unit prices for the accepted quantities of work done. No allowance will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense on the part of the Bidder and subsequent loss of expected reimbursements therefore or from any other cause.

(b) Extra work performed will be paid for at the contract bid prices or at the price negotiated between the Owner and the Contractor if the item was not bid upon. If no agreement can be negotiated, the Contractor will accept as payment for extra work, cost plus 15% (overhead and profit). Costs shall be substantiated by invoices and certified payroll.

**4. PARTIAL PAYMENTS**

Partial payments will be made on a monthly basis during the contract period. From the total amount ascertained as payable, an amount equivalent to ten percent (10%) of the whole will be deducted and retained by the Owner until such time as the work receives final acceptance.

**5. FINAL ACCEPTANCE**

Upon due notice from the Contractor of presumptive completion of the entire project, the City Engineer will make an inspection. If all construction provided for and contemplated by the contract is found complete to his satisfaction, this inspection shall constitute the final inspection and the City Engineer will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of the final inspection.

If, however, the inspection discloses any work in whole or in part, as being unsatisfactory, the City Engineer will give the Contractor the necessary instructions for correction of such work, and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection provided the work has been satisfactorily completed. In such event, the City Engineer will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

**MEASUREMENT AND PAYMENT** (continued)**6. ACCEPTANCE AND FINAL PAYMENT**

(a) When the project has been accepted and upon submission by the Contractor of all required reports, completed forms and certifications, the Owner will review the final estimate of the quantities of the various classes of work performed. The Contractor may be required to certify that all bills for labor and material used under this contract have been paid.

(b) The Contractor shall file with the Owner any claim that the Contractor may have regarding the final estimate at the same time the Contractor submits the final estimate. Failure to do so shall be a waiver of all such claims and shall be considered as acceptance of the final estimate. From the total amount ascertained as payable, an amount equal to ten percent (10%) of the whole will be deducted and retained by the Owner for the guaranty period. This retainage may be waived, at the discretion of the City, provided the required Maintenance Bond has been posted. After approval of the final estimate by the Owner, the Contractor will be paid the entire sum found to be due after deducting all previous payments and all amounts to be retained or deducted under the provisions of the contract.

(c) All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

**7. GENERAL GUARANTY AND WARRANTY OF TITLE**

(a) Neither the final certification of payment nor any provision in the contract nor partial or entire use of the improvements embraced in this Contract by the Owner or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express or implied warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom which shall appear within a period of twelve (12) months from the date of final acceptance of the work. The Owner will give notice of defective materials and work with reasonable promptness.

(b) No material, supplies or equipment to be installed or furnished under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale, lease purchase or other agreement by which an interest therein or in any part thereof is retained by the Seller or supplier. The Contractor shall warrant good title to all materials, supplies and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon by him to the Owner free from any claims, liens or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have the right to a lien upon any improvements or appurtenances thereon.

Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the Owner. The provisions of this paragraph shall be inserted in all subcontractors and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

**MEASUREMENT AND PAYMENT** (continued)**8. NO WAIVER OF LEGAL RIGHTS**

(a) Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or be stopped from recovering from the Contractor or his Surety, or both, such overpayment as it may sustain by failure on the part of the Contractor to fulfill his obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

(b) The Contractor, without prejudice to the Contract shall be liable to the terms of the Contract, shall be liable to the Owner for latent defects, fraud or such gross mistakes as may amount to fraud, and as regards the Owner's right under any warranty or guaranty.

**9. TERMINATION OF CONTRACTOR'S RESPONSIBILITY**

Whenever the improvement provided for by the Contract shall have been completely performed on the part of the Contractor and all parts of the work have been released from further obligations except as set forth in his bond and as provided in Section 8 above.

**STANDARD SPECIFICATIONS**

The Standard Specifications for Road and Bridge Construction of the State of New Hampshire Department of Transportation and any Addenda shall apply to all technical and measurement aspects of this project only.

However, the Standard Specifications for Road and Bridge Construction of the State of New Hampshire Department of Transportation and any Addenda shall NOT apply to General Requirements, Control of Work, Temporary Facilities, Payment, Insurance Requirements, etc. **with the exception that pavement escalation will be allowed in accordance with the NHDOT standard specifications.**



**SHOP DRAWINGS**

Shop Drawings for this project shall be submitted under the following conditions:

1. The Contractor shall submit working and detail drawings, well in advance of the work, to the City Engineer for review.
2. The Contractor's drawings shall consist of shop detail, erection and other working plans showing dimensions, sizes and quality of material, details and other information necessary for the complete fabrication and erection of the pertinent work.
3. The Contractor shall submit two (2) sets of drawings to the City Engineer.
4. Prior to the approval of the drawings, any work done or materials ordered for the work involved shall be at the Contractor's risk.
5. One (1) set of the drawings will be returned to the Contractor approved or marked with corrections to be made. After approval has been given, the Contractor shall supply the City Engineer with two sets of the revised detail working drawings.
6. The City Engineer's approval of the Contractor's working drawings will not relieve the Contractor from responsibility for errors in dimensions or for incorrect fabrication processes, or from responsibility to complete the contract work.

**TECHNICAL SPECIFICATIONS**

As noted above, the Standard Technical Specifications for this project are the Standard Specifications for Road and Bridge Construction of the State of New Hampshire Department of Transportation and any Addenda shall apply to all technical and measurement aspects of this project only.

**SPECIAL PROVISION**

ALL MANHOLES AND GRATES SHALL BE SUPPLIED IN ACCORDANCE WITH:

**BUY AMERICA REQUIREMENTS**

**In accordance with the BUY AMERICA requirements of the Federal regulations, all manufacturing processes for steel and iron materials furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.**

**Products of steel include, but are not limited to, such products as structural steel, piles, reinforcing steel, structural plate, steel culverts, guardrail and steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron grates. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not subject to this clause, only the application process.**

**A Certificate of Compliance, conforming to the requirements of Section 106.04, may be requested for steel and iron materials. The certificates, in addition to certifying that the materials comply with the specifications, shall also specifically certify that all manufacturing process of the materials, except as allowed by this Special Attention, occurred in the United States.**

**The requirements of said law and regulations do not prevent a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater. The Contractor shall furnish the Engineer acceptable documentation of the quantity and value of any foreign steel and iron prior to incorporating such materials into the work.**

**SPECIAL PROVISION**

**AMENDMENT TO SECTION 306 – Reclaimed Stabilized Base**

**Item 306.208 8” Asphalt Stabilized Base Remove & Rehandle**

This item is amended as follows:

Amend 2.1.1 to the following gradation:

<u>Sieve designation</u>	<u>% passing by weight</u>
2”	100
1 1/2”	70-100
3/4”	55-90
#4	40-75
#40	10-30
#200	3-10

**Construction Requirements:**

Add

3.13 Excavation & removal of excess materials to finish base elevation and compaction are all inclusive to this item. The road will be reclaimed, excavated, material removed, finish graded and compacted so that finish grade can be approved by the Engineer.

**SPECIAL PROVISION**

**AMENDMENT TO SECTION 410 -- BITUMINOUS SURFACE TREATMENT**

**Item 410.74 – Fiber Reinforced Membrane (FiberMat-type B (SAMI)) Chip Seal Surface Treatment**

**Add** to Description:

**1.2** This work shall consist of constructing a fiber reinforced membrane surface treatment known as “FiberMat” to act as a Stress Absorbing Membrane Interlayer (SAMI). A single course chip seal shall than be constructed on top of the SAMI. The fiber reinforced membrane and the chip seal shall be placed over existing pavement after the existing pavement has been milled, swept and washed (if necessary) and all structures brought to grade.

**Add** to Materials:

**2.1.1** The emulsified asphalt shall be CRS-2 (3% Latex Rubber Solids by weight of asphalt cement) in accordance with AASHTO M 208 Table 1 with the following noted exceptions:

- Distillation residue: 65% (min.) including the 3% Latex Rubber Solids
- Penetration, 25°C (77°F), 100 g , 5 s: 90-160

**2.1.2** The Contractor shall be required to submit a Certificate of Analysis to the Bureau of Materials and Research for each lot of CRS-2 used on the project.

**2.1.3** The emulsified asphalt latex additive shall be Butonol NX 1138 or equivalent conforming to the following specifications:

Monomer Ratio (Butadiene/Styrene)	(76 ±2/24 ±2)
Solids, min %	63
pH of Latex	4.1 – 4.5
Brookfield Viscosity	250-2000
Density, pounds per gallon	7.8 ±0.2

**2.3** Aggregate shall consist of 100% crushed ledge having durable particles. The percent wear of aggregate shall not exceed 35% as determined by AASHTO T 96. The flakiness of the aggregate, as determined by Central Federal Lands Highway Office FLH T 508, shall not exceed 35. All aggregate shall be thoroughly washed and stockpiled for a minimum of 5 working days before use. The aggregate shall meet the following gradation requirements:

**2.3.1** Single course chip seal:

**Sieve Size Percent Passing**

1/2 inch	100
3/8 inch	95-100
No. 4	15-35
No. 8	0-5
No. 200	0-2

**2.3.2** Blank.

**2.3.3** Conformance sample(s) shall be taken by the Engineer to verify the gradation requirements. One sample shall be obtained of each aggregate size used on the project at the sampling frequency specified in the Contract. The sample(s) shall be taken from stockpiles of the material after it has been delivered to the site but prior to roadway application. The stockpile shall be sampled in accordance with AASHTO T2. The gradation shall be determined after extraction by AASHTO T 27 and T11.

**2.3.4** Failing gradation test results will result in a price reduction. The Contract bid price shall be reduced 1 percent for each 1 percent passing outside of the requirements for any sieve size except the No. 200 sieve. The Contract price for the No. 200 sieve shall be reduced 1 percent for each 0.1 percent passing outside of the specification upto a maximum of 5 percent price reduction which equates to 2.5 percent passing the No. 200. If the material exceeds 2.5 percent passing the No. 200, the aggregate shall not be used on the project.

**2.3.5** The glass fiber shall be E Class from an approved source determined by the license holder. The glass fiber spools are supplied internally wound, in coils or cheeses. Typically the spools are cut in-place into nominally 2.38" (60mm), lengths which are distributed uniformly across and between the two parallel applications of modified asphalt emulsion. Glass fiber spread rates are up to 4 oz. (120g/sqm), with additional asphalt emulsion rates of spread, depending on the site requirements.

**Amend** the first sentence of 3.1 to read:

**3.1 Limitations.** Bituminous material shall only be placed on existing pavement that is thoroughly dry and free from all dust, dirt, and loose material and when the air temperature is above fifty (50) degrees Fahrenheit and rising. Unless directed by the Engineer, all fiber reinforced membrane and chip seal work shall be performed between June 15<sup>th</sup> and August 15<sup>th</sup>. As directed by the Engineer, sweeping with a power broom supplemented by hand brooming may be required to remove dirt and loose material prior to the chip seal application. Any surface-defects such, as potholes shall be repaired prior to commencement of works. Manhole covers, drop inlets, catch basins, curbs and any structure within the roadway area shall be protected against the fiber reinforced membrane and the chip seal surface treatment.

**Amend** 3.2(d) to read:

- (d) A minimum of two (2) self-propelled pneumatic-tired rollers, 8-ton minimum.

**Add** to 3.2:

- (g) A self-propelled hydrostatically driven Aggregate Spreader, capable of uniformly spreading aggregate at the specified rate. The spreader shall be equipped with an integral hopper to receive materials from a loaded truck, which shall be filled by trucks in a manner that will

ensure that the truck tires never come in contact with the asphalt treated surface until the stone has been properly applied. The spreader shall be equipped with a self locking truck hitch to permit the towing of aggregate trucks without stopping and be capable of maintaining a positive engagement over irregular terrain. The aggregate spreader shall be equipped with an oversize reject screen and metering gates that adjust the spreading width and are capable of individual adjustment to obtain a uniform flow of aggregate across the spreading width. 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 capable of automatic adjustment of the stone application rate depending on width of application and the speed of travel.

- (h) The liquid bituminous fiber applicator shall be mounted on a vehicle capable of applying a surface treatment of bituminous binder followed by an application of glass fibers. The applicator shall comprise an open bottomed spray bar housing, a fan or blower producing a down draft in the housing, and at least one spray bar mounted on the housing and adapted to extend transversely in the direction of movement of the vehicle on which the applicator is mounted. A number of nozzles spaced longitudinally along the spray bar for spraying binder material, means for controlling the nozzles, and a number of sources for dispensing cut glass fiber through the open bottomed housing to the surface of the binder material previously sprayed shall also be included.

The applicator shall have been calibrated within the previous 12 months for transverse and longitudinal distribution application rates according to ASTM D2995, Practice for Determining Application Rate of Bituminous Applicator or other suitable method.

**Add** to Construction Requirements:

### **3.8 Chip Seal**

**3.8.1** The Contractor shall design the SAMI and single course chip seal and submit the proposed design to the City for review at least two (2) weeks before the start of construction. The design submittal shall, at a minimum, contain the following information:

- a. Proposed aggregate sources and test results as specified and outlined in 2.3.
- b. Proposed emulsion application rates (fiber reinforced membrane and chip seal)
- c. Proposed fiber application rate (fiber reinforced membrane)
- d. Proposed aggregate application rates. (chip seal)
- e. Design method used along with any supporting documentation.

**3.8.2** Emulsified asphalt and glass fibers shall be uniformly sprayed by means of a pressure distributor at a temperature between 125 °F and 180 °F and shall completely cover the roadway surface. The application shall consist of a layer of emulsified asphalt followed by an application of glass fibers and a second layer of emulsified asphalt thus sandwiching the in-place chopped fibers between the two layers of asphalt emulsion to create the fiber reinforced membrane. Typical application rates for the emulsified asphalt range from 0.30 gal/yd<sup>2</sup> to 0.50 gal/yd<sup>2</sup> and glass fiber application rates from 1 to 4 oz/ yd<sup>2</sup>. However, the final application rates for the emulsified asphalt and glass fibers shall be determined in the field by the Engineer and the Contractor.

The distributor shall be moving forward at the proper application speed at the time the spray bar and fiber chopper bars are opened. During the application of the emulsified asphalt and glass fibers, the distributor shall not exceed a forward speed of 100 yd/min. The fiber reinforced membrane surface treatment shall not be applied more than 150 feet in advance of the self-propelled chip spreader. Under no circumstances shall operations proceed in such a manner that

the fiber reinforced membrane be allowed to chill, set-up, dry or otherwise impair retention of the cover aggregate. Traffic will not be allowed to run on the unprotected fiber reinforced membrane surface treatment. If any skipped areas or deficiencies occur, the operation shall be immediately stopped. Junctions of spreads shall be carefully made to assure a smooth riding surface and the deficient areas corrected in a manner approved by the Engineer. Overlaps of the membrane shall be made up to 6 inches. The distributor, when not spreading, shall be parked so that the spray bar or mechanism will not drip on the surface of the traveled way.

**3.8.3** Immediately following the application of the fiber reinforced bituminous membrane, the aggregate shall then be uniformly applied by the spreader at a rate between 10 and 15 lbs/yd<sup>2</sup> for the single course chip seal as determined by the Engineer. The distance between the fiber reinforced bituminous membrane surface treatment and the self-propelled chip spreader shall not be more than 120 feet. Under no circumstances shall operations proceed in such a manner that the fiber reinforced bituminous membrane surface treatment will be allowed to chill, set-up, dry or otherwise impair retention of the cover aggregate. Traffic will not be allowed to run on the unprotected fiber reinforced bituminous membrane surface treatment.

**3.8.4** Transverse joints associated with starts and stops of the distributor and spreader shall be neat in appearance and minimized as much as practicable. The use of felt paper (or similar) may be required as directed by the Engineer.

**3.8.5** Rolling shall commence immediately after the application of the aggregate. The treated areas shall receive a minimum of three passes with the pneumatic-tired roller. The roller speed shall not exceed 6 mile/hr. The rolling train shall stay within 1,000 feet of the spreader. When the rolling train cannot keep within 1,000 feet of the spreader, the spreader and distributor shall stop and wait for the rollers. The Contractor may supplement the pneumatic-tired rollers with a steel-wheeled roller. However, the use of the steel-wheeled roller will be suspended if it is determined that it is crushing and fracturing the aggregate.

**3.8.6** After curing excess aggregate shall be removed by power brooming. Power brooming shall be performed after a minimum of 24-hours after application and again two (2) to three (3) days after application or as directed by the Engineer.

**3.8.7** Where traffic must go over the surface during construction, the Contractor shall control traffic speed by means of directing traffic in convoys, providing a pilot vehicle with adequate signing.

**Add** to Method of Measurement:

**4.3** Fibermat Chip Seal Surface Treatment will be measured by the square yard.

**Add** to Basis of Payment:

**5.5** Pilot vehicle(s) including signing will be subsidiary to 692 Mobilization.

**Add** to Pay items and units:

410.74	Fibermat Chip Seal for Surface Treatment	Square Yard
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AMENDMENT to SECTION 603PIPE & PIPE FITTINGS - GENERALPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish, install, support and test pipe and pipe fittings of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified herein.

1.2 SUBMITTALS TO THE ENGINEER

- A. Submit shop drawings in accordance with the General Conditions of the Construction Contract.
- B. If requested by the Engineer, submit manufacturer's "Certification of Conformance" that pipe and pipe fittings meet or exceed the requirements of these Specifications.
- C. Submit other documents as specified in the appropriate Sections of this Division.

1.3 DELIVERY, STORAGE AND HANDLING

- A. Exercise care during loading, transporting, unloading, and handling to prevent damage of any nature to interior and exterior surfaces of pipe and fittings.
- B. Do not drop pipe and fittings.
- C. Store materials on the project site in enclosures or under protective coverings in accordance with manufacturer's recommendations and as directed by the Engineer.
- D. Assure that materials are kept clean and dry.
- E. Do not store materials directly on the ground.
- F. Follow manufacturer's specific instructions, recommendations and requirements.

PART 2 - PRODUCTS2.1 MATERIALS

- A. Marking Tape
  - 1. Shall be coded in accordance with the NPWA Standards.
  - 2. Shall be indelibly marked indicating the type of utility it is placed over.
  - 3. Shall be three (3) inches wide Terra Tape Sentry Line 1350 (Detachable) by Reef Industries, Houston, TX, or approved equal.
- B. Pipe Lubricant or glue
  - 1. Use only lubricants or glues suitable for the type of pipe and application.

PART 3 - EXECUTION3.1 INSPECTION

- A. Provide all labor and equipment necessary to assist the Engineer to inspect pipe, fittings, gaskets, and other materials.

1. This shall include all air quality testing equipment, harnesses and manlifts necessary to comply with the appropriate OSHA regulation.
  2. The Engineer shall comply with the Contractor's regulations and policies regarding below grade or confined space entry.
- B. Carefully inspect all materials at the time of delivery and just prior to installation.
- C. Carefully inspect all pipe and fittings for:
1. Defects and damage.
  2. Deviations beyond allowable tolerances for joint dimensions.
  3. Removal of debris and foreign matter.
- D. Examine areas and structures to receive piping for:
1. Defects, such as weak structural components, that adversely affect the execution and quality of work.
  2. Deviations beyond allowable tolerances for pipe clearances.
- E. All materials and methods not meeting the requirements of these Specifications shall be rejected.
- F. Immediately remove all rejected materials from the project site.
- G. Start work only when conditions are corrected to the satisfaction of the Engineer.

### 3.2 INSTALLATION

- A. General:
1. Install all pipe and fittings in strict accordance with the manufacturer's instructions and recommendations and as instructed by the Engineer.
  2. Install all pipes and fittings in accordance with the lines and grades shown on the Drawings and as required for a complete installation.
  3. Install adapters, approved by the Engineer, when connecting pipes constructed from different materials.
  4. When applicable, support all piping not being installed in trenches in accordance with the "Pipe Hangers & Supports" Section of these Specifications.
- B. Installation and Trenches:
1. Firmly support the pipe and fittings on bedding material as shown on the Drawings and as specified in the appropriate Sections of these Specifications.
    - a. Where, in the opinion of the Engineers, the subgrade material is unsuitable to support the pipe, over-excavate the unsuitable material and replace the same with suitable gravel or granular borrow.
    - b. If the subgrade material encountered consists of saturated clays or silts, the Engineer may direct the installation of the bedding material and pipe inside a construction fabric wrap as shown on the Drawings.
  2. Do not permanently support the pipe or fittings on saddles, blocking stones, or any material which does not provide firm and uniform bearing along the outside length of the pipe.
  3. Thoroughly compact the material under the pipe to obtain a substantial unyielding bed shaped to fully support the pipe.
  4. Excavate suitable holes for the joints so that only the barrel of the pipe receives bearing pressure from the supporting material after placement.

5. Lay each pipe length so it forms a close joint with the adjoining length and bring inverts to the required grade.
6. Set the pipe true to line and grade. Use a transit for line. Use a laser beam aligner for grade.
7. Do not drive the pipe down to grade by striking it with a shovel handle, timber, rammer or any other unyielding object.
8. Make all pipe joints watertight and no sand, silt, clay or soil of any description entering the pipeline at the joints.
9. Immediately after making a joint, fill the holes for the joint with bedding material, and compact.
10. When each pipe length has been properly set, place and compact enough of the bedding material between the pipe and the sides of the trench to hold the pipe in correct alignment.
11. After filling the sides of the trench, place and lightly tamp bedding material to complete the bedding as shown on the Drawings.
12. Take all necessary precautions to prevent flotation of the pipe in the trench.
13. Where there is evidence of water or soil entering the pipeline, repair the defects to the satisfaction of the Engineer.

END OF SECTION

**SPECIAL PROVISION**

**AMENDMENT TO SECTION 604 – Catch Basins, Drop Inlets, and Manholes**

**Item 604 Rebuild CB**

This item is to be used for payment for the rebuilding in place of existing structures using new structure tops, barrel block, grade rings, DI's etc to rehabilitate existing structures below the level of the structure top. Replacing the frame and grate with new will be paid for under this item.

Resetting leveling bricks or grade rings for the purpose of adjusting existing (or new) frames and grates with no work to the structure below the structure top is paid for under 604.45 604.45A, 604.55 or 604.55A as applicable.

604	Rebuild CB	Ea
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**SPECIAL PROVISION**

AMENDMENT TO SECTION 604 – Catch Basins, Drop Inlets, and Manholes

Item 604.45(A) & 604.55(A) Adjust CB & Manhole Covers

**Amend 3.3.1 to read**

Prefabricated adjustable rings may be used and shall be installed in accordance with the manufacturer’s recommendations so that the cover or grate is flush with the new pavement. If the existing frame grades are too low to be raised with one adjustable riser the structure under the frame is in failure or the existing frame is an odd size, than the frame and cover/grate shall be raised using bricks and mortar. If specified by item number for replacement, the frame and grate will be replaced with a new frame & grate or cover meeting the special provisions of ‘Buy America’.

**Fabricated Steel Specs:**

- Risers are manufactured of A-36 steel.
- All welding to American Welding Society specifications.
- Upper sections are 3/8" thick, lower sections are 3/4" thick, continuously welded.
- Adjustment device is solid 3/4" Type 304 stainless steel.  
Not plated mild steel nuts, which quickly deteriorate after installation.
- Adjustment nuts are solid 1" x 1 3/4" C1010 steel.
- Coated with black asphalt paint.

604.45	Adjust CB Covers	Ea
604.45A	Provide & Adjust CB Covers	Ea
604.45	Adjust MH Covers	Ea
604.45A	Provide & Adjust MH Covers	Ea

## **SPECIAL PROVISIONS**

### **AMENDMENT TO SECTION 618.6 – Uniformed Officers**

### **AMENDMENT TO SECTION 618.7 – Traffic Control Flaggers**

### **AMENDMENT TO SECTION 619 – Maintenance of Traffic**

The construction work zone(s) designated for this contract shall extend approximately 100 feet, beyond the work limits as described below and/or shown on the project layout map

#### **618.6 UNIFORMED OFFICERS**

Whenever the contractor is working in street intersections, Portsmouth Police officers will be hired to conduct traffic details. Only Portsmouth Police can be hired for traffic details. Traffic details on the other streets will be under the discretion of the Engineer.

#### **618.6 TRAFFIC CONTROL FLAGGERS**

Whenever the contractor is working in areas where uniformed officers are not required, flaggers may be hired under the discretion of the Engineer.

#### **619 MAINTENANCE OF TRAFFIC**

##### **Add to 619:**

All work shall be prosecuted so pedestrian and traffic flow can be maintained whenever possible. No travel lane or sidewalk closures will be allowed without prior approval from the Engineer.

The Contractor will develop a construction staging plan for this project. The plan shall be submitted to be approved by the Engineer.

Access shall be maintained to the abutting driveways at all times during construction.

Pedestrian walkways etc. may be ordered by the Engineer if the need arises.

Dust and traffic control may be ordered by the Engineer.

All costs associated with the application of these measures or other measures directed by the Engineer shall be paid for under these items and will not be further chargeable to the project, except as stipulated and specified under Contract Items.

Method of Measurement:

The uniformed officer work shall be measured by the exact cost billed to the contractor based on the man-hours worked.

The flagger work shall be measured by the exact cost billed to the contractor based on the man-hours worked.

The traffic control items shall be measured on a unit basis under Maintenance of Traffic.

Basis of Payment:

This work shall be paid for from the Contract Price Allowance as listed under Items 618.6 & 618.7 in the Bid Proposal Form using the actual man-hours worked in the field on the project.

This work shall be paid for from the Contract Unit Price as listed under Item 619 (Maintenance of Traffic). This unit price shall include all equipment, materials and labor thereto.

## Special Provision to Section 670 Miscellaneous Incidentals

Description:

Provide tools to City Engineer(s) for use for installation of pavement rehabilitation projects. These items will become permanent property of the City of Portsmouth.

Materials:

- 1) One new Fluke #62 Mini Infrared Thermometer

Basis of Payment: This item will be paid for as Lump Sum.



**SPECIAL ATTENTION**  
**ASPHALT CEMENT**

All bid items involving asphalt concrete mixtures listed in Sections: 403, Hot Bituminous Pavement; containing asphalt cement will be subject to a price adjustment. This adjustment will take effect when the monthly price for asphalt cement as furnished by the Bureau of Materials and Research differs from the base price contained in the proposal by more than ten percent of the base price.

The price adjustment will be based on the approved job mix formula(s) percent of asphalt cement in the materials incorporated in the work.

**The base price of asphalt cement for this Contract is:**  
**\$ xxxx.xx per ton. (04/15/11)**

The **monthly price** of asphalt cement will be furnished by the Bureau of Materials and Research on the first business day following the 14th calendar day of each month.

The contract prices of Hot Bituminous Pavement, Recycled Bituminous Pavement and Plant Mix Surface Treatment will be paid under the respective items in the contract. The price adjustment, as provided herein, upwards or downwards, will be made at the end of each month in which the work was accomplished as follows:

When the monthly price is more than 110% of the base price, a contract adjustment will be made under Item 1010.2 based on; [monthly price less 110% of base price] X [approved job mix formula percent of asphalt cement] X [tons of pavement used].

When the monthly price is less than 90% of the base price, a contract adjustment will be made under Item 1010.2 based on; [monthly price less 90% of base price] X [approved job mix formula percent of asphalt cement] X [tons of pavement used].

## List of Work and Approximate Quantities

### 2011 Annual Pave

#### Borthwick Ave

Item #	Description	Est. Quant.	
214	Fine Grading	1321	Sy
304.3	Crushed Gravel for Curbing	40	Cy
304.32	Shoulder Gravel	100	Cy
306.21	8" Reclaim Stab. Base (Remove & Rehandle)	1321	Sy
403.11	Machine Pave	637	Tons
403.119	Machine Pave Wearing Course (Night)	2829	Tons
403.12	Hand Pave	20	Tons
410.22	Tack Coat	33090	Sy
410.74	FiberMat Pavement Reinforcing	14924	Sy
417	Cold Plane	15177	Sy
417A	Cold Plane (Small Butt Joints)	500	Sy
520.2	Class B Curb Backfill	15	Cy
603	20" CLDI Culverts	180	Lf
604.45	Adjust CB Covers	14	Ea
604.45A	Provide & Adjust CB Covers	1	Ea
604.55	Adjust Manhole Covers	6	Ea
604.55A	Provide & Adjust Manhole Covers	2	Ea
608.24	4" Concrete for Traffic Islands	1100	Sf
609.01	New Straight Granite Curb	10	Lf
609.216	6" High Granite Sloped Curbing	450	Lf
609.5	Reset Curb as required	10	Lf
611.9	Adjust Gate Valves	5	Ea
616.65	6'x50' Traffic Loops	5	Ea
618.6	Portsmouth Police (Traffic Control)	16	Hr
618.7	Flaggers	120	Hr
619	Maintenance of Traffic	0.35	Ls
632.0104	4" Painted Lane Striping	30,000	Lf
632.3112	12" Thermoplastic Line	1000	Lf
632.3124	24" Thermoplastic Line	44	Lf
632.32	Thermoplastic Word or Symbol	200	Sf
670	Miscellaneous Tools	1	U
692	Mobilization	0.35	U

#### Heritage Ave

Item #	Description	Est. Quant.	
304.32	Shoulder Gravel	100	Cy
403.11	Machine Pave	324	Tons
403.119	Machine Pave Wearing Course (Night)	1518	Tons
403.12	Hand Pave	20	Tons
410.22	Tack Coat	17753	Sy
410.74	FiberMat Pavement Reinforcing	17753	Sy

417	Cold Plane	6400	Sy
417A	Cold Plane (Butt Joints)	220	Sy
604	Rebuild CB	4	Ea
604.45	Adjust CB Covers	14	Ea
604.45A	Provide & Adjust CB Covers	9	Ea
604.55	Adjust Manhole Covers	8	Ea
604.55A	Provide & Adjust MH Covers	4	Ea
609.5	Reset Curb as required	10	Lf
611.9	Adjust Gate Valves	16	Ea
616.65	6'x50' Traffic Loops	2	Ea
618.6	Portsmouth Police (Traffic Control)	16	Hr
618.7	Flaggers	120	Hr
619	Maintenance of Traffic	0.3	Ls
632.0104	4" Painted Lane Striping	17,500	Lf
632.3112	12" Thermoplastic Line	20	Lf
632.3124	24" Thermoplastic Line	30	Lf
632.32	Thermoplastic Word or Symbol	97	Sf
692	Mobilization	0.3	U

**Market St From I95 to Nobles Island**

Item #	Description	Est. Quant.	
304.32	Shoulder Gravel	100	Cy
403.11	Machine Pave	644	Tons
403.119	Machine Pave Wearing Course (Night)	1936	Tons
403.12	Hand Pave	20	Tons
410.22	Tack Coat	22640	Sy
410.74	FiberMat Pavement Reinforcing	22640	Sy
417	Cold Plane	3200	Sy
417B	Cold Plane (Bridge)	1050	Sy
604.45	Adjust CB Covers	6	Ea
604.45A	Provide & Adjust CB Covers	12	Ea
609.5	Reset Curb as required	10	Lf
611.9	Adjust Gate Valves	3	Ea
618.6	Portsmouth Police (Traffic Control)	16	Hr
618.7	Flaggers	120	Hr
619	Maintenance of Traffic	0.3	Ls
632.0104	4" Painted Lane Striping	15,000	Lf
632.3112	12" Thermoplastic Line	100	Lf
632.3124	24" Thermoplastic Line	80	Lf
632.32	Thermoplastic Word or Symbol	240	Sf
692	Mobilization	0.3	U

**Middle Road**

Item #	Description	Est. Quant.	
304.32	Shoulder Gravel	100	Cy
403.11	Machine Pave	830	Tons

403.12	Hand Pave	60	Tons
410.22	Tack Coat	8400	Sy
410.74	FiberMat Pavement Reinforcing	8400	Sy
417	Cold Plane	6200	Sy
603.8108	8" PVC Drain Pipe	220	Lf
604	Rebuild CB	4	Ea
604.55	Adjust Manhole Covers	13	Ea
604.55A	Provide & Adjust MH Covers	2	Ea
611.9	Adjust Gate Valves	10	Ea
618.6	Portsmouth Police (Traffic Control)	16	Hr
618.7	Flaggers	100	Hr
619	Maintenance of Traffic	0.05	Ls
632.0104	4" Painted Lane Striping	5,000	Lf
632.0112	12" Painted Lane Striping	250	Lf
692	Mobilization	0.05	U

**White Cedar Blvd**

Item #	Description	Est. Quant.	
214	Fine Grading	5444	Sy
306.208	8" Reclaim Stab. Base (Remove & Rehandle)	5444	Sy
403.11	3.5" Machine Pave	1086	Tons
410.22	Tack Coat	5444	Sy
616.65	6'x50' Traffic Loops	1	Ea
618.7	Flaggers	80	Hr
632.0112	12" Painted Lane Striping	20	Lf

**International from Corporate to Rye**

Item #	Description	Est. Quant.	
403.11	2" Machine Pave Shim & Overlay	890	Tons
410.22	Tack Coat	7800	Sy
417	Cold Plane	4200	Sy
604.45	Adjust CB Covers	17	Ea
618.7	Flaggers	100	Hr
632.0104	4" Painted Lane Striping	5,800	Lf
632.3112	12" Thermoplastic Line	160	Lf
632.32	Thermoplastic Word or Symbol	81	Sf

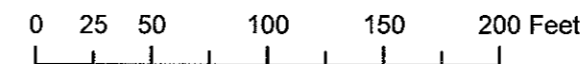
# Street Diagrams



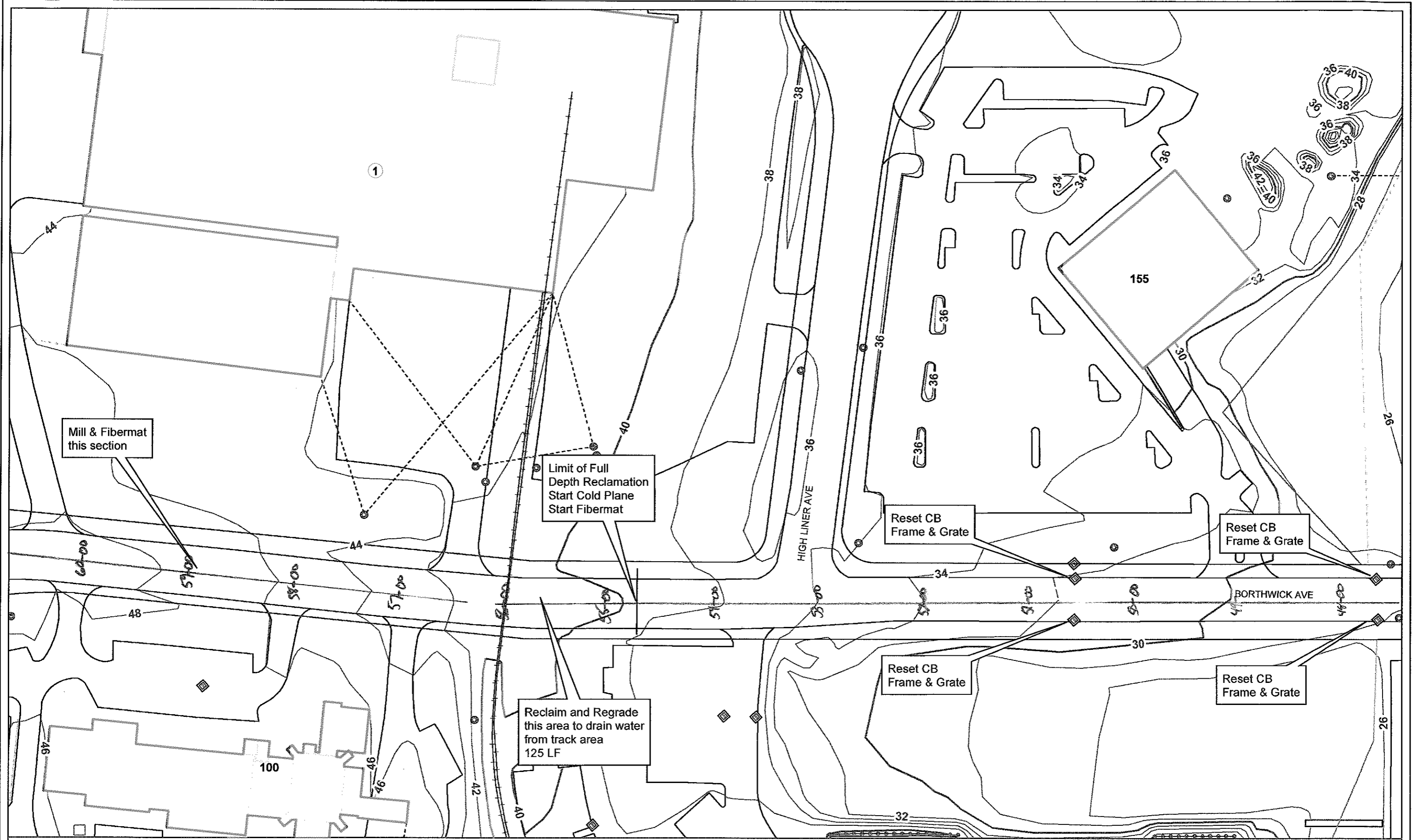
Borthwick Ave  
 33,000 SY Total Area  
 Cold Plane 15,500 SY  
 Reclaim 1400 SY  
 Fibermat 13,200 SY  
 Traffic Loops 5  
 Sloped Curbing 450 LF  
 2 Traffic Islands  
 144' of Ductile Iron Culvert  
 350 SY Butt Joints  
 20 Frames & Grates Reset  
 3 New Frames & Grates Set  
 HMA 1.5" Overlay 2800 Tons  
 HMA Shim 600 Tons  
 4" Paint 30,000 LF

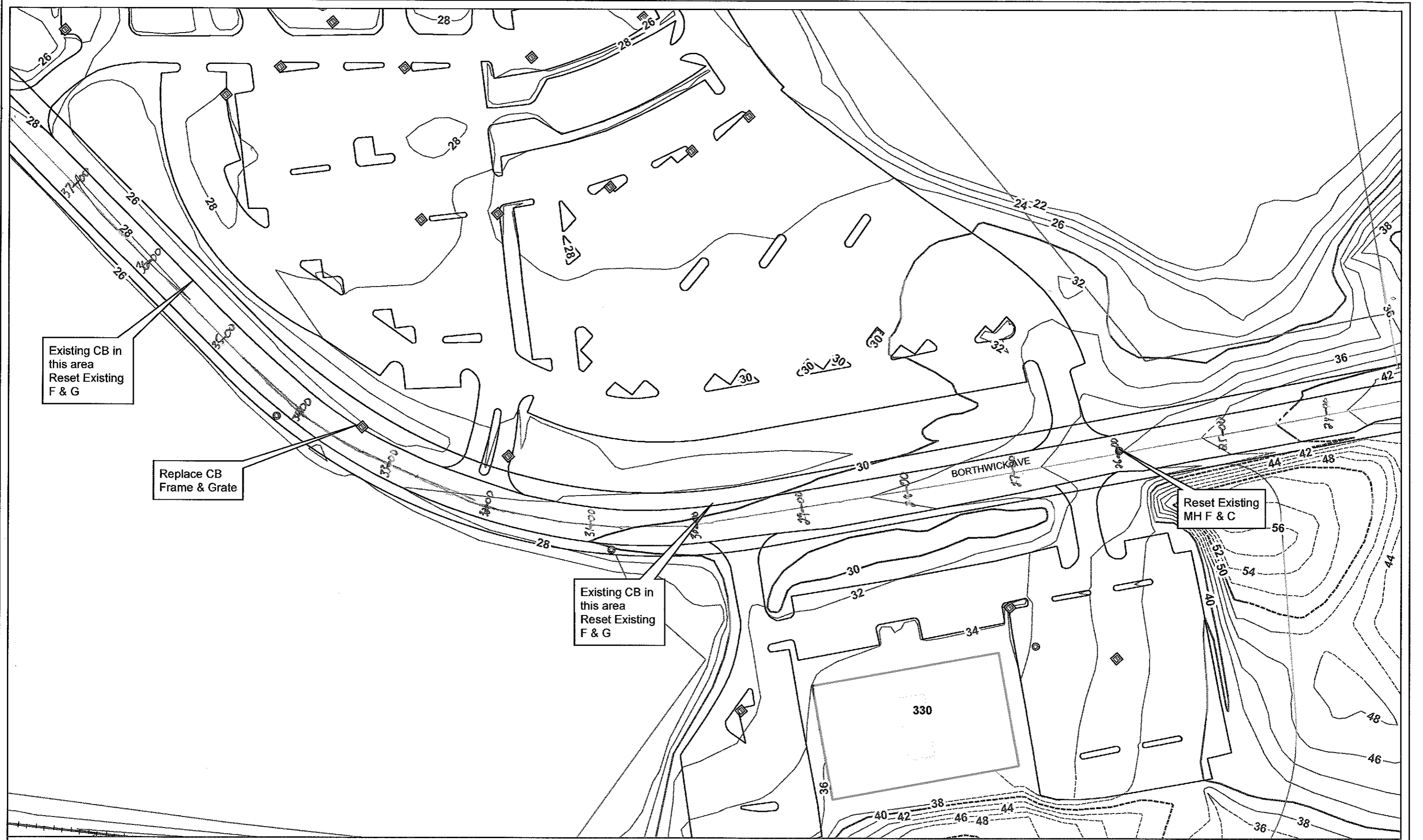
**Borthwick Ave Sheet 1**

**Map prepared by Portsmouth Department of Public Works**



1 inch = 80 feet





Existing CB in this area  
Reset Existing  
F & G

Replace CB  
Frame & Grate

Existing CB in this area  
Reset Existing  
F & G

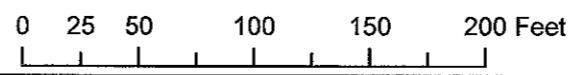
Reset Existing  
MH F & C

BORTHWICK AVE

330

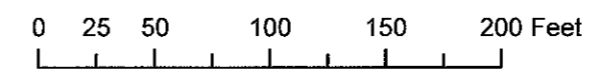
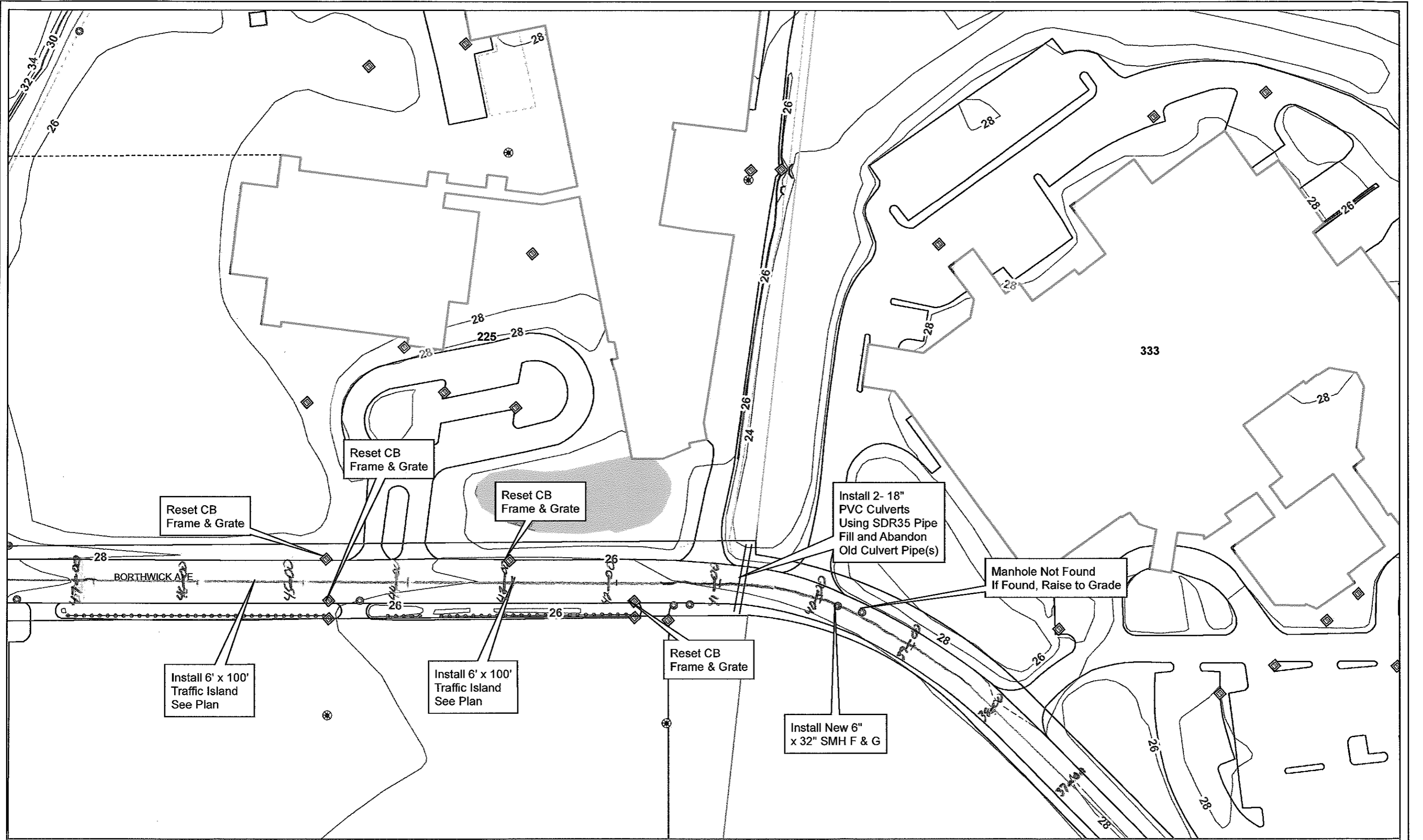
Borthwick Ave Sheet 4

Map prepared by Portsmouth Department of Public Works



1 inch = 80 feet

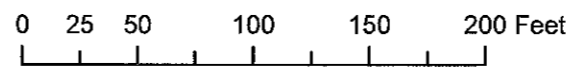




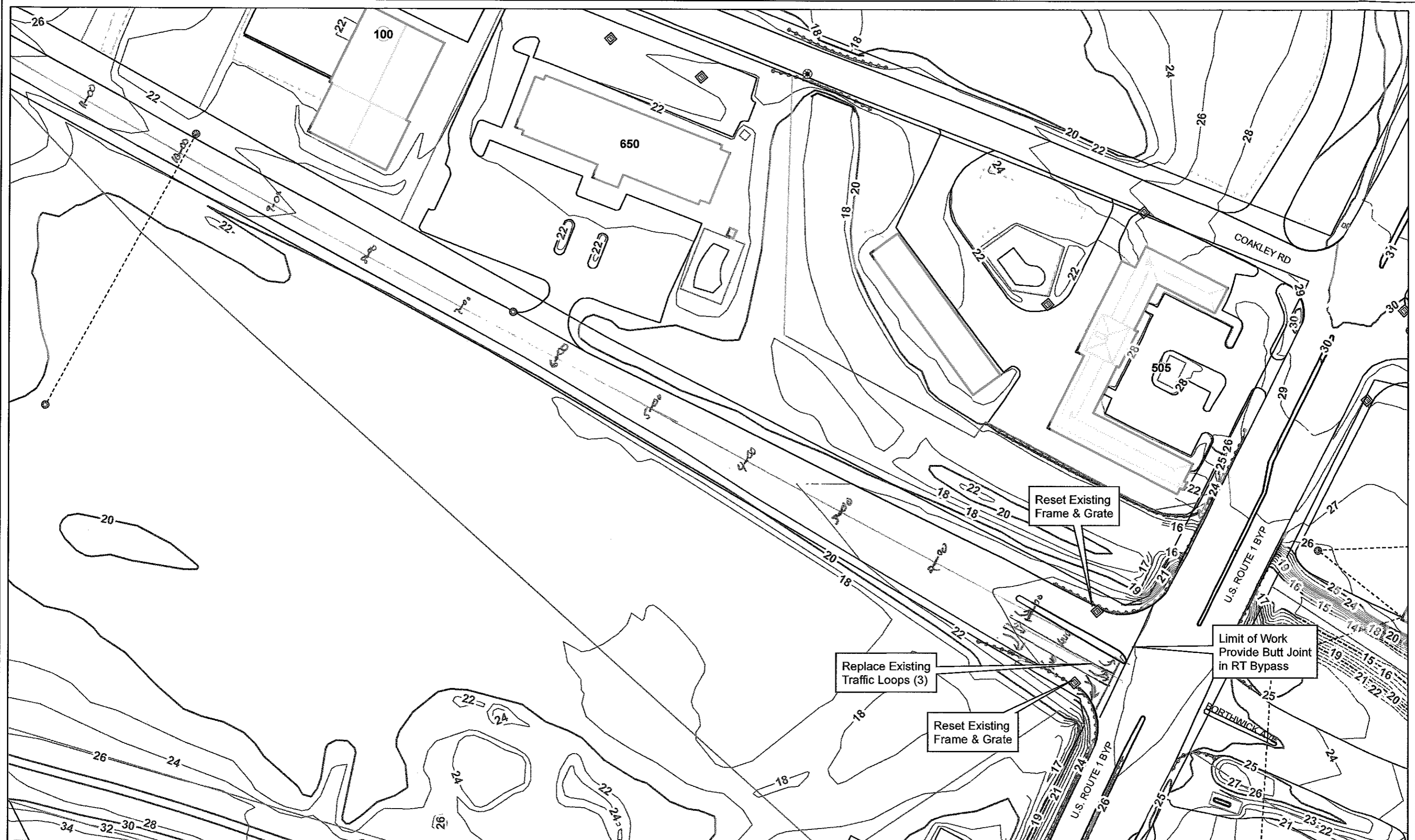


Borthwick Ave Sheet 5

Map prepared by Portsmouth Department of Public Works

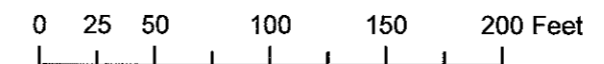


1 inch = 80 feet

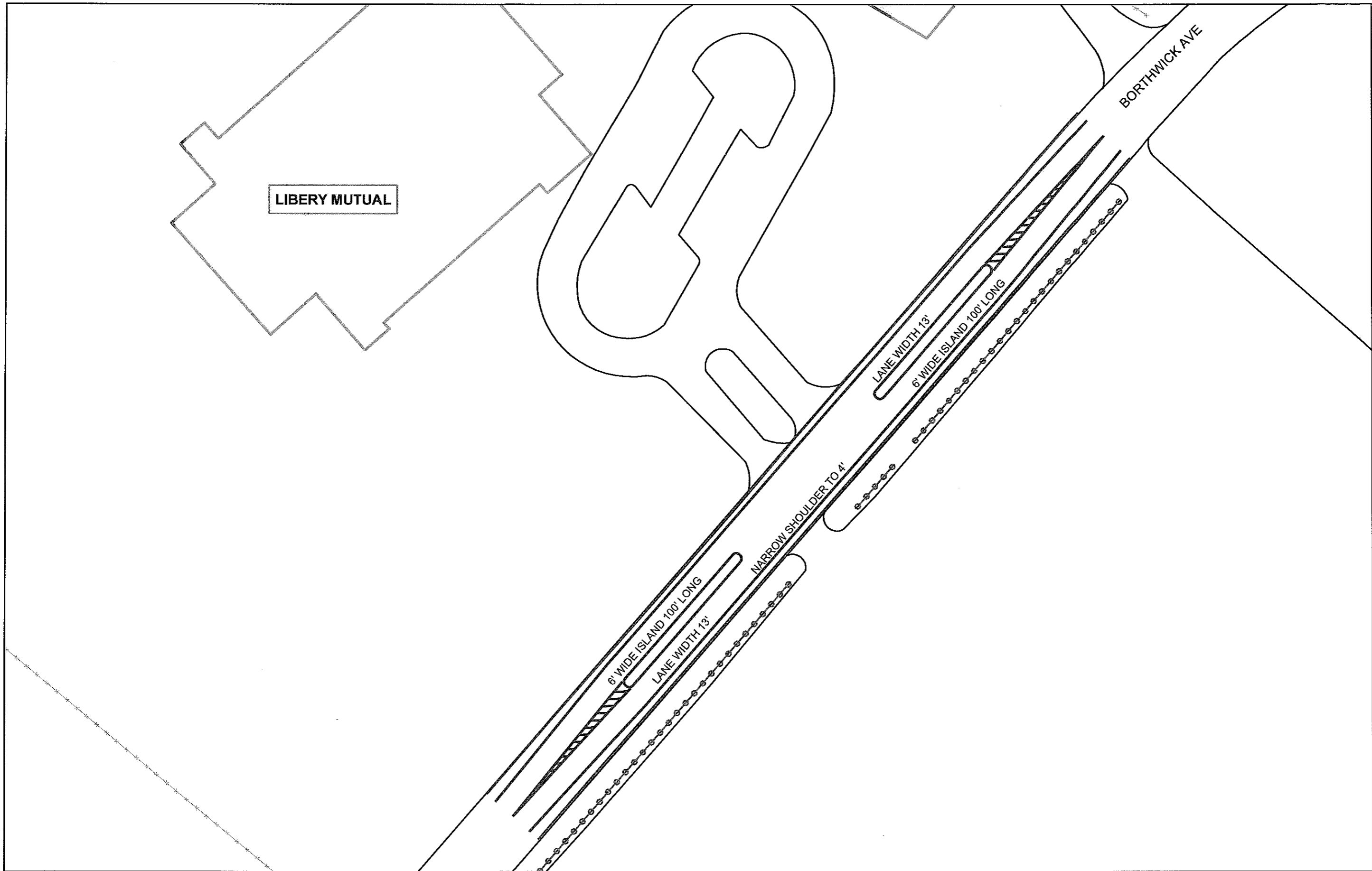


**Borthwick Ave Sheet 6**

**Map prepared by Portsmouth Department of Public Works**



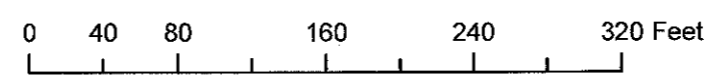
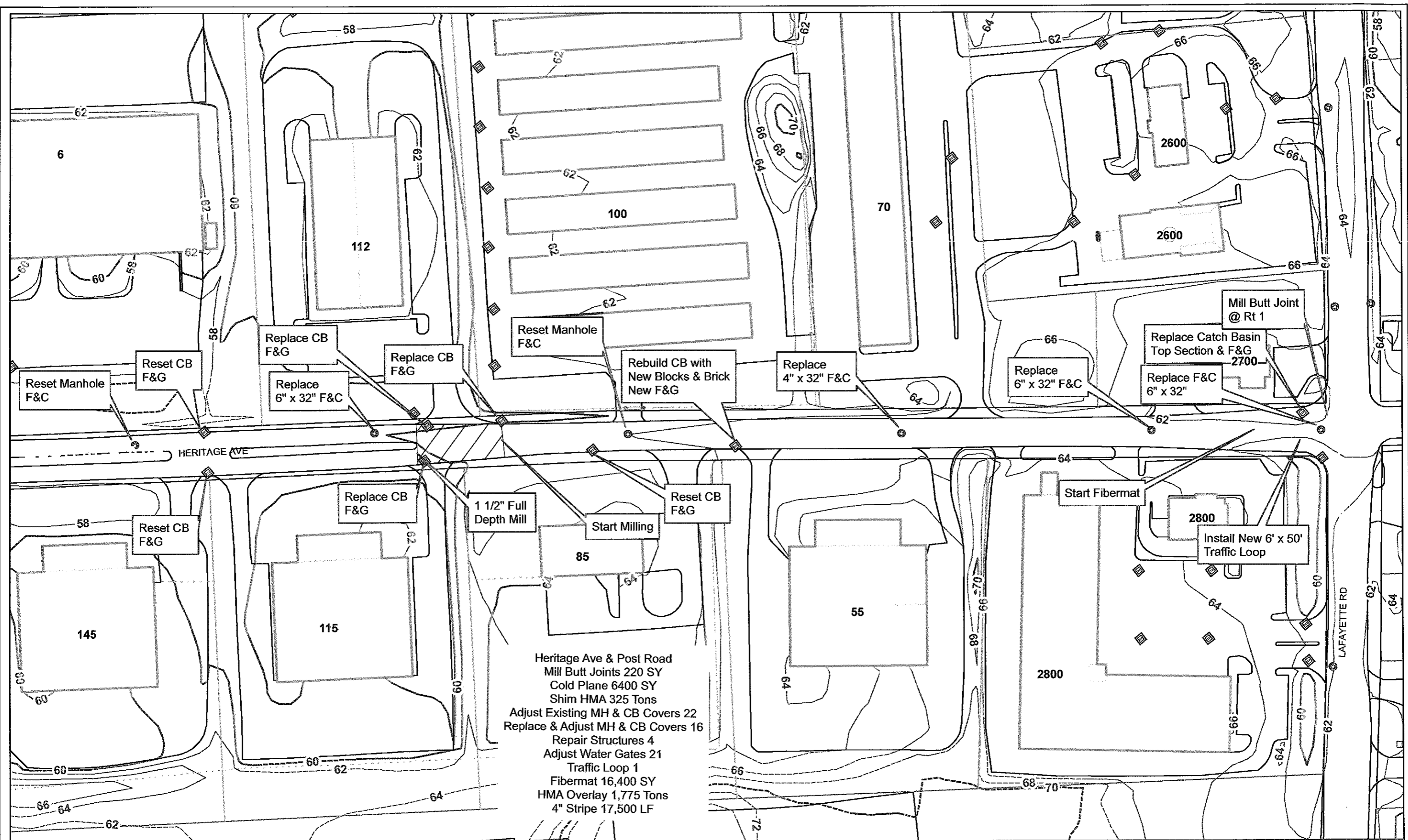
1 inch = 80 feet

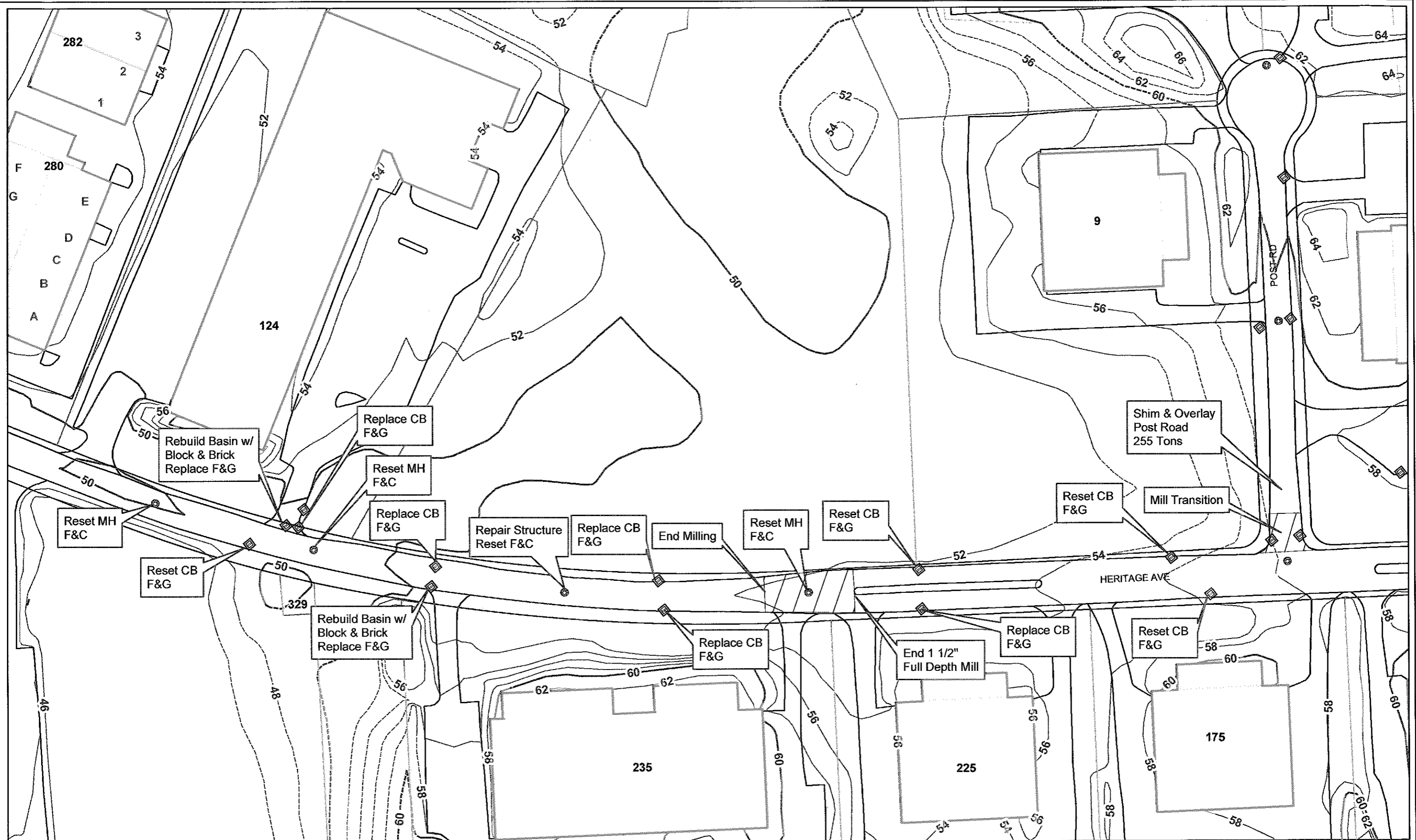


SKETCH OF PROPOSED TRAFFIC ISLANDS FOR BORTHWICK AVENUE , MARCH 2011

1 inch = 50 feet

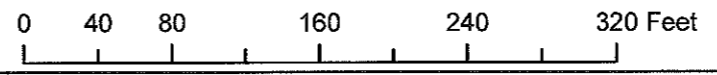




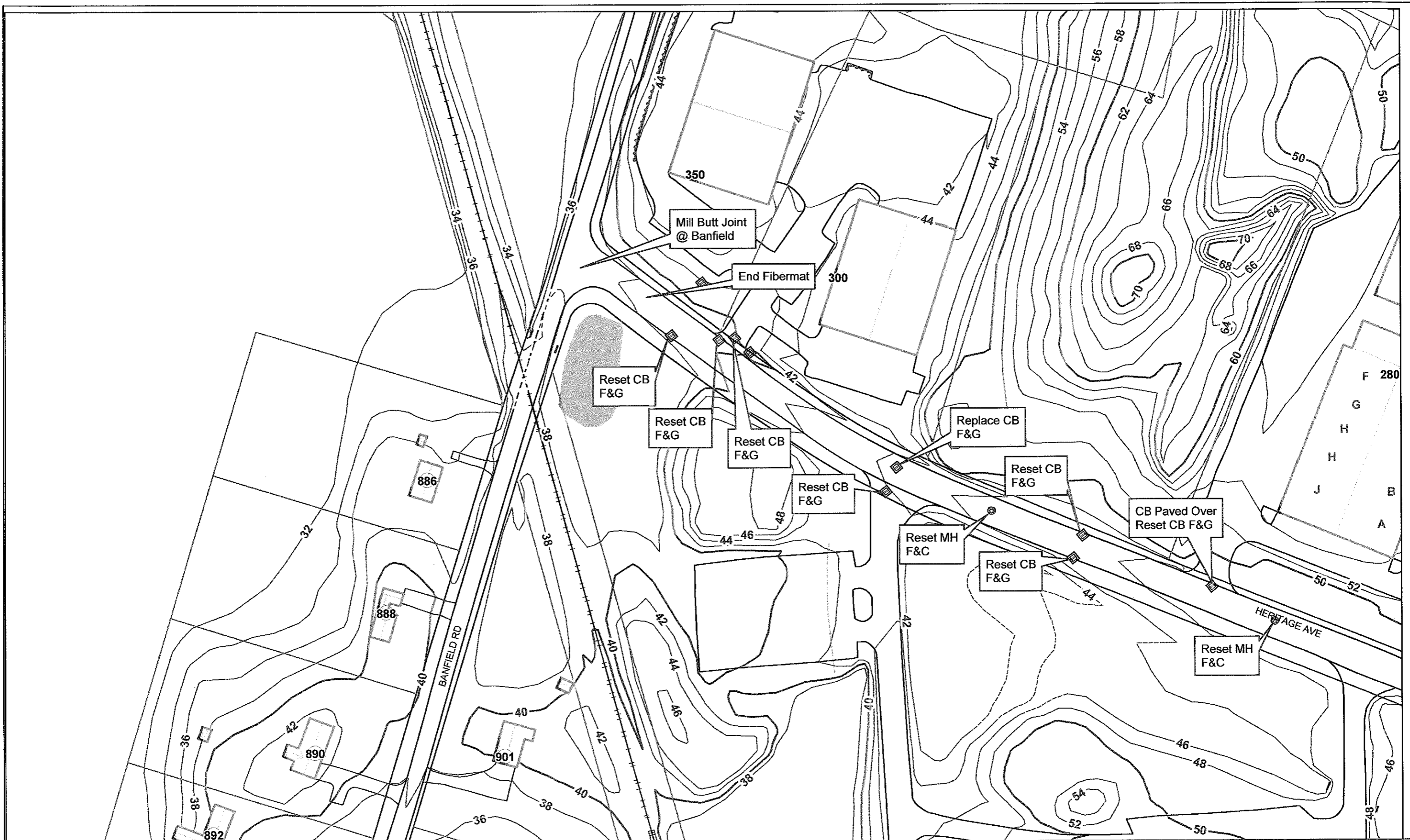


Heritage Ave Sheet 2

Map prepared by Portsmouth Department of Public Works

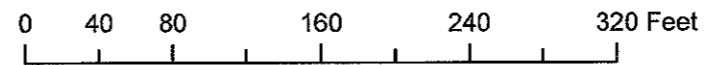


1 inch = 100 feet

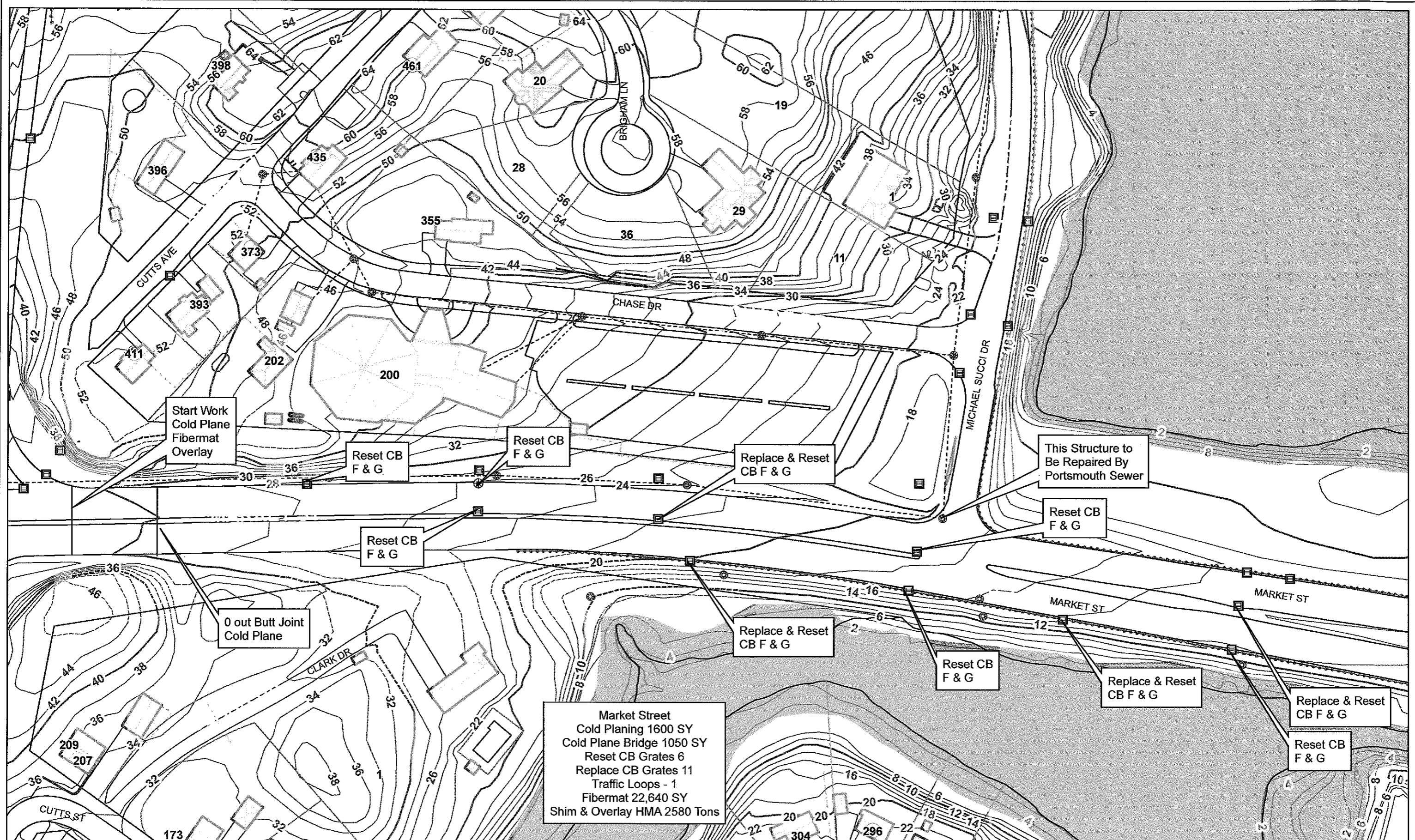


Heritage Ave Sheet 3

Map prepared by Portsmouth Department of Public Works



1 inch = 100 feet

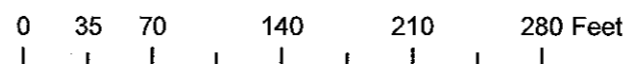


**Market Street**  
 Cold Planing 1600 SY  
 Cold Plane Bridge 1050 SY  
 Reset CB Grates 6  
 Replace CB Grates 11  
 Traffic Loops - 1  
 Fibermat 22,640 SY  
 Shim & Overlay HMA 2580 Tons

This Structure to Be Repaired By Portsmouth Sewer

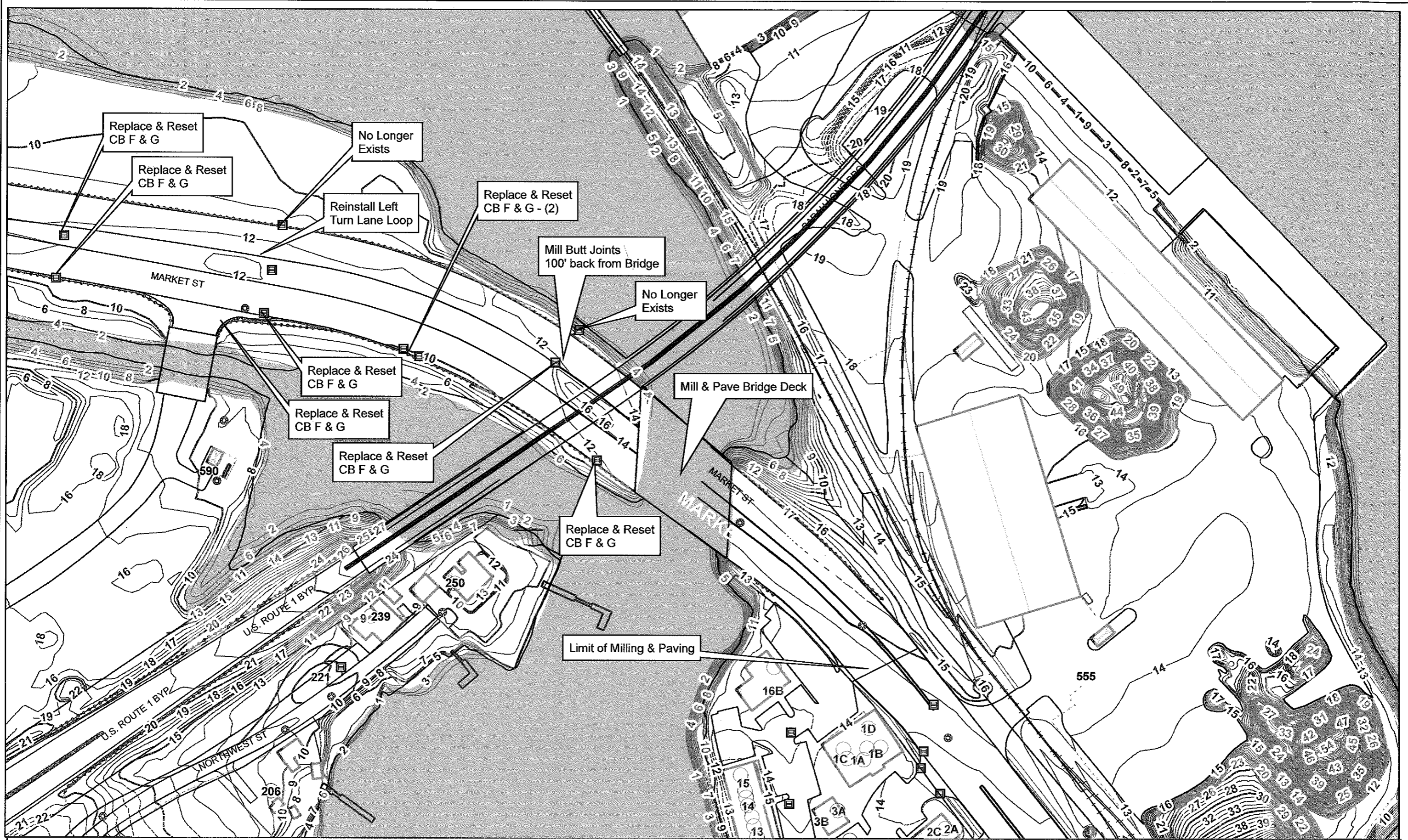
**Market St Sheet 1**

**Map prepared by Portsmouth Department of Public Works**



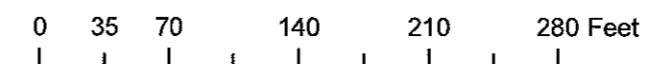
1 inch = 100 feet



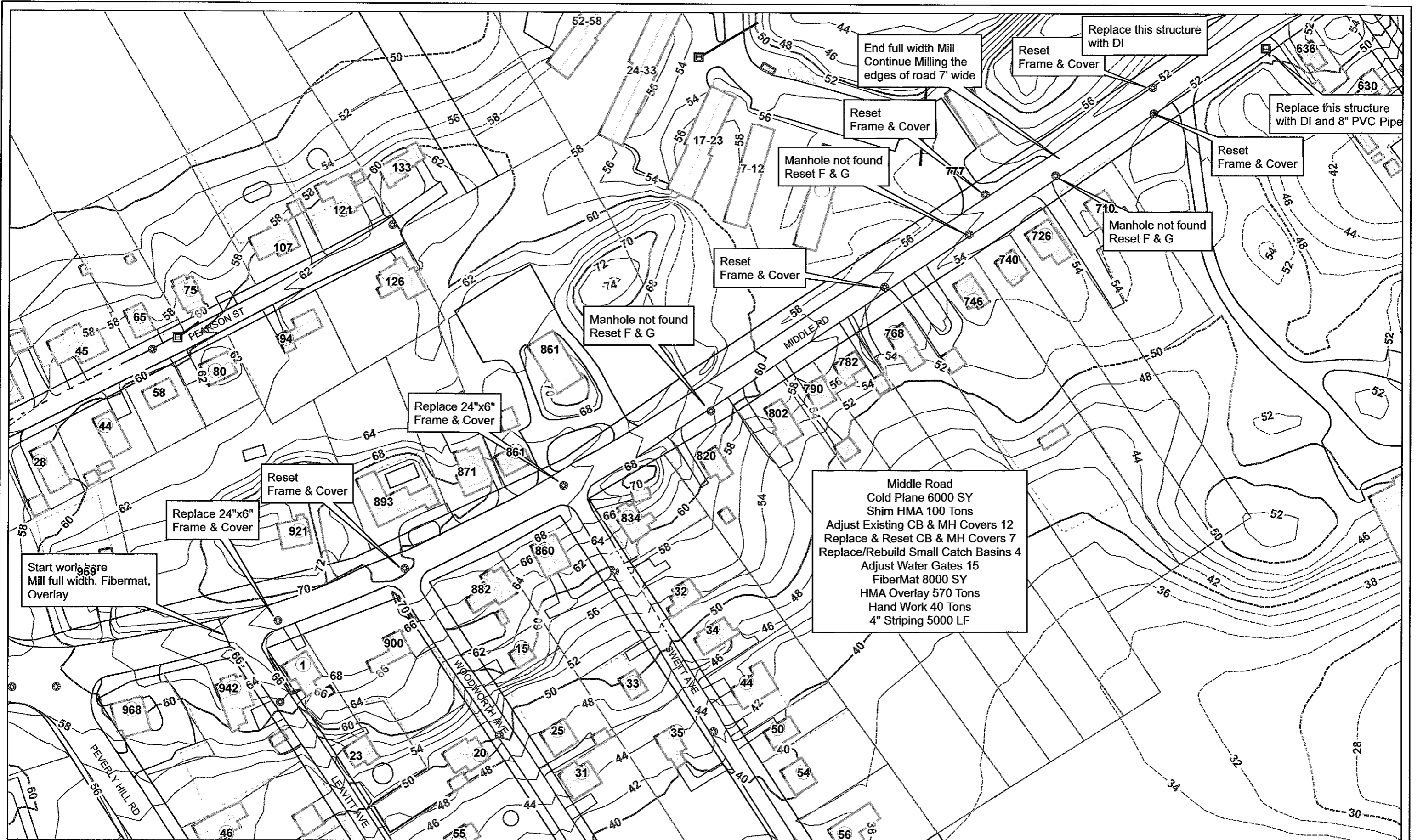


Market St Sheet 2

Map prepared by Portsmouth Department of Public Works

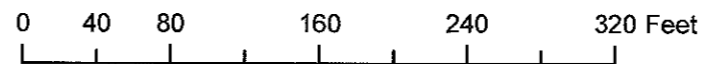


1 inch = 100 feet

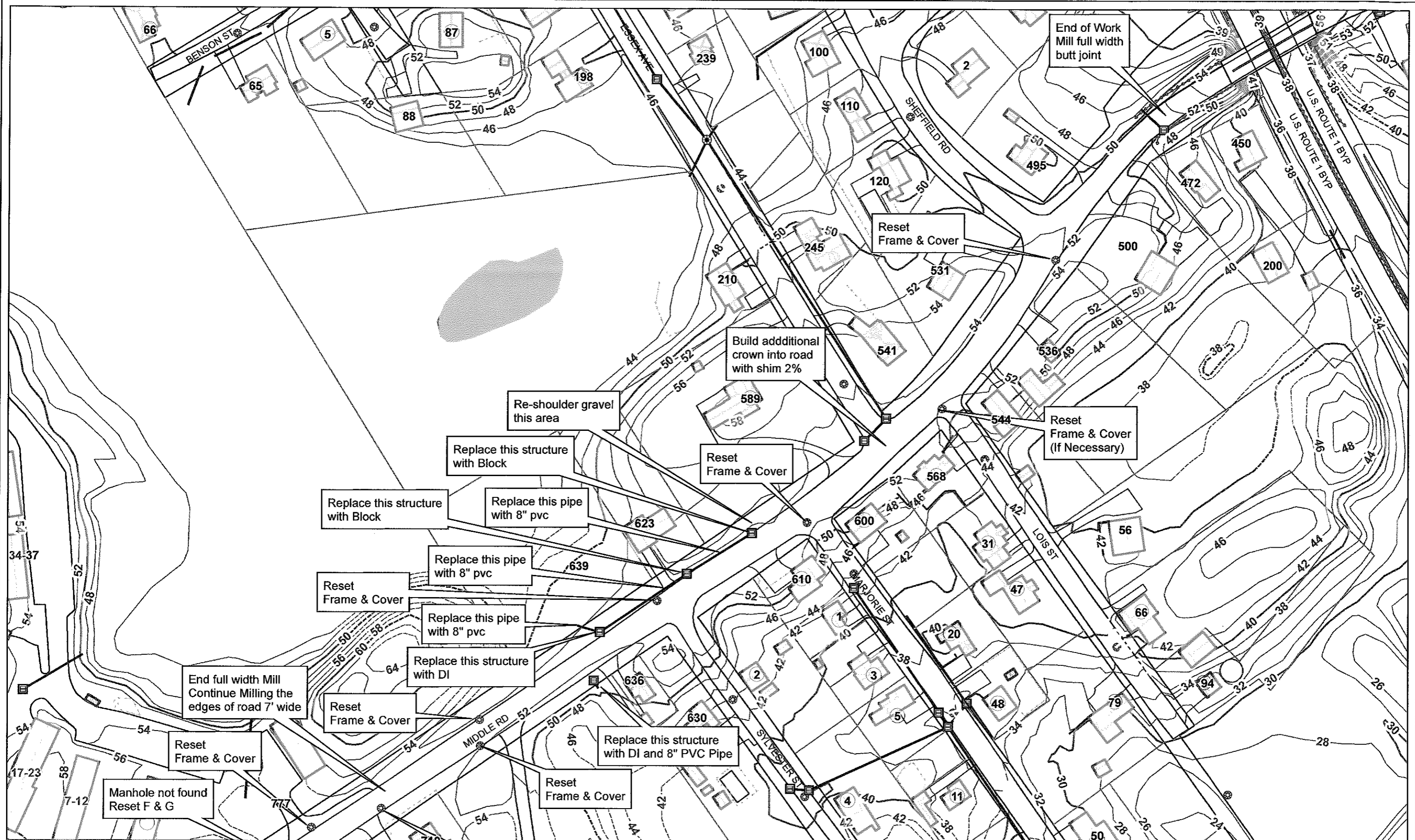


**Middle Road**  
 Cold Plane 6000 SY  
 Shim HMA 100 Tons  
 Adjust Existing CB & MH Covers 12  
 Replace & Reset CB & MH Covers 7  
 Replace/Rebuild Small Catch Basins 4  
 Adjust Water Gates 15  
 FiberMat 8000 SY  
 HMA Overlay 570 Tons  
 Hand Work 40 Tons  
 4" Striping 5000 LF

Middle Road Sheet 1

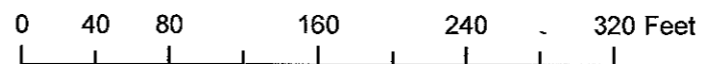


1 inch = 100 feet

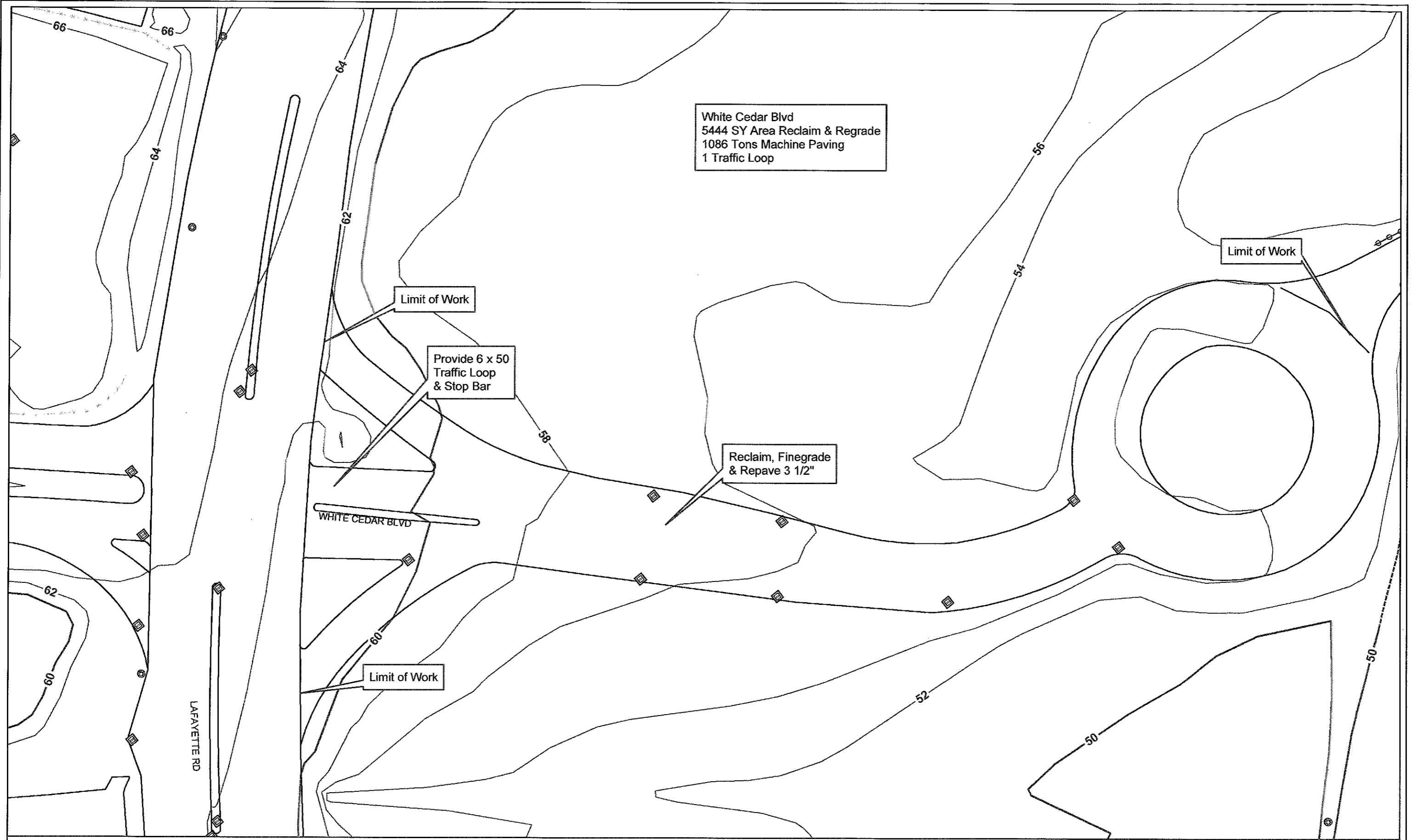


Middle Road Sheet 2

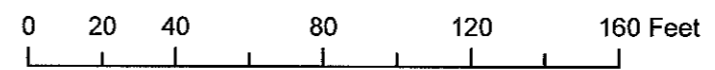
Map prepared by Portsmouth Department of Public Works



1 inch = 100 feet



Map prepared by Portsmouth Department of Public Works



1 inch = 50 feet

White Cedar Boulevard

