

**CONTRACT DOCUMENTS**  
**for**  
**Atlantic Heights Streetscape Improvements**  
**Concord Way & Porpoise Way**  
**Bid # 25-11**

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City of Portsmouth, New Hampshire

Prepared by:

City of Portsmouth  
Engineering Division  
Public Works Department

February 11, 2011

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BID # 25-11

City of Portsmouth  
Portsmouth, New Hampshire  
Department of Public Works

**Atlantic Heights Streetscape Improvements  
Concord Way & Porpoise Way  
Bid # 25-11**

**INVITATION TO BID**

**Sealed** bid proposals, **plainly marked**, (Atlantic Heights Streetscape Improvements Concord Way & Porpoise Way, Bid Proposal #25-11) **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 2:30 p.m., March 17, 2011.

**There will be a mandatory pre-bid meeting on March 7, 2011 at 10:30 a.m.** The pre-bid meeting will be held in the conference room located on the first floor of the Portsmouth Public Works Building located at 680 Peverly Hill Road in Portsmouth, NH.

The project consists of new concrete sidewalks, reconstruction of water, sewer and drainage mains, services and structures, relocation of existing fences and signage, granite curbing, creation of on street parking, reconstruction and paving of the entire roadway. Due to limited available funding to complete all of the improvements designed, a Contract Amendment Reservation Clause is incorporated in this Bid and the scope of the work may be increased to construct additional improvements if sufficient funding becomes available after July 1, 2011. Project work is organized by block, there are five blocks associated with the project. Currently, funding is available for two blocks.

Specifications and bid proposal forms may be obtained from the Finance/Purchasing Department website at [www.cityofportsmouth.com](http://www.cityofportsmouth.com). Addenda, if applicable, will be posted on the website.

Completion date will be 120 calendar days from the date of the Notice to Proceed. Liquidated damages shall be assessed at \$150.00 per day.

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

The City of Portsmouth reserves the right to reject any or all bids, to waive technical or legal deficiencies, and to accept any bid that it may deem to be in the best interest of the City. The City reserves the right to amend the contract to add additional work.

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.

This project is funded, in part, with Community Development Block Grant funds through a grant from the U.S. Department of Housing and Urban Development. Wage rates for all project labor will conform to federal Davis-Bacon wage rates. All work must be completed in accordance with the Federal Labor Standards Provisions, Equal Opportunity Act, and the Copeland Anti-Kickback Act and other related requirements found in Attachment A, Compliance with Laws and Regulations. All qualified bidders will receive consideration without regard to race, color, religion, creed, age, sex, national origin, sexual orientation or familial status. Women and minority-owned businesses are encouraged to submit bids.

Bidders must be listed with the New Hampshire Department of Transportation as a pre-qualified contractor under the classifications of Road Construction. Any Bid submitted by a Bidder not pre-qualified will be rejected as non-conforming.

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.

If you have any questions please contact the Finance/Purchasing Department at the following number: 603-610-7226.

## INSTRUCTION TO BIDDERS

### **BIDDING REQUIREMENTS AND CONDITIONS**

#### 1. Special Notice to Bidders

a) Attention is directed to the fact that appended to these specifications is a complete set of bidding and general contract forms. These forms may be detached from the specifications and executed for the submittal of bids. These forms include all certifications contained in the Attachment A, Compliance with Laws and Regulations.

b.) **See Special Requirements providing project background and additional work.**

c) The plans, specifications, and other documents designated in the proposal form will be considered as part of the proposal, whether attached or not.

d) The bidders must submit a statement of bidders qualifications if requested.

e) The City of Portsmouth will supply a construction layout of this project on a one-time basis consisting of a vertical benchmark and pertinent vertical and horizontal locations. The contractor will be required to maintain this layout throughout the life of the contract at their own expense.

**f) 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 firms. Contractors submitting a bid 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. Issuance of Proposal Forms

The City of Portsmouth, herein referred to as the Owner, reserves the right to deny a proposal form to a prospective bidder or to disqualify a bidder if the bidder is in default for any of the following reasons:

a) Lack of competency or of adequate machinery, plant or other equipment, as revealed by the statement of bidders qualification required under 1d of this page or otherwise.

b) Uncompleted work which, in the judgment of the owner, might hinder or prevent the prompt completion of additional work if awarded.

c) Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts.

d) Default under previous contracts.

e) Unsatisfactory performance on previous contracts.

f) The proposal is improper or nonconforming as defined in item 7 of this section.

## **INSTRUCTION TO BIDDERS** (continued)

### 3. 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.

### 4. Examination of Plans, Specifications and Site Work

a) 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.

b) 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.

### 5. 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 his or her 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.

### 6. Preparation of Proposal

a) The bidder shall submit his or her proposal upon the forms furnished by the Owner. The bidder shall specify a lump sum price both in words and 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. In case of discrepancy between the prices written in words and those written in figures, the prices written in words shall govern.

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,

**INSTRUCTION TO BIDDERS** (continued)

his 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.

7. Nonconforming Proposals

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

a) 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.

b) 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.

c) 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.

d) If the proposal does not contain a unit price for each pay item listed except in the case of authorized alternate pay items.

8. 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 proposal form made payable to the "City of Portsmouth". If the bidder uses a bid bond it shall be:

- a) In a form satisfactory to the Owner.
- b) With a surety company licensed, authorized to do business in, and subject to the jurisdiction of the courts of the State of New Hampshire.
- c) 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 until 5:00 p.m. on the date five days from the date on which bids are opened, to correct any irregularities. If such irregularities are not corrected to the satisfaction of the Owner in its sole discretion, the bid may be rejected.

9. 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.

**INSTRUCTION TO BIDDERS** (continued)

10. Withdrawal of Proposals

- a) 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.

11. 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.

12. Disqualification of Bidders

- A. 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 or proposals:
  - 1. More than one proposal for the same work from an individual, firm, or corporation under the same or different name.
  - 2. Evidence of collusion among bidders.
  - 3. Failure to submit all required information requested in the bid specifications.
  - 4. Such disqualification would be in the best interests of the Owner.
- B. No award will be made to any Bidder who cannot meet all of the following requirements:
  - 1. The Bidder shall not have defaulted or turned the work over to the bonding company on any contract within three years prior to the bid date.
  - 2. The Bidder shall maintain a permanent place of business.
  - 3. The Bidder shall have adequate personnel and equipment to perform the work expeditiously.
  - 4. The Bidder shall have suitable financial status to meet the obligations incidental to the Work.
  - 5. The Bidder shall have appropriate technical experience satisfactory to the Director of Public Works (or his designee) in the class of work involved.
  - 6. The Bidder shall be registered with the Secretary of State to do business in New Hampshire.
  - 7. The Bidder shall have performed to the satisfaction of the Owner and the Director of Public Works (or his designee) on previous contracts. A history or record of poor performance will result in disqualification.
  - 8. The Bidder shall have a good reputation for completing a project “on budget.”
  - 9. The Bidder shall not have repeatedly failed to complete work or meet deadlines on previous contracts with Owner or any other party except in those cases where



the failure or delay was caused by someone other than Bidder or otherwise excused.

**A HISTORY OR RECORD OF POOR PERFORMANCE WILL RESULT IN DISQUALIFICATION.**

13. 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 said bid based on the contents of said statement or as a result of the failure of the bidder to submit said 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 to be charged to perform the work. 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 right is reserved 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. A responsible and qualified bidder is one who is not disqualified and otherwise has a history and reputation for performing timely, quality work within project budgets. 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.

**This bid will be awarded based on the Proposal Form, which includes the quantities for Concord Way Blocks 1 and 2. Block 1 includes Concord Way from Crescent to Saratoga Way and Block 2 includes Concord way from Saratoga to Kearsarge Way.**

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 immediately 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.

5. Contract Bonds

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

- a) A performance bond in the amount of 100 percent of the contract amount.
- b) Labor and materials payment bond in the sum equal to 100 percent of the contract amount.

At the time of project completion and before the release of retainage, the successful bidder shall furnish:

- c) A maintenance bond in the 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. The Owner has the option of substituting retainage of 10 percent for the same period.

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.
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 will be required to present all contract bonds and execute the contract within 10 days following notification of acceptance of his or her bid. No contract shall be considered as in effect until it has been fully executed by all parties thereto.

#### 7. Failure to Execute Contract

Failure to execute the contract and file acceptable bonds 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.

**Atlantic Heights Streetscape Improvements  
Concord Way & Porpoise Way  
Bid #25-11**

**PROPOSAL FORM**

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 site 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 shall identify the Landscape subcontractor to be used for the project:

---

The bidder understands that at the time of contract signing the successful bidder shall submit certification from the Landscape subcontractor that type, number and size of trees specified has been located, acquired and set aside so that they will be available for installation at the end of the construction phase.

6. 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 Director of Public Works (or his designee). 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, to wit:

**PROPOSAL FORM – Concord Way Blocks 1 and 2**

THIS PROJECT SHALL BE BID BY UNIT PRICES:

ITEM NO.	ESTIMATED QUANTITY	UNIT	DESCRIPTION	UNIT PRICE IN WORDS	UNIT PRICE IN FIGURES	ITEM TOTAL IN FIGURES
201.21	0	EA	SMALL TREE REMOVAL	_____	\$ _____	\$ _____
201.22	14	EA	LARGE TREE REMOVAL	_____	\$ _____	\$ _____
201.4	14	EA	REMOVING STUMPS	_____	\$ _____	\$ _____
202.41	10	LF	REMOVAL OF EXISTING PIPE 0-24" DIAMETER	_____	\$ _____	\$ _____
202.6	40	LF	CURB REMOVAL FOR STORAGE	_____	\$ _____	\$ _____
203.1	2240	CY	COMMON EXCAVATION	_____	\$ _____	\$ _____
203.11	6	EA	TEST PITS	_____	\$ _____	\$ _____
203.2	210	CY	ROCK EXCAVATION	_____	\$ _____	\$ _____
206.2	440	CY	ROCK STRUCTURE EXCAVATION	_____	\$ _____	\$ _____
214.01	2520	SY	FINE GRADING	_____	\$ _____	\$ _____
304.2	850	CY	GRAVEL	_____	\$ _____	\$ _____
304.3	800	CY	CRUSHED GRAVEL	_____	\$ _____	\$ _____
403.11	500	TON	HOT BITUMINOUS PAVEMENT (MACHINE METHOD)	_____	\$ _____	\$ _____
403.12	100	TON	HOT BITUMINOUS PAVEMENT (HAND METHOD)	_____	\$ _____	\$ _____
603.81006	700	LF	6" PLASTIC PIPE – PVC (STORM DRAIN SERVICES)	_____	\$ _____	\$ _____
603.82212	90	LF	12" PLASTIC PIPE (SMOOTH INTERIOR) - HDPE	_____	\$ _____	\$ _____
603.82215	290	LF	15" PLASTIC PIPE (SMOOTH INTERIOR) - HDPE	_____	\$ _____	\$ _____
604.12	7	EA	CATCHBASIN TYPE B (4' DIAMETER)	_____	\$ _____	\$ _____
604.314	5	EA	SEWER MANHOLE (4' DIAMETER)	_____	\$ _____	\$ _____
604.324	5	EA	DRAINAGE MANHOLE (4' DIAMETER)	_____	\$ _____	\$ _____

**PROPOSAL FORM – Concord Way Blocks 1 and 2** (continued)

ITEM NO.	ESTIMATED QUANTITY	UNIT	DESCRIPTION	UNIT PRICE IN WORDS	UNIT PRICE IN FIGURES	ITEM TOTAL IN FIGURES
604.529	2	EA	CORE EXISTING CB OR MH	_____	\$ _____	\$ _____
604.55	4	EA	ADJUSTING MH & CB RIMS TO GRADE	_____	\$ _____	\$ _____
607.001	60	LF	RESETTING FENCE	_____	\$ _____	\$ _____
607.002	1	LS	SLIDING GATE –CONCORD STA 55+50L	_____	\$ _____	\$ _____
607.35	40	LF	5' HIGH CHAIN LINK FENCE BLACK VINYL COATED	_____	\$ _____	\$ _____
608.0001	1	LS	RESET WALK STONE 234/236 CONCORD WAY	_____	\$ _____	\$ _____
608.0002	0	EA	REMOVE STEPS	_____	\$ _____	\$ _____
608.0003	40	SF	RECONSTRUCT BRICK WALK	_____	\$ _____	\$ _____
608.24	480	SY	4" FIBER REINFORCED CONCRETE SIDEWALK	_____	\$ _____	\$ _____
608.26	30	SY	6" REINFORCED CONCRETE SIDEWALK	_____	\$ _____	\$ _____
608.52	3	EA	DETECABLE WARNING PANEL	_____	\$ _____	\$ _____
609.0001	0	LF	12" REVEAL GRANITE CURB	_____	\$ _____	\$ _____
609.01	920	LF	STRAIGHT GRANITE CURB	_____	\$ _____	\$ _____
609.02	150	LF	CURVED GRANITE CURB	_____	\$ _____	\$ _____
609.5	50	LF	REMOVE AND RESET CURB	_____	\$ _____	\$ _____
611.05206	0	LF	6" CEMENT-LINED DUCTILE IRON WATER PIPE CL. 52	_____	\$ _____	\$ _____
611.05208	0	LF	8" CEMENT-LINED DUCTILE IRON WATER PIPE CL. 53	_____	\$ _____	\$ _____
611.05210	860	LF	10" CEMENT-LINED DUCTILE IRON WATER PIPE CL. 52	_____	\$ _____	\$ _____
611.50003	1040	LF	3/4" COPPER WATER SERVICE	_____	\$ _____	\$ _____
611.5207	49	EA	3/4" CURB STOP	_____	\$ _____	\$ _____
611.71006	0	EA	6" GATE VALVE	_____	\$ _____	\$ _____

**PROPOSAL FORM – Concord Way Blocks 1 and 2** (continued)

611.7101	0	EA	10" GATE VALVE	_____	\$ _____	\$ _____
611.8	1	EA	AS-BUILT PLANS	_____	\$ _____	\$ _____
611.81	1	EA	HYDRANT ASSEMBLY	_____	\$ _____	\$ _____
611.902	0	EA	10" x 8" REDUCER – DUCTILE IRON PIPE	_____	\$ _____	\$ _____
611.903	0	EA	22.5° ELBOW (BEND) - DUCTILE IRON PIPE	_____	\$ _____	\$ _____
611.905	1	EA	45° ELBOW (BEND)- DUCTILE IRON PIPE	_____	\$ _____	\$ _____
612.108	650	LF	8" PVC SEWER PIPE	_____	\$ _____	\$ _____
612.5	880	LF	6" PVC SEWER LATERAL	_____	\$ _____	\$ _____
614.512	8	EA	CONCRETE PULL BOX 18"	_____	\$ _____	\$ _____
614.7214	800	LF	2" PVC CONDUIT PLASTIC CONDUIT, SCHEDULE 40	_____	\$ _____	\$ _____
619.1	1	LS	MAINT. OF TRAFFIC	_____	\$ _____	\$ _____
632.0104	150	LF	4" PAINT LINE	_____	\$ _____	\$ _____
632.3112	50	LF	12" THERMOPLASTIC LINE	_____	\$ _____	\$ _____
637.1	150	SF	GRANITE STEP	_____	\$ _____	\$ _____
641	50	CY	LOAM	_____	\$ _____	\$ _____
645.7	1	LS	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	_____	\$ _____	\$ _____
645.71	1	LS	MONITORING SWPPP AND EROSION CONTROL	_____	\$ _____	\$ _____
646.31	600	SY	TURF ESTABLISHMENT WITH MULCH AND TACKIFIERS	_____	\$ _____	\$ _____
652.0001	3	EA	ACER RUBRUM "SUNSET", SUNSET RED MAPLE	_____	\$ _____	\$ _____
652.0002	4	EA	CEATAEGUS CRUSGALLII INERMIS, COCKSPUR THORNLESS HAWTHORNE	_____	\$ _____	\$ _____
652.0003	9	EA	PYRUS CALLEYANA "CLEVLAND", CLEVELAND PEAR	_____	\$ _____	\$ _____

**PROPOSAL FORM – Concord Way Blocks 1 and 2**

(continued)

652.0004	3	EA	QUERCUS PALUSTRIS, PIN OAK	_____	\$ _____	\$ _____
652.0005	1	EA	ULMUS AMERICANA VALLEY FORGE, VALLEY FORGE ELM	_____	\$ _____	\$ _____
692	1	LS	MOBILIZATION	_____	\$ _____	\$ _____
699	1	LS	MISC. TEMPORARY EROSION & SEDIMENT CONTROL	_____	\$ _____	\$ _____

Total Amount of Base Bid (BASIS OF AWARD) of Items compiled by the Bidder using the estimated quantities listed above.

In Figures \$ \_\_\_\_\_

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

Bid award will be based on the total amount of Base Bid.

**By submitting this Bid Proposal form, the contractor agrees that these unit prices will be held for any additional work agreed to by Change Order on or before July 15, 2011, including additional blocks on the project including Concord Way Block 3, Porpoise Way Block 1 and/or Porpoise Way Block 2. All quantities for these additional blocks are provided in the Special Provisions Section. The unit prices are subject to the exceptions provided in the Special Provisions Section.**

**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.**

\_\_\_\_\_  
Date Company

By: \_\_\_\_\_  
Print Name

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

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

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

\_\_\_\_\_  
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.

**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

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

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 your last 10 contracts of \$200,000 or more recently performed, stating:
  - A. the approximate cost for each
  - B. the nature of the work
  - C. the month and year completedIf the Bidder has performed fewer than 10 contracts of \$200,000 or more, provide all project history since the date of the organization or the last three years.
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 would expect to use for the following (unless this work is to be done by your own organization).

- a. Paving \_\_\_\_\_
- b. Drainage Installation \_\_\_\_\_
- c. Granite Curbing \_\_\_\_\_
- d. Landscaping \_\_\_\_\_
- e. Pavement Markings \_\_\_\_\_

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, must be attached and 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 \_\_\_\_\_

**AUTHORIZATION AND RELEASE**

As part of the Bid, the Bidder shall execute and submit the Authorization and Release set forth below:

By submitting this Bid, Bidder authorizes Owner, Engineer, and their employees and agents to make such inquiries as they deem necessary to determine whether Bidder's qualifications are satisfactory. Bidder hereby agrees to release and hold harmless Owner, Engineer and any person or entity requested to respond to Owner or Engineer regarding Bidder's qualifications from any and all claims and causes of action related to such inquiries, including without limitation actions for defamation, slander or interference with contractual relations.

Bidder: \_\_\_\_\_

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

Name: \_\_\_\_\_

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

**CONTRACT AGREEMENT**

**Atlantic Heights Streetscape Improvements  
Concord Way & Porpoise Way  
Bid #25-11**

THIS AGREEMENT made as of the \_\_\_\_ day of \_\_\_\_ in the year **2011**, by and between the City of Portsmouth, New Hampshire (hereinafter call the Owner) and \_\_\_\_\_ (hereinafter called the Contractor). **Additional work may be contracted for as per the terms of the Contract Amendment Reservation Clause in this contract.**

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 for Phase I as described in the Contract Documents for the completion of the Project.

A) 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.

**B) Contract Amendment Reservation Clause. Depending on contractor performance, and availability of funding, the City, at its sole discretion may seek to enter into a Contract Amendment with the contractor for additional project work, which may include Concord Way Block 3, Porpoise Way Block 1 and/or Porpoise Way Block 2. The decision to enter into agreement for additional work will be made by the City, which may or may not move forward for any reason. The City reserves its right to go out to bid for additional phases of work. Agreement on additional work will be agreed to by Change Order. The Change Order will include the name of the additional blocks to be constructed and a schedule for completion of the additional work. The unit prices in the Price Proposal form will be carried over and applied to the quantities provided for the additional blocks to be constructed as found at the end of the Special Provisions section.**

**ARTICLE II - ENGINEER** - The Director of Public Works, 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 for each Phase.

**ARTICLE IV - CONTRACT PRICE** - Owner shall pay Contractor for performance of the work 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 and Fifty Dollars** for each calendar day beyond the specified completion date. Said liquidated damages shall be deducted from the Contract Price prior to final payment of the Contractor.

**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 **Special Provisions**, General Requirements, Control of Work, Temporary Facilities, Measurement and Payment, Special Requirements, Utilities and Drawings
- 8.6 Insurance Requirements
- 8.7 Technical Specifications
- 8.8 Drawings
- 8.9 Attachment A, Compliance with Laws and Regulations
- 8.10 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 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** -

13.1 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.

**CONTRACT AGREEMENT** (continued)

13.2 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.

13.3 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.

13.4 This Contract shall be governed by the laws of the State of New Hampshire without regard to the principles of conflict of laws thereof.

13.5 The parties hereby agree that jurisdiction and venue for any action related to or arising from this contract shall reside with the Rockingham County Superior Court unless the parties shall agree otherwise.

**ARTICLE XIV - OTHER PROVISIONS – Not Applicable**

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

**NAME OF BUSINESS:**

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

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

ATTEST: \_\_\_\_\_

(SEAL)

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

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

John P. Bohenko

TITLE: City Manager

ATTEST: \_\_\_\_\_  
(SEAL)



**NOTICE OF INTENT TO AWARD**

Date:

TO:

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

<p><b>Atlantic Heights Streetscape Improvements</b> <b>Concord Way &amp; Porpoise Way</b> <b>Bid #25-11</b></p>
---

In the City of Portsmouth, New Hampshire, you are hereby notified that the City intends to award the aforesaid project to you.

**You are further instructed to immediately take the necessary steps for execution of the Contract within ten (10) calendar days from the date of this Notice.**

Prior to starting work you must deliver to the Owner certificates of insurance and bonds which you are required to purchase and maintain in accordance with the Contract Documents. In addition, you must deliver to the Owner the certification from the Landscape subcontractor that type, number and size of trees specified has been located, acquired and set aside so that they will be available for installation at the end of the construction phase. 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:

**Atlantic Heights Streetscape Improvements  
Concord Way & Porpoise Way  
Bid # 25-11**

TO:

YOU ARE HEREBY NOTIFIED TO COMMENCE WORK IN ACCORDANCE  
WITH THE AGREEMENT DATED \_\_\_\_\_, ON OR  
BEFORE \_\_\_\_\_ AND THE DATE OF COMPLETION OF ALL WORK SHALL  
BE \_\_\_\_\_.

CITY OF PORTSMOUTH, N.H.

BY \_\_\_\_\_

TITLE \_\_\_\_\_

**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 Number \_\_\_\_\_ Date of Issuance \_\_\_\_\_

Owner: City of Portsmouth

Contractor:

---

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

Description:

Purpose of Change Order:

Attachments:

---

CHANGE IN CONTRACT PRICE

CHANGE IN CONTRACT TIME

Original Contract Price:  
\$ \_\_\_\_\_

Original Contract Time:  
\_\_\_\_\_ days

---

Contract Price prior to this  
Change Order:  
\$ \_\_\_\_\_

Contract Time prior to this  
Change Order:  
\_\_\_\_\_ days

---

Net Increase or Decrease of  
this Change Order:  
\$ \_\_\_\_\_

Net Increase or Decrease of  
this Change Order:  
\_\_\_\_\_ days

---

Contract Price with all  
approved Change Orders:  
\$ \_\_\_\_\_

Contract Time with all  
approved Change Orders:  
\_\_\_\_\_ days

---

---

RECOMMENDED:

APPROVED:

APPROVED:

by \_\_\_\_\_

by \_\_\_\_\_

by \_\_\_\_\_

by \_\_\_\_\_

PW Director

City Finance

City Manager

Contractor

**PERFORMANCE BOND**

(This format provided for convenience, actual Performance 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 as surety, hereinafter called Surety, are held and firmly bound unto the City of Portsmouth, N.H., hereinafter called Owner, in the amount of \_\_\_\_\_ Dollars (\$\_\_\_\_\_), for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents. WHEREAS, Contractor has by written agreement dated \_\_\_\_\_ entered into a contract with Owner for Porpoise Way & Concord Way Streetscape Improvements in accordance with drawings and specifications prepared Gorrill-Palmer Consulting Engineers Inc. on behalf of the City of Portsmouth Community Development Department, 1 Junkins Avenue, 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 if the Contractor shall well and faithfully do and perform the things agreed by him to be done and performed, according to the terms of said Contract and such alterations as may be made in said Contract during progress work, and shall further indemnify and save harmless the said Owner in accordance with the Contract, and shall remedy without cost to the Owner any defect which may develop within one year from the time of completion and acceptance of the work.

The Surety hereby waives notice of any alteration in work or extension of time made by the Owner or any of its agents or representatives.

Whenever Contractor shall be, and declared by Owner to be, in default under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

- (1) Complete the Contract in accordance with its terms and conditions, or
- (2) Obtain a bid or bids for submission to the Owner for completing the Contract in accordance with its terms and conditions, and upon determination by Owner and Surety of the lowest responsible Bidder, arrange for a contract between such Bidder and Owner and make available as work progresses (even though there should be a default or a succession of defaults under the contract of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price", as used in this paragraph, shall mean the total amount payable by the Owner to Contractor under the Contract and any amendments thereto, less the amount paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of (2) years from the date on which final payment under the contract falls due.

**PERFORMANCE BOND** (continued)

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of Owner.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_

A.D., 20\_\_\_\_ .

In the presence of:

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

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

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

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.

**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. e, 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 entered into a contract with Owner for Porpoise Way & Concord Way Streetscape Improvements in accordance with drawings and specifications prepared Gorrill-Palmer Consulting Engineers Inc. on behalf of the City of Portsmouth Community Development Department, 1 Junkins Avenue, Portsmouth, N.H. 03801; which contract is by reference made a part hereof, and is hereinafter referred to as the Contract. 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 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:

**LABOR AND PAYMENT BOND** (continued)

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

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

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

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**

A maintenance bond in the amount of **20%** of the contract price with a corporate surety approved by the Owner will be required. 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. The Owner has the option to keep the Contract retainage of ten percent (10%) for a period of one (1) year from project completion in lieu of a maintenance bond.



**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:

<p><b>Atlantic Heights Streetscape Improvements</b> <b>Concord Way &amp; Porpoise Way</b> <b>Bid #25-11</b></p>
---

\_\_\_\_\_  
(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

\_\_\_\_\_  
(Contractor) of \_\_\_\_\_, County of \_\_\_\_\_ and  
State of \_\_\_\_\_ do 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:

<p><b>Atlantic Heights Streetscape Improvements</b> <b>Concord Way &amp; Porpoise Way</b> <b>Bid #25-11</b></p>
---

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.

**CONTRACTOR'S RELEASE** (continued)

IN WITNESS WHEREOF, \_\_\_\_\_

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

has caused these presents to be duly executed this \_\_\_\_\_  
\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Signed, Sealed and Delivered  
in the presence of:

\_\_\_\_\_  
(Individual-Contractor) (Seal)

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

\_\_\_\_\_  
(Partnership-Contractor) (Seal)

\_\_\_\_\_  
(Partner) BY \_\_\_\_\_ (Seal)

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

Attested: \_\_\_\_\_  
(Corporation)

\_\_\_\_\_  
(Secretary) BY \_\_\_\_\_  
(President or Vice President)

(Corp. Seal)

## **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

(As to items A and B above, 1 million per occurrence is acceptable if combined with sufficient excess policy.)

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

- A) Full Workers Comprehensive Insurance coverage for all people employed by the Contractor to perform work on this project. This insurance shall at a minimum meet the requirements of the most current laws of the State of New Hampshire.
- 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.
- D) Property Insurance-Builders Risk: When the contract is for construction of or addition to building structures, the contractor shall provide Builders Risk Insurance (including perils of fire, extended coverage, and theft) on all work in place and/or materials stored at the site. This insurance shall provide coverage for the full cash value of all completed construction and/or materials stored.
- E) Owners Protective Liability Policy: A separate Owners Protective Liability Insurance policy issued to the Owner at the expense of the Contractor in the amount specified 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.

- A) The contractor's insurance shall be primary in the event of a loss.
- B) 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.

**INSURANCE REQUIREMENTS (continued)**

- C) City of Portsmouth shall be listed as a Certificate Holder. The City shall be identified as follows:

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

## SPECIAL PROVISIONS

### **Background and Procurement Plan**

Over the past decade, the City of Portsmouth has carried out a series of streetscape improvement projects in the Atlantic Heights Neighborhood. In that time, the City has constructed streetscape improvements as well as drainage, water and sewer improvements on Kearsarge and Saratoga Ways as well as Falkland, Preble, Crescent and Raleigh Ways. The final two streets to be improved are Concord & Porpoise Ways. The City recently completed design for the improvements to both of these two remaining streets in 2010.

### **Explanation of Bidding Process for Concord Way and Porpoise Way**

The drawing and technical specifications for this Bid includes construction work for both Concord and Porpoise Ways. At this time, sufficient funding is not available to construct the entire designed project. As a result, the City will be contracting for a portion of the overall improvements designed. To facilitate bidding on this project in light of limited funds, the design plans in this package are broken down by "block" and by street. A key to the block number assignments can be found on the front page of the plan set.

The Price Proposal Form includes the quantities for Concord Way Blocks 1 and 2 and these blocks will be the entirety of the scope of work for the original contract. By way of the Contract Amendment Reservation Clause (see Contract Document), the City may contract (through Change Order) for construction of additional blocks at the same unit prices submitted as part of this bid if, as anticipated, additional funds become available after July 1, 2011 and if the City determines that it is in its best interest to proceed with additional work. The decision to move forward with the Contract Amendment Reservation Clause will be made in writing no later than 4:30 p.m. on July 15, 2011. A Change Order form will be executed shortly thereafter.

### **Change Order for Additional Work (through the Contract Amendment Reservation Clause)**

Agreement on additional work will be agreed to by Change Order. The Change Order will include the names of the additional blocks to be constructed and a schedule for completion of the additional work. The unit prices in the Price Proposal form will be carried over and applied to the quantities provided for the additional blocks to be constructed as found at the end of the Special Provisions section.

By submitting a bid, the Contractor agrees to hold its unit prices through July 15, 2011. However, the unit prices will be subject to the NH DOT Special Attention Fuel and Asphalt Cement Adjustment dated January 18, 2011 and located at the end of the Technical Specification as well as:

<http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/documents/monthlyasphaltcementadjustment.pdf>

On the following page is the list of quantities by block for all blocks on this project.

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Job Number: 2365  
Project Location: Atlantic Heights Streetscape Improvements - Phase 4  
Comments: Porpoise Way and Concord Way  
Date: 40550  
References: NHDOT Weighted Average Unit Prices (Urban Projects)  
Calculated By: RJB  
Checked By: RCN/JLW

- Notes:
1. Opinion of cost does not include Legal or Engineering Costs.
  2. Opinion of cost does not include the remediation or removal of any special or hazardous materials such as Asbestos, PCB's, etc.
  3. Opinion of cost does not include costs associated with right of way
  4. Opinion of cost does not include costs associated with wetlands
  5. Opinion of cost is based on NHDOT unit prices QTR 2 2009 through QTR 1 2010, Urban Projects
  6. Opinion of cost does not include utility relocations

Item	Item Description	Unit	Quantity			Quantity			Total for Additional 3 Blocks	Total for All Blocks
			Concord Way	Concord Way	Total Bid #25-11 Proposal Form	Concord Way	Porpoise Way	Porpoise Way		
			Block 1 - Crescent to Saratoga	Block 2 - Saratoga to Kearsarge		Block 3 - Kearsarge to Preble	Block 1 - End to Crescent	Block 2 - Crescent to Saratoga		
201.21	SMALL TREE REMOVAL	EA	0	0	0	2	0	0	2	2
201.22	LARGE TREE REMOVAL	EA	7	7	14	6	0	0	6	20
201.4	STUMP REMOVAL	EA	7	7	14	8	0	0	8	22
202.41	REMOVAL OF EXISTING PIPE 0-24" DIAMETER	LF	10	10	20	10	10	10	30	50
202.6	CURB REMOVAL FOR STORAGE	LF	40	0	40	0	0	60	60	100
203.1	COMMON EXCAVATION	CY	1610	630	2240	870	350	1240	2460	4700
203.11	TEST PIT	EA	6	0	6	1	0	7	8	14
203.2	ROCK EXCAVATION	CY	210	0	210	150	0	100	250	460
206.2	ROCK STRUCTURE EXCAVATION	CY	390	50	440	240	50	310	600	1040
214.01	FINE GRADING	SY	1780	740	2520	1120	460	1520	3100	5620
304.2	GRAVEL	CY	600	250	850	380	160	510	1050	1900
304.3	CRUSHED GRAVEL	CY	560	240	800	360	120	490	970	1770
403.11	HOT BITUMINOUS PAVEMENT (MACHINE METHOD)	TON	350	150	500	220	90	300	610	1110
403.12	HOT BITUMINOUS PAVEMENT (HAND METHOD)	TON	60	40	100	30	10	50	90	190
603.81006	6" PLASTIC PIPE - PVC	LF	700	0	700	200	0	320	520	1220
603.82212	12" PLASTIC PIPE (SMOOTH INTERIOR) - HDPE	LF	70	20	90	160	30	290	480	570
603.82215	15" PLASTIC PIPE (SMOOTH INTERIOR) - HDPE	LF	290	0	290	0	0	0	0	290
604.12	CATCHBASIN TYPE B - 4' DIA	EA	6	1	7	3	1	4	8	15
604.314	SEWER MANHOLE - 4' DIA	EA	3	2	5	2	1	2	7	12
604.324	DRAINAGE MANHOLE 4' DIA	EA	4	1	5	1	0	3	4	9
604.523	CORE EXISTING CB OR MH	EA	1	1	2	1	1	1	3	5
604.55	ADJUSTING MH & CB RIMS TO GRADE	EA	3	1	4	1	2	4	5	8
607.001	Resetting fences	LF	30	30	60	30	30	30	90	150
607.002	Sliding Gate - Concord Sta 55+50L	LS	1	0	1	0	0	0	0	1
607.35	5' HIGH CHAIN LINK FENCE BLACK VINYL COATED	LF	20	20	40	20	20	20	60	100
608.0001	RESET WALK STONE 234/236 CONCORD WAY	LS	1	0	1	0	0	0	0	1
608.0002	REMOVE STEPS	EA	0	0	0	1	0	0	1	1
608.0003	RECONSTRUCT BRICK WALK	SF	20	20	40	20	20	20	60	100
608.24	4" FIBER REINFORCED CONCRETE SIDEWALK	SY	310	170	480	280	10	250	540	1020
608.26	6" REINFORCED CONCRETE SIDEWALK	SY	10	20	30	20	0	10	30	60
608.52	DETECABLE WARNING PANEL	EA	1	2	3	1	0	2	3	6
609.0001	12" REVEAL GRANITE CURB	LF	0	0	0	40	0	0	40	40
609.01	STRAIGHT GRANITE CURB	LF	590	330	920	630	280	660	1570	2490
609.02	CURVED GRANITE CURB	LF	90	60	150	40	20	70	130	280
609.5	REMOVE AND RESET CURB	LF	50	0	50	0	0	0	0	50
611.05206	6" CEMENT-LINED DUCTIL IRON WATER PIPE CL. 52	LF	0	0	0	0	0	40	40	40
611.05208	8" CEMENT-LINED DUCTIL IRON WATER PIPE CL. 53	LF	0	0	0	0	0	600	600	600
611.0521	10" CEMENT-LINED DUCTIL IRON WATER PIPE CL. 52	LF	560	300	860	440	240	40	720	1580
611.50003	3/4" COPPER WATER SERVICE	LF	730	310	1040	490	80	590	1160	2200
611.5207	3/4" CURB STOP	EA	35	14	49	17	2	29	48	97
611.71006	6" GATE VALVE	EA	0	0	0	0	0	1	1	1
611.7101	10" GATE VALVE	EA	0	0	0	0	0	1	1	1
611.8	As-Built Plans	EA	0.5	0.5	1	0.33	0.33	0.33	1	2
611.81	HYDRANT ASSEMBLIES	EA	1	0	1	1	0	1	2	2
611.902	10" X 8" REDUCER	EA	0	0	0	0	0	2	2	2
611.903	22.5° ELBOW (BEND)- DUCTILE IRON PIPE	EA	0	0	0	3	1	2	6	6
611.905	45° ELBOW (BEND)- DUCTILE IRON PIPE	EA	0	1	1	2	0	2	4	5
612.108	8" PVC SEWER PIPE	LF	490	160	650	310	120	450	880	1530
612.5	6" PVC SEWER LATERAL	LF	700	180	880	450	40	560	1030	1930
614.512	CONCRETE PULL BOX 18"	EA	5	3	8	5	0	5	10	18
614.7214	2" PVC CONDUIT PLASTIC CONDUI, SCHEDULE 40	LF	480	320	800	400	0	580	980	1780
619.1	MAINTENANCE OF TRAFFIC	LS	0.5	0.5	1	0.33	0.33	0.33	1	2
632.0104	4" Paint Line	LF	108	42	150	36	0	60	96	246
632.3112	12" Thermoplastic Line	LF	25	25	50	25	15	34	74	124
637.1	GRANITE STEPS	SF	75	75	150	75	0	75	150	300
641.0001	LOAM	CY	30	20	50	30	10	30	70	120
645.7	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	LS	1	0	1	1	0	0	1	2
645.71	MONITORING SWPP AND EROSION CONTROL	LS	0.5	0.5	1	0.33	0.33	0.33	1	2
646.31	TURF ESTABLISHMENT WITH MULCH AND TACKIFIERS	SY	340	260	600	400	100	350	850	1450
652.0001	ACER RUBRUM "SUNSET", SUNSET RED MAPLE	EA	1	2	3	0	1	2	3	6
652.0002	CEATAEGUS CRUSGALLII INERMIS, COCKSPUR THRONLESS HA	EA	4	0	4	0	0	0	0	4
652.0003	PYRUS CALLEYANA "CLEVELAND", CLEVELAND PEAR	EA	5	4	9	4	0	4	8	17
652.0004	QUERCUS PALUSTRIS, PIN OAK	EA	1	2	3	3	1	6	10	13
652.0005	ULMUS AMERICANA VALLEY FORGE, VALLEY FORGE ELM	EA	0	1	1	3	0	3	6	7
692	MOBILIZATION	LS	0.5	0.5	1	0.33	0.33	0.33	1	2
699	Misc. Temporary Erosion & Sediment Control	Allowance	1	0	1	1	0	0	1	2



## GENERAL REQUIREMENTS

### **PART 1 - SUMMARY**

#### 1.1 SCOPE OF WORK

- A. The proposed work for this project will include reconstructing the existing travelway, construction of new sidewalks, utility infrastructure replacement, drainage improvements, landscaping and on street parking.

#### 1.2 LIMITS OF WORK

- A. Each block shall consist of complete improvements on each street section within the limits of the cross streets at the ends of each street section.

#### 1.3 SURVEY/CONSTRUCTION

- A. Survey control and TBM's are noted on the Plan. The City shall supply the initial lay-out for the project including baseline stationing. All re-setting of base line and stakes or additional lay-out will be paid for by the Contractor. The City will provide additional layout for any additional work agreed to.

- B. The Surveyor for the project lay-out is:

James Verra and Associates, Inc.  
101 Shattuck Way, Suite 8  
Newington, NH 03801-7876

Telephone : (603)436-3557  
Fax: (603)436-8339  
E mail JamesV@JVASurveyors.com

Primary Contact Person: James Verra

#### 1.4 INTENT OF CONTRACT

- A. The intent of the Contract is to provide for the construction and completion in every detail of the work described.
  - 1. 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.
  - 2. 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.

## **GENERAL REQUIREMENTS (continued)**

### 1.5 INCIDENTAL WORK

- A. Incidental work items for which separate payment is not measured includes, but is not limited to, the following items:
  - 1. Clearing, grubbing and stripping (unless otherwise paid for)
  - 2. Clean up
  - 3. Plugging existing sewers and manholes
  - 4. Signs.
  - 5. Restoration of property
  - 6. Cooperation with other contractors, abutters and utilities.
  - 7. Utility crossings, unless otherwise paid for.
  - 8. Minor items - such as replacement of fences, guardrails, rock wall, etc.
  - 9. Steel and/or wood sheeting as required.
  - 10. Accessories and fasteners or components required to make items paid for under unit prices or lump sum items complete and functional.

### 1.6 ALTERATION OF PLANS OR OF CHARACTER OF WORK

- A. 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.

### 1.7 EXTRA WORK ITEMS

- A. 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.
- B. If the Owner determines that extra work is to be performed, a change order will be issued.

### 1.8 CHANGE ORDERS

- A. 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.

## **GENERAL REQUIREMENTS (continued)**

- B. The contractor shall be required to sign the change order and it shall be considered as part of the Contract documents.

### 1.9 FINAL CLEAN UP

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

### 1.10 ERRORS AND INCONSISTENCY IN CONTRACT DOCUMENTS

- A. 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. Technical Specifications will govern General Requirements
  2. Special Provisions will govern Technical Specifications and General Requirements.

### 1.11 Protection of existing Trees

#### Tree Protection Measures

Streetscape improvements within Atlantic Heights will require tree protection measures to prevent damage to and ensure long term health of the existing trees. The following measures will protect trees during construction

Limit construction access by placing temporary tree protection fencing in areas not to be disturbed.

Prevent scraping or gouging of bark, trunk, or lower limbs with heavy equipment. Protect the trunk with 2x4 studs laid up the trunk and secured with metal straps.

In areas where construction access is required, the natural grade shall be protected from compaction by placing either a 4"-6" thick blanket of mulch or place plywood over the natural grade. A combination of mulch and plywood or timber matting may be necessary when frequent travel is required.

Any work, excavation, or grading required should be limited to 3" of cut or fill, with no roots over ¾" in diameter being cut. Work in root zone areas should be done by hand. If roots ¾" or larger are encountered, hand dig to preserve these roots. Feeder roots of most trees are within 12"-18" of the soil surface.

For areas where improvements require root removal, roots shall be pruned or sawn to minimize jagged edges to allow tree roots to heal properly.

Cover exposed roots within 48 hours of exposure during hot, dry periods to protect the roots from drying out.

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

## **GENERAL REQUIREMENTS (continued)**

### **PART 2 - CONTROL OF WORK**

#### **2.1 AUTHORITY OF ENGINEER**

- A. All work shall be done under supervision of the Director of Public Works (or his designee) and to his satisfaction. The Director of Public Works (or his designee) 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 Director of Public Works (or his designee) 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 Director of Public Works (or his designee) 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).
- D. The Contractor shall plan paving operations so that the Engineer will have sufficient advanced notification to provide the necessary inspection and testing. Sufficient notification will be considered 48 hours.
  - 1. In the event that paving is suspended, the 48 hour notification shall be required again before restarting the paving operations unless otherwise agreed by the Engineer.
  - 2. Consistent notification of paving intent without actually paving will result in the following actions:
    - a. First offense – verbal warning
    - b. Second offense – written warning
    - c. Third and subsequent – liquidated damages will be charged for one working day.

#### **2.2 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK**

- A. If the City determines that non-conforming work substantially conforms to the Contract, the City may accept the non-conforming work provided that the City

## **GENERAL REQUIREMENTS (continued)**

may require a credit to the City to be deducted from amounts otherwise due the Contractor. If the City and Contractor cannot agree to the amount of the credit, the work shall be unacceptable work.

- B. The Contractor shall remove, replace, or otherwise correct all unacceptable work as directed by the City at the expense of the Contractor, without cost or liability to the City.
- C. Prior to Final Acceptance and upon written order by the City, the Contractor shall remove or uncover unauthorized work. After examination, the Contractor shall rebuild the uncovered work to a condition conforming to the Contract at the expense of the Contractor and without cost or liability to the City. Any delay arising from unauthorized work shall be an inexcusable delay.
- D. Prior to Final Acceptance and upon written order by the City, the Contractor shall uncover un-inspected work. After examination, the Contractor shall rebuild the uncovered work to a condition conforming to the Contract.
  - 1. If the City determines that the un-inspected work is acceptable, the uncovering, removing, and rebuilding will be paid for as extra work and any delay resulting there from shall be an excusable delay.
  - 2. If the City reasonably determines that the un-inspected work is unacceptable, the uncovering, removing, and rebuilding shall be at the Contractor's expense and any delay resulting there from shall be an inexcusable delay.

### **2.3 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



## **GENERAL REQUIREMENTS (continued)**

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 be responsible for the preservation of all trees on the project which are not called to be removed. Any trees damaged by the Contractor's operations shall be repaired using approved tree dressing or paint in accordance with the appropriate provisions of Section 650-658 inclusive of the NHDOT Standard Specifications. 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.

### 2.4 MAINTENANCE DURING CONSTRUCTION

- A. 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.

### 2.5 SAFETY PRECAUTIONS

- A. 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.
- B. During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. At the end of each working day, the construction site shall be left in a safe and orderly manner. All materials and equipment on site that have not been incorporated into the work shall be placed in secured areas outside the traveled way and off private property, unless the Contractor has obtained agreements with said property owners for storage of materials and equipment. Portions of the work which are in progress shall be protected to avoid damage to the work and/or protect pedestrians and vehicles utilizing the project area.



## 2.6 PERMITS

- A. 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.

## 2.7 MAINTENANCE AND PROTECTION OF TRAFFIC

- A. The Contractor shall provide such Flaggers as the Director of Public Works (or his designee) deems necessary for the direction and control of traffic within the site of project.
- B. The Contractor shall be responsible for the cost, scheduling and supervising of any necessary Flaggers. Flaggers are incidental to all work.
- C. A permit from the Public Works Dept is required for all Flagging operations.
- D. At least one lane, shall be maintained between 7 A.M. and 7 P.M. unless approved by the Engineer. The maximum work zone in the restricted lane shall not exceed 300 feet except for paving or unless waived by the City.
- E. The contractor shall be responsible to ensure the safe passage of pedestrians thru the work area at all times. At least one (1) pedestrian access shall be provided at all times.
- F. Contractor shall submit for approval a Traffic Control Plan. This plan shall indicate all truck routes the Contractor will utilize in the prosecution of work
- G. The Contractor is responsible for developing a traffic maintenance plan and must get approval from the Engineer before any construction begins. Guidelines for the construction and erection of barricades, lighting devices, warning signs, etc. may be found in the most recent edition of "Manual on Uniform Traffic Control Devices for Streets and Highways".
- H. This work shall be considered paid for under item 619.1 Maintenance of Traffic

## BARRICADES AND WARNING SIGNS

- I. 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.
- J. The Contractor shall be held responsible for all damage to the work due to any failure of the warning devices to properly protect the work from the traffic, pedestrians or other causes.
- K. Roadway closed to traffic shall be protected by effective barricades.
  - 1. Obstructions shall be illuminated during hours of darkness.

2. Suitable warning signs shall be provided to control and direct traffic in a proper manner, as approved by the engineer.

L. This work shall be considered paid for under item 619.1 Maintenance of Traffic

## 2.8 TRAFFIC SIGNS

- A. All existing traffic signs which are to be removed during construction shall be carefully dismantled and the posts removed and shall be stacked in an area approved by the Engineer. The Contractor shall protect the signs from damage while in his possession and shall repair, at no additional cost to the City, any damages caused by his operations. The contractor shall reset the signs to their original locations or to a new location as directed by the City's representative.
- B. Stop signs are to be maintained at their original locations at all times during the progress of the work
- C. Prior to the start of any construction work, the Contractor and Engineer shall prepare a mutually acceptable inventory of all signs within the project limits which shall be used as a guide for replacement should signs be removed for construction purposes. The signs shall be inventoried by station location and approximate offset, legend of sign and post.
- D. This work shall be considered as subsidiary obligation of the contract for which no specific payment will be made. All signs shall conform to the MUTCD

## 2.9 LIMITATION OF OPERATIONS

- A. The Contractor shall conduct the work at all times in such a manner and in such sequence as will assure the least interference with traffic.
- B. The Contractor shall not open up work to the prejudice or detriment of work already started.
- C. The Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional sections, if finishing such section is essential to public convenience.

## **GENERAL REQUIREMENTS (continued)**

### **PART 3 - TEMPORARY FACILITIES**

#### **3.1 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.

#### **3.2 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.

#### **3.3 TEMPORARY WATER**

- A. 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.

#### **3.4 TEMPORARY ELECTRICITY**

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

## **GENERAL REQUIREMENTS (continued)**

### **PART 4 - MEASUREMENT AND PAYMENT**

#### 4.1 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.

## **GENERAL REQUIREMENTS (continued)**

- 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.
- 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.

### 4.2 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.

## **GENERAL REQUIREMENTS (continued)**

- 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.

### 4.3 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.

### 4.4 PARTIAL PAYMENTS

- A. 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 the requirements of Article 4.6 "Acceptance and Final Payment", are met.

## **GENERAL REQUIREMENTS (continued)**

### 4.5 FINAL ACCEPTANCE

- A. Upon due notice from the Contractor of presumptive completion of the entire project, the Director of Public Works (or his designee) 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 Director of Public Works (or his designee) will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of the final inspection.
- B. If, however, the inspection discloses any work in whole or in part, as being unsatisfactory, the Director of Public Works (or his designee) 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 Director of Public Works (or his designee) will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

### 4.6 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 will be waived 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.

### 4.7 GENERAL GUARANTY AND WARRANTY OF TITLE

- A. The Contractor unconditionally warrants and guarantees that the project will be free from warranty defects for one year from the date of Final Acceptance. Final Acceptance includes receipt of all conforming closeout documentation.
- B. If the City discovers any warranty defects during the warranty period, the Contractor agrees to promptly perform all remedial work at no additional cost or liability to the City. 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.
- C. 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.
- D. 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.
- E. 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.

#### 4.8 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.



## **GENERAL REQUIREMENTS (continued)**

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.

### 4.9 TERMINATION OF CONTRACTOR'S RESPONSIBILITY

- A. 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 Article 4.8 above.

## **PART 5 - SPECIAL REQUIREMENTS**

### 5.1 PRECONSTRUCTION CONFERENCE

- A. A conference will be held at a specified location by the City, within ten (10) days after the awarding of the contract. At this time, the contractor will be required to submit a schedule and a plan showing project activities.
  - 1. In addition to the contractor any subcontractors are required to attend.
  - 2. City officials and representatives of the various utility companies involved in the project will be present at this meeting.
- B. It is the purpose of this meeting to inform the various agencies of the proposed work schedule, and to give them the opportunity of discussing any difficulties and of offering suggestions to the Contractor concerning his proposed schedule in order that full cooperation may be reached.

### 5.2 SCHEDULE OF OPERATIONS

- A. The above mentioned schedule of operations shall consist of a bar chart detailing the Work Plan/Sequence of Construction
- B. No work shall proceed on this project prior to the hour of 7:00 A.M. or after 6:00 P. M. (prevailing time) on any working day with out written approval from the Engineer. The definition of work for this specification shall include the starting or moving of equipment, machinery, or materials.
- C. Any day worked for four hours or more shall be considered a full working day.

**GENERAL REQUIREMENTS (continued)**

5.3 NOTIFICATION OF RESIDENTS

- A. Residents shall be notified sufficiently in advance of any construction affecting the resident's driveway and sidewalk to allow adequate time for his removal of personal vehicles.
- B. Locations of curb cuts for drive access affecting individual residents shall be brought to residents' attention.

5.4 MATERIALS

- A. Materials shall meet the requirements specified for the various subsections of the specifications. Equals shall be approved only prior to the bid opening.

5.5 SURVEY

- A. The City will be responsible for establishing the benchmark location and the construction baseline. The Contractor shall be responsible for maintaining these controls during construction and providing all additional survey required, which shall be done by a competent Engineer or Surveyor.

5.6 SHEETING AND BRACING

- A. Any sheeting and/or bracing required for the satisfactory installation of drainage and/or sanitary sewerage structures will not be paid for separately but shall be considered as incidental to the appropriate bid item.

5.7 OCCUPATIONAL SAFETY AND HEALTH

- A. The Contractor is hereby advised that all work to be furnished to the City shall be performed with equipment, methods, and use of personnel in conformance with the pertinent Occupational Safety and Health Act requirements of the State of New Hampshire and with the regulations for construction as specified by the City of Labor and Occupational Safety and Health Administration (OSHA) as currently amended.

5.8 SETTING OF PIPES TO LINE AND GRADE

- A. Laser beam equipment shall be used for laying storm drain, frequent checks shall be made to assure close adherence to line and grade.

## **GENERAL REQUIREMENTS (continued)**

### 5.9 EXTENT OF OPEN EXCAVATION

- A. The extent of excavation open at any one time shall be controlled by OSHA regulations and by existing conditions and location of work area.
- B. All excavations must be backfilled to grade at the end of the workday.

### 5.10 DUST CONTROL FOR STREET

- A. Calcium chloride shall be spread only on disturbed unpaved areas. Calcium chloride shall not be spread on paved areas that are covered by granular material. These areas shall be swept clean of all granular material.
- B. Dust on paved areas shall be controlled with water before sweeping.
- C. This work and materials shall be considered as subsidiary obligation of the contract for which no specific payment will be made.

### 5.11 TRENCH PAVEMENT REPLACEMENT

- A. The Contractor shall be responsible for repairing any trench pavement that has settlement in excess of one inch, cracking or opening of pavement joints.
  - 1. Repair may include overlay, removal of unacceptable material and complete replacement, joint sealing or re-cutting pavement as required.
  - 2. This work may be necessary after final acceptance of the work and prior to expiration of the maintenance bond.
  - 3. This work shall be done at no additional cost to the City.

### 5.12 WASTE MATERIAL

- A. All waste material shall be removed from the site and the area left clean upon completion of work.
- B. Any equipment or structures damaged by the Contractor shall be repaired or replaced at no additional cost to the City.

### 5.13 QUALITY ASSURANCE

- A. The Contractor shall be responsible at all times for maintaining quality assurance during performance of his work. Particular attention to compaction shall be paid during backfilling operation.

**GENERAL REQUIREMENTS (continued)**

- B. In-place density tests of the backfill material will be conducted by an independent testing laboratory.
  - 1. The amount and frequency of testing will be determined at the time of construction, by the engineer.
  - 2. A minimum of one density test per 50 feet of road may be required.
- C. Satisfactory compaction shall be a minimum of 95% of the maximum density for the embankment and a minimum of 95% of the maximum density for gravel base course and subbase gravel course.
- D. The Contractor shall be responsible for procuring and paying for the testing services

**GENERAL REQUIREMENTS (continued)**

**PART 6 - UTILITIES**

6.1 UTILITY MEETING

- A. A Preconstruction Utility Conference with the Contractor and Utilities is required and shall be scheduled by the City at a mutually agreeable time. Meeting place to be determined by City.

6.2 GENERAL INFORMATION

- A. The following table identifies all known utilities presently located within the limits of this project or intending to install facilities during project construction:

<b>Utility</b>	<b>Aerial</b>	<b>Underground</b>
Public Service Company	X	X
Unitil		X
Fairpoint	X	
AT&T Broadband	X	X
Portsmouth Fire Dept.	X	X
Portsmouth Public Works		X
Portsmouth Water Dept.		X

- B. Unless otherwise specified, any underground utility facilities shown on the project plans represent approximate locations gathered from available information. The City cannot certify the level of accuracy of this data.
  - 1. Underground facilities indicated on the topographic sheets (plan views) have been collected from historical records and/or on-site designations provided by the respective utility companies.
  - 2. Underground facilities indicated on the cross-sections have been carried over from the plan view data and may also include further approximations of the elevations (depths) based upon straight-line interpolation from the nearest manholes, gate valves, or test pits.
  - 3. All adjustments are to be made by the respective utility unless otherwise specified herein.
- C. Temporary utility adjustments are not anticipated.
- D. All clearing and tree removal in areas where utilities are involved must be completed before the utilities are able to relocate their facilities.
- E. Fire hydrants shall not be disturbed until all necessary work has been accomplished to provide proper fire protection.

**GENERAL REQUIREMENTS (continued)**

F. Aerial Summary:

Utility	Pole Set	Transfer Wires/ Cables	Remove Poles	Estimated Working Days
Public Service Company	X	X	X	10
Fairpoint		X		3
Portsmouth Fire Dept.		X		3
AT&T Broadband		X		3

6.3 UTILITY SPECIFIC ISSUES:

A. Any tree removal or tree trimming required within ten feet of the Public Service Company conductors must be done by a contractor qualified to work within ten feet of the Public Service Company conductors. A list of tree removal contractors qualified to remove trees or limbs within ten feet of conductors may be obtained from Dave Meserve (603) 436-7708 X 5621#.

B. Pole Movement Table:

Existing Pole #	Existing Station	Left/ Right		Existing Offset	Proposed Station	Left/ Right		Proposed Offset	Comments
		LT	RT			LT	RT		
196/8 VZ	58+24	X		8.0	58+27	X		14	
21-207-2	60+28		X	8.0	60+28		X	12	
-	53+11		X	9.5	53+11		X	18.5	Light Pole
	61+52	X		17	61+52	X		26	Light Pole

C. Subsurface Movement Table:

Utility	Summary of Work	Location
Unitil	Test Pit Required	59+84 R

Unitil may extend their gas lines located within the project limits during the construction of the roadway improvements.

## **GENERAL REQUIREMENTS (continued)**

### 6.4 COOPERATION WITH UTILITIES.

- A. At points where the Contractor's operations are adjacent to properties of telephone, gas, water and/or power companies, or are adjacent to other property, damage to which might result in considerable expense, loss or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.
- B. The Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations in order that
  1. these operations may progress in a reasonable time,
  2. duplication or rearrangement work may be reduced to a minimum,
  3. services rendered by those parties will not be unnecessarily interrupted.
- C. No person, firm, or corporation, shall make or cause to be made any opening or excavation in a City Street, way, or public place until contact has been made with all utilities to locate any existing underground gas, water, telephone, power or other installations within said street, way or public place.
- D. When gas or other flammable service to buildings is discontinued, the existing service line for such service shall be terminated at a point outside the building.
- E. In the event of interruption to water or utility services as a result of accidental breakage, or as a result of being exposed or supported, the Contractor shall promptly notify the proper authority. He shall cooperate with the same authority in the restoration of such service as promptly as possible.
- F. Water lines, gas lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cableways, signals and all other utility appurtenances within the limits of the proposed construction are to be moved by the Utilities without expense to the Contractor, unless otherwise provided for, or as noted in the plans.
- G. The Contractor shall ascertain the location of existing utilities and any other necessary information by direct inquiry at the office of the following utility owners:
  1. Dig Safe: Call before you dig- 1-888-344-7233
- H. The completeness of the above listing is not guaranteed by the City of Portsmouth.

## **GENERAL REQUIREMENTS (continued)**

### **PART 7 - DRAWINGS**

#### **7.1 SHOP DRAWINGS**

- A. The Contractor shall submit working and detail drawings, well in advance of the work, to the Director of Public Works (or his designee) for review.
- B. 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.
- C. The Contractor shall submit two sets of drawings to the Director of Public Works (or his designee).
- D. Prior to the approval of the drawings, any work done or materials ordered for the work involved shall be at the Contractor's risk.
- E. One 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 Director of Public Works (or his designee) with two sets of the revised detail working drawings.
- F. The Director of Public Works (or his designee)'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.

#### **7.2 RECORD DRAWINGS**

- A. The Contractor shall keep daily records of all changes in the work, ties to all new service connections, and elevations of all inverts.
- B. Upon completion of the project, the Contractor shall deliver to the Engineering marked-up set of plans with all changes and required information indicated in red.
- C. Final payment will not be made until the Engineer receives the marked-up set of plans.



## TECHNICAL SPECIFICATIONS

The following listed sections of the State of New Hampshire Department of Transportation Standard Specifications for Road and Bridge Construction shall apply.

Section

201	Clearing and Grubbing
202	Removing Structures and Obstructions
203	Excavation and Embankment
206	Structural Excavation for Pipes and other Minor Structures
214	Fine Grading
304	Aggregate Base Courses
306	Reclaimed Stabilized Base
403	Hot Bituminous Pavement
520	Portland Cement Concrete
603	Culverts and Storm Drains
604	Manholes and Catch Basins
607	Fences
608	Sidewalks
608A	Reconstructed Walkways and Stairs
609	New Curbing
611	Water Main and Appurtenances
612	Polyvinyl-Chloride Sewer Pipe
614	Electrical Conduit
628	Sawed Pavement
632	Reflective Pavement Markings
641	Loam
644	Seeding
645	Erosion Control
646	Turf Establishment
652 & 653	Trees, Plants, and Ground Covers
692	Mobilization
699	Miscellaneous Temporary Erosion and Sediment Control

These specifications are available on line at: <http://webster.state.nh.us/dot/specifications/>

The above listed specifications are modified as set forth herein on the following pages.

Method of payment described in the Technical Specifications shall supercede any methods described in the referenced standard specifications. All payments shall be subject to retainage and other terms and methods of payment set forth in the General Requirements.

**SECTION 201**  
**CLEARING AND GRUBBING**

The provisions of Section 201 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**201.5 Basis of Payment.** Compensation under this item shall include the removal of trees in the areas designated by the Engineer, stumps, slash, brush, dust control, hauling, barricades, safety devices, temporary removal of detrimental objects and all tools, equipment, labor and other materials necessary to satisfactorily complete the work.

Bushes, shrubs and other misc. landscape features shall be removed as directed by the City's representative and this work shall be considered incidental to item 303.1 Common Excavation and no separate payment shall be made.

Payment will be made under:		<b><u>Pay Unit</u></b>
<b><u>Pay Item</u></b>		
201.21	Small Tree Removal	Each
201.22	Large Tree Removal	Each
201.4	Removing Stumps	Each

**SECTION 202**  
**REMOVING STRUCTURES AND OBSTRUCTIONS**  
**(Catchbasins, Pipes, Fencing )**

The provisions of Section 202 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**202.5 Basis of Payment.** The accepted quantity of removal of existing pavement surface shall be **incidental to all work**. There will be **no compensation under this item** for removal of the pavement surface, dust control, hauling, placement of a bituminous leveling course, temporary removal of detrimental objects and all tools, equipment, labor and other materials necessary to satisfactorily complete the work.

Pavement removal shall be considered incidental to pay item 203.10 Common Excavation and no separate payment shall be made (the existing quantity of pavement has been included under this item).

Separate payment for manhole and catch basin removal shall only be made whenever the center of the structure to be removed is 8 feet or more from the center of a new structure or pipe and shall include all equipment, material, and labor necessary to completely remove the existing pipe and back fill the resulting cavity with granular borrow.

Separate payment for pipe removal shall only be made whenever a pipe is outside the horizontal limits of excavation for a proposed pipe or structure by four or more feet and shall include all equipment, material, and labor necessary to completely remove the existing pipe and back fill the resulting cavity with granular borrow.

No separate payment will be made for the removal of any old pipes found in the trench limits. This work shall be considered subsidiary to the contract unless otherwise ordered by the Engineer.

Payment will be made under:		
<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
202.41	Removal of Existing Pipe, 0 - 24" Diameter	Linear Foot
202.6	Curb Removal for Storage	Linear Foot

**SECTION 203**  
**EXCAVATION AND EMBANKMENT**

The provisions of Section 203 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**203.4 Method of Measurement.** Test pits if required, will be measured by each test pit.

**203.5 Basis of Payment.** Payment shall be full compensation for furnishing all labor, materials and equipment necessary for excavation, backfilling, compaction, disposal of materials and the protection of the utilities.

Test pits shall be performed only if ordered by the Engineer. The Engineer shall be present during the digging of any test pit submitted for payment. Test pits shall be paid for at the contract unit price and shall include all excavation and backfill, protection of the utilities, and shall include all materials, labor, and equipment necessary to complete the work.

<b><u>Pay Item</u></b>	Payment will be made under:	<b><u>Pay Unit</u></b>
203.1	Common Excavation	Cubic Yard
203.11	Test Pit	Each
203.2	Rock Excavation	Cubic Yard

**SECTION 206**  
**STRUCTURAL EXCAVATION FOR PIPES & OTHER MINOR STRUCTURES**

The provisions of Section 206 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**206 Basis of Payment.**

<b><u>Pay Item</u></b>	Payment will be made under:	<b><u>Pay Unit</u></b>
206.2	Rock Structure Excavation	Cubic Yard

**SECTION 214**  
**FINE GRADING**

The provisions of Section 214 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**214.5 Basis of Payment.** Payment shall be full compensation for furnishing all labor, materials and equipment necessary for fine grading including compacting, grade stakes, supervision, and quality control.

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
214.01	Fine Grading	Square Yard

**SECTION 304**  
**AGGREGATE BASE COURSES**

The provisions of Section 304 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**Aggregate.** Sources of Aggregate and preliminary test results shall be submitted ten working days prior to any placement of material on the job. Failure of these preliminary tests will be grounds for rejection of material from that source. Aggregates will be tested on the job and shall meet these specifications as the material is incorporated into the work.

All Measurements **shall be in-place compacted** quantities in accordance with the plans and specifications.

**304.50 Basis of Payment.** The cost of the all **laboratory testing** including compaction testing, at 1 test per 50' in areas to be designated by the engineer, shall be the responsibility of the Contractor.

<b><u>Pay Item</u></b>	Payment will be made under:	<b><u>Pay Unit</u></b>
304.2	Gravel	Cubic Yard
304.3	Crushed Gravel	Cubic Yard



**SECTION 306**  
**RECLAIMED STABILIZED BASE**

The provisions of Section 306 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

Due to the number of pipes, box widening and sidewalk construction, **No additional payment** shall be made for reclaiming the existing pavement surfaces on this project. The reclaiming of the existing surface is permissible, but will be viewed as a construction convenience and will be ineligible for any compensation under this contract. The contractor will be responsible for lowering all existing utilities in the reclaim area 1' below finished grade. Placing a steel plate over all structures capable of carrying an H-20 load shall be required. Raising existing structures to grade shall be paid under item 604.55.

**SECTION 403**  
**HOT BITUMINOUS PAVEMENT**

The provisions of Section 403 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

The following Changes have been made to the item numbers to clarify the anticipated areas where each item will be used.

No adjustments incentive bonuses will be made under this contract.

The Asphalt Cement Adjustment will be made on this project in accordance with the current NHDOT Special Attention at the time of bid.

No additional changes have been made to this section.

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
403.11	Hot Bituminous Pavement (Machine Method)	Ton
403.12	Hot Bituminous Pavement (Hand Method)	Ton

**SECTION 520**  
**PORTLAND CEMENT CONCRETE**

The provisions of Section 520 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

See Section 609 curbing for concrete requirements for curb placement. The limits of concrete shall be the neat lines as described in Section 609 of these specifications.

No payment will be made for this item. It shall be incidental to the associated curb item.

**SECTION 603**  
**CULVERTS AND STORM DRAINS**

The provisions of Section 603 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**603.1 Description:** This work shall consist of the construction of culverts, storm drains, hereinafter referred to as "pipe" as shown on the plans, details, and specified herein.

When the alternative of pipe material is listed in the Proposal, the Contractor shall signify his choice of pipe to be used by inserting his mark in the proper space provided.

**603.4 Method of Measurement:** Pipes will be measured by the linear foot in place within the limits specified below.

For measurement purposes the end of the pipe in closed structures will be considered at the inside face of the wall, and in masonry headwalls it will be considered to be at least the face of the headwall.

**603.50 Basis of Payment:** The accepted quantities of pipe for culverts, drains and sewers will be paid for at the contract unit price per linear foot, complete in place.

Payment for trench excavation and backfill to the established trench profile indicated on the plans with the exception of rock excavation, will be included in this item.

Backfilling of the trench shall be incidental to this item.

Should the Contractor elect to utilize "drag boxes" during the installation work, over cutting of the trench beyond the limits for excavation shown on the Typical Trench Details will be allowed to accommodate the boxes. However, no payment will be made for the excess excavation and backfill material beyond the dimensions as shown on the Typical Trench Detail. Payment will be made under:

<b><u>Pay Item</u></b>	Payment will be made under:	<b><u>Pay Unit</u></b>
603.81006	6" Plastic Pipe - PVC (Storm Drain Services)	Linear Foot
603.82212	12" Plastic Pipe (Smooth Interior) HDPE	Linear Foot
603.82215	15" Plastic Pipe ( Smooth Interior) HDPE	Linear Foot

**SECTION 604**  
**MANHOLES AND CATCH BASINS**

The provisions of Section 604 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**604.3 Construction Requirements.** Concrete Blocks shall not be used in any way in the construction or alteration of manholes or catch basins.

All manhole bases, barrel sections and top sections shall be marked, by the manufacturer, with the appropriate manhole station (and offset if applicable).

It is emphasized to the Contractor that drainage construction under this contract shall be coordinated with existing facilities so that continuous service and handling of existing flows is accomplished.

The outside surface of any masonry work for catch basins and manholes shall be plastered with mortar from 1/4 inch to 3/8 inch thick. The masonry shall be properly wetted before the plaster is applied. The plaster shall be carefully spread and troweled so that all cracks are thoroughly worked out. After hardening, the plaster shall be carefully checked by being tapped for bond and soundness.

All brick masonry surfaces with mortar shall be waterproofed with two coats of DEHYDRATINE 6 TROWEL MASTIC, DEHYDRATINE 10 SEMI-MASTIC or approved equal.

**604.4 Method of Measurement.** Under this Subsection the following sections shall be amended as follows:

- Complete structures. Each catch basin and manhole will be measured per each complete.
- All castings or other appurtenances installed as shown on the plans or as required shall not be measured for payment.

**604.5 Basis of Payment.** The section shall be amended by adding the following:

The cost of furnishing and installing reinforced steel concrete stubs and other appurtenances shall be considered as incidental to the structure and no separate payment will be made therefore.

The cost of excavation and backfill of all catch basins or manholes, either new, abandoned, or removed and/or replaced shall be included in the cost of the specific work for each type of structure.

The cost of resetting curb inlet stones shall be considered incidental to the cost of adjusting catch basins to grade and no separate payments will be made. The cost of delivering inlet stones and/or castings to approved sites shall be considered as incidental to the contract items involved.

The cost of maintaining flows in existing sewer lines and manholes and any maintenance and cleaning of said sewers that may be required as a result of new manhole installations shall be incidental to the related pay item and no separate payment for this work will be made. Sewer manhole construction shall also conform to Section 612.

The cost of connecting existing pipes to the structure (catch basin or manhole) shall be considered incidental to the new structure and no separate payment will be made. All new connections shall to existing structures shall be cored and paid for under item 604.529.

Separate payment for manhole and catch basin removal shall only be made whenever the center of the structure to be removed is 8 feet or more from the center of a new structure or pipe and shall include all equipment, material, and labor necessary to completely remove the existing pipe and back fill the resulting cavity with granular borrow.

Separate payment for pipe removal shall only be made whenever a pipe is outside the horizontal limits of excavation for a proposed pipe or structure by four or more feet and shall include all equipment, material, and labor necessary to completely remove the existing pipe and back fill the resulting cavity with granular borrow.

<u>Pay Item</u>	Payment will be made under:	<u>Pay Unit</u>
604.12	Catch Basins- Type B (4' Diameter)	Each
604.314	Sewer Manhole (4' Diameter)	Each
604.324	Drainage Manhole (4' Diameter)	Each
604.529	Core Existing CB or MH	Each
604.55	Adjust Existing MH & CB Rims to grade	Each

## **SECTION 607**

### **FENCES**

The provisions of Section 607 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

Fences shall be re-located in the areas designated on General Plan. 72-hour notification to the property resident is required prior to the removal and resetting of any fence. Because the fence serves as a containment area for pets in most instances, **all fences are required to be re-installed within 24 hours of the removal of the existing fabric.**

New rails, fabric, posts and hardware are to be included in each of the locations for chain link fencing. All other fence shall reuse existing materials. All items included in this section shall include all materials, hardware, labor, equipment, specialty equipment and other necessary items to complete the installation of new or existing fences and related items.

Measurement shall be measured by the linear foot of fencing on a continuous line from the existing connecting post to the end of the installation including all pedestrian and driveway gates.

All posts on Item 607.901 and 607.903 shall use 3000 psi concrete to backfill fill each hole. Holes shall be dug or augered to a 3.5' depth, post set and backfilled with 3000 psi concrete to within 8" of existing surface area. Loam shall be placed on top of the posts once the concrete has cured as part of the project clean-up process.

#### **Sliding Gate**

Chain link style cantilever slide gate shall meet the following requirements at a minimum:

Gate frames shall consist of 2-1/2" O.D. horizontal rails, 2" O.D. vertical bracing, and 1-5/8" diagonal bracing; Shall be welded and galvanized.

Galvanized chain link mesh shall be 9 gauge 2" mesh (1.2 oz. zinc galvanized after weaving).  
Cantilever

The bottom of the gate shall be a maximum of 4" above the driveway pavement.

Slide Gate shall include all hardware to make the gate operate properly which at a minima should included the following or an approved equivalent:

- 1 - 5' High x 10' Wide Opening Galvanized Chain Link Cantilever Slide Gate
- 2 - 4" O.D. x 9' Galvanized SS40 Gate Roller Posts
- 1 - 3" O.D. x 9' Galvanized SS40 Gate Latch Post
- 2 - 4" Aluminum Post Caps
- 1 - 3" Aluminum Post Cap
- 4 - 4" x 2-1/2" Premium Stealth Nylon Cantilever Rollers
- 2 - Custom Polyethylene Top Fit Safety Protective Roller Covers
- 2 - Custom Polyethylene Bottom Fit Safety Protective Roller Covers
- 1 - Galvanized Slide Gate Mac Latch - Fits 3" Latch Post

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
607.001	Resetting Fences	Linear Foot
607.002	Sliding Gate – Concord STA 55+50L	Lump Sum
607.35	5’ High Chain Link Fence Black Vinyl Coated Steel Fabric	Linear Foot



**SECTION 608**  
**SIDEWALKS**

The provisions of Section 608 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

1.01 Scope of Work: The work shall consist of construction of concrete sidewalks as shown on the plans or as directed in the field by the Engineer.

1.02 Methods of Construction:

1.02a All labor and materials shall conform to the State of New Hampshire Standard Specifications for Road and Bridge Construction, Section 608, 203 and 209 except as amended here.

1.02b All concrete shall be Class A, 4000-PSI after 28 days with 5 to 7 percent air entrained. The maximum concrete slump that will be allowed is 5, this may be tested by the engineer at any time. **All concrete will have polyfiber reinforcing.** Any concrete found not meeting this specification will be removed and repoured by the contractor with no additional expense to the owner. Expansion joints shall be 25' apart. Control joints shall be 5' apart and shall be ¼ of the depth of the sidewalk (Up to 1 1/2" deep).

1.02c Minimum thickness shall be 4 inches (for 608.24) and 6 inches (for 608.26) unless approved by the engineer.

1.02d The ends of all sidewalks at driveways shall be ramped at a maximum slope of 1:12.

1.02e All sidewalks shall have handicap ramps at street intersections or as located by the Engineer, built at a maximum slope of 1:12 and in accordance with the ADA Regulations (see plan details).

1.02f Excavation for new sidewalks shall be at a depth of 12 inches below finish grade. In areas not butting curbing or buildings the excavation shall be 6 inches wider on each side than the finished sidewalk width. At all drive crossings, the depth of excavation shall be increased accordingly. All unsuitable material shall be approved by the Engineer and removed and disposed of offsite at the Contractor's own expense. At no time will unsuitable material be left under sidewalk areas.

1.02g **Handicapped ramps (at street intersections) shall be 6" deep, 4000 psi fiber mix reinforced with 6" x 6" x 10ga welded wire mesh with truncated dome panels (panels paid for under 608.52).**

1.02h All exposed edges of sidewalks will be sealed with an approved Silane-Siloxane coating as specified under 534.3.4 (cost to be subsidiary to appropriate sidewalk item). Any

sidewalks not meeting the test referenced in 534.3.4 will be recoated at no expense to the owner. Contractor will provide cut sheets on product before installation for engineers approval.

1.02i All sidewalk areas shall be thoroughly wetted and compacted prior to the pouring of any concrete. All sidewalks will be kept damp using wet burlap tarps or any other approved method for 24 hours after set up. Tarps will be staked down to prevent being blown off by wind gusts. Curing compounds will be considered an approved equal.

1.02j All sidewalks will be finished with a soft broom with the finish being transverse to the typical pedestrian path. After brooming, all edges will be finish edged.

1.02k Any sidewalks poured that have excessive “popcorning” on top or on the sides as determined by the engineer will not be approved or paid for.

1.02l All joints shall be straight, even and perpendicular to the sidewalk.

**1.03 Methods of Measurement:**

This work shall be measured by the square yard of concrete sidewalk successfully & completely installed and approved by the Engineer.

**1.04 Basis of Payment:**

This work shall be paid for at the Contract Unit Price as listed in Item #608.24 & 608.26 in the Bid Specification. This price shall include all equipment, material and labor incidental hereto. Concrete walkways shall paid for under item 624.24.

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
608.24	4" Fiber Reinforced Concrete Sidewalk	Square Yard
608.26	6" Reinforced Concrete Sidewalk	Square Yard

## Item 608.52 – ADA Compliant Handicap Ramp Panels

This special provision provides for the installation of handicap accessible ramp surfaces (Detectable Warning Panels) to be in compliance with the Americans with Disabilities Act (ADA). This Special Provision provides for Item 608.52 and neither modifies nor amends any other provisions of this section unless specifically noted.

### Description

**1.1** This work shall consist of furnishing and installing a detectable warning surface and accessories on sidewalk ramps at locations shown on the plans, as specified herein, or as ordered including any and all required surface preparation. Detectable warnings shall be installed at sidewalk ramps where a sidewalk crosses a vehicular way, excluding unsignalized driveway crossings. The edge nearest the curblines shall be located 150 to 200 mm (6 to 8 in) from the face of curblines. The panel shall be centered on the ramp.

### Materials

#### 2.1 Detectable Warning Device:

**2.1.1** Material. The detectable warning surface shall consist of Engineered Plastic units or approved equal. The units will be pressed into Portland cement or other Owner approved material. The panel units shall be Armor Tile as manufactured and supplied by Engineered Plastic, Inc., 300 International Dr Suite 100, Williamsville, NY 14221, 1-800-769-4463, [www.armor-tile.com](http://www.armor-tile.com)

**2.1.2** Color. The color of the tile used shall be brick red, all would be installed in a concrete ramp as described above (608.26).

**2.1.3** Panel Dimensions. Nominal panel dimensions shall be 2' deep x 3' wide.

**2.1.4** Detectable Warning Truncated Dome Geometry:

**2.1.4.1** Detectable warnings shall be in full compliance with ADAAG guidelines (Title 49 DFR Transportation, Part 37.9 Standard for Accessible Transportation Facilities, Appendix A, Section 4.29.2- Detectable Warning on Walking Surfaces).

**2.1.4.2** Size and spacing for truncated domes shall be as follows: base diameter of nominal 0.9 inch, top diameter of nominal 0.4 inch, height of nominal 0.2 inch, with a center to center spacing of nominal 2.35 inches.

**2.1.4.3** The truncated dome pattern shall align properly from panel to panel if more than 1 panel is required.

#### 2.2 Setting Bed Material

**2.2.1** Material. Panels shall be set into fresh concrete before it sets. See ramp specification above (608.26). Also see manufacturer instructions.

### Construction Requirements

**3.1** The Contractor shall submit manufacturer's installation instructions and descriptive literature for materials specified herein.

- 3.2 Transport, storage, and handling of products shall be in accordance with manufacturer's instructions.
- 3.2.1 All sealants/adhesives shall be protected from freezing conditions.
- 3.3 The air and surface temperatures during construction shall be in accordance with manufacturer's recommendations.
- 3.4 Concrete foundation shall be installed in accordance with the specifications included within Section 608 to depths indicated in the section shown on the plans.
- 3.5 Install detectable warning panels in accordance with manufacturer's instructions directly in the setting bed and the allowing the top surface of the panel units to be at or just below the required finish grade.
- 3.6 Care shall be taken to ensure the safety of pedestrians when sidewalks must remain in service during construction.

**Method of Measurement**

- 4.1 These are measured by each panel installed under the truncated dome panel item.

**Basis of Payment**

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>	
608.52	Detectable Warning Panel	Each

**SECTION 608A**  
**RECONSTRUCTING WALKWAYS AND STAIRS**

The provisions of Section 608 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

Existing walkways and stairways shall be reconstructed in the areas designated on General Plan. 72-hour notification to the property resident is required prior to the removal of the existing walkway or stairs and construction of the new walkway or stairs. Because these serve as primary entrances to the residences in most instances, **all walkways or stair accesses shall be maintained as walkable surfaces (gravel during construction) at all times except with 72-hour prior notice to the property resident.**

Walkways and stairs shall be reconstructed with "in kind" materials and typical sections to the existing conditions unless otherwise noted or requested by the City's representative. Existing bricks shall be reused to the maximum extent possible in reconstructing existing brick walkways and stairs. Concrete and pavement shall conform to the appropriate sections of this section. Gravel walkways shall be finished with material meeting the requirements of Section 304.33 unless otherwise directed by the Director of Public Works (or his designee).

**608.50 Basis of Payment:** The accepted quantities of reconstructed walks and stairs will be paid for at the contract unit price per square foot, complete in place.

All costs including excavation, backfill and all materials and incidentals hereto to install the completed walkway and stairs to conform to the lines and grades as shown or indicated shall be included in the contract unit price. Removal of existing steps, walkways and similar shall be considered incidental to Item 203.1 Common Excavation and no separate payment shall be made. Concrete walkways shall be constructed in accordance with and will be paid for under item 608.24 - 4" Fiber Reinforced Concrete Sidewalk.

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
608.0001	Reset Walk Stone 234/236 Concord Way	Lump Sum
608.0002	Remove Steps	Each
608.0003	Reconstruct Brick Walk	Square Foot

## **SECTION 609** **NEW CURBING**

The provisions of Section 609 of the Standard Specifications shall apply with the following additions and modifications:

**609.01 Description.** This work shall include all straight and circular vertical curb. Material shall be in accordance with Section 609.2 Table 1 except that drill holes through the curb will not be allowed. Curbing shall be installed at the locations shown and tabulated on the plans.

**609.03 Construction Requirements.** All joints of the curb shall have a 100 mm by 213 mm pad on the back side. The pad shall be filter fabric such as that used for underdrain or for roadway stabilization. The pad shall be placed in full contact with the curb from 13 mm below top of curb to 50 mm below gutter grade and backfilled to hold in place.

The following items shall be considered incidental to the type curb item used:

1. All necessary cutting of new or existing curbing.
2. Removal and disposal of existing pavement required for the installation of new terminal ends.
3. Existing pavement shall be saw-cut 12" from the proposed face of curb to facilitate curb installation. This shall be incidental to the curb price.
4. 3000 psi concrete backfill shall be placed to binder elevation both in front of and behind the curb and the surface broom finished to a uniform grade per the plan detail. The concrete backfill shall be incidental to the curb and no additional payment shall be made.

12" Reveal Granite Curb shall be buried a minimum of 18" and shall be bedded and backfilled in concrete.

**609.4 Method of Measurement.** All proposed new straight and circular curb to be set and existing curb to be reset will be measured by the linear foot along the face of the curb, complete in place.

**609.5 Basis of Payment.** The accepted quantity of new curb will be paid for at the contract unit price, complete in place. This price shall include the cost of excavation and all labor, materials, concrete, and equipment necessary to satisfactorily complete the work.

Tip-downs shall be measured as straight or circular curbing dependent upon their respective location. No additional payment shall be made. Removal and disposal of existing curbing shall be considered incidental to the items below. Saw cutting of pavement to necessary for curb installation shall be considered incidental to the following items.

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
609.0001	12" Reveal Granite Curb	Linear Foot
609.01	Straight Granite Curb	Linear Foot
609.02	Curved Granite Curb	Linear Foot
609.5	Remove and Reset Curb	Linear Foot

**SPECIAL PROVISION  
SECTION 611**

**WATER MAINS AND APPURTENANCES**

The following changes have been made to this Section:

The Portsmouth Water Division Construction Manual, Revision #2, is hereby adopted for the project and incorporated into the Contract Documents by reference. In addition all work and materials shall be in conformance with ANSI/AWWA requirements.

**611.4 Method of Measurement.**

**METHOD OF MEASUREMENT**

- 4.1 Pipe will be measured by the linear foot to the nearest 0.1 of a foot of installed and operational water main. Measurements will be taken along the centerline of the pipe, end to end, with no deductions for any valves and fittings.
- 4.2 Casing will be measured by the linear foot to the nearest 0.1 of a foot of installed casing. Measurements will be taken along the centerline of the casing, end to end.
- 4.3 Valves, bends, and reducers will be measured by the number of units installed. All other fittings necessary for the complete installation of the water main shall be incidental to the respective pipe items.
- 4.4 The Engineer must be involved in the measurement of any pay item.
- 4.5 Temporary water mains and services when necessary will not be paid for directly.
- 4.6 Item 611.18 Hydrant Assembly will be measured by the each and shall include the hydrant and the hydrant assembly including all necessary valve, tees, bends and necessary incidentals, materials, equipment and labor for a complete functional installation.
- 4.7 Curb stops will be measured as a complete assembly including all fittings, connections, curb stop, stem, and box.
- 4.8 All ¾" service connections shall include ¾" corporations or service tees and Type K copper, complete.
- 4.9 As-Built plans shall consist of drawings showing swing ties to service connections, shut-offs, gate valves, tees, bends, wyes, pipe terminations, manholes, and catch basins installed by the Contractor. Ties shall be to building corners and shall be measured to the nearest tenth. Plans shall also indicate depth of pipes and other structures in profile. Contractor shall submit at least two copies of each set of drawings.



**BASIS OF PAYMENT**

- 5.1 The accepted work will be paid for at the contract lump sum price, complete in place.
- 5.2 For changes in the Work, as shown on the Drawings, the accepted quantity of pipe and casing will be paid for at the contract unit price per linear foot of the kind, type, and size specified complete in place.
- 5.4 Excavation, bedding, backfill, sheeting and shoring, dewatering, thrust restraining systems, casing spacers, casing end seals, maintaining water service, as-built drawings, testing, disinfection and any other work necessary or required for a complete operational water main relocation shall be subsidiary to the various pay items.
- 5.5 Separate payment for pipe removal shall only be made whenever a pipe is outside the horizontal limits of excavation for a proposed pipe or structure by four or more feet and shall include all equipment, material, and labor necessary to completely remove the existing pipe and back fill the resulting cavity with granular borrow.
- 5.6 Blow offs and air release valves shall be considered incidental to the other contract items.
- 5.7 Miscellaneous connections to existing water mains or hydrant laterals, including all materials and labor, are considered incidental to the applicable pay item. Disinfection of the new water line will be considered subsidiary to the project and no separate payment for this work will be made. All copper salvaged on this job shall become the property of the City of Portsmouth.

<b>Payment will be made under:</b>		
<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
611.05206	6" Cement-Lined Ductile Iron Water Pipe Cl. 52	Linear Foot
611.05208	8" Cement-Lined Ductile Iron Water Pipe Cl. 52	Linear Foot
611.05210	10" Cement-Lined Ductile Iron Water Pipe Cl. 52	Linear Foot
611.50003	¾" Copper Water Service	Linear Foot
611.5207	¾" Curb Stop	Each
611.71006	6" Gate Valve	Each
611.71010	10" Gate Valve	Each
611.8	As-Built Plans	Lump Sum
611.81	Hydrant Assembly	Each

611.902	10" X 8" Reducer - Ductile Iron Pipe	Each
611.903	22.5° ELBOW (Bend) - DUCTILE IRON PIPE	Each
611.905	45° ELBOW (Bend) - DUCTILE IRON PIPE	Each

**SPECIAL PROVISION SECTION 612**  
**POLYVINYL-CHLORIDE SEWER PIPE**

**PART 1 GENERAL**

1.01 DESCRIPTION

A. Work Included

1. Furnish all labor, materials, tools, and equipment necessary to lay and join all polyvinyl-chloride (PVC) pipe and fittings required to complete the Work.

1.02 QUALITY ASSURANCE

A. Codes and Ordinances

1. All Work and materials are to comply in every respect with federal, state and local codes and building laws; and such codes and laws are to be considered as part of these Specifications.

B. Qualifications of Workmen

1. All workmen shall be experienced in the installation of polyvinyl-chloride pipe and fittings.
2. All workmen shall be licensed pipefitters or plumbers where required by Code. Otherwise, they shall be experienced in the installation of piping and fittings.

1.04 SUBMITTALS

A. Shop Drawings

1. Submit scale layouts showing individual fittings, pipe lengths, special assemblies and clearances.

1.05 PRODUCT DELIVERY, HANDLING AND STORAGE

A. All polyvinyl-chloride pipe and fittings shall be delivered, stored and handled in such a way as to prevent damage to the pipe.

B. Methods of shipping shall be acceptable to the ENGINEER and shall be such as to avoid injurious impact on the pipe. Damaged pipe shall be removed from the job site.

## **PART 2 PRODUCTS**

### **2.01 POLYVINYL-CHLORIDE PIPE AND FITTINGS**

- A. Gravity polyvinyl-chloride pipe and fittings shall conform to ASTM D 3034, current edition (SDR 35) for sizes 4 inches to 15 inches or ASTM F 679 for sizes 18 inches to 27 inches. Polymer compounding and classification shall be in accordance with ASTM D 1784 (Class 1254-B).
- B. Minimum "pipe stiffness" ( $F/\Delta y$ ) measured in accordance with ASTM D 2412 shall be a minimum of 45 psi and 5% deflection.
- C. Joint seals for polyvinyl-chloride pipe (Type SDR-35) shall be oil-resistant, compression rings of elastomeric gasket joints material conforming to ASTM D 3212. Fittings shall have push-on, bell and spigot joints compatible with that type of pipe.
- D. Force main PVC pipe shall conform to AWWA C-90.
- E. Manufacturer's Certificate of Compliance shall be furnished for all pipe and fittings prior to installation, and pipe shall be furnished as required for laboratory testing. Pipe lengths shall be the longest available.

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. Each pipe unit shall be inspected before being installed. Any pipe unit or fitting discovered to be defective either before or after installation shall be removed and replaced with a second unit.
- B. Bedding Material
  - 1. Bedding material shall be placed to provide uniform and adequate longitudinal support under the pipe. Bedding material shall be placed and consolidated under the pipe haunch to provide side support to the pipe. Bedding shall be compacted by tamping.
  - 2. Special care shall be taken to ensure that bedding, haunching and initial backfill is placed and compacted in even increments on both sides of the pipe.
  - 3. Use care in tamping of the initial backfill directly over the top of the pipe to avoid disturbing embedded pipe. Special care shall be taken to ensure that the first two feet of backfill over crown is placed carefully rather than dropped onto pipe to avoid damaging the pipe from impact during placement.

4. There shall be at least 30 inches of cover over top of the pipe before the trench is wheel-loaded and at least 48 inches of cover before using mobile trench compactor of the hydro-hammer or impactor type.

### 3.02 INSTALLING PIPE

- A. Pipe and fittings shall be installed to the lines and grades indicated on the Drawings using laser-beam techniques or other approved methods. Care shall be taken to ensure true alignments and gradients.
- B. Pipe shall be laid with the spigot ends pointing in the direction of flow.
- C. Depressions for pipe bells shall be provided so that after placement only the barrel of the pipe receives bearing pressure from the supporting material.
- D. All pipe and fittings shall be cleared of all debris, dirt, etc. before being installed and shall be kept clean until accepted in the completed Work. Pipelines shall not be used as conductors for trench drainage during construction.
- E. All pipe shall be placed in the dry to prevent flotation.
- F. At all times when pipe installation is not in progress, the open ends of the pipe shall be closed with temporary watertight plugs or by other approved means. If water is in the trench when Work is to be resumed, the plug shall not be removed until all suitable provisions have been made to prevent water, earth or other materials from entering the pipe.

### 3.03 JOINTS

- A. Before any joint is made, the previously installed unit shall be checked to ensure that a close joint with the adjoining unit has been maintained and that the inverts are matched and conform to the required grade. The pipe shall not be driven down to the required grade by striking it with a shovel handle, timber or other unyielding object.
- B. Pipe ends and all joint surfaces shall be cleaned. The spigot recess, the sliding surface of the bell, and the rubber gasket shall be lubricated in accordance with the manufacturer's recommendations. The gasket shall be snapped into the spigot recess and the pipe shall be coupled, taking care not to damage the pipe or gasket. Suitable devices shall be used to force the pipe units together so that they will fit with a minimum open recess inside and outside and have tightly sealed joints. Care shall be taken not to use such force as to split or otherwise damage the coupling. Joints shall not be pulled or cramped.

- C. Installation of the gasket and joint assembly shall follow the manufacturer's recommendations.

### 3.04 INSPECTION AND TESTS FOR GRAVITY SEWERS

- A. Before acceptance of the completed sanitary sewers, all pipes will be inspected by shining a light between manholes; and any imperfections such as cracks, displaced joints, objectionable variations from line or grade, or leaks shall be repaired.
- B. The CONTRACTOR shall have no more than 400 feet of untested sewer line constructed at any time.
- C. Sanitary sewers shall pass low-pressure air test as outlined below, in conformance with ASTM C 828. All testing shall be completed by an independent testing agency.
  1. The sewer line shall be sealed at each end. The seal at one end shall have an orifice through which to pass air into the pipe.
  2. An air supply shall be connected to the orifice at one end of the line. The air supply line will contain an ON/OFF gas valve and a pressure gauge having a range of from 0 to 5 psi. The gauge shall have minimum divisions of .10 psi and shall have an accuracy of + .04 psi.
  3. The seals at each manhole shall be properly blocked to prevent displacement while the line is under pressure.
  4. The pipeline under test shall be pressurized to 4 psi. The line will be allowed to stabilize between 4 psig and 3.5 psig for a period of no less than 5 minutes. If necessary, air shall be added to the line to maintain the pressure above 3.5 psig.
  5. After the stabilization period, the gas valve shall be closed. When the line pressure drops to 3.5 psig, commence timing with a stop watch. The stopwatch shall be allowed to run until such time as the line pressure drops to 2.5 psig.
  6. Then the watch shall be stopped and the time lapse compared with the allowable time lapse in these Specifications for the pipe size and leakage allowance specified by the ENGINEER (see Table 1 attached to this Specification).
  7. If the time lapse is greater than that specified, the section undergoing test shall have passed, and the test may be discontinued at that time. If the time is less than that specified, the line has not passed the test; and the CONTRACTOR will be required to prepare the line for retest.

8. If the pipeline to be tested is beneath the groundwater level, the test pressure shall be increased 0.433 psi for each foot the groundwater level is above the crown of the pipe.

D. Deflection Tests

1. All PVC gravity sewer pipe installed under this Contract shall be subject to a deflection test 30 to 60 days after installation of the pipe or after adequate compaction is assured.
2. A maximum allowable deflection of 5% in the pipe diameter will be allowed. Deflection shall be measured as the reduction in the vertical diameter of the pipe (diametrically). Deflection testing shall be performed on random manhole-to-manhole sections using either a mandrel (supplied or available from pipe supplier or manufacturer) through the pipeline on the basis of a "GO-NO-GO" condition or by an approved deflectometer. If the mandrel does not pass through the pipeline, the entire section shall be excavated and relayed; and after backfilling and adequate compaction is assured, the pipeline shall be retested.

**TABLE 1**  
**LEAKAGE ALLOWANCE**  
**(BASED ON EQUATIONS FROM ASTM C-828)**  
**SPECIFICATION TIME (MIN:SEC) REQUIRED FOR**  
**PRESSURE DROP FROM 3-1/2 PSIG TO 2-1/2 PSIG**  
**TESTING FOR ONE PIPE DIAMETER ONLY**  
**PIPE DIAMETER (IN)**

LGTH. (FT.)	4	6	8	10	12	15	18	21	24	30	36	42
25	0:04	0:10	0:18	0:22	0:27	0:31	0:36	0:45	0:53	1:12	1:30	1:49
50	0:09	0:20	0:36	0:45	0:53	1:03	1:12	1:29	1:47	2:23	3:00	3:38
75	0:13	0:30	0:53	1:07	1:20	1:34	1:48	2:14	2:40	3:35	4:30	5:27
100	0:18	0:40	1:11	1:29	1:47	2:05	2:24	2:58	3:34	4:46	6:01	7:16
125	0:22	0:50	1:29	1:51	2:14	2:37	3:00	3:43	4:27	5:58	7:31	9:05
150	0:27	1:00	1:47	2:14	2:40	3:08	3:36	4:28	5:21	7:09	9:01	10:54
175	0:31	1:10	2:05	2:36	3:07	3:39	4:12	5:12	6:14	8:21	10:31	12:44
200	0:36	1:20	2:22	2:58	3:34	4:10	4:48	5:57	7:07	9:32	12:01	14:33
225	0:40	1:30	2:40	3:20	4:00	4:42	5:25	6:42	8:01	10:44	13:31	16:22
250	0:45	1:40	2:58	3:43	4:27	5:13	6:01	7:26	8:54	11:56	15:02	18:11
275	0:49	1:50	3:16	4:05	4:54	5:44	6:37	8:11	9:48	13:07	16:32	20:00
300	0:53	2:00	3:34	4:27	5:21	6:16	7:13	8:55	10:41	14:19	18:02	21:49
350	1:02	2:20	4:09	5:12	6:14	7:18	8:25	10:25	12:28	16:42	21:02	25:27
400	1:11	2:40	4:45	5:56	7:07	8:21	9:37	11:54	14:15	19:05	24:02	29:05
450	1:20	3:00	5:21	6:41	8:01	9:23	10:49	13:23	16:02	21:28	27:03	32:43
500	1:29	3:20	5:56	7:25	8:54	10:26	12:01	14:52	17:48	23:51	30:03	36:21

$$T = K_x \frac{(D^2 L)}{Q}$$

Q

T=TIME FOR PRESSURE DROP 1.0 PSI

Q=AIR LOSS, FT<sup>3</sup>/MIN (M<sup>3</sup>/MIN)

L=LENGTH OF LINE OF ONE PIPE SIZE FT, (M)

K=0.371 X 10<sup>-3</sup>

D=NOMINAL SIZE, IN. (MM)



**TABLE 2**  
**ALLOWABLE AIR LOSS FOR VARIOUS PIPE SIZES**

Nominal, Pipe Size, In	Q, 1 <sup>FT<sup>3</sup>/Min</sup>	Nominal, Pipe Size, In	Q, FT <sup>3</sup> /Min
3	2	21	5.5
4	2	24	6
6	2	27	6.5
8	2	30	7
10	2.5	33	7.5
12	3	36	8
15	4	39	8.5
18	5	42	9

Note: Table 2 shall be used only when data in Table 1 is deemed insufficient by the ENGINEER, and the ENGINEER'S interpretation of Table 2 data with respect to any given leakage test shall be considered final.

**PART 4 MEASUREMENT AND PAYMENT**

**4.01 8” PVC SEWER – ITEM 612.108**

1. General: The price bid shall be considered as full compensation for all labor, equipment, tools, and materials necessary to complete the Work associated with this bid item. The unit price shall include, but not be limited to, pipe, excavation, shoring, dewatering, bedding, backfill, fittings, magnetic locating tape, testing, and any necessary repair to damaged utilities.
2. Measurement: Measurement for payment will be made on a linear foot basis, measured from the outside of the manhole in place.
3. Payment: Payment shall be made at the Contract Unit Price bid per Linear Foot.
4. Separate payment for manhole and catch basin removal shall only be made whenever the center of the structure to be removed is 8 feet or more from the center of a new structure or pipe and shall include all equipment, material, and labor necessary to completely remove the existing pipe and back fill the resulting cavity with granular borrow.
5. Separate payment for pipe removal shall only be made whenever a pipe is outside the horizontal limits of excavation for a proposed pipe or structure by four or more feet and shall include all equipment, material, and labor necessary to completely remove the existing pipe and back fill the resulting cavity with granular borrow.

4.02 6" PVC SEWER LATERALS – ITEM 612.5

1. General: This item includes all components of sewer service connections including connection wyes, cleanouts, adapters/reducer connections to existing services and 6-inch PVC pipe. The bid price shall be considered full compensation for furnishing all materials and incidentals needed to complete the work. The unit price shall include, but not be limited to, pipe, excavation, shoring, dewatering, bedding, backfill, fittings, magnetic locating tape, testing, and any necessary repair to damaged utilities.
2. Measurement: Measurement for payment will be made on a linear foot basis measured from the outside edge of the connection on each end or the outside of the sewer main.
3. Payment: The CONTRACTOR shall be paid the Contract Unit Price bid per Linear Foot for each service connection installed on the main sewer line upon satisfactorily installing the connection.

**Basis of Payment.**

<b><u>Pay Item</u></b>	Payment will be made under:	<b><u>Pay Unit</u></b>
612.108	8" PVC Sewer Pipe	Linear Foot
612.5	6" PVC Sewer Lateral	Linear Foot

**SECTION 614**  
**ELECTRICAL CONDUIT**

The provisions of Section 614 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**614.5 Basis of Payment.**

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
614.512	Concrete Pull Box 18"	Each
614.7214	2" PVC Plastic Conduit, Schedule 40	Linear Foot

**SECTION 628**  
**SAWED PAVEMENT**

The provisions of Section 628 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**628.50 Basis of Payment**

No separate payment will be made for sawcutting of existing pavement. It shall be considered incidental to the other contract items.

**SECTION 632**  
**REFLECTIVE PAVEMENT MARKINGS**

The provisions of Section 632 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**632.5 Basis of Payment.**

Retroreflective paint pavement markings will be used to designate parking spaces as shown on the plans. Thermoplastic pavement markings will be used for crosswalks and stop bars as shown on the plans.

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
632.0104	4" Paint Line	Linear Foot
632.3112	12" Thermoplastic Line	Linear Foot

**SECTION 637**  
**Granite Steps**

Granite Steps: Granite Steps shall be placed on a 12” minimum compacted gravel bed with horizontal joints level and vertical joints plumb. The foundation shall be prepared in advance of setting the steps by grading and compacting the aggregate subbase to the proper elevations. The steps shall be set with a uniform tread width to match the finish grade of the slope. All remaining excavated areas surrounding the steps shall be filled to the required graded with approved materials and thoroughly tamped. The granite steps shall have natural guillotine edges with a thermal top. The steps shall be 7” thick (rise of 7”). Size, number and location of steps to be determined in the field by the City’s representative.

**637.1 Basis of Payment.**

Granite Steps shall be paid for by the square foot of horizontal surface area of the granite step.

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
637.1	Granite Step	Square Foot

**SECTION 641 - LOAM**  
**SECTION 644 – SEEDING**

**SECTION 646 – TURF ESTABLISHMENT**

The provisions of Sections 641, 644, and 646 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Seeded Lawns: Provide seeded lawns as shown and specified.
1. New Loam.
  2. Spreading new and existing on site loam.
  3. Soil preparation.
  4. Seeding lawns.
  5. Mulching.
  6. Maintenance.

1.02 QUALITY ASSURANCE

- A. Materials Testing: Provide and pay for materials testing. Testing agency shall be acceptable to the Landscape Architect. Provide the following data:
1. Test representative material samples proposed for use.
  2. Loam:
    - a. pH factor.
    - b. Mechanical analysis.
    - c. Percentage of organic content.
    - d. Recommendations on type and quantity of additives required to establish satisfactory pH factor and supply of nutrients to bring nutrients to satisfactory level for planting.
- B. Work shall be performed by experienced personnel specialized in landscaping and by qualified, experienced horticultural technicians. Provide full time, qualified supervision.

- C. Contractor shall notify the City in writing of any material specified herein that, in the opinion of the Contractor is inappropriate for the proposed site conditions. No substitutions of materials may be made without the prior written approval of the City.

#### 1.03 SUBMITTALS

- A. Submit seed vendor's certification for required grass seed mixture, indicating botanical and common name, percentage by weight, and percentages of purity, germination, and weed seed for each grass species. Seed shall conform to seed laws of Department of Agriculture.
- B. Submit the following material samples:
  - 1. Seed for Lawn
- C. Submit the following materials certification:
  - 1. Fertilizer analysis.
  - 2. Tackifier.
  - 3. Asphaltic emulsion.
- D. Submit materials test reports.
- E. Upon seeded lawn acceptance, submit written maintenance instructions recommending procedures for maintenance of seeded lawns.

#### 1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver seed and fertilizer materials in original unopened containers, showing weight, analysis, and name of manufacturer. Transport and store in a manner to prevent wetting and deterioration.

#### 1.05 PROJECT CONDITIONS

- A. Work notification: Notify City's Representative at least 7 working days prior to start of seeding operations.
- B. Protect existing utilities, paving, and other facilities from damage caused by seeding operations.
- C. Perform seeding work only after planting and other work affecting ground surface has been completed.
- D. Restrict traffic from lawn areas until grass is established. Erect signs and barriers as required.
- E. Provide hose and lawn watering equipment as required.



## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. Lawn seed: Fresh, clean, and new crop seed mixture as specified here and on drawings.
1. Seed may be mixed by an approved method on the site or may be mixed by the dealer. If the seed is mixed on the site, each variety shall be delivered in the original containers bearing the dealer's guaranteed analysis. If the dealer mixes seed, the Seeding Contractor shall furnish to the City the dealer's guaranteed statement of the composition of the mixture and the percentage of purity and germination of each variety.
  2. Composed of the following varieties, mixed to the specified proportions by weight and tested to minimum percentages of purity and germination. Poa Annuua, bent grass, and noxious weed seed free. All seed shall consist of Triplex Kentucky Bluegrass and Triplex Perennial Ryegrass mixed to a ratio of 1:1 by volume.
    - a. Triplex Kentucky Bluegrass
      - 40% Baron Kentucky Bluegrass
      - 50% Merit Kentucky Bluegrass
      - 10% Georgetown Kentucky Bluegrass
    - b. Triplex Ryegrass Mix
      - 40% Palmer Perennial Ryegrass
      - 40% Prelude Perennial Ryegrass
      - 20% Yorktown Perennial Ryegrass
- B. Topsoil: Fertile, friable, natural loam, without admixture of subsoil material, obtained from a well-drained arable site, free from toxic substances, clay, lumps, coarse sands, stones, plants, roots, sticks, and other foreign materials.
1. Loam that has been stripped and stockpiled on site shall be utilized on this project. Provide additional loam if necessary. On site loam shall be tested, screened, and amended as required in this section before use.
  2. Provide additional loam as needed to meet project requirements, all loam shall be free of substances harmful to the plants which will be grown in the soil, shall be tested and amended as required by these specifications prior to use.
- C. Fertilizer: Shall be a starter type fertilizer with a 1:2:1 nitrogen-phosphorus-potassium ratio to be applied at a rate of 3.5 lbs. per 1000 sq. ft.. Fertilizer should contain at least 3% water insoluble nitrogen.
- D. Compost: Shall be horticultural compost, free from toxins and sewage sludge and meets all state standards. Analysis and certification of compliance shall be submitted for

approval before use.

- E. Ground limestone: Containing not less than 85% of total carbonates with a minimum of 30% magnesium carbonates and ground to such fineness that 50% will pass through a 100 mesh sieve and 90% will pass through a 20 mesh sieve.
- F. Mulch: No material shall be used which is so wet, decayed, or compacted as to inhibit even a uniform spreading. No chopped hay, grass clippings or other short fiber material shall be used unless directed.
  - 1. Clean oat or wheat straw well seasoned before bailing, free from mature seed-bearing stalks or roots of prohibited or noxious weeds.
  - 2. Wood cellulose fiber mulch: Degradable green dyed wood cellulose fiber or 100% recycled long fiber pulp, free from weeds or other foreign matter toxic to seed germination and suitable for hydromulching.
  - 3. Salt marsh hay or straw will consist of salt marsh hay or straw, reasonably free from noxious weeds or other undesirable materials.
- G. Tackifier: Liquid concentrate diluted with water forming a transparent 3-dimensional film like crust permeable to water and air and containing no agents toxic to seed germination.
- H. Water: Free of substance harmful to seed growth. Hoses or other methods of transportation shall be furnished by Contractor.

### PART 3 - EXECUTION

#### 3.01 INSPECTION

- A. Examine finish surfaces, grades, topsoil quality, and depth. Do not start seeding work until unsatisfactory conditions are corrected in a manner acceptable to City.
- B. Cooperate with other contractors and trades working in and adjacent to landscape work areas. Examine drawings that show development of entire site and become familiar with scope of the other work required.

#### 3.02 PREPARATION

- A. Limit preparation to areas which will be immediately seeded.
- B. All slopes and other areas where topsoil is required shall be brought to the required subgrade.
- C. Loosen subsoil in areas to be seeded to a depth of 4", provided the area is not over tree roots, immediately prior to placement of topsoil. Remove stones, sticks, roots, rubbish,

and extraneous matter over 1" in any dimension.

- D. Spread loam to a depth of 6" to provide consistent coverage. Work topsoil into loosened subsoil below.
- E. Grade lawn areas to a smooth, free draining even surface with a loose, moderately coarse texture. Roll and rake, remove ridges, and fill depressions as required to drain.
- F. Apply limestone, along with other soil amendments recommended by the soil test, at rate determined by the soil test, to adjust pH of topsoil to not less than 6.4 nor more than 6.8 within a three month period. Distribute evenly by machine and incorporate thoroughly into topsoil.
- G. Apply fertilizers to renovated lawn areas by mechanical rotary or drop type distributor, thoroughly and evenly incorporated with soil to a depth of 3" by discing or other approved method. Fertilize areas inaccessible to power equipment with hand tools and incorporate into soil.
- H. Restore prepared areas to specified condition if eroded, settled, or otherwise disturbed after fine grading and prior to seeding.

### 3.03 INSTALLATION

#### A. Seeding:

1. Seed lawn immediately after preparation of bed. Spring seeding between April 15 and June 15 and fall seeding between August 15 and October 10 or at such other times acceptable to the Landscape Architect.
2. Seed indicated areas within contract limits and areas adjoining contract limits disturbed as a result of construction operations.
3. Perform seeding operations when the soil is dry and when winds do not exceed 5 miles per hour velocity.
4. Apply seed to areas with a rotary or drop type distributor or by hydroseeding. Install seed evenly by sowing equal quantities in 2 directions, at right angle to each other.
5. Sow grass seed for lawn at a rate of 6.0 lbs per 1,000 sq. ft. (250 lbs/acre).
6. If using rotary or drop type distributor, after seeding, rake or drag surface of soil lightly to incorporate seed into top 1/8" of soil. Roll with light lawn roller.
7. Mulch seeding with straw blanket not less than 1/2" to 1" thick, keep seeded areas moist continuously until the seed has germinated. (Expect three weeks for Bluegrass germination).

B. Hydroseeding:

1. Use a hydromulcher (sprayer) and apply mixture(s) at the following rates. Mix in accordance with manufacturer's recommendations.
2. Apply 'Mixture A' hydroseed slurry to steep erosion prone areas.
  - a. Type A fertilizer: 220 lbs./acre.
  - b. Tackifier: 60 gals./acre.
  - c. Wood cellulose fiber mulch: 2,000 lbs./acre.
  - d. Limestone: Rate determined by soil test.
3. Apply 'Mixture B' hydroseed slurry to all other areas.
  - a. Type A fertilizer: 220 lbs./acre.
  - b. Wood cellulose fiber mulch: 1,500 lbs./acre.
  - c. Limestone: Rate determined by soil test.
4. Protect buildings, paving, plantings, and all nonseeded areas from liquid tackifier over-spray.

C. Provide straw bale checking in ditches or problem swales at intervals required to adequately slow water velocity and impede soil loss.

D. The Contractor shall erect barricades with warning signs to protect the seeded areas. The Contractor shall be responsible for all such areas during the period when the grass is becoming established, including watering. This period shall extend for a minimum of 60 days after the completion of the final seeding of the areas.

3.04 MAINTENANCE

A. Lawn Maintenance: Provide complete maintenance and service as required to promote and maintain healthy growth including, without limitation, watering, fertilizing, weeding, mowing, trimming, rolling, re-grading, fallen leaf removal, treating for insects and disease, and other operations for sixty days after substantial completion, two mowings and acceptance by City or the City's representative. The City shall be notified in writing as to the date that they are expected to begin maintenance of the completed project. If seeded in the fall, or sixty days of maintenance has not be completed before the onset of winter, or if turf is not considered acceptable at the end of the growing season, continue maintenance the following spring until an acceptable lawn is established. Any part of seeded areas which fails to show a uniform stand shall be reseeded every twenty one days until areas are covered with grass or intended plantings.

1. Water daily to maintain adequate surface soil moisture for proper seed germination. Thereafter apply 1/2" of water twice weekly until acceptance. Continue daily watering for not less than 30 days.
2. Repair, rework, and re-seed all areas that have washed out, are eroded, or do not catch.
3. Mowing: Mow lawn areas as soon as lawn top growth reaches a 3.5" height. Cut back to 3" in height and never lower than 2.5". Repeat mowing as required to maintain specified height.
4. Length of Maintenance Required: Completely maintain lawns for 60 days or until date of acceptance of project, whichever is later in time.
5. Acceptance Criteria: Create an acceptable lawn which is defined to mean a uniform, smooth lawn with well established, close stands of grass, with no bare or dead spots over 3" in maximum dimension, with not more than one bare spot for each square yard of lawn area, and with an average of at least 6 thriving grass plants per square inch. To be acceptable, the lawn will be free from weeds, disease, and detrimental insect infestation.

### 3.05 ACCEPTANCE

- A. Inspection to determine acceptance of seeded lawns, field and meadow seedings will be made by City and the Landscape Architect, upon Contractor's request. Provide notification at least 10 working days before requested inspection date.
  1. Seeded areas will be acceptable provided all requirements, including maintenance, have been complied with, and a healthy, uniform, close stand of the specified grass is established free of weeds, undesirable grass species, disease, and insects.
  2. No individual lawn areas shall have bare spots or unacceptable cover totaling more than 2% of the individual areas, in areas requested to be inspected.
- B. Upon acceptance, the City will assume lawn maintenance.

### 3.06 WARRANTY

- A. Provide a uniform stand of grass by watering, mowing, and maintaining seeded areas as specified for 1 year after date of substantial completion or until final acceptance. Reseed areas, with specified materials, which fail to provide a uniform stand of grass until all affected areas are accepted by the City.

### 3.07 CLEANING

- A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, debris, and equipment. Repair damage resulting from seeding operations.

**PART 4**      **METHOD OF MEASUREMENT.**

- 4.01 Loam shall be measured by the cubic yard.
- 4.02 Seeding shall be subsidiary.
- 4.03 Turf establishment shall be measured by the square yard.

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
641	Loam	Cubic Yard
646.31	Turf Establishment With Mulch And Tackifiers	Square Yard

**SECTION 645**  
**EROSION CONTROL**

The provisions of Section 645 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

All other items in this section are incidental to all construction.

**645.5 Basis of Payment.**

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
645.7	Stormwater Pollution Prevention Plan (SWPPP)	Lump Sum
645.71	Monitoring SWPPP and Erosion Control	Lump Sum

**SECTION 652 & 653**  
**TREES, PLANTS, AND GROUND COVERS**

The provisions of Section 652 and 653 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

Provide trees, plants, and ground covers as shown and specified. The work includes:

1. Soil preparation.
2. Trees, plants, and ground covers.
3. Planting mixes.
4. Mulch and planting accessories.
5. Existing tree care.
6. Shrub relocation.
7. Maintenance.
8. Warranty

**1.02 QUALITY ASSURANCE**

- A. Plant names indicated shall comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed conform generally with names accepted by the nursery trade.
- B. Work shall be performed by firms specializing in landscaping and by qualified, experienced horticultural technicians. Provide full-time, qualified supervision.
- C. Provide stock true to botanical name and legibly tagged.
- D. Comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock". A plant shall be dimensioned as it stands in its natural position.
- E. All plants shall be nursery grown under climatic conditions similar to those in the locality of the project for a minimum of 2 years.
- F. Stock furnished shall be at least the minimum size indicated. Larger stock is acceptable, at no additional cost, and providing that the larger plants will not be cut back to size indicated. Provide plants indicated by two measurements so that only a maximum of 25% are of the minimum size indicated and 75% are of the maximum size indicated.
- G. Provide "specimen" plants with a special height, shape, or character of growth. Tag



specimen trees or shrubs at the source of supply. The Landscape Architect will inspect specimen selections, at the source of supply, for suitability and adaptability to selected location. When specimen plants cannot be purchased locally, provide sufficient photographs of the proposed specimen plants for approval.

- H. Plants may be inspected and approved at the place of growth, for compliance with specification requirements for quality, size, and variety.
  - 1. Source: The Landscape Architect reserves the right to review and reject the source of plant material. The Contractor will submit for the Landscape Architect's review and approval a list indicating the plant name, size, quantity, and source prior to construction.
  - 2. The Landscape Architect has endeavored to locate sources for the plant material indicated to determine if materials are available. However, the Landscape Architect makes no claim that the materials will be available at the sources researched. The Contractor will submit to the Landscape Architect any questions regarding the source of any plant.
  
- I. Materials Testing: Provide and pay for material testing. Testing agency shall be acceptable to the Landscape Architect. Provide the following data:
  - 1. Test representative material samples proposed for use.
  - 2. Loam:
    - a. pH factor.
    - b. Mechanical analysis.
    - c. Percentage of organic content.
    - d. Recommendations on type and quantity of additives required to establish satisfactory pH factor and supply of nutrients to bring nutrients to satisfactory level for planting.
  
- J. Reference Standards:
  - 1. ANSI Z133.1 tree pruning, tree removal, and other tree care operations.
  - 2. ASTM: American Society for Testing Materials.
  - 3. AOAH: Association of Official Agricultural Chemists.
  - 4. AAN: American Association of Nurserymen.

### 1.03 SUBMITTALS

- A. Identification of Landscape Contractor:
  - 1. The General Contractor, as part of the bid documents, shall identify the Landscape subcontractor.
- B. Certification of Plant Material Availability:
  - 1. At the time of contract signing the General Contractor shall submit certification from the Landscape subcontractor that type, number and size of trees specified has been located, acquired and set aside so that they will be available for installation at the end of the construction phase.
- C. Submit the following material samples:
  - 1. Mulch.
- D. Submit the following materials certification:
  - 1. Topsoil source and pH value.
  - 2. Compost.
- E. Submit material test reports.
- F. Provide plant material record drawings:
  - 1. Legibly mark drawings to record actual construction.
- G. Upon acceptance of plant materials, submit written maintenance instructions recommending procedures for maintenance of Trees, shrubs and groundcovers.

### 1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver fertilizer materials in original, unopened, and undamaged containers showing weight, analysis, and name of manufacturer. Store in manner to prevent wetting and deterioration.
- B. Take all precautions customary in good trade practice in preparing plants for moving. Workmanship that fails to meet the highest standards will be rejected. Dig, pack, transport, and handle plants with care to ensure protection against injury. Inspection certificates required by law shall accompany each shipment invoice or order to stock and on arrival, the certificate shall be filed with the Landscape Architect. Protect all plants from drying out. Deliver trees and shrubs after preparations for planting have been completed and plant immediately. If plants cannot be planted immediately upon

delivery, set plants in shade and properly protect them with soil, mulch, or in a manner acceptable to the Landscape Architect. Water heeled-in plantings daily at a minimum or more if weather conditions require.

- C. No plant shall be bound with rope or wire in a manner that could damage or break the branches.
- D. Cover plants transported on open vehicles with a protective covering to prevent wind burn.
- E. Provide dry, loose topsoil for planting bed mixes. Frozen or muddy topsoil is not acceptable.

#### 1.05 PROJECT CONDITIONS

- A. Work notification: Notify Landscape Architect at least 7 working days prior to installation of plant material.
- B. Protect existing utilities, paving, and other facilities from damage caused by landscaping operations.
- C. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
- D. Concealed Conditions: Notify Landscape Architect before planting when below grade conditions detrimental to proper plant growth are encountered. Do not proceed with planting without specific written instructions from the Landscape Architect.

#### 1.06 WARRANTY

- A. Warrant all plant material to remain alive and be in healthy, vigorous condition for a period of 1 year after completion and acceptance of entire project.
- B. Replace, in accordance with the drawings and specifications, all plants that are dead or, as determined by the Landscape Architect, are in an unhealthy or unsightly condition, and have lost their natural shape due to dead branches, or other causes due to the Contractor's negligence. The cost of such replacement(s) is at Contractor's expense. Warrant all replacement plants for 1 year after installation.
- C. Warranty shall not include damage or loss of trees, plants, or ground covers caused by fires, floods, freezing rains, lightning storms, or winds over 75 miles per hour, acts of vandalism or negligence on the part of the City.
- D. Remove and immediately replace all plants, as determined by the Landscape Architect, to be unsatisfactory during the initial planting installation.

- E. City's Responsibilities and Warranty Exclusions: After completion of the Contractor's maintenance responsibilities, the City is responsible for maintaining the work in reasonable compliance with the Contractor's maintenance instructions.
1. During the warranty period, the contractor will visit the site at one month intervals to review the conditions of the accepted work. The Contractor will submit in writing his/ her concerns regarding the City's maintenance practices and/ or any vandalism. The content of this notice will include a list of specific plants involved, the presumed problem, and a method of remedy for the problem(s) cited. The City will make reasonable efforts to correct the problems cited by the Contractor but the City will not be held responsible for the Contractor's defects in materials or workmanship that result in decline or death to plants and lawns.
  2. Failure of the Contractor to make the required monthly review of the site during the warranty period and to submit written notice to the City of maintenance defects will negate the Contractor's ability to make a claim against the City for negligence of maintenance.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. Plants: Provide plants typical of their species or variety; with normal, densely-developed branches and vigorous, fibrous root systems. Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sunscald injuries, and frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces. Plants held in storage will be rejected if they show signs of growth during storage.
1. Dig balled and burlapped plants with firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant.
    - a. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock".
    - b. Cracked or mushroomed balls are not acceptable.
  2. Container-grown stock: Grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole.
    - a. No plants shall be loose in the container.
    - b. Container stock shall not be pot bound.
  3. Provide tree species that mature at heights over 25 feet with a single main trunk.

Trees that have the main trunk forming a "Y" shape are not acceptable.

4. Plants planted in rows shall be matched in form.
5. Plants larger than those specified in the plant list may be used when acceptable to the Landscape Architect.
  - a. If the use of larger plants is acceptable, increase the spread of roots or root ball in proportion to the size of the plant.
6. The height of the trees, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum size designated in the plant list.
7. No pruning wounds shall be present with a diameter of more than 1" and such wounds must show vigorous bark on all edges.
8. Evergreen trees shall be fully branched to the ground.
9. Shrubs and small plants shall meet the requirements for spread and height indicated in the plant list.
  - a. The measurements for height shall be taken from the ground level to the height of the top of the plant and not the longest branch.
  - b. Single stemmed or thin plants will not be accepted.
  - c. Side branches shall be generous, well-twigged, and the plant as a whole well-bushed to the ground.
10. Plants shall be in a moist, vigorous condition, free from dead wood, bruises, or other root or branch injuries.

## 2.02 ACCESSORIES

A. Loam for Planting Beds: Fertile, friable, natural loam, without admixture of subsoil material, obtained from a well-drained arable site, free from toxic substances, clay, lumps, coarse sands, stones, plants, roots, sticks, and other foreign materials. All topsoil used on site shall be tested at the UNH Analytical Services Lab at the contractor's expense.

1. Loam that has been stripped and stockpiled on site shall be utilized on this project. Provide additional loam if necessary. On site loam shall be tested, screened, and amended as required in this section before use.
2. Provide additional loam as needed to meet project requirements, loam shall be free of substances harmful to the plants which will be grown in the soil, shall be

tested and amended as required by these specifications prior to use.

- B. Compost: Horticultural compost free from toxins and sewage sludge, meeting all state standards. Analysis and certifications of compliance shall be submitted for approval before use.
- C. Fertilizer: Plant Fertilizer Type "A": Commercial type approved by the Landscape Architect, containing 5% nitrogen, 10% phosphoric acid, and 5% potash by weight. 1/4 of nitrogen in the form of nitrates, 1/4 in form of ammonia salt, and 1/2 in form of organic nitrogen.
- D. Anti-Desiccant: Protective film emulsion providing a protective film over plant surfaces; permeable to permit transpiration. Mixed and applied in accordance with manufacturer's instructions.
- E. Mulch: Premium grade aged shredded pine bark 3/4" to 1-1/2" diameter free from sawdust, woodchips or contaminants.
- F. Water: Free of substances harmful to plant growth. Hoses or other methods of transportation furnished by Contractor.
- G. Stakes for Staking: Hardwood, 3" x 3" x 5'-0" long.
- H. Stakes for Guying: Hardwood, 3" x 3" x 36" long.
- I. Guying/Staking/Wire: No. 10 or 12 gage galvanized wire.
- J. Staking and Guying Hose: Two-ply, reinforced garden hose not less than 1/2" inside diameter.
- K. Organic Bio-stimulant such as Roots®, a concentrated organic bio-stimulant that promotes root and shoot growth, increases stress resistance and reduces fertilizer requirements shall be used with all plant installations.
- L. Tree wrap of any kind shall not be used.
- M. Landscape fabric shall not be used.

### PART 3 - EXECUTION

#### 3.01 INSPECTION

- A. Pre-Installation Examination Required: The Contractor shall examine previous work, related work, and conditions under which this work is to be performed and notify Landscape Architect in writing of all deficiencies and conditions detrimental to the proper completion of this work. Beginning work means Contractor accepts substrates,

previous work, and conditions. The Contractor will not place any planting soil mixtures until all work in adjacent areas is complete and approved by the Landscape Architect.

3.02 PREPARATION

- A. Planting shall be performed only by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.
- B. Locate plants as indicated or as approved in the field after staking by the Contractor. If obstructions are encountered that are not shown on the drawings, do not proceed with planting operations until alternate plant locations have been selected by Landscape Architect.
- C. Planting Seasons: Work only within seasonal limitations for proper planting as follows:

<u>Plant Material</u>	<u>Spring Season</u>	<u>Fall Season</u>
Deciduous		
[balled and burlapped]	April 15 to Jun 15	Sept 1 to Nov 15
Deciduous		
[container grown]	April 15 to Jun 15	Sept 1 to Nov 15
Evergreens	Jun 15 to Oct 15	Sept 1 to Nov 15
Ground Covers	April 15 to Jun 15	Sept 1 to Oct 1
Bulbs	none	Sept 1 to Nov 15

- D. Contractor shall notify the Landscape Architect of commencement of planting operations a minimum of five days prior to the beginning of work. Contractor shall stake the location of proposed trees for approval by the landscape architect. After this approval contractor shall layout the proposed shrubs for approval by the landscape architect. Landscape architect may require all shrubs to be placed in their proposed locations prior to accepting the layout. Upon acceptance of the tree and shrub layouts and their installation, ground covers and bulbs may be installed.
- E. Excavate circular plant pits with sloping sides, as shown on planting details, except for plants specifically indicated to be planted in beds. Provide shrub pits at least 12" greater than the diameter of the root system and a minimum of 2x the width of the ball for trees for trees. Depth of pit shall accommodate the root system. Provide undisturbed subgrade to hold root ball at nursery grade as shown on the drawings. Remove excavated materials from the site.
- F. Plant shall be backfilled with existing soil from the excavation of the pit and no amendments shall be used unless the entire area the roots will grow into is amended likewise (such as large plant beds)
- G. Provide pre-mixed planting soils for ground cover and plant beds with a planting mixture consisting of 3 parts loam to 1 part compost and provide beds a minimum of 12" deep.

### 3.03 INSTALLATION

- A. Examine tree and large shrubs for plant flare. If trunk flare is not visible, gently remove soil from the top of the ball until the flare and the beginning of the horizontal lateral roots can be seen. Give care to avoid damaging the roots. Depth of the plant pit shall be the same as the distance from the bottom of the root ball to the trunk flare.
- B. Set plant material in the planting pit to proper grade and alignment. Set plants upright, plumb, and faced to give the best appearance or relationship to each other or adjacent structure. Set plant material 2"-3" above the finish grade. No filling will be permitted around trunks or stems. Backfill the pit with planting mixture. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water.
- C. After balled and burlapped plants are set, muddle planting soil mixture around bases of balls and fill all voids.
  - 1. Remove all burlap, ropes, and wire cages from root balls.
- D. Space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 12" of the trunks of trees and shrubs within planting bed and to within 6" of edge of bed.
- E. Mulching: Mulch tree and shrub planting pits and shrub beds with required mulching material 2" deep immediately after planting. Thoroughly water mulched areas. After watering, rake mulch to provide a uniform finished surface.
- F. Guying, staking:
  - 1. Stake/guy all trees immediately planting operations and prior to acceptance. When high winds or other conditions which may effect tree survival or appearance occur, the Landscape Architect may require immediate staking/guying.
    - a. Stake deciduous trees under 3" caliper. Stake evergreen trees under 8'-0" tall.
    - b. Guy deciduous trees over 3" caliper. Guy evergreen trees over 8'-0" tall.
  - 2. All work shall be acceptable to the Landscape Architect.
- G. Pruning: Prune only as indicated on the drawings. Prune evergreens only to remove broken or damaged branches.

### 3.04 MAINTENANCE



- A. Plant and Tree Maintenance: Begin maintenance immediately after planting. Provide complete maintenance and service as required to promote and maintain healthy growth including, without limitation, watering, fertilizing, pruning, trimming, cultivating, weeding, fallen leaf removal, treating for insects and disease, resetting plants to proper grade and upright position, and other operations and maintenance work. Throughout the maintenance period, restore planting saucers and mulch, and keep mulch beds weed free. Tighten and adjust guy wires, stakes, and deadmen to keep trees in vertical position. Restore and replace damaged trunk wrappings.
  - 1. Length of Maintenance Required: Completely maintain plants and trees for 60 days from date of final acceptance.
- B. Watering: Flood all plants during the maintenance period at least twice each week. At each watering, thoroughly saturate the soil around each tree and shrub. If sufficient moisture is retained in the soil as determined by the Landscape Architect, the required watering may be reduced. Quantity of water required per watering: Trees will require a minimum of ten gallons (ea.), shrubs require a minimum of 5 gallons (ea.), lawns require a minimum of 1” of water per week. Water trees, plants, and ground cover beds within the first 24 hours of initial planting, and not less than twice per week until final acceptance.
- C. Re-set settled plants to proper grade and position. Restore planting saucer and adjacent material and remove dead material.
- D. Tighten and repair guy wires and stakes as required.
- E. Correct defective work as soon as possible after deficiencies become apparent and weather and season permit.

3.05 ACCEPTANCE

- A. Inspection to determine acceptance of planted areas will be made by the Landscape Architect, upon Contractor's request. Provide notification at least 10 working days before requested inspection date.
  - 1. Planted areas will be accepted provided all requirements, including maintenance, have been complied with and plant materials are alive and in a healthy, vigorous condition.

3.06 CLEANING

- A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, soils, debris, and equipment. Repair damage resulting from planting operations.

**PART 4**      **METHOD OF MEASUREMENT.**

- 4.01 Bark Mulch is subsidiary.
- 4.02 Tree socks, stakes, guys and any other materials required for suitable placement of trees shall be incidental.
- 4.03 Trees shall be measured each complete in place.

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
652.0001	Acer rubrum "Sunset", Sunset Red Maple	Each
652.0002	Crataegus crusgalli var inermis, Cockspur Thornless Hawthorne	Each
652.0003	Pyrus calleryana "Cleveland", Cleveland Pear	Each
652.0004	Quercus palustris, Pin Oak	Each
652.0005	Ulmus americana "Valley Forge", Valley Forge Elm	Each

SECTION 692  
**MOBILIZATION**

The provisions of Section 692 of the "State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, 2010 Edition" shall apply with the following additions and modifications:

**692.5 Basis of Payment**

Payment will be made under:

**Pay Item**

**Pay Unit**

692

Mobilization

Lump Sum

**SECTION 699**

**MISCELLANEOUS TEMPORARY EROSION & SEDIMENT CONTROL**

Payment will be made under:

<b><u>Pay Item</u></b>		<b><u>Pay Unit</u></b>
699	Misc. Temporary Erosion & Sediment Control	Allowance (\$)

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05/12/10

SSD: 12/3/79, 4/10/80, 11/19/82, 5/9/83, 12/7/90, 12/20/96, 07/14/04, 09/01/05, 08/06/07, 01/07/09, 04/15/09 & 11/30/09

January 18, 2011

## SPECIAL ATTENTION

### FUEL ADJUSTMENT

(a) The shortage of all products in relation to the national and worldwide energy situation has made future costs of fuel unpredictable. For this reason, a price adjustment clause is being inserted in this contract to provide for either additional compensation to the Contractor or payment to the State, depending upon an increase or decrease in the price of fuel.

(b) The fuel usage factors, which will be applied to the several items of the Contract shall be those set forth in Table 1.

(c) Price adjustment will be based upon the quantity of fuel incorporated in the work as determined by the factors in Table 1.

When the monthly sales price determined per paragraph (f) is more than 110% of the fixed base price set forth in paragraph (e), a contract adjustment will be made under Item 1010.15 based on: [monthly sales price less 110% of the fixed base price] multiplied by [item quantity eligible for payment during month] multiplied by [fuel factor].

When the monthly sales price determined per paragraph (f) is less than 90% of the fixed base price set forth in paragraph (e), a contract adjustment will be made under Item 1010.15 based on: [monthly sales price less 90% of the fixed base price] multiplied by [item quantity eligible for payment during month] multiplied by [fuel factor].

(d) The Contractor warrants that its bid prices for this Contract include no allowances for any contingency to cover increased costs for which adjustment is provided herein.

(e) The fixed base price of fuel will be:

\$ 3.1895 per gallon on English Projects.

\$ 0.8427 per liter on Metric Projects.

This price is used solely to compute price adjustments. The fuel price will be the lower bulk retail price of **ultra low sulfur diesel fuel** for Boston as published by the Journal of Commerce and will include current Federal and State taxes.



**Table 1 - FUEL FACTORS**

Item of Work	Item No.	Units	Fuel
<b>Excavation:</b>			
Earth	203.1_,4_	gal/c.y.	0.26
	203.50_,51_,52_	(liters/m <sup>3</sup> )	(1.29)
	203.6_,7_		
	206.1_		
	207.1_		
	504.1_		
Rock	203.2_	gal/c.y.	0.34
	206.2_	(liters/m <sup>3</sup> )	(1.68)
	207.2_		
	504.2_		
Other	203.3_	gal/c.y.	0.31
	206.3_	(liters/m <sup>3</sup> )	(1.54)
	207.3_		
	583._		
	585._		
	586._		
<b>Bases:</b>			
Unprocessed	209._	gal/c.y.	0.46
	304.1_,2_	(liters/m <sup>3</sup> )	(2.28)
Processed	304.3_	gal/c.y.	0.82
	304.4_,5_,6_	(liters/m <sup>3</sup> )	(4.06)
	508._		
<b>Bituminous Concrete</b>			
Pavement <sup>2</sup>	403._	gal/ton	1.90
	411._	(liters/t)	(7.93)
<b>All Other Items:</b>		gal/\$1,000 of work	13.0
		(liters/\$1,000 of work)	(49.2)
<b>Excluding:</b> <sup>3</sup>			
		563.1_	618._
210._	510.65_	563.2_	619._
211._	528._	563.3_	624._
306.31_	544._	563.7_	645.7_
306.32_	548._	565.1_	692._
410._	550.1_	565.2_	698._
510.31_	550.2_	565.7_	8_._.
510.41_	560._	568._	10_._.
510.61_	561._	592._	

<sup>2</sup> Item 403.4 & 403.6 shall be calculated using the "All Other Items" category rate.

<sup>3</sup> Also excluded are all supplementary agreements, extra work and per specification items.



4/15/09

SSD: 7/30/75, 5/9/83, 12/5/84, 2/12/92, 10/19/93, 5/9/94,  
1/26/95, 12/30/96, 02/24/97 and 12/08/08

January 18, 2011

## SPECIAL ATTENTION

### ASPHALT CEMENT ADJUSTMENT

All bid items involving asphalt concrete mixtures (except items 403.4 & 403.6) listed in Sections: 403, Hot Bituminous Pavement and 411, Plant Mix Surface Treatment; 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.

The price adjustment will be based on the percent of virgin asphalt cement stated in the Approved Mix Design containing the maximum percentage of reclaimed asphalt pavement. In the event of breakdown or unforeseen circumstances other than weather, an Approved Virgin Mix Design may be used. The price adjustment will then be based on the total percent of virgin asphalt cement in that approved design.

**The base price of asphalt cement for this Contract is:**

\$ 487.50 per ton on English Projects.

\$ 537.23 per metric ton on Metric Projects.

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:

A contract adjustment will be made under Item 1010.2 based on; [monthly price minus the base price] X [Approved Mix Design percent of virgin asphalt cement] X [tons of pavement used].

When no item for Asphalt Cement Adjustment is included in the contract no adjustments will be made.

Item 1010.2	Asphalt Cement Adjustment <sup>1</sup>	Dollar
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<sup>1</sup> Not a bid item

**ATTACHMENT A**

## **Attachment A, Compliance with Laws and Regulations**

In connection with the performance of this Contract, contractor and its subcontractors shall comply with all applicable statutes, laws, regulations, and orders of federal, state, county or municipal authorities which shall impose any obligation or duty upon the Owner.

During the performance of this Contract and for a period of three (3) years after its completion the Contractor, and its subcontractors, shall establish, maintain and preserve property management, project performance, financial management and reporting documents and systems, and such other books, records, and other data pertinent to the project. Such records shall be retained for a period of three (3) years following completion of the project and receipt of final payment, or until an audit is completed and all questions arising therefrom are resolved, whichever is later.

The provisions contained in this Attachment, "Compliance by Contractor with Laws and Regulations" shall be binding on each subcontractor covered by this contract; provided, however, that the foregoing provisions shall not apply to contracts for standard commercial supplies or raw materials. The contractor shall cause the applicable foregoing provisions to be inserted in all subcontracts for any work covered by this Contract.

During the term of this Contract, contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap or national origin and will take affirmative action to prevent such discrimination.

As this Contract is funded by monies of the United States, Contractor shall comply with all of the provisions of Executive Order No. 11246 ("Equal Employment Opportunity") (**attached**) as supplemented by the regulations of the United State Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. Contractor further agrees to permit the State, the United States, or any designated representative of either, to have access to any of the Contractor's books, records, and accounts for the purpose of ascertaining compliance with the aforesaid rules, regulations and orders, and the covenants and conditions of this Contract.

Contractor, and all subcontractors, shall also comply with the following federal and state laws and all applicable standards, rules, orders, or regulations issued pursuant thereto:

The Copeland "Anti-Kickback" Act, as amended (118 USC 874) as supplemented in Department of Labor regulations (41 CFR Chapter 60).

Nondiscrimination, Title VI of the Civil Rights Act of 1974 (PL 88-352), as amended, (42 USC 2000d) the Fair Housing Act of 1968 (PL 90-284), Executive Orders 11063 and 12259, and the requirements imposed by the Regulations of the Department of Housing and Urban Development (24 CFR 107 and 24 CFR 570.496) issued pursuant to that Title.

Labor Standards, Davis Bacon Act, as amended (40 USC 276a-276a-7), the Contract Work Hours and Safety Standards Act (40 USC 327-333). (**See attached**)

The Flood Disaster Protection Act of 1973 (PL 93-234), as amended, regulations issued pursuant to that act, and Executive Order 11985.

Architectural Barriers Act (PL 90-480), 42 USC 4151, as amended, and the regulations issued or to be issued thereunder, including uniform accessibility standards (24 CFR 40) for public buildings with 15 or more residential units. RSA 275-C:10 and the New Hampshire Architectural Barrier Free Design Code (Han 100, et. seq.) also applies.

Rehabilitation Act of 1973, 29 USC 794, Sections 503 and 504, Executive Order 11914 and U.S. Department of Labor regulations issued pursuant thereto. **(Attached)**

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646), as amended, 15 CFR Part 916 including amendments thereto and regulations thereunder.

The National Environmental Policy Act of 1969 (PL 90-190): the National Historic Preservation Act of 1966 (80 Stat 915, 116 USC 470); and Executive Order No. 11593 of May 31, 1971, as specified in 24 CFR 58.

The Clean Air Act, as Amended, 42 USC 1857 et seq., the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq. and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFR part 15, as amended from time to time.

RSA 354 and rules of the New Hampshire Human Rights Commission (HUM 100, et. seq.) on discrimination in employment, membership, accommodations, and housing.

The Age Discrimination Act of 1975 as amended (42 USC 6101, et. seq.) and implementing regulations.

The lead paint requirements (24 CFR 35) of The Lead-Based Paint Poisoning Prevention Act (42 USC 4821, et. seq.).

The NH State Energy Code (RSA 155-D).

The NH State Life Safety Code (RSA 155:1) and rules of the NH State Fire Marshall.

Citizen Participation Requirements. The 1987 amendments to the Housing and Community Development Act of 1974, stated in Section 508.

Affirmative Action Requirements. Contractor shall:

take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, creed, age, sex, or national origin; such action shall be taken in conjunction with any of the Contractor's acts in the capacity of an employer including, but not limited to: employment of individuals, upgrading, demotions or transfers, recruitment or recruitment advertising; layoffs or terminations; changes in rates of pay or other forms of compensation; selection for training, including apprenticeship, and participation in recreational and educational activities;

post in conspicuous places available to employees and applicants, employment notices, to be provided by the Owner, setting forth the provisions of this non-discrimination clause; the Contractor will, in all solicitations or advertisements for employees, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, creed, age, sex or national origin;

keep all such information, records and reports as may be required by the rules, regulations or orders of the Secretary of Labor and furnish or submit same at such times as may be required; the Contractor shall also permit the Owner or any of their designated representatives to have access to any of the Contractor's books, records and accounts for the purpose of investigation to ascertain compliance with the aforesaid rules, regulations and orders and covenants and conditions herein contained;

during the term of this Contract, shall not discriminate among participants under this Contract on the basis of race, color, religion, sex, handicap or national origin. For the purpose of this Contract, distinctions on the grounds of the following: denying a participant any service or benefit or availability of a facility; providing any service or benefit to a participant which is different, or is provided in a different manner or at a different time from that provided to other participants under this Contract; subjecting a participant to segregation or separate treatment in any matter related to his receipt of any service; restricting a participant in any way in the enjoyment of any advantage or privilege enjoyed by others receiving any service or benefit; treating a participant differently from others in determining whether he satisfies any admission, enrollment quota, eligibility, membership, or other requirement or condition which individuals must meet in order to be provided any service or benefit; the assignment of times or places for the provision of services on the basis of race, color, religion, sex, or national origin of the participants to be served.

Section 3 of the Housing and Urban Development Act of 1968 (attached ) (12 USC 1701u) as amended by the Housing and Community Development Act of 1992 (42 USC 5301).

Certification of Nonsegregated Facilities as required by the May 9, 1967, Order (32 FR 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor (applicable to contracts exceeding \$10,000)

By the submission of this bid, the bidder, offeror, applicant or subcontractor certifies that he/she does not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that he/she does not permit his/her employees to perform their services at any location, under his/her control where segregated facilities are maintained.

He she certifies further that he/she will not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that he/she will not permit his/her employees to perform their services at any location, under his/her control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in

fact segregated on the basis of race, creed, color or national origin, because of habit, local custom, or otherwise. He/she further agrees that (except where he/she has obtained identical certifications from proposed subcontractors for specific time periods) he/she will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that he/she will retain such certifications in his/her files; and that he/she will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR  
CERTIFICATIONS OF NONSEGREGATED FACILITIES**

A certification of Nonsegregated Facilities, as required by the May 9, 1967, Order (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, shall be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity clause. The Certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 USC 1001.

**CERTIFICATION OF BIDDER  
REGARDING EQUAL EMPLOYMENT OPPORTUNITY**

Instructions

This certification is required pursuant to Executive Order 11246 (30 F.R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

Certification By Bidder

Name and Address of Bidder (including Zip Code)

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.             Yes    No
2. Compliance reports were required to be filed in connection with such contract or subcontract.             Yes    No
3. Bidder has filed all compliance reports due under applicable instructions.             Yes    No    None required
4. Have you ever been or are you being considered for sanction due to violation of Executive Order 11246, as amended?    Yes    No

Name and Title of Signer (Please type or print)

Signature

**NOTICE OF REQUIREMENT OF AFFIRMATIVE ACTION  
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY  
(EXECUTIVE ORDER 11246)**

1.  The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Specifications" set forth herein.
2.  The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for minority participation for each trade	Goals for female participation for each trade
	6.9	6.9

These goals are applicable to all the Contractor's construction work (whether or not it is federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60.4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3.  The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4.  As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).



**CERTIFICATION OF BIDDER REGARDING SECTION 3  
AND SEGREGATED FACILITIES**

---

Name of Prime Contractor

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Project Name and Number

The undersigned hereby certifies that:

- (a) Section 3 provisions are included in the Contract.
- (b) A written Section 3 plan was prepared and submitted as part of the bidding proceedings (if bid equals or exceeds \$10,000).
- (c) No segregated facilities will be maintained.

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Name and Title of Signer (Print or Type)

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Signature

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Date

### SECTION 3 PLAN CERTIFICATION

\_\_\_\_\_ agrees to implement the following specific affirmative action  
Name of Contractor  
directed at increasing the utilization of lowest income residents and businesses with in the City/Town of \_\_\_\_\_  
\_\_\_\_\_.

- A. To ascertain from the locality's CDBG program official the exact boundaries of the Section 3 covered project area and were advantageous, seek the assistance of local officials in preparing and implementing the affirmative action plan.
- B. To attempt to recruit from within the city /town the necessary number of lower income residents through: Local advertising media, sign placed at the proposed site for the project, and community organizations and public or private institutions operating within or serving the project area such as Service Employment and Redevelopment (SER), Opportunities Industrialization Center (OIC), Urban League, Concentrated Employment Program, Hometown Plan, or the U.S. Employment Service.
- C. To maintain a list of all lower income residents who have applied either on their own or on referral from any source, and to employ such persons, if otherwise eligible and if a vacancy exists.
- D.\* To insert this Section 3 plan in all bid documents, and to require all bidders and subcontractors to submit a Section 3 affirmative action plan including utilization goals and the specific steps planned to accomplish these goals.
- E.\* To insure that subcontracts which are typically let on a negotiated rather than bid basis in areas other than Section 3 covered project areas, are also let on a negotiated basis, whenever feasible, when let in a Section 3 covered project area.
- F. To formally contact unions, subcontractors and trade associations to secure their cooperation for this program.
- G. To insure that all appropriated project area business concerns are notified of pending subcontractual opportunities.
- H. To maintain records, including copies of correspondence, memoranda, etc., which document that all the above affirmative action steps have been taken.
- I. To appoint or recruit an executive official of the company or agency as Equal Opportunity Officer to coordinate the implementation of the Section 3 Plan.

As officers and representatives of \_\_\_\_\_ we, the undersigned, have read and

(Name of Contractor)

fully agree to this Affirmative Action Plan, and become a party to the full implementation of this program.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

## Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

**A. 1. (i) Minimum Wages.** All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section I(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

**(ii) (a)** Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

**(1)** The work to be performed by the classification requested is not performed by a classification in the wage determination; and

**(2)** The classification is utilized in the area by the construction industry; and

**(3)** The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

**(b)** If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

**(c)** In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

**(d)** The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

**(iii)** Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

**(iv)** If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

**2. Withholding.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

**3. (i) Payrolls and basic records.** Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

**(ii) (a)** The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

**(b)** Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

**(1)** That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and Trainees.

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who

is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

**(iii) Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

**6. Subcontracts.** The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

**7. Contract termination; debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

**10. (i) Certification of Eligibility.** By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be

awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

**(ii)** No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

**(iii)** The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

**11. Complaints, Proceedings, or Testimony by Employees.** No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

**B. Contract Work Hours and Safety Standards Act.** The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

**(1) Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

**(2) Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

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**(3) Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

**(4) Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

**C. Health and Safety.** The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

**(1)** No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

**(2)** The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

**(3)** The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

## Federal Equal Opportunity and Non-Discrimination Provisions

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or natural origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay, or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers's representatives of the contractors' commitments under section 202 of Executive Order 11246 of September 24, 1965 and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the non-discrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for non-compliance: *Provided however*, that in the event a contractor becomes involved in, or is threatened with litigation with a subcontractor or vendor

as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

### STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and,

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and time tables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted



are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the

union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment sources, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the

Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractors's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensure that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because

of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall be at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

## AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS

(a) The contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: Employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(b) The contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

© In the event of the contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(d) The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in form to be prescribed by the Director, provided by or through the contracting officer. Such notices shall state the contractor's obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of applicants and employees.

(e) The contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the contractor is bound by the terms of section 503 of the Rehabilitation Act of 1973, and is committed to take affirmative action to employ and advance in employment physically and mentally handicapped individuals.

(f) The contractor will include the provisions of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to section 503 of the Act, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

## AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA

(a) The contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veterans status in all employment practices such as the following: Employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(b) The contractor agrees to list all employment openings which exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract and including those occurring at an establishment of the contractor other than the one wherein the contract is being performed

but excluding those of independently operated corporate affiliates, at an appropriate local office of the State employment service system wherein the opening occurs.

© Listing of employment openings with the employment service system pursuant to this clause shall be made at least concurrently with the use of any other recruitment source or effort and shall involve the normal obligations which attach to the placing of a bona fide job order, including the acceptance of referrals of veterans and non-veterans. The listing of employment openings does not require the hiring of any particular job applicant or from any particular group of job applicants, and nothing herein is intended to relieve the contractor from any requirements in Executive orders or regulations regarding nondiscrimination in employment.

(d) The reports required by paragraph (b) of this clause shall include, but not be limited to, periodic reports which shall be filed at least quarterly with the appropriate local office or, where the contractor has more than one hiring location in a State, with the central office of that State employment service. Such reports shall indicate for each hiring location (1) the number of individuals hired during the reporting period, (2) the number of nondisabled veterans of the Vietnam era hired, (3) the number of disabled veterans of the Vietnam era hired, and (4) the total number of disabled veterans hired. The reports should include covered veterans hired for on-the-job training under 38 U.S.C. 1787. The contractor shall submit a report within 30 days after the end of each reporting period wherein any performance is made on this contract identifying data for each hiring location. The contractor shall maintain at each hiring location copies of the reports submitted until the expiration of one year after final payment under the contract, during which time these reports and related documentation shall be made available, upon request, for examination by any authorized representative of the contracting officer of the Secretary of Labor. Documentation would include personnel records respecting job openings, recruitment and placement.

(e) Whenever the contractor becomes contractually bound to the listing provisions of this clause, it shall advise the employment service system in each State where it has establishments of the name and location of each hiring location in the State. As long as the contractor is contractually bound to these provisions and has so advised the State system, there is no need to advise the State system of subsequent contracts. The contractor may advise the State system when it is no longer bound by this contract clause.

(f) This clause does not apply to the listing of employment openings which occur and are filled outside of the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

(g) The provisions of paragraphs (b), (c), (d), and (e) of this clause do not apply to openings which the contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement. This exclusion does not apply to a particular opening once an employer decides to consider applicants outside of his own organization or employer-union arrangement for that opening.

(h) As used in this clause: (1) "All employment openings" includes all positions except executive and top management, those positions that will be filled from within the contractor's organization, and positions lasting three days or less. This terms includes full-time employment, temporary employment of more than three days' duration, and part-time employment.

(2) "Appropriate office of the State employment service system" means the local office of the Federal-State national system of public

employment offices with assigned responsibility for serving the area where the employment opening is to be filled, including the District of Columbia, Guam, the Commonwealth of Puerto Rico, and the Virgin Islands.

(3) "Positions that will be filled from within the contractor's organization" means employment openings for which no consideration will be given to persons outside the contractor's organization (including any affiliates, subsidiaries, and the parent companies) and includes any openings which the contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of his or her own organization.

(4) "Openings which the contractor proposes to fill pursuant to a customary and traditional employer-union hiring arrangement" means employment openings which the contractor proposes to fill from union halls, which is part of the customary and traditional hiring relationship which exists between the contractor and representatives of his employees.

(l) The contractor agrees to comply with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.

(j) In the event of the contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(k) The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notice shall state the contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era for employment, and the rights of applicants and employees.

(l) The contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the contractor is bound by the terms of Vietnam Era Veterans Readjustment Assistance Act, and is committed to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era.

(m) The contractor will include the provisions of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to the Act, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

### SECTION 3 OF THE HOUSING AND COMMUNITY

1. The work to be performed under this contract is on a project assisted under a program providing direct Federal financial assistance from the Department of Housing and Urban Development and is subject to the requirements of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u. Section 3 requires that to the greatest extent feasible opportunities for training and employment be given lower income residents of the project area and contracts for work in connection with the project be awarded to business concerns which are located in, or owned in substantial part by persons residing in the area of the project.

2. The parties to this contract will comply with the provisions of said Section 3 and the regulations issued pursuant thereto by the Secretary of Housing and Urban Development set forth in 24 CFR 135, and all applicable rules and order of the Department issued thereunder prior to the execution of this contract. The parties to this contract certify and agree that they are under no contractual or other disability which would prevent them from complying with these requirements.

3. The contractor will send to each labor organization or representative of workers with which he has a collective bargaining agreement or other contract or understanding, if any, a notice advising the said labor organization or worker's representative of his commitments under this Section 3 clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment or training.

4. The contractor will include this Section 3 clause in every subcontract for work in connection with the project and will, at the direction of the applicant take appropriate action pursuant to the subcontract upon a finding that the subcontractor is in violation of regulations issued by the Secretary of Housing and Urban Development, 24 CFR Part 135. The contractor will not subcontract with any subcontractor where it has notice or knowledge that the latter has been found in violation of regulations under 24 CFR Part 135 and will not let any subcontract unless the subcontractor has first provided it with a preliminary statement of ability to comply with the requirements of these regulations.

5. Compliance with the provisions of Section 3, the regulations set forth in 24 CFR Part 135, and all applicable rules and orders of the Department issued hereunder prior to the execution of the contract, shall be a condition of the federal financial assistance provided to the project, binding upon the applicant or recipient for such assistance, its successors and assigns. Failure to fulfill these requirements shall subject the applicant or recipient, its contractors and subcontractors, its successors and assigns to those sanctions specified by the grant or loan agreement or contract through which federal assistance is provided, and to such sanctions as are specified by 24 CFR Part 135.

## **Clean Air and Water Provisions**

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During the performance of this contract, the contractor agrees as follows:

(1) The contractor will certify that any facility to be utilized in the performance of any nonexempt contract or subcontract is not listed on the List of Violating Facilities issued by the Environmental Protection Agency pursuant to 40 CFR 15.20.

(2) The contractor agrees to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 U.S.C. 1958c-8) and Section 308 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1318) relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in

said Section 114 and Section 308, and all regulations and guidelines issued thereunder.

(3) The contractor agrees that as a condition for the award of the contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, Environmental Protection Agency, indicating that a facility utilized or to be utilized for the contract is under consideration to be listed on the Environmental Protection Agency List of Violating Facilities.

(4) The contractor agrees that it will include or cause to be included the criteria and requirements in Paragraph (1) through (4) of this section in every nonexempt subcontract and require every subcontractor to take such action as the Government may direct as a means of enforcing such provisions.

GENERAL DECISION: NH20100020 10/22/2010 NH20

Date: October 22, 2010

General Decision Number: NH20100020 10/22/2010

Superseded General Decision Number: NH20080020

State: New Hampshire

Construction Type: Highway

County: Rockingham County in New Hampshire.

Highway construction projects (does not include major bridges (for example, bascule, suspension and spandrel arch bridges; bridges bridging waters presently navigable or to be made navigable; bridges involving marine construction in any degree); tunnels; building structures in rest areas; railroad construction)

Modification Number	Publication Date
0	03/12/2010
1	08/20/2010
2	10/22/2010

LABO0327-003 06/01/2010

Does not include the town of Salem:

	Rates	Fringes
Laborers:		
_Guardrail installer.....	\$ 19.38	15.50

Work with hazardous waste, and handling of hazardous material, including acids, chlorine, epoxies, asbestos, and lead abatement: \$2.50 per hour additional.

SUNH2005-016 12/01/2005

	Rates	Fringes
Carpenter (includes form work).....	\$ 16.35	1.06
Cement mason.....	\$ 24.05	
Electrician.....	\$ 22.00	2.78
Laborers:		
_Concrete saw.....	\$ 17.85	
_Flagger.....	\$ 10.18	1.37
_General.....	\$ 12.72	
_Highway linestriper.....	\$ 10.38	
_Landscape laborer.....	\$ 11.18	
_Pipelayer.....	\$ 13.29	4.33
_Screed person.....	\$ 15.50	
Power equipment operators:		
_Backhoe.....	\$ 19.28	3.17
_Bulldozer.....	\$ 18.31	1.42
_Crane.....	\$ 18.29	2.03
_Excavator.....	\$ 17.66	1.90

_Front end loader.....	\$ 17.00	1.84
_Grader.....	\$ 19.93	5.08
_Mechanic.....	\$ 16.92	3.44
_Paver.....	\$ 15.69	
_Pounder.....	\$ 22.05	6.05
_Roller.....	\$ 14.17	
_Screed.....	\$ 16.25	4.32

Truck driver  
 \_includes single, double  
 and triple-axle trucks...\$ 14.36                      1.40

-----  
 WELDERS - Receive rate prescribed for craft performing  
 operation to which welding is incidental.  
 =====

Unlisted classifications needed for work not included within  
 the scope of the  
 classifications listed may be added after award only as  
 provided in the labor  
 standards contract clauses (29 CFR 5.5(a)(1)(ii)).

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 --  
 In the listing above, the "SU" designation means that rates  
 listed under the  
 identifier do not reflect collectively bargained wage and  
 fringe benefit  
 rates. Other designations indicate unions whose rates have  
 been determined  
 to be prevailing.

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 --  
 WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can  
 be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on  
 a wage  
 determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests  
 for summaries  
 of surveys, should be with the Wage and Hour Regional Office  
 for the area in  
 which the survey was conducted because those Regional Offices  
 have  
 responsibility for the Davis-Bacon survey program. If the  
 response from this  
 initial contact is not satisfactory, then the process described  
 in 2.) and  
 3.) should be followed.

With regard to any other matter not yet ripe for the formal  
 process  
 described here, initial contact should be with the Branch of  
 Construction

Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).

Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION



# ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS CONCORD WAY & PORPOISE WAY PORTSMOUTH, NEW HAMPSHIRE

## ROCKINGHAM COUNTY

PROJECT LENGTH: 0.42 MILES  
ROADWAY RECONSTRUCTION PROJECT

JANUARY 2011

SCALES	PLANS	PROFILES	CROSS SECTIONS	SIGNAL PLAN
1" = 40'	1" = 40'	1" = 40'	1" = 40'	1" = 40'
1" = 40'	1" = 40'	1" = 40'	1" = 40'	1" = 40'
1" = 40'	1" = 40'	1" = 40'	1" = 40'	1" = 40'
1" = 40'	1" = 40'	1" = 40'	1" = 40'	1" = 40'

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS
3	GENERAL NOTES
4-6	DETAILS & DRAINAGE PLANS & PROFILES
7-16	PROFILES
17-21	CURBING LAYOUT PLANS
22-55	CROSS SECTIONS
56-59	EXISTING CONDITIONS PLAN
LI-L3	STREETSCAPE PLANTING PLANS



**NOTE:**  
ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL BE GOVERNED BY AND BE IN CONFORMITY WITH THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION, ANY SUPPLEMENTS THERETO, CURRENT NHDOT GOVERNING STANDARDS, SPECIAL PLANS AND CURRENT CITY STANDARDS.

**NOTE:**  
\* THE CONTRACTOR MUST USE THE STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS AS A MINIMUM. THIS WORK SHALL INCLUDE THE INSTALLATION OF EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION AND THE REMOVAL OF EROSION CONTROL MEASURES AFTER THE SLOPES ARE STABILIZED AND SUPPORTING VEGETATION

**CLIENT:**  
CITY OF PORTSMOUTH  
1 JUNKINS AVENUE  
PORTSMOUTH, NH 03802



Prepared By:  
**GP** Gorrill-Palmer Consulting Engineers, Inc.  
Engineering Excellence Since 1998  
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www.gorillpalmer.com

Rev	Date	Revision	Issued For

Rev	Date	Revision	Issued For

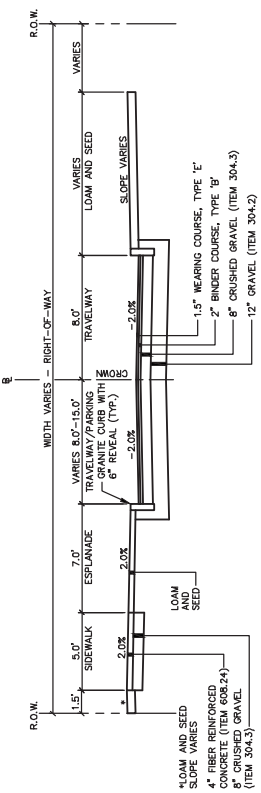
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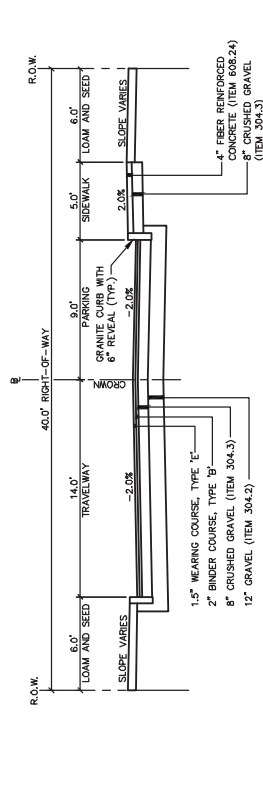
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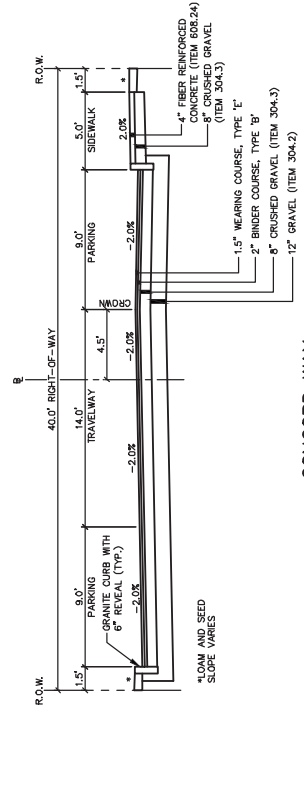
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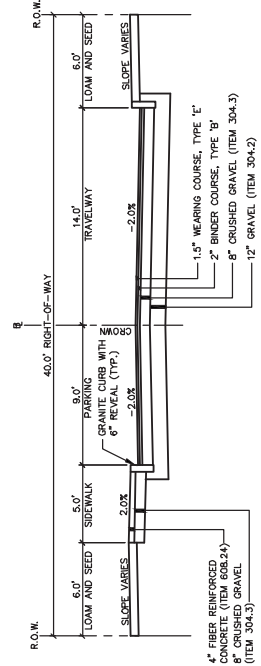
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STA 59+47 TO STA 63+85



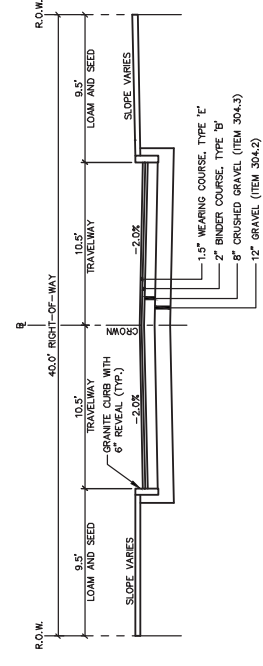
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STA 56+00 TO STA 59+09



CONCORD WAY  
STA 50+32 TO STA 56+00



PORPOISE WAY  
STA 22+10 TO STA 27+94



PORPOISE WAY  
STA 20+07 TO STA 21+86

Drawing No.  
2

Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
Client: City of Portsmouth  
1 Jenkins Avenue, Portsmouth, NH 03802

Design Name: Gorrill-Palmer Consulting Engineers, Inc.  
Engineering Excellence Since 1998  
207-657-8910  
207-657-8912  
E-Mail: matthew@gorrillpalmer.com

Design: TCH Date: 08 Date: MAR 2010  
Drawn: SORL Date: 08  
Checked: SORL Date: 08  
This plan shall not be modified without written permission from Gorrill-Palmer Consulting Engineers, Inc. Any changes, additions, deletions, omissions, or other modifications shall be at the user's sole risk and without liability to GPEEL.

Rev.	Date	Revision	Date	By
	07/07/11	TIG		
	10/08/10	TIG		
	9/03/10	TIG		
	8/20/10	TIG		

Rev.	Date	Revision

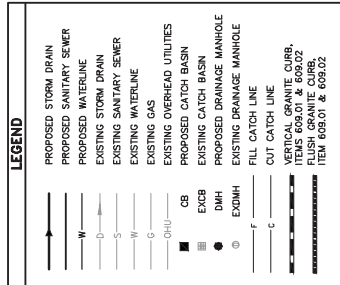
**GENERAL NOTES**

- THE CITY OF PORTSMOUTH SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIAL IN PROGRESS OR COMPLETED. THE CITY SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.
- THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTSMOUTH AND MHDOT STANDARD SPECIFICATIONS, CURRENT EDITIONS AND SPECIAL PROVISIONS.
- ADJUSTING, ALTERING AND/OR RELOCATING THE PROPERTY OF ANY PUBLIC UTILITY SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PORTSMOUTH STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL COOPERATE WITH THE OWNER IN THE PERFORMANCE OF THE WORK.
- THE SUBGRADE SHALL BE SCARIFIED TO ASSURE THAT ALL BOULDERS AND COBBLES OVER 6 INCHES ARE REMOVED WITHIN 36" INCHES OF FINISHED GRADE.
- DRIVEWAY ACCESS SHALL BE MAINTAINED AT ALL TIMES.
- THE CONTRACTOR MUST USE THE FERTILIZER, MANURE, AND BROWN MANURE CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS AS A MANUAL. THIS WORK SHALL INCLUDE THE INSTALLATION OF EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION AND THE EROSION CONTROL MEASURES AFTER THE SLOPES ARE STABILIZED AND SUPPORTING VEGETATION.
- THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATERS WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.
- CATCH BASINS, FRAME AND GRATES SHALL BE MHDOT TYPE 'B' ALTERNATE WITH 3'-FLANGE CASTINGS, FRAME AND GRATES FOR CATCH BASINS SHALL BE MANUFACTURED IN THE U.S.A.
- UNLESS OTHERWISE NOTED, ALL STORM DRAIN (SD) PIPE SHALL BE PLASTIC PIPE WITH SMOOTH INTERIOR, AND BE IN ACCORDANCE WITH MHDOT SPECIFICATIONS.
- IF ANY ITEMS TO BE REMOVED AND RESET ARE DAMAGED DURING REMOVAL, STORAGE OR REINSTALLATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING THEM TO THE SATISFACTION OF THE CITY OF PORTSMOUTH AT NO ADDITIONAL COST.
- VERTICAL GRANITE TERMINAL END SECTIONS (TIP DOWNS) SHALL BE USED AT THE LOCATIONS AT WHICH VERTICAL GRANITE CURB BEGINS OR ENDS.
- ALL DIMENSIONS AND OFFSETS ARE MEASURED TO THE CONSTRUCTION BASE LINE.
- ALL DISTURBED SLOPE AREAS SHALL BE LOAMED AND SEEDED WITH A MINIMUM OF 4" OF LOAM. DISPOSITION OF SURPLUS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL MATERIALS CAN BE INCORPORATED IN FILLS IN OTHER PROJECTS OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL DISPOSAL PERMITS WHICH MAY BE REQUIRED.
- THE CONTRACTOR SHALL SUBMIT A PLAN TO CONTROL TRAFFIC DURING THE PERIOD OF CONSTRUCTION OF THE TRAFFIC IMPROVEMENTS TO THE CITY OF PORTSMOUTH FOR APPROVAL A MINIMUM OF ONE WEEK PRIOR TO CONSTRUCTION WHICH CONFORMS TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SEQUENCING OF WORK AND SHALL ADVISE THE CITY OF PORTSMOUTH WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE IMPROVEMENTS PRIOR TO BEGINNING WORK. MONTHLY UPDATES SHALL BE SUBMITTED TO THE CITY.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITIES AND FACILITIES INDICATED ON THE CROSS SECTIONS HAVE BEEN OBTAINED FROM THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AND FACILITIES INDICATED ON THE CROSS SECTIONS HAVE BEEN OBTAINED FROM THE PLANS. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO CONSTRUCTION OF ANY WORK WHICH MAY AFFECT THE UTILITIES. THE CONTRACTOR SHALL COORDINATE THE PROPOSED WORK WITH THE AFFECTED UTILITY COMPANIES TO ARRANGE FOR REQUIRED RELOCATION OF THEIR KNOWN FACILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS AND SCHEDULES FOR THE PROPER UTILITY COMPANY.
- OFFSETS TO CATCH BASINS AND MANHOLES ARE TO THE CENTER OF THE COVER OR GRATE.
- CONSTRUCTION SHALL BE RESPONSIBLE FOR THE SEQUENCING OF WORK AND SHALL ADVISE THE CITY OF PORTSMOUTH WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE IMPROVEMENTS PRIOR TO BEGINNING WORK. MONTHLY UPDATES SHALL BE SUBMITTED TO THE CITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SEQUENCING OF WORK AND SHALL ADVISE THE CITY OF PORTSMOUTH WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE IMPROVEMENTS PRIOR TO BEGINNING WORK. MONTHLY UPDATES SHALL BE SUBMITTED TO THE CITY.
- ALL ADA RAMPS SHALL BE CONSTRUCTED WITH CONCRETE WITH 2% MAX VERTICAL TRANSLATED DOME DETECTABLE WARNING SYSTEMS, BRICK RED IN COLOR MANUFACTURED BY ANKOR-TILE. THESE SHALL BE INSTALLED IN SIDEWALK RAMPS THAT CROSS A VEHICLE WAY EXCLUDING UNSIGNALIZED DRIVEWAYS.
- ALL SIDEWALKS SHALL BE CONSTRUCTED WITH 4" FIBER REINFORCED CONCRETE (ITEM 608.24) AND 8" CRUSHED GRAVEL (ITEM 304.3) UNLESS OTHERWISE NOTED ON THE PLANS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS, AND REPORT ANY DISCREPANCIES TO THE CITY OF PORTSMOUTH PRIOR TO THE COMMENCEMENT OF WORK. AFTER ANY DISCREPANCIES HAVE BEEN RESOLVED BY THE CITY.
- CARE SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SYSTEMS AND SURFACES TO REMAIN. ALL DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS APPROVED BY THE CITY AT NO ADDITIONAL COST TO THE CITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS WHICH ARE REQUIRED

- FOR THE SATISFACTORY COMPLETION OF THE WORK, THE CONTRACTOR IS RESPONSIBLE FOR ALL DOWNSIDE NOTIFICATION REQUIREMENTS.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN BARRICADES AT THE LIMITS OF ALL CLOSED SIDEWALKS, ROADWAYS, AND OPEN AREAS. THE LOCATION SHALL BE COORDINATED WITH THE CITY.
- THE CONTRACTOR SHALL COORDINATE ALL GAS UTILITY LOCATION AND ADJUSTMENT WORK WITH THE ADJUSTMENT BY THE CONTRACTOR SHALL INCLUDE RESISTING ALL EXISTING GAS SERVICE WORK SHALL BE CONSIDERED INCIDENTAL TO THE OTHER CONTRACT ITEMS.
- TOPSOIL SHALL BE REMOVED FOR ITS TOTAL DEPTH WITHIN THE LIMITS OF THE RIGHT OF WAY, UNLESS OTHERWISE DIRECTED, THE TOPSOIL SHALL BE STOCKPILED AND SCREENED AND USED IN ITS ENTIRETY UNDER SECTION 641-1.04M.
- UNSUITABLE MATERIAL, ROOTS, STUMPS AND SOILS ASSOCIATED WITH TREE REMOVAL OR THE EXCAVATION OF EXISTING UTILITIES SHALL BE REMOVED AND DISPOSED OF AT THE COST TO THE CITY. WORK SHALL BE SUBSIDIARY TO RELATED CONTRACT ITEMS (SEE SPECIFICATION SECTION 207).
- NO EXISTING SURVEY MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RESETTING.
- INITIAL SURVEY LAYOUT AND STAKING OF BENCHMARKS & CONSTRUCTION CENTERLINE, AT 50 FOOT INTERVALS FOR CONSTRUCTION PURPOSES WILL BE ESTABLISHED BY THE CITY PRIOR TO THE COMMENCEMENT OF THE CONTRACTOR'S WORK.
- THE CONTRACTOR SHALL CONTACT THE CITY IF EXISTING TREES TO REMAIN WILL BE AFFECTED BY EQUIPMENT OR MEANS/METHODS FOR CONSTRUCTION, ANY PRUNING WILL BE COMPLETED BY THE CITY. ANY DAMAGE TO THE EXISTING TREES BY CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND REPAIRED (BY THE CITY) IN ACCORDANCE WITH PROFESSIONAL TREE COMPANY. PRUNING WILL BE CONDUCTED UNDER THE DIRECTION OF THE CITY'S REPRESENTATIVE.
- TREES TO REMAIN WITHIN THE CONSTRUCTION ZONE SHALL BE PROTECTED FROM DAMAGE FOR THE DURATION OF THE PROJECT BY SNOW FENCE OR OTHER SUITABLE MEANS OF PROTECTION TO BE LOCATED AT THE DROP LINE AT A MINIMUM AND SHALL INCLUDE ANY AND ALL SNIPES, ALL ROOTS. WHEN CONSTRUCTION NECESSitates EXCAVATION WITHIN THE DROPLINE OF EXISTING TREES, THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT THE EXISTING TREES FROM THE EXCAVATION OPERATIONS AND REPLACE AS SOON AS THE WORK FOR THE DAY IS COMPLETED. DO NOT ATTEMPT TO BREAK ROOTS OVER 1" IN CALIPER WITH THE EXCAVATOR OR SUPERIOR OR SAW.
- ALL TREES REMOVED DURING THE COURSE OF THE WORK SHALL BE SALVAGED TO THE CITY OF PORTSMOUTH, UNLESS OTHERWISE DIRECTED BY THE CITY, OR NOTED ON THE PLANS.
- CONTRACTOR SHALL TAKE EXTREME CARE WHEN EXCAVATING THE EXISTING LEDEGE OUTDOORS. INTENT OF THE PROJECT IS TO MANAGE REMOVAL AS MUCH AS POSSIBLE, FOLLOWING INITIAL EXCAVATION TO THE LINE AND GRADE SHOWN ON THE CROSS SECTIONS, CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT THE EXISTING LEDEGE FROM COLLAPSE. CONTRACTOR SHALL SAMPLE AS NECESSARY TO EVALUATE THE STABILITY OF THE EXPOSED FACE. CONTRACTOR SHALL ARRANGE SCHEDULE OF OPERATIONS TO ALLOW UP TO THREE (3) WEEKS FOR EVALUATION AND ANY RECOMMENDATIONS FOR ADDITIONAL WORK.
- THE CONTRACTOR SHALL INSTALL AND PROPERLY MAINTAIN ALL APPROPRIATE CONSTRUCTION LOW ELEVATION SAFETY CONTROL PROCEDURES, CONSIDERING NEIGHBORHOOD TRAFFIC PATTERNS, TO ENSURE THE SAFETY OF VEHICLES AND TO MAINTAIN ACCESS TO PRIVATE PROPERTIES AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL SAFETY CONTROL REPRESENTATIVE TO PROVIDE A PLAN FOR MAINTENANCE OF PRECISE DURING CONSTRUCTION.
- CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PER PROJECT SPECIFICATIONS IN CONFORMANCE WITH NHDES AND EPA REGULATIONS. ALL EROSION CONTROL DETAILS SHALL COMPLY WITH NHDES BEST MANAGEMENT PRACTICES (BMP'S). THE CONTRACTOR SHALL SUBMIT THE SWPPP AND EROSION CONTROL PLAN TO THE CITY FOR REVIEW AND APPROVAL BY THE CITY PRIOR TO MOBILIZATION ON THE PROJECT SITE.
- THE EXISTING WATER MAIN SHALL BE REMOVED AFTER THE NEW MAIN OR TEMPORARY MAIN IS ACTIVE. THIS SHALL BE INCIDENTAL TO THE RESPECTIVE WATER MAIN ITEMS.
- ALL SEED SHALL BE INSTALLED USING HORSHOESSE METHODS.

**PROJECT UTILITY AND EMERGENCY CONTACTS**

WATER - SEWER	PORTSMOUTH WATER DEPT.	MIKE JENKINS	(603) 427-1532
STORM DRAIN	PORTSMOUTH PUBLIC WORKS	TOM RICHTER	(603) 766-1412
GAS	UNITIL	JOE FITZPATRICK	(603) 608-8221
TELEPHONE	VERIZON	JOE CONSIDINE	(603) 427-5925
POWER	PNH	JIM OSBOURNE	(603) 332-4227 EXT. 5542
CABLE TV	COMCAST CABLE	MARK COLLINS	(617) 279-6360
FIRE ALARM	PORTSMOUTH FIRE DEPT.	NON EMERGENCY NUMBER	(603) 427-1515
POLICE DEPARTMENT	TRAFFIC DETAILS	NON EMERGENCY NUMBER	(603) 427-1514



**General Notes**  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 City of Portsmouth  
 1 Junkins Avenue, Portsmouth, NH 03802

**Gorrill-Palmer Consulting Engineers, Inc.**  
*Engineering Excellence Since 1998*  
 PO Box 1237 207-657-8910  
 15 Shover Road 207-657-8912  
 E-Mail: malthouse@gorrillpalmer.com  
 Gray, ME 04939

Design: TCH	Date: 08	Drawn: MAR 2010
Checked: JAS	Date: 08	Scale: 1/8" = 1'-0"
Reviewed: JAS	Date: 08	Job No: 2385

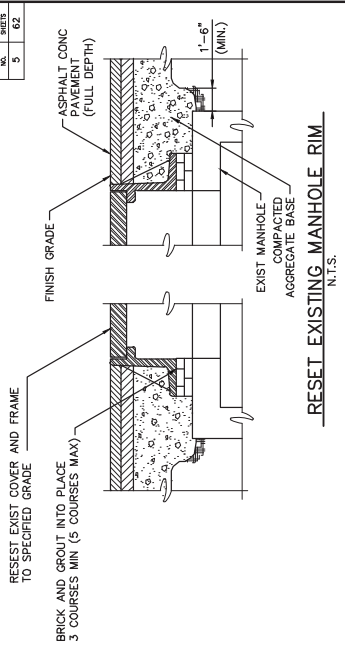
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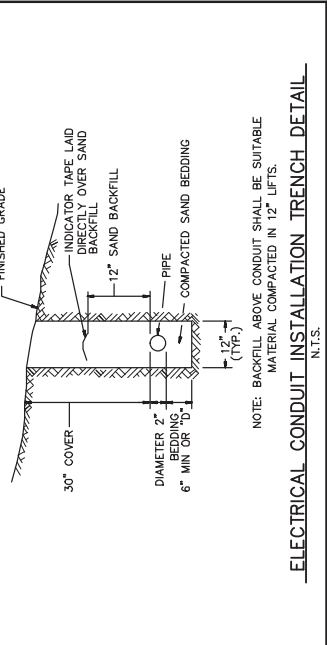
Rev.	Date	Revision	Issued For



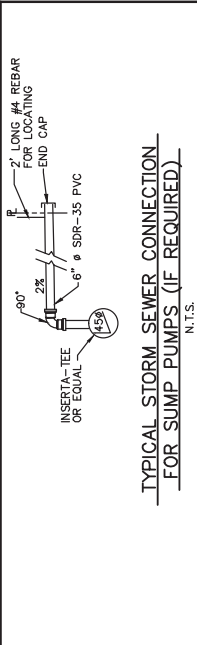
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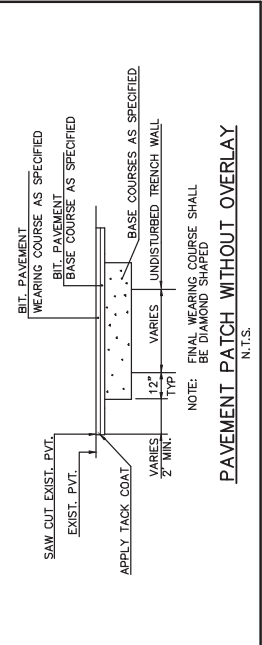
**RESET EXISTING MANHOLE RIM**  
N.T.S.



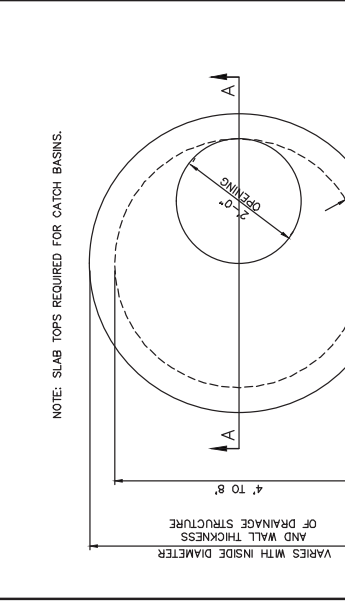
**ELECTRICAL CONDUIT INSTALLATION TRENCH DETAIL**  
N.T.S.



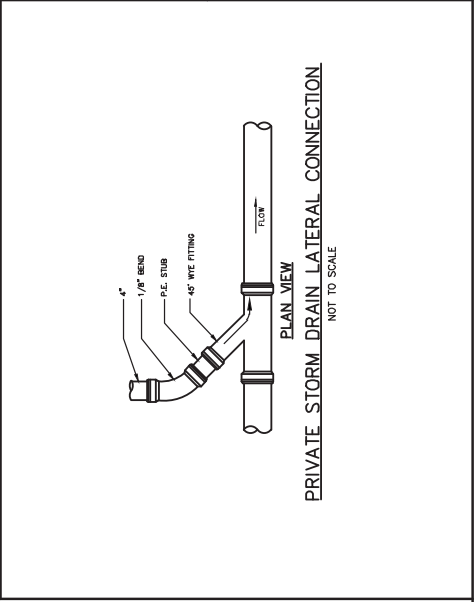
**TYPICAL STORM SEWER CONNECTION FOR SUMP PUMPS (IF REQUIRED)**  
N.T.S.



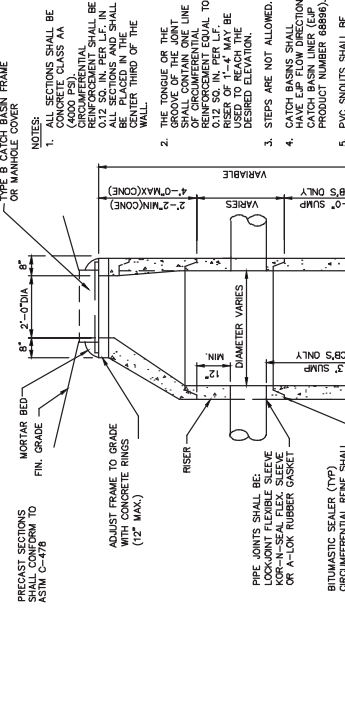
**PAVEMENT PATCH WITHOUT OVERLAY**  
N.T.S.



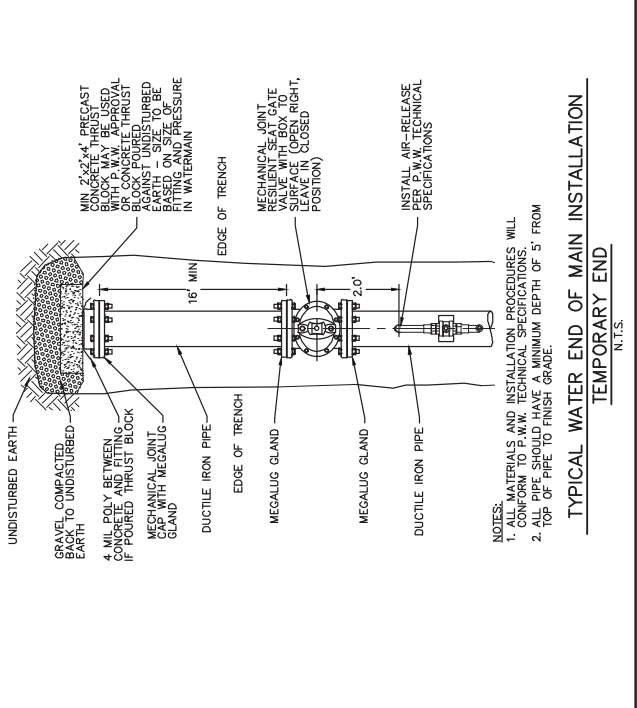
**FLAT SLAB TOP**  
N.T.S.



**PRIVATE STORM DRAIN LATERAL CONNECTION**  
NOT TO SCALE



**PRECAST REINFORCED CATCH BASIN/DRAINAGE MANHOLE**  
N.T.S.



**TYPICAL WATER END OF MAIN INSTALLATION**  
N.T.S.

- NOTES:  
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL BE AS SHOWN UNLESS OTHERWISE NOTED.  
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

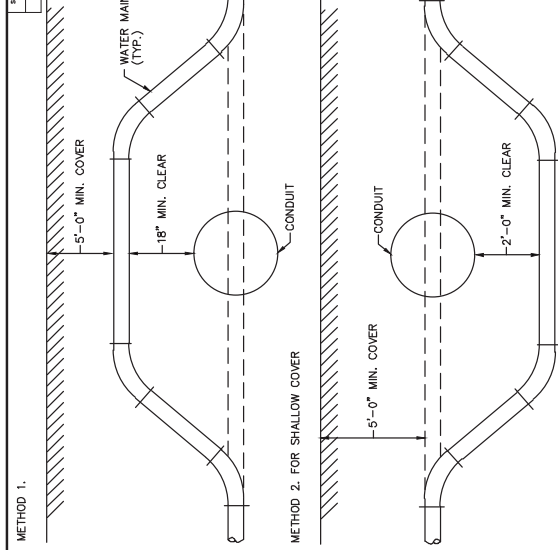
Project:	ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH
Client:	City of Portsmouth 1 Junkins Avenue, Portsmouth, NH 03802

Design Name:	Details - 2
Project:	ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH
Client:	City of Portsmouth 1 Junkins Avenue, Portsmouth, NH 03802

Design:	REV	DATE	BY	DATE	BY
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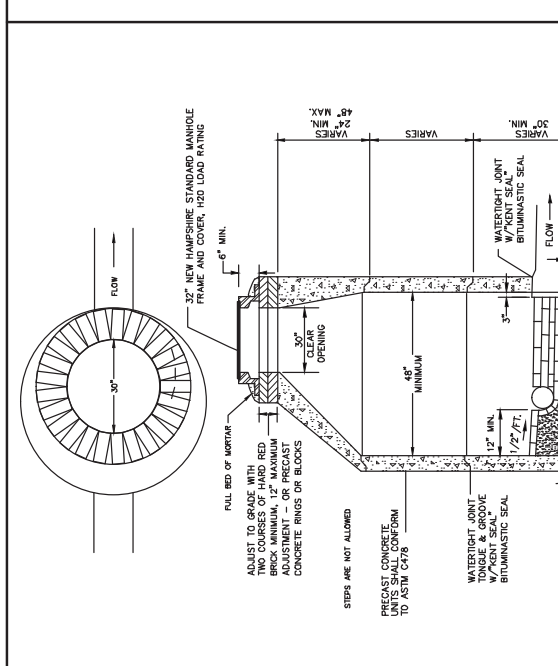
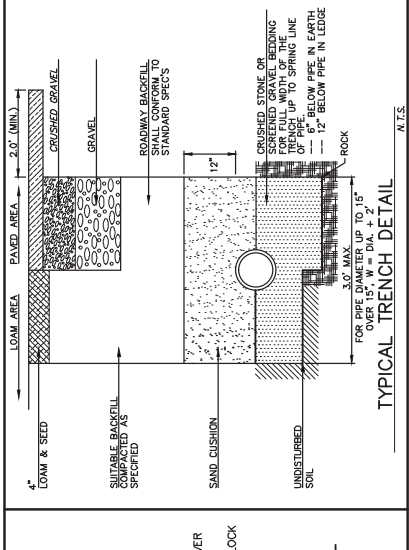
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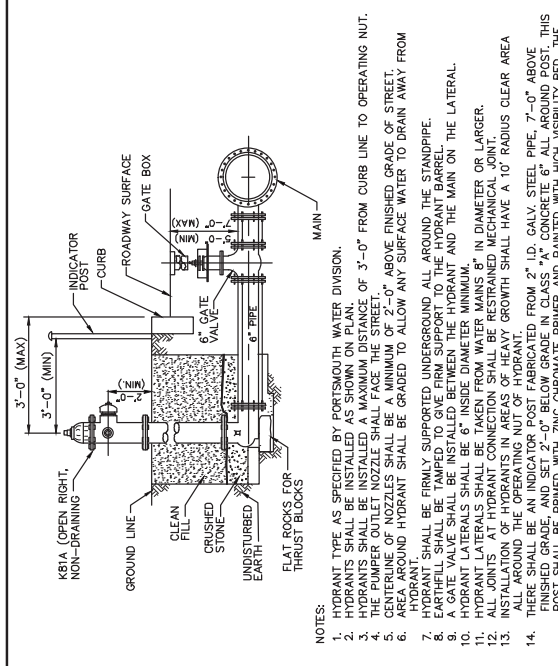
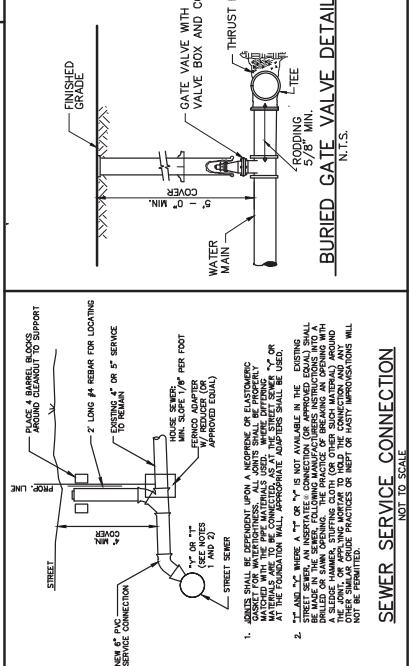
- NOTES TYPICAL TO BOTH:
1. ALL FITTINGS SHALL BE M4 WITH RETAINER GLANDS.
  2. ALL PIPES SHALL BE CEMENT LINED DUCTILE IRON CLASS B2.
  3. ALL PIPE, FITTINGS AND MATERIALS SHALL CONFORM TO PORTSMOUTH WATER DIVISION STANDARDS.
  4. WHEN THE CONDUIT IS TO BE SAVER, METHOD ONE IS THE ONLY ALLOWABLE METHOD. THE CONDUIT IS TO BE SAVER FOR APPROVED INSULATION SHALL BE USED TO PREVENT FREEZING.
  5. ALL WORK AND MATERIALS ARE SUBJECT TO INSPECTION AND APPROVAL BY PORTSMOUTH WATER DIVISION.

**VERTICAL WATER MAIN RELOCATION**  
N.T.S.



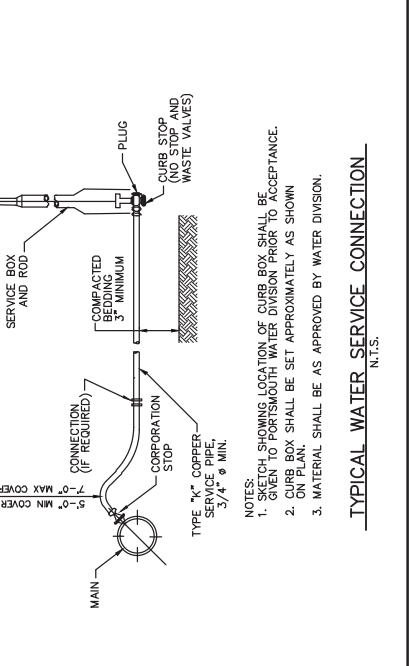
- NOTES
1. ALL SECTIONS SHALL BE CONCRETE.
  2. ALL SECTIONS SHALL BE REINFORCED WITH #4 BARS AT 12\"/>
- | TYPE OF PIPE  | SIZE  | MAX. DIST. TO FIRST JOINT |
|---------------|-------|---------------------------|
| R.C.P. & C.I. | ALL   | 48'                       |
| C.I.P.        | ALL   | 48'                       |
| V.C.P.        | 0-12" | 18'                       |
| V.C.P.        | >12"  | 36'                       |

**SEWER MANHOLE DETAIL**  
N.T.S.



- NOTES:
1. HYDRANT TYPE AS SPECIFIED BY PORTSMOUTH WATER DIVISION.
  2. HYDRANTS SHALL BE INSTALLED AS SHOWN ON PLAN.
  3. THE HYDRANT SHALL BE INSTALLED WITH A MAXIMUM DISTANCE OF 3'-0" FROM CURB LINE TO OPERATING NUT.
  4. THE HYDRANT SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.
  5. CENTERLINE OF NOZZLES SHALL BE A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.
  6. AREA AROUND HYDRANT SHALL BE GRADED TO ALLOW ANY SURFACE WATER TO DRAIN AWAY FROM HYDRANT.
  7. HYDRANT SHALL BE PERMANENTLY UNDERGROUND ALL AROUND THE STAMPPIPE.
  8. EARTH SHALL BE TAMPED TO ONE-FRPM SUPPORT TO THE HYDRANT BARREL.
  9. A GATE VALVE SHALL BE INSTALLED BETWEEN THE HYDRANT AND THE MAIN ON THE LATERAL.
  10. HYDRANT LATERALS SHALL BE 6" INSIDE DIAMETER MINIMUM.
  11. HYDRANT LATERALS SHALL BE TAKEN FROM WATER MAINS 8" IN DIAMETER OR LARGER.
  12. ALL JOINTS AT HYDRANT CONNECTION SHALL BE RESTRAINED MECHANICAL JOINT.
  13. ALL JOINTS AT HYDRANT CONNECTION SHALL BE RESTRAINED MECHANICAL JOINT.
  14. THERE SHALL BE AN INDICATOR POST FABRICATED FROM 2" I.D. GALV. STEEL PIPE 7'-0" ABOVE FINISHED GRADE, AND SET 2'-0" BELOW GRADE IN CLASS "A" CONCRETE 6" ALL AROUND POST. THIS POST SHALL BE PRIMED WITH ZINC CHROMATE PRIMER AND PAINTED WITH HIGH VISIBILITY RED. THE INDICATOR POST SHALL BE NO CLOSER THAN 3'-0" FROM THE OPERATING NUT AND SET ON SIDE OF OPERATING NUT. THE OPERATING NUT SHALL BE PAINTED WITH HIGH VISIBILITY RED. THE INDICATOR POST SHALL BE SUBSIDIARY TO HYDRANT PAY ITEM. NO SEPARATE PAYMENT WILL BE MADE.
  15. INSTALLATION OF HYDRANTS IN HEAVY GROWTH AREAS SHALL HAVE GATE BOXES RAISED 6" ABOVE GRADE AND BE PAINTED ORANGE FOR HIGH VISIBILITY.

**TYPICAL HYDRANT INSTALLATION**  
N.T.S.



NOTES:

1. CURB STOP SHOWING LOCATION OF CURB BOX SHALL BE GIVEN TO PORTSMOUTH WATER DIVISION PRIOR TO ACCEPTANCE.
2. CURB BOX SHALL BE SET APPROXIMATELY AS SHOWN ON PLAN.
3. MATERIAL SHALL BE AS APPROVED BY WATER DIVISION.

**TYPICAL WATER SERVICE CONNECTION**  
N.T.S.

Rev.	Date	Revision

Design/Rev	Date	By

Design/Rev	Date	By

**SEWER SERVICE CONNECTION**  
NOT TO SCALE

1. GATE VALVE SHALL BE PERMANENTLY UNDERGROUND OR ELASTOMERIC GASKET FOR WEATHERPROOFING. ALL JOINTS SHALL BE PROPERLY WEATHERPROOFED. ALL JOINTS SHALL BE PROPERLY WEATHERPROOFED. ALL JOINTS SHALL BE PROPERLY WEATHERPROOFED. ALL JOINTS SHALL BE PROPERLY WEATHERPROOFED.

2. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

3. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

4. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

5. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

6. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

7. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

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11. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

12. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

13. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

14. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

15. THE GATE VALVE SHALL BE INSTALLED WITH A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.

Details — 3

Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH

Client: City of Portsmouth  
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 6

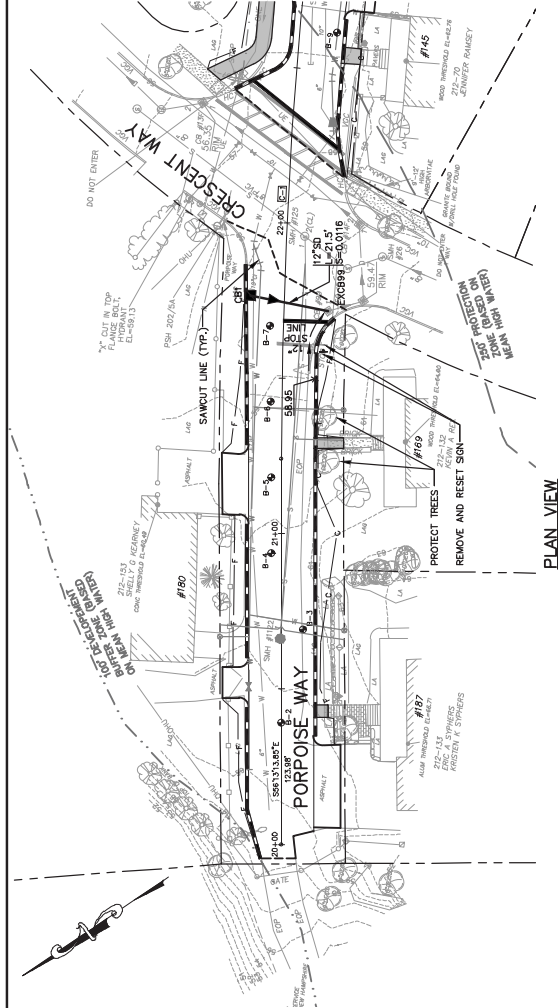
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207-657-8910  
207-657-8912  
E-Mail: malbone@gorrillpalmer.com

15 Shower Road  
Gorham, ME 04039

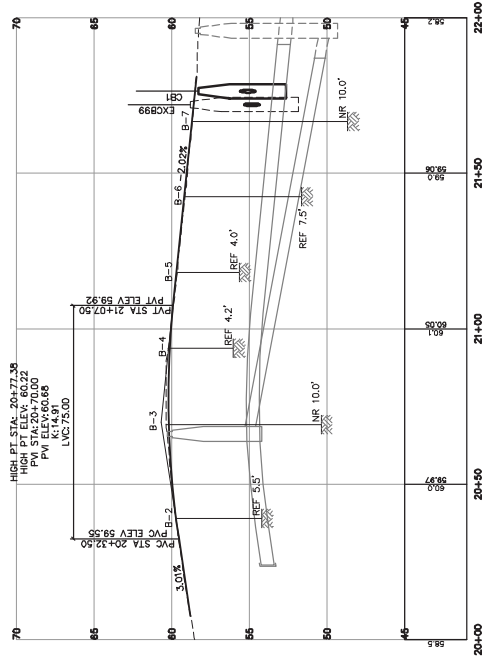
DATE	7
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CURVE NO.	LENGTH	RADIUS	TANGENT	DELTA	CHORD BEARING	START STATION	END STATION
C-1	354.00	1570.00	177.70	132°45'47"	S80°45'46"E	24+23.88	24+77.88



STRUCTURE	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)	STATION/OFFSET
CB1	4'x	58.26	54.80/12"(EX)CB99	54.80/12"(EX)CB99	21+76.36, 10.70' LT
*EXCB99	EX 58.80	58.80	54.35/12"(CB1)	(EXISTING)	21+72.1, 14.4' RT

\*CORE EXISTING STRUCTURE



PROFILE  
SCALE: 1"=4' VERT.



Drawing No. **7**

**Geometrics Plan & Profile — Porpoise Way — Block 1**  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 City of Portsmouth  
 1 Junkins Avenue, Portsmouth, NH 03802

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 Gray, ME 04039  
 E-Mail: malton@gorrillpalmer.com

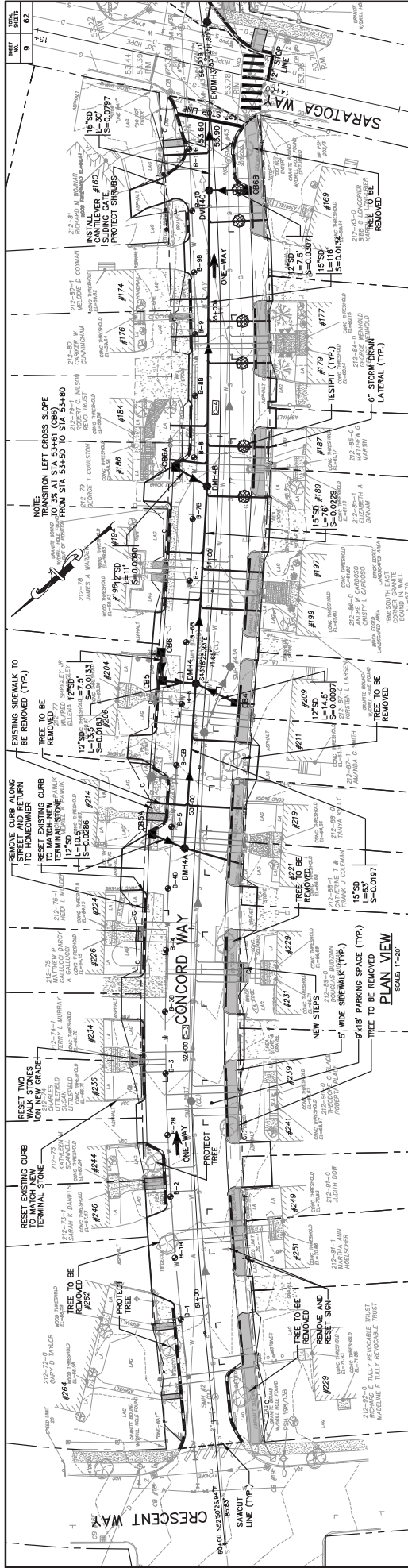
Rev.	Date	Revision

Design/Rev	Date	By	Check

Issued For

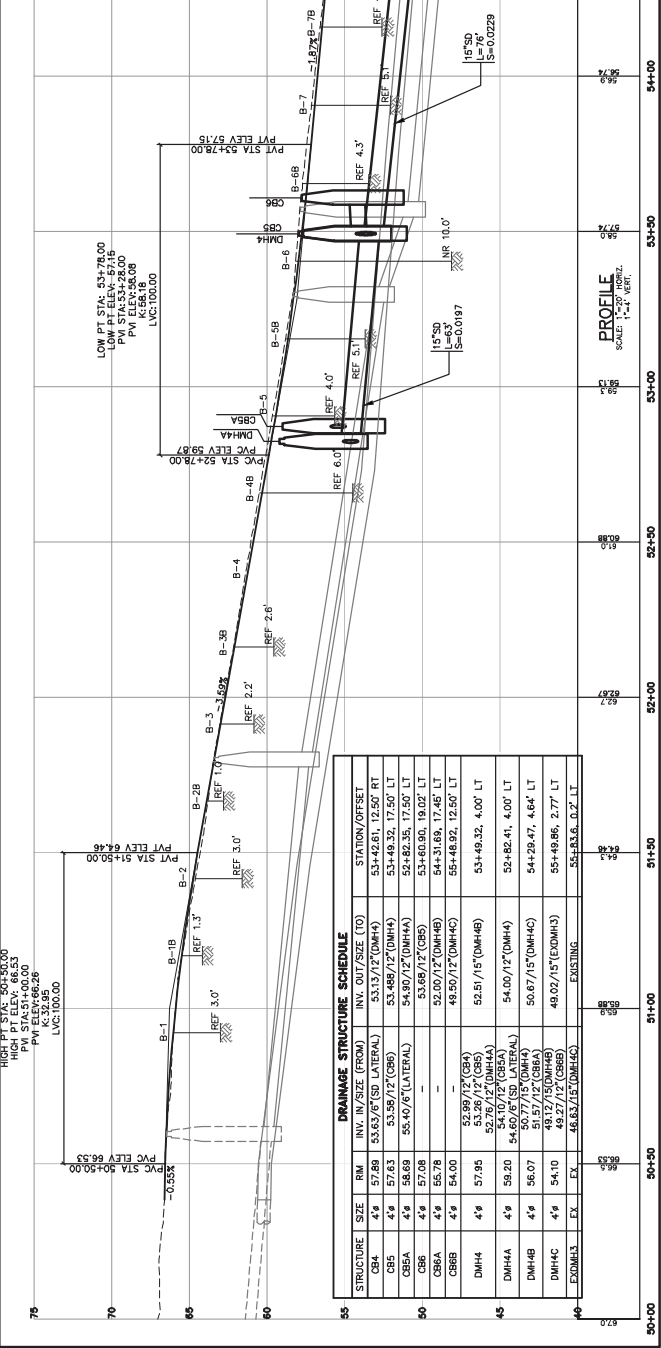






**BASELINE CURVE TABLE**

CURVE NO.	LENGTH	RADIUS	TANGENT	DELTA	PC	PT	END STATION
C-1	220.02	1300.00	110.07	132.07	54+02.42	54+24.42	54+24.42
C-2	251.78	1245.00	108.18	135.48	54+24.42	54+76.20	54+76.20



**DRAINAGE STRUCTURE SCHEDULE**

STRUCTURE	SIZE	RM	INV. IN./SIZE (FROM)	INV. OUT./SIZE (TO)	STATION/OFFSET
CS4	49	57.89	53.63/6\"/>		

**Geometrics Plan & Profile - Concord Way - Block 1**

Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH

Client: City of Portsmouth  
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. **9**

---

Working Name: **GP** Gorrill-Palmer Consulting Engineers, Inc.

Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH

Client: City of Portsmouth  
1 Junkins Avenue, Portsmouth, NH 03802

Scale: 1\"/>

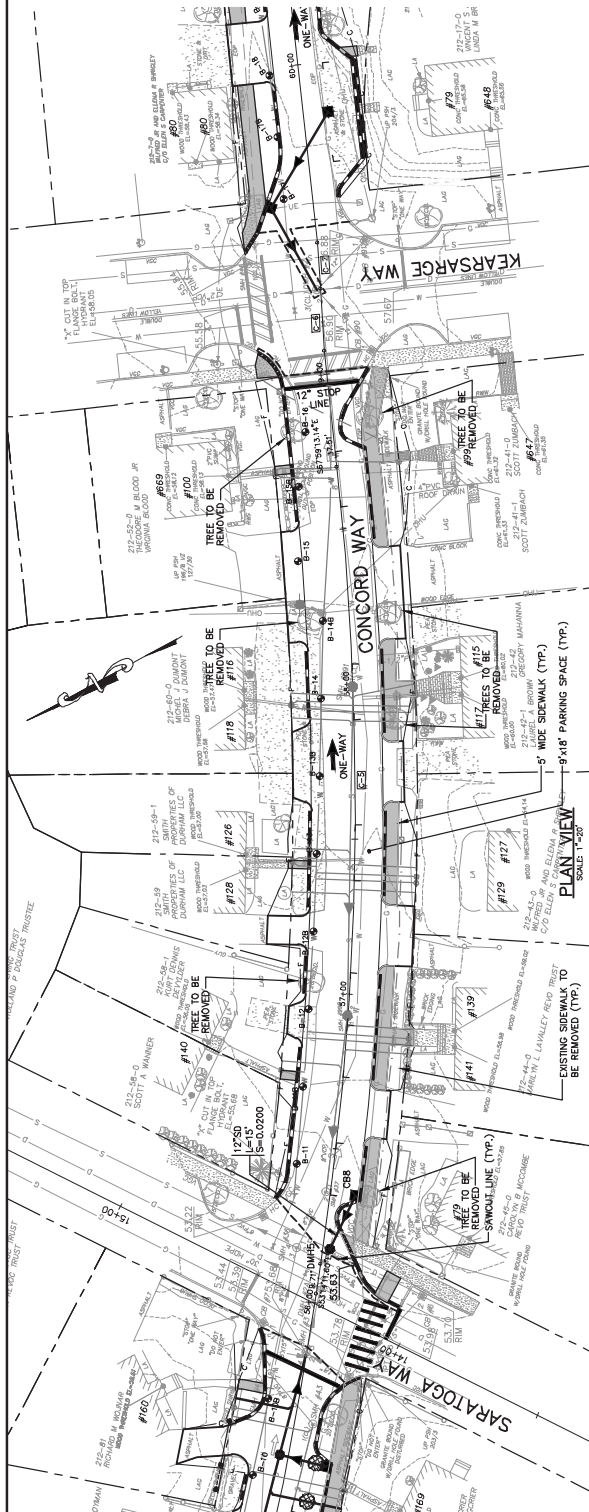
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Design: RCH Date: 08 Date: MAR 2010  
Drawn: MAB Date: 08 Date: MAR 2010  
Checked: MAB Date: 08 Date: MAR 2010  
Reviewed: MAB Date: 08 Date: MAR 2010

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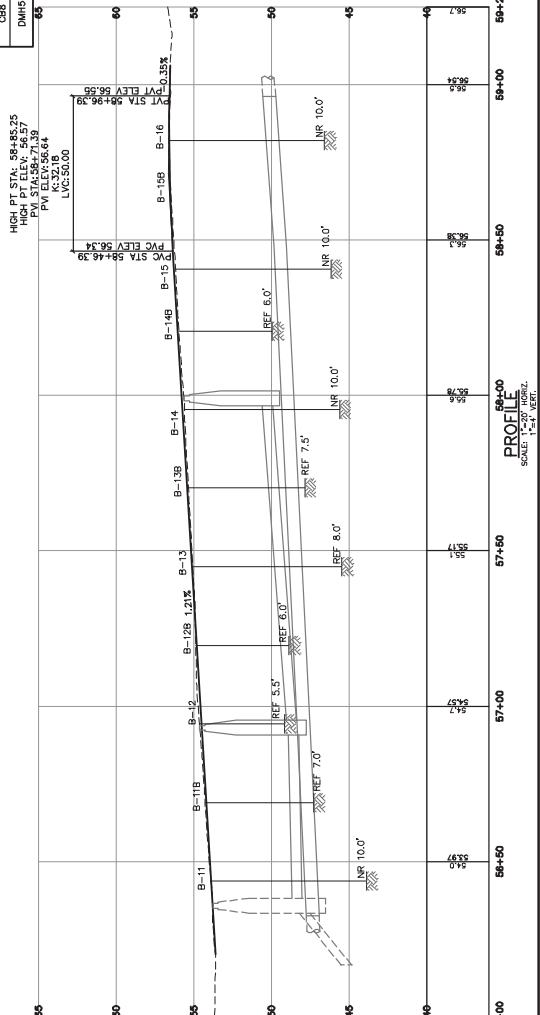
Issue For: \_\_\_\_\_ Date: \_\_\_\_\_ By: \_\_\_\_\_

NO.	DATE	BY
10		
62		



STRUCTURE	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)	STATION/OFFSET
CBS	4"	53.60	49.81/12' (GRB)	49.50/12' (DMHS)	56+35.62, 5.00' RT
DMHS	4"	53.62	47.35/12' (CUB)	47.33/12' (EXCUB)	56+17.62, 21.18' RT

CURVE NO.	LENGTH	RADIUS	TANGENT	DELTA	CHORD BEARING	START STATION	END STATION
C-3	257.44	1000.00	139.44	14.6207°	80°24'57"	56+12.56	56+70.01
C-6	20.85	222.81	10.03	3.0921°	56°57'57"	56+27.56	56+27.56
C-7	14.97	200.00	7.49	4.1721°	56°52'33"	56+27.56	56+42.53



Drawing No. **10**  
**Geometrics Plan & Profile - Concord Way - Block 2**  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORFISSE WAY, PORTSMOUTH, NH  
 City of Portsmouth  
 1 Jenkins Avenue, Portsmouth, NH 03802

Working Name:  
 Project:  
 Client:  
**GP Gorrill-Palmer Consulting Engineers, Inc.**  
 Engineering Excellence Since 1998  
 PO Box 1237  
 15 Shower Road  
 Gray, ME 04039  
 Phone: 207-657-8910  
 Fax: 207-657-8912  
 E-Mail: matthew.gorrill@palmer.com

Design/Rev	Date	By	Check	Scale
07/07/11	07/07/11	TUG	TUG	AS SHOWN
08/08/10	08/08/10	TUG	TUG	AS SHOWN
09/03/10	09/03/10	TUG	TUG	AS SHOWN
05/20/10	05/20/10	TUG	TUG	AS SHOWN

Rev.	Date	Revision

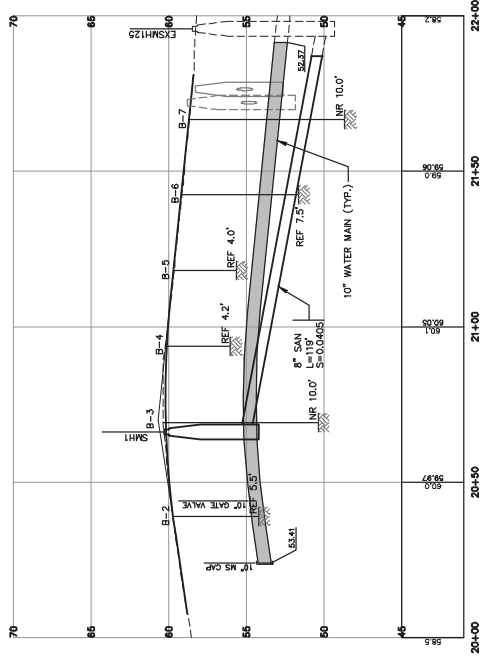
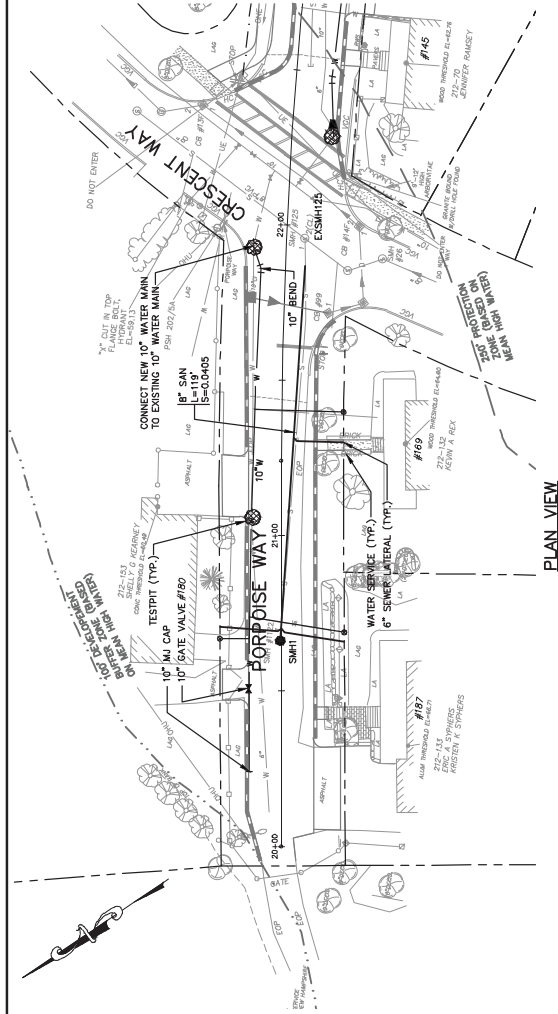
Design/Rev	Date	By	Check	Scale
07/07/11	07/07/11	TUG	TUG	AS SHOWN
08/08/10	08/08/10	TUG	TUG	AS SHOWN
09/03/10	09/03/10	TUG	TUG	AS SHOWN
05/20/10	05/20/10	TUG	TUG	AS SHOWN



NO. OF SHEETS	62
SHEET NO.	12

SANITARY SEWER STRUCTURE SCHEDULE			
STRUCTURE	SIZE	RM. IN/OUT SIZE (TO)	STATION/OFFSET
SMH1	4'x6'	60x18	54+72.8'(CSMH125)
			20+461.18, 0.28' LT

- NOTES:
1. LOCATION, TYPE AND SIZE OF EXISTING WATER AND SEWER SERVICES ARE APPROXIMATE ONLY. ACTUAL FIELD BY THE CONTRACTOR. ALL NEW SERVICES SHALL BE CONNECTED TO THE EXISTING SERVICES AT THE RIGHT-OF-WAY LINE.
  2. EXISTING WATER MAIN SHALL BE OPERATIONAL PRIOR TO ANY BLASTING OF THE EXISTING WATER MAIN AND PRIOR TO ANY BLASTING.



Drawing No. **12**

Utilities Plan & Profile — Porpoise Way — Block 1

Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH

Client: City of Portsmouth  
1 Jankins Avenue, Portsmouth, NH 03802

**GP** Gorrill-Palmer Consulting Engineers, Inc.

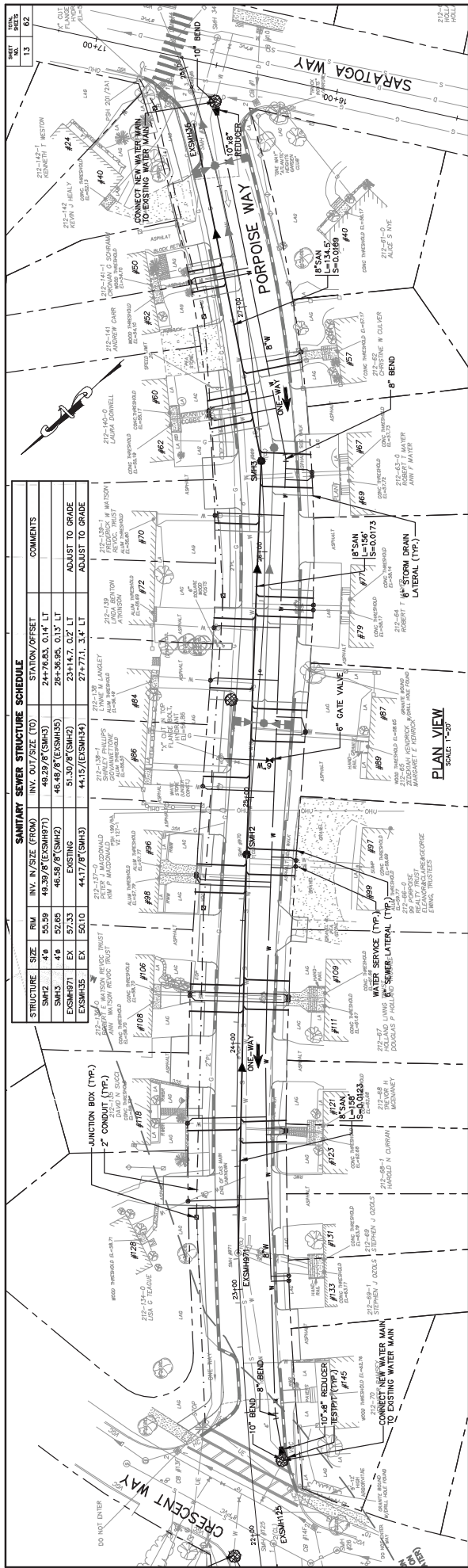
Engineering Excellence Since 1998

207-657-6910  
207-657-6912  
15 Shaker Road  
Gray, ME 04039  
E-Mail: matthew.gorrill@palmer.com

Design/Rev	Date	By	Check	Date	By
02/07/11	TUG				
07/07/11	TUG				
10/08/10	TUG				
09/03/10	TUG				
08/20/10	TUG				

Rev.	Date	Revision

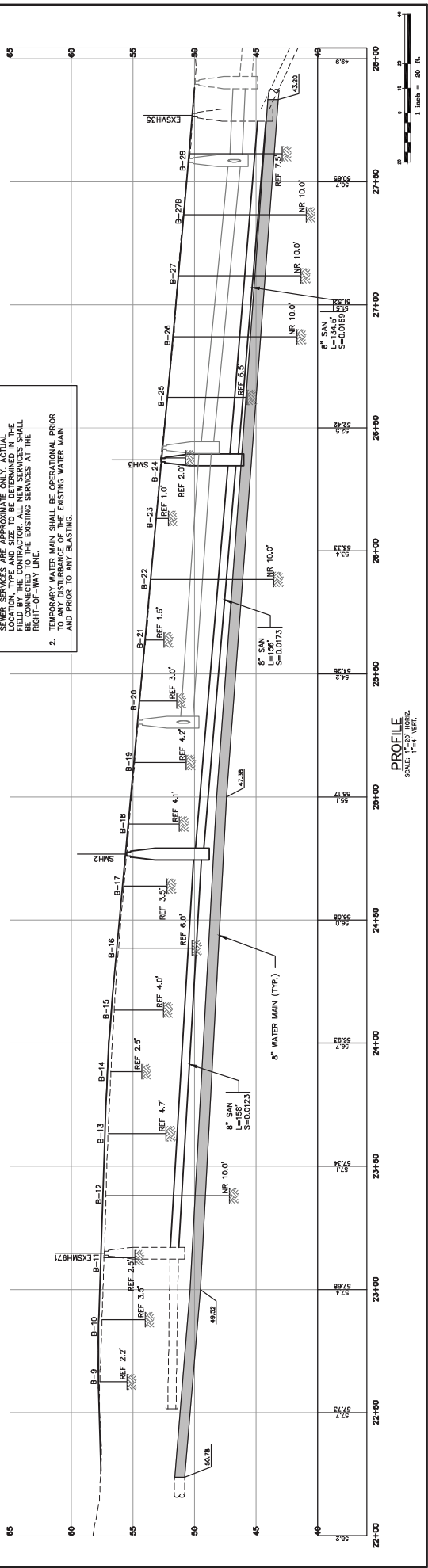
Design/Rev	Date	By	Check	Date	By
02/07/11	TUG				
07/07/11	TUG				
10/08/10	TUG				
09/03/10	TUG				
08/20/10	TUG				



STRUCTURE	SIZE	RIM	INV. H. / SIZE (FROM)	INV. COV. / SIZE (TO)	STATION/OFFSET	COMMENTS
SM#2	48	25.38	49.29/5 (ESCHM37)	24+765.0 / 1.1	24+765.0 / 1.1	ADJUST TO GRADE
ESCHM37	48	25.09	46.29/8 (SM#2)	46.29/8 (SM#2)	23+385.0 / 3.3	ADJUST TO GRADE
ESCHM38	EX	50.10	44.17/8 (SM#3)	44.17/8 (SM#3)	27+771.3 / 4.4	ADJUST TO GRADE

NOTES:

1. LOCATION, TYPE AND SIZE OF EXISTING WATER AND SEWER SERVICES ARE APPROXIMATE ONLY. ACTUAL LOCATION, TYPE AND SIZE TO BE DETERMINED IN THE FIELD. ALL NEW SERVICES SHALL BE CONNECTED TO THE EXISTING SERVICES AT THE RIGHT-OF-WAY LINE.
2. TEMPORARY WATER MAIN SHALL BE OPERATIONAL PRIOR TO ANY EXISTING WATER MAIN SERVICE BEING DISRUPTED. ALL EXISTING WATER MAIN AND PRIOR TO ANY BASTING.



Design: RCH Date: 08 Date: MAR 2010  
 Drawn: MAB/2365/2365  
 Checked: MAB/2365/2365  
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REV.	DATE	REVISION	DATE	BY
07/07/11	TUG			
10/08/10	TUG			
9/03/10	TUG	FINAL DRAFT PLAN REVIEW		
8/20/10	TUG	5% REVIEW		

Scale: 1" = 20' HORIZ.  
 1" = 4' VERT.

Scale: 1" = 40'

Scale: 1" = 20' FT.

Issued For: \_\_\_\_\_

Rev. Date Revision

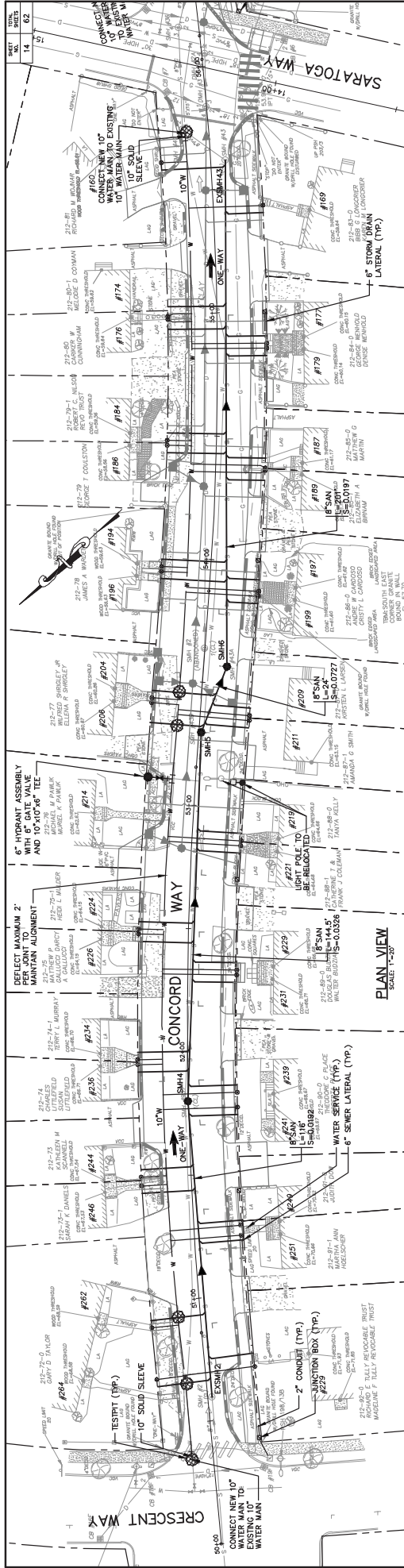
13

Utilities Plan & Profile — Porpoise Way — Block 2

ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH

City of Portsmouth  
 1 Junkins Avenue, Portsmouth, NH 03802

Gorrill-Palmer Consulting Engineers, Inc.  
 Engineering Excellence Since 1998  
 P.O. Box 1237  
 15 Shover Road  
 Gray, ME 04039  
 Tel: 207-657-8910  
 Fax: 207-657-8912  
 E-Mail: mab@cpandpe.com

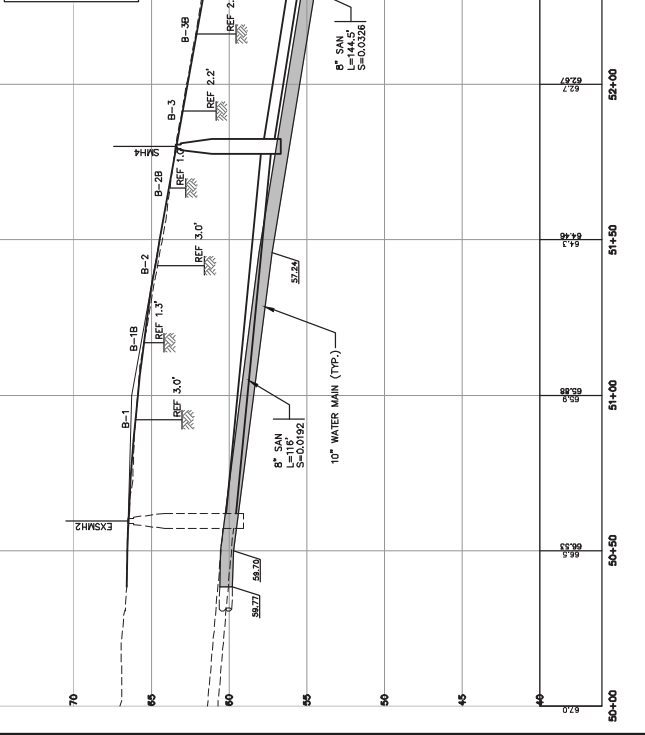


**SANITARY SEWER STRUCTURE SCHEDULE**

STRUCTURE	SIZE	RIM	INV. IN/2 (FROM)	INV. OUT/2 (TO)	STATION/OFFSET	COMMENTS
SMH4	4'x	63.26	57.25/8' (EXSMH2)	57.15/8' (SMH5)	51+80.01, 0.12' LT	
SMH5	4'x	58.52	52.59/8' (SMH4)	52.29/8' (SMH6)	53+28.72, 0.90' RT	
SMH6	4'x	57.58	50.40/8' (SMH5)	50.30/8' (EXSMH4)	53+57.14, 9.41' RT	
EXSMH2	EX	66.44	EXISTING	59.58/8' (SMH4)	50+58.6, 1.7' RT	ADJUST TO GRADE
EXSMH3	EX	53.98	46.32/8' (SMH6)	EXISTING	55+61.5, 6.0' RT	ADJUST TO GRADE

**NOTES:**

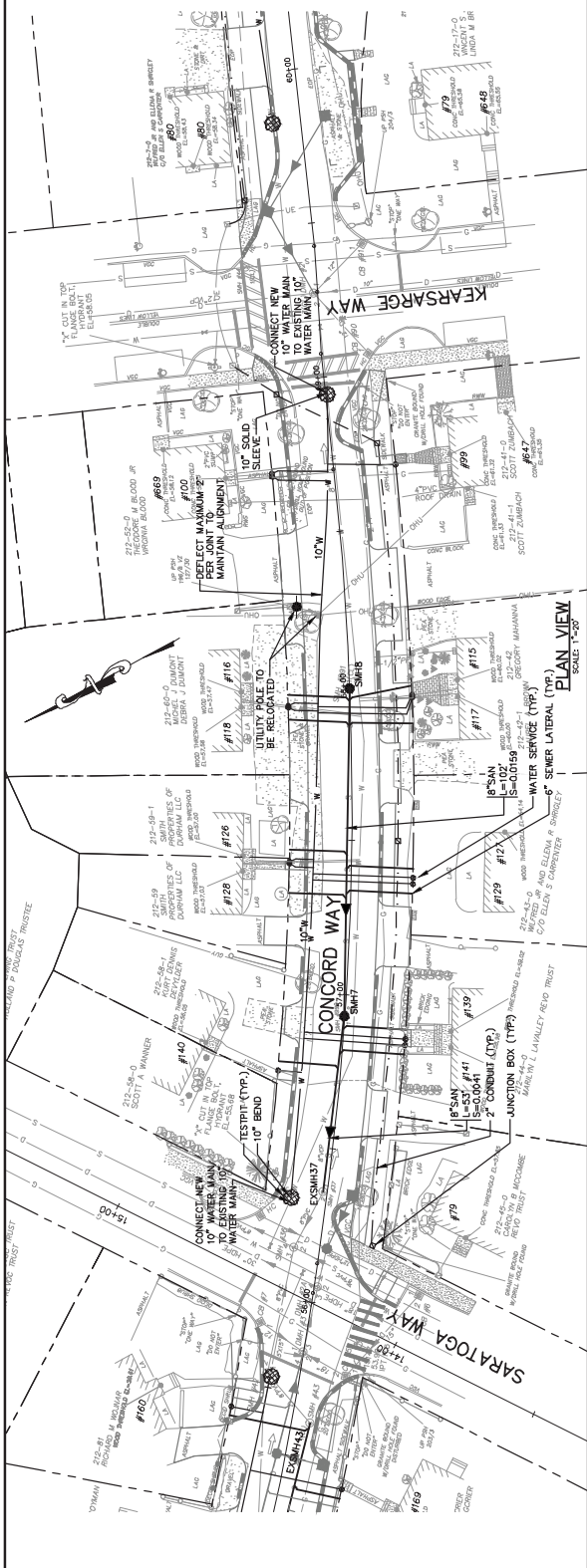
- LOCATION, TYPE AND SIZE OF EXISTING WATER AND SEWER MAINS SHALL BE DETERMINED BY THE CONTRACTOR. ALL NEW SERVICES SHALL BE LOCATED TO THE RIGHT-OF-WAY LINE.
- TEMPORARY WATER MAIN SHALL BE OPERATIONAL PRIOR TO ANY DISTURBANCE OF THE EXISTING WATER MAIN AND PRIOR TO ANY BLASTING.



<p>Rev. Date Revision</p>	<p>Issued For</p>	<p>Date By</p>	<p>Design/Check: [Name] Date: [Date]          Drawn: [Name] Date: [Date]          This plan shall not be modified without written permission from Gorrill-Palmer Consulting Engineers, Inc. Any changes, deletions, or additions authorized or otherwise, shall be at the user's sole risk and without liability to GPCEI.</p>
<p>GP Gorrill-Palmer Consulting Engineers, Inc.          Engineering Excellence Since 1998          15 Shower Road          Gray, ME 04039          E-Mail: malton@gorrillpalmer.com</p>		<p>City of Portsmouth          1 Junkins Avenue, Portsmouth, NH 03802</p>	

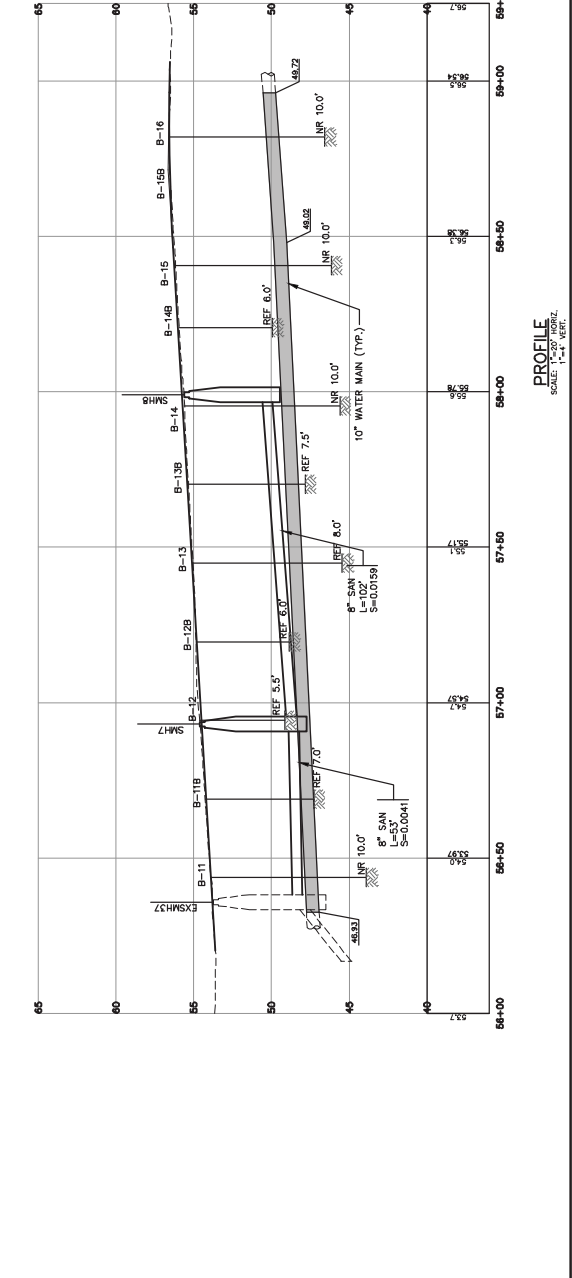
NET	15
SHEETS	62

- NOTES:
1. LOCATION, TYPE AND SIZE OF EXISTING WATER AND SEWER SERVICES ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND TYPES OF SERVICES SHALL BE FIELD BY THE CONTRACTOR. ALL NEW SERVICES SHALL BE CONNECTED TO THE EXISTING SERVICES AT THE RIGHT-OF-WAY LINE.
  2. TEMPORARY WATER MAIN SHALL BE OPERATIONAL PRIOR AND PRIOR TO ANY BLASTING.



**SANITARY SEWER STRUCTURE SCHEDULE**

STRUCTURE	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)	STATION/OFFSET	COMMENTS
EXSMH37	EX	53.83	48.00/8"(SMH7)	EXISTING	58+35.8, 1.5' LT	RECONSTRUCT MANHOLE TO GRADE
SMH7	4.5	54.62	48.24/8"(SMH8)	48.24/8"(EXSMH37)	56+93.05, 0.09' LT	
SMH8	4.5	55.63	49.96/8"(SMH7)	49.96/8"(SMH7)	57+99.09, 0.09' LT	



Drawing No. **15**

**Utilities Plan & Profile - Concord Way - Block 2**

ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
CONCORD WAY & PORFISE WAY, PORTSMOUTH, NH

City of Portsmouth  
1 Jenkins Avenue, Portsmouth, NH 03802

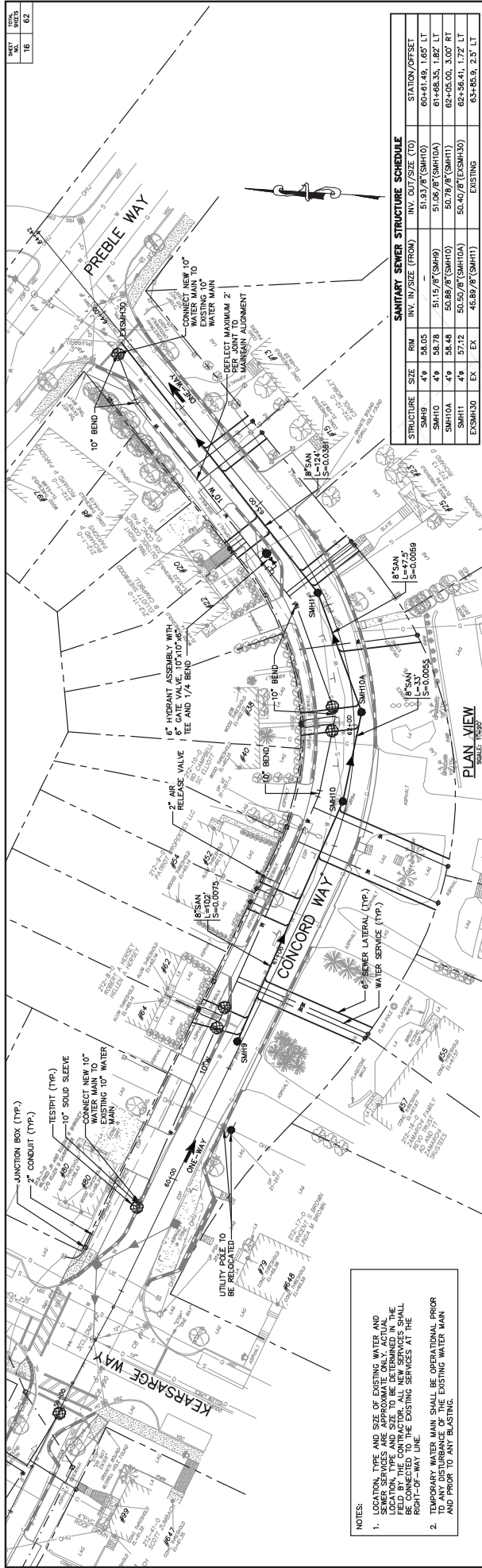
**GP** Gorrill-Palmer Consulting Engineers, Inc.  
Engineering Excellence Since 1998

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207-657-6912  
15 Shover Road  
Gray, ME 04039  
E-Mail: malton@gorrillpalmer.com

Design/Rev	Date	By	Scale
07/07/11	7/20/11	TUG	AS SHOWN
07/07/11	7/20/11	TUG	AS SHOWN
10/08/10	10/08/10	TUG	AS SHOWN
9/03/10	9/03/10	TUG	AS SHOWN
8/20/10	8/20/10	TUG	AS SHOWN

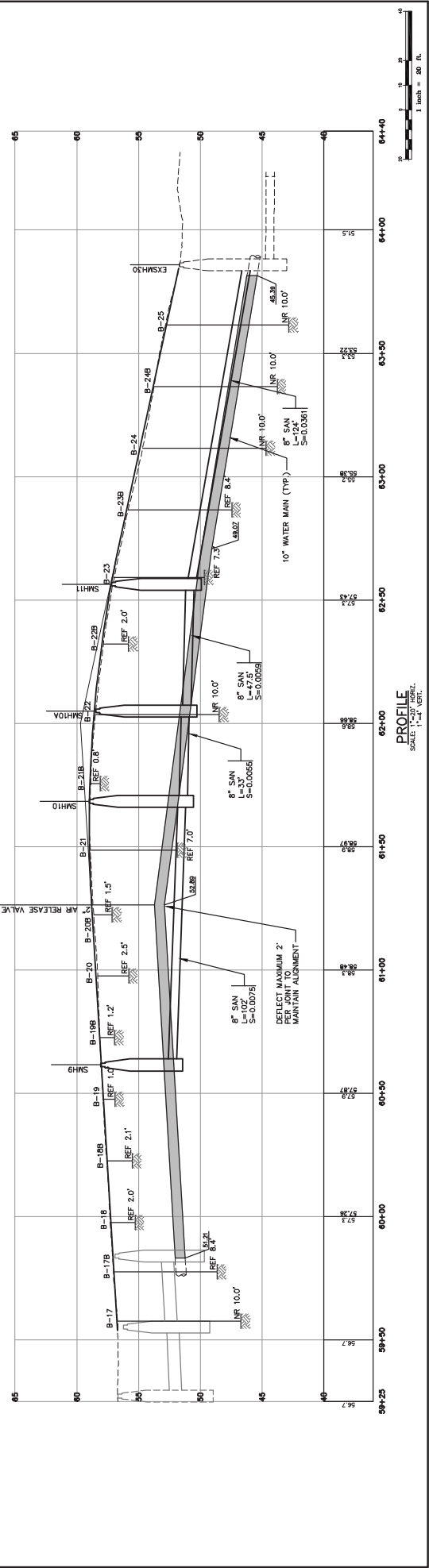
Issue For	Date	By
5% REVIEW	8/20/10	TUG
95% REVIEW	9/03/10	TUG
FINAL DRAFT PLAN REVIEW	10/08/10	TUG
5% REVIEW	07/07/11	TUG

Rev.	Date	Revision



STRUCTURE	SIZE	RM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)	STATION/OFFSET
SMH10	4\"/>				

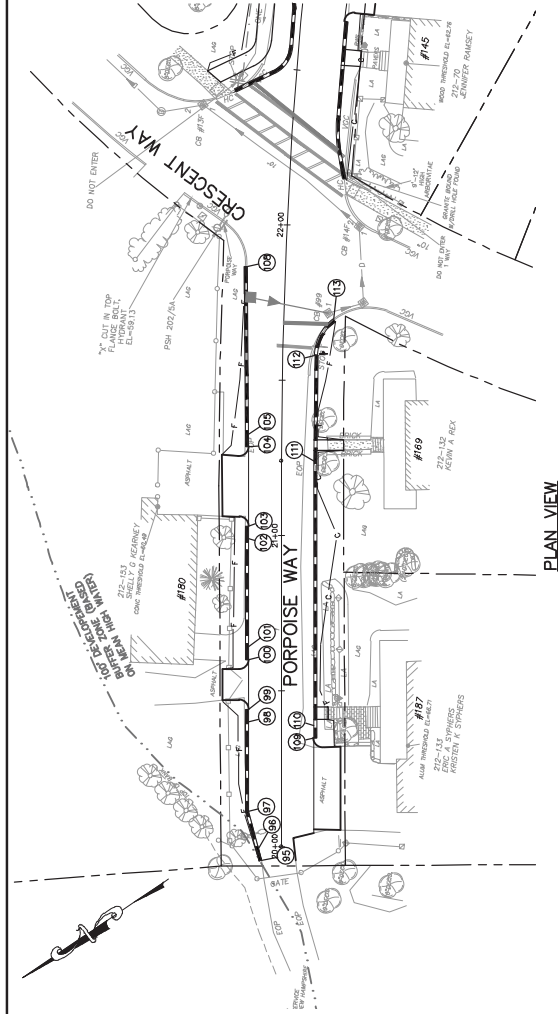
- NOTES:
1. LOCATION, TYPE AND SIZE OF EXISTING WATER AND SEWER SERVICES ARE APPROXIMATE ONLY. ACTUAL LOCATION, TYPE AND SIZE TO BE DETERMINED IN THE FIELD. ALL NEW SERVICES SHALL BE CONNECTED TO THE RIGHT-OF-WAY LINE.
  2. TEMPORARY WATER MAIN SHALL BE OPERATIONAL PRIOR TO ANY DISTURBANCE OF THE EXISTING WATER MAIN AND PRIOR TO ANY BIDDING.



<table border="1"> <tr> <td>DATE</td> <td>BY</td> <td>ISSUED FOR</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	DATE	BY	ISSUED FOR										<p style="text-align: center;"><b>GP</b> Gorrill-Palmer Consulting Engineers, Inc.  <i>Engineering Excellence Since 1998</i></p> <p style="text-align: center;">Atlantic Heights Streetscape Improvements          Concord Way &amp; Porfise Way, Portsmouth, NH          City of Portsmouth          1 Junkins Avenue, Portsmouth, NH 03802</p>	<p style="text-align: center;">Drawing No.  <span style="font-size: 2em; font-weight: bold;">16</span></p>
DATE	BY	ISSUED FOR												



NO. OF SHEETS	62
NO. OF THIS SHEET	17



PLAN VIEW  
SCALE 1"=20'

**CURBING ABBREVIATIONS**

VC	- VERTICAL GRANITE CURB
FL	- FLUSH GRANITE CURB
TC	- TYPING CURB (CURB SCOTING TAPPING TO ZERO HEIGHT AT PEDESTRIAN RAMPS AND DRIVEWAYS)

**CURB LAYOUT TABLE**

PT	STATION/OFFSET FROM	PT	STATION/OFFSET TO	LENGTH	RADIUS	CURB TYPE	COMMENTS
95	19+85.52, 6.18' LT	96	19+98.36, 7.25' LT	4.00	-	TC	
96	19+98.36, 7.25' LT	97	20+11.27, 10.52' LT	12.33	-	VC	
97	20+11.27, 10.52' LT	98	20+40.17, 10.50' LT	28.91	-	VC	
98	20+40.17, 10.50' LT	99	20+44.17, 10.50' LT	4.00	-	TC	
100	20+60.17, 10.50' LT	101	20+64.17, 10.50' LT	4.00	-	TC	
101	20+64.17, 10.50' LT	102	20+98.07, 10.50' LT	34.89	-	VC	
102	20+98.07, 10.50' LT	103	21+03.07, 10.50' LT	4.00	-	TC	
104	21+28.64, 10.51' LT	105	21+32.61, 10.56' LT	4.00	-	TC	
105	21+32.61, 10.56' LT	108	21+66.24, 12.13' LT	54.04	-	VC	
109	20+34.97, 10.50' RT	110	20+38.97, 10.50' RT	4.00	-	TC	
110	20+38.97, 10.50' RT	111	21+24.05, 10.50' RT	85.08	-	VC	
111	21+24.05, 10.50' RT	112	21+58.18, 10.50' RT	33.90	1595.50	VC	
112	21+58.18, 10.50' RT	113	21+70.08, 16.17' RT	13.55	15.00	VC	



Drawing No. **17**

**Curbing Layout Plan - Porpoise Way - Block 1**

Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH

Client: City of Portsmouth  
1 Jenkins Avenue, Portsmouth, NH 03802

**GP** Gorrill-Palmer Consulting Engineers, Inc.  
*Engineering Excellence Since 1998*

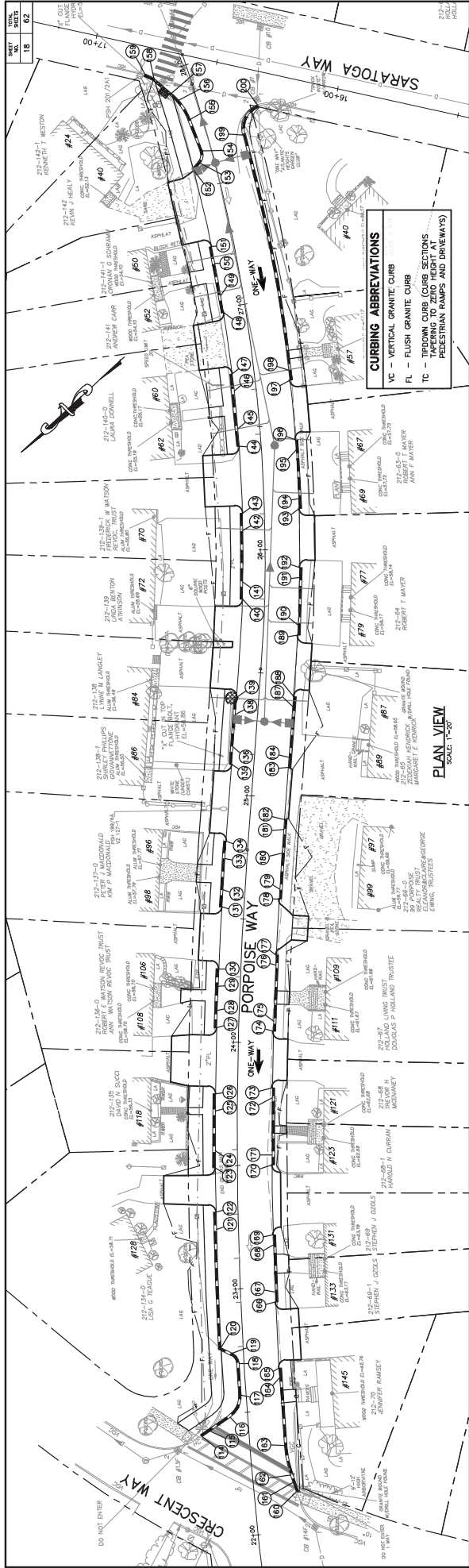
PO Box 1237  
15 Shower Road  
Gray, ME 04039

E-Mail: malton@gorrillpalmer.com  
207-657-6910  
FAX: 207-657-6912

Design: TCH Date: 08 Date: MAR. 2010  
Drawn: JCS, JCS, JCS, JCS, JCS, JCS, JCS, JCS  
Checked: JCS, JCS, JCS, JCS, JCS, JCS, JCS, JCS  
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Rev.	Date	Revision	Issued For
	02/07/11	TUG	
	07/07/11	TUG	
	10/08/10	TUG	
	9/03/10	TUG	

Rev.	Date	Revision



**CURBING ABBREVIATIONS**  
 VC - VERTICAL GRANITE CURB  
 FL - FLUSH GRANITE CURB  
 TC - TYPEDOWN CURB (CURB SECTIONS TAPERING TO ZERO HEIGHT AT PEDESTRIAN RAMPS AND DRIVEWAYS)

**CURB LAYOUT TABLE**

PT	STATION/OFFSET FROM	PT	STATION/OFFSET TO	RADIUS	LENGTH	COMMENTS
174	244+04.78, 14.00' RT	175	24+08.83, 14.00' RT	4.00	1556.00	TC
175	244+04.78, 14.00' RT	176	24+31.97, 14.00' RT	22.94	1556.00	VC
176	244+31.97, 14.00' RT	177	24+36.01, 14.00' RT	4.00	1556.00	TC
177	244+36.01, 14.00' RT	178	24+63.08, 14.00' RT	4.00	1556.00	TC
178	244+63.08, 14.00' RT	179	24+77.87, 14.00' RT	14.65	1556.00	VC
179	244+77.87, 14.00' RT	180	24+87.32, 14.00' RT	9.46	1556.00	VC
180	244+87.32, 14.00' RT	181	24+91.32, 14.00' RT	4.00	1556.00	TC
181	244+91.32, 14.00' RT	182	24+16.58, 14.00' RT	4.00	1556.00	TC
182	24+16.58, 14.00' RT	183	24+37.37, 14.00' RT	20.79	1556.00	VC
183	24+37.37, 14.00' RT	184	24+41.37, 14.00' RT	4.00	1556.00	TC
184	24+41.37, 14.00' RT	185	24+43.52, 14.00' RT	2.15	1556.00	VC
185	24+43.52, 14.00' RT	186	24+43.52, 14.00' RT	4.00	1556.00	TC
186	24+43.52, 14.00' RT	187	24+63.08, 14.00' RT	19.56	1556.00	VC
187	24+63.08, 14.00' RT	188	24+63.08, 14.00' RT	4.00	1556.00	TC
188	24+63.08, 14.00' RT	189	24+69.95, 14.00' RT	6.87	1556.00	VC
189	24+69.95, 14.00' RT	190	24+82.90, 14.00' RT	12.95	1556.00	VC
190	24+82.90, 14.00' RT	191	24+87.32, 14.00' RT	4.42	1556.00	VC
191	24+87.32, 14.00' RT	192	24+92.82, 14.00' RT	5.50	1556.00	VC
192	24+92.82, 14.00' RT	193	24+16.58, 14.00' RT	4.00	1556.00	TC
193	24+16.58, 14.00' RT	194	24+20.27, 14.00' RT	3.69	1556.00	VC
194	24+20.27, 14.00' RT	195	24+39.60, 14.00' RT	19.33	1556.00	VC
195	24+39.60, 14.00' RT	196	24+43.52, 14.00' RT	3.92	1556.00	VC
196	24+43.52, 14.00' RT	197	24+43.52, 14.00' RT	4.00	1556.00	TC
197	24+43.52, 14.00' RT	198	24+71.34, 14.00' RT	27.82	1556.00	VC
198	24+71.34, 14.00' RT	199	27+66.51, 14.00' RT	35.17	1556.00	VC
199	27+66.51, 14.00' RT	200	27+76.09, 14.00' RT	9.58	1556.00	VC

**CURB LAYOUT TABLE**

PT	STATION/OFFSET FROM	PT	STATION/OFFSET TO	RADIUS	LENGTH	COMMENTS
145	26+42.67, 9.00' LT	146	26+49.77, 9.00' LT	7.10	621.00	TC
146	26+49.77, 9.00' LT	147	26+54.47, 9.00' LT	4.70	621.00	VC
147	26+54.47, 9.00' LT	148	26+72.57, 9.00' LT	18.10	621.00	VC
148	26+72.57, 9.00' LT	149	27+05.10, 9.00' LT	32.53	621.00	VC
149	27+05.10, 9.00' LT	150	27+18.56, 9.00' LT	13.46	621.00	VC
150	27+18.56, 9.00' LT	151	27+25.67, 9.00' LT	7.10	621.00	VC
151	27+25.67, 9.00' LT	152	27+57.68, 9.00' LT	32.01	621.00	VC
152	27+57.68, 9.00' LT	153	27+59.98, 5.72' LT	4.00	621.00	TC
153	27+59.98, 5.72' LT	154	27+64.66, 3.59' LT	5.07	621.00	VC
154	27+64.66, 3.59' LT	155	27+78.36, 4.81' LT	13.66	621.00	VC
155	27+78.36, 4.81' LT	156	27+87.18, 7.07' LT	8.82	621.00	VC
156	27+87.18, 7.07' LT	157	27+90.73, 9.00' LT	3.55	621.00	VC
157	27+90.73, 9.00' LT	158	27+98.72, 14.04' LT	7.00	621.00	VC
158	27+98.72, 14.04' LT	159	28+01.44, 16.96' LT	2.72	621.00	VC
159	28+01.44, 16.96' LT	160	28+15.99, 17.08' LT	14.55	621.00	VC
160	28+15.99, 17.08' LT	161	28+19.93, 16.15' LT	3.94	621.00	VC
161	28+19.93, 16.15' LT	162	28+23.01, 15.43' RT	3.08	621.00	VC
162	28+23.01, 15.43' RT	163	28+35.19, 14.00' RT	12.18	621.00	VC
163	28+35.19, 14.00' RT	164	28+43.82, 14.00' RT	8.63	621.00	VC
164	28+43.82, 14.00' RT	165	28+46.86, 14.00' RT	3.04	621.00	VC
165	28+46.86, 14.00' RT	166	28+49.01, 14.00' RT	2.15	621.00	VC
166	28+49.01, 14.00' RT	167	28+58.05, 14.00' RT	9.04	621.00	VC
167	28+58.05, 14.00' RT	168	28+77.46, 14.00' RT	19.41	621.00	VC
168	28+77.46, 14.00' RT	169	28+82.90, 14.00' RT	5.44	621.00	VC
169	28+82.90, 14.00' RT	170	28+87.32, 14.00' RT	4.42	621.00	VC
170	28+87.32, 14.00' RT	171	28+94.13, 14.00' RT	6.81	621.00	VC
171	28+94.13, 14.00' RT	172	28+97.83, 14.00' RT	3.70	621.00	VC
172	28+97.83, 14.00' RT	173	28+98.72, 14.00' RT	0.89	621.00	VC
173	28+98.72, 14.00' RT	174	28+98.72, 14.00' RT	4.00	621.00	TC

**CURB LAYOUT TABLE**

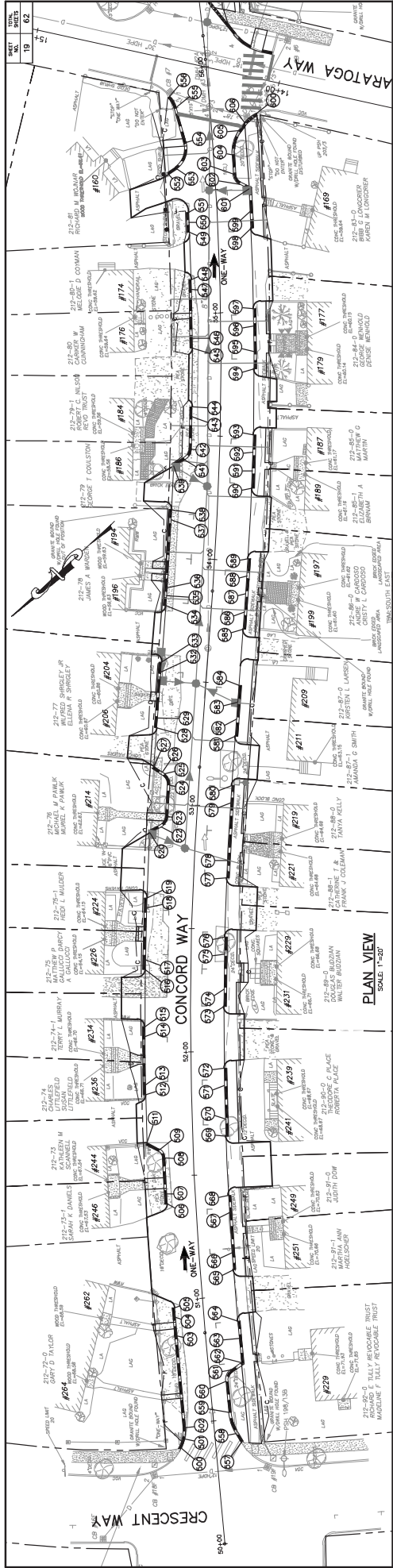
PT	STATION/OFFSET FROM	PT	STATION/OFFSET TO	RADIUS	LENGTH	COMMENTS
114	22+41.52, 19.03' LT	115	22+43.48, 15.68' LT	4.00	1579.00	TC
115	22+43.48, 15.68' LT	116	22+48.39, 5.98' LT	9.90	1579.00	VC
116	22+48.39, 5.98' LT	117	22+56.98, 2.00' LT	10.42	1579.00	VC
117	22+56.98, 2.00' LT	118	22+60.76, 2.00' LT	12.80	1579.00	VC
118	22+60.76, 2.00' LT	119	22+74.09, 4.53' LT	5.26	1579.00	VC
119	22+74.09, 4.53' LT	120	22+76.62, 9.00' LT	5.15	1579.00	VC
120	22+76.62, 9.00' LT	121	23+14.55, 9.00' LT	47.91	1579.00	VC
121	23+14.55, 9.00' LT	122	23+31.21, 9.00' LT	7.00	1579.00	TC
122	23+31.21, 9.00' LT	123	23+49.27, 9.00' LT	7.00	1579.00	TC
123	23+49.27, 9.00' LT	124	23+56.23, 9.00' LT	7.00	1579.00	TC
124	23+56.23, 9.00' LT	125	23+72.02, 9.00' LT	15.87	1579.00	VC
125	23+72.02, 9.00' LT	126	23+78.68, 9.00' LT	7.00	1579.00	TC
126	23+78.68, 9.00' LT	127	24+05.58, 9.00' LT	7.00	1579.00	TC
127	24+05.58, 9.00' LT	128	24+12.54, 9.00' LT	7.00	1579.00	TC
128	24+12.54, 9.00' LT	129	24+22.43, 9.00' LT	9.89	1579.00	VC
129	24+22.43, 9.00' LT	130	24+29.39, 9.00' LT	7.00	1579.00	TC
130	24+29.39, 9.00' LT	131	24+41.28, 9.00' LT	7.00	1579.00	TC
131	24+41.28, 9.00' LT	132	24+41.28, 9.00' LT	12.68	1579.00	VC
132	24+41.28, 9.00' LT	133	24+41.28, 9.00' LT	7.00	1579.00	TC
133	24+41.28, 9.00' LT	134	24+60.97, 9.00' LT	7.00	1579.00	TC
134	24+60.97, 9.00' LT	135	24+60.97, 9.00' LT	7.00	1579.00	TC
135	24+60.97, 9.00' LT	136	24+112.07, 9.00' LT	7.00	1579.00	TC
136	24+112.07, 9.00' LT	137	24+32.46, 9.00' LT	13.39	1579.00	VC
137	24+32.46, 9.00' LT	138	24+32.46, 9.00' LT	7.00	1579.00	TC
138	24+32.46, 9.00' LT	139	24+32.46, 9.00' LT	7.00	1579.00	TC
139	24+32.46, 9.00' LT	140	24+32.46, 9.00' LT	7.00	1579.00	TC
140	24+32.46, 9.00' LT	141	24+32.46, 9.00' LT	7.00	1579.00	TC
141	24+32.46, 9.00' LT	142	24+32.46, 9.00' LT	20.86	1579.00	VC
142	24+32.46, 9.00' LT	143	24+13.03, 9.00' LT	7.00	1579.00	TC

**Design/Rev**

1	10/23/10	10/23/10
2	10/23/10	10/23/10
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**Design/Rev**

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41	10/23/10	10/23/10



**CURB LAYOUT TABLE**

PT	STATION/OFFSET FROM	STATION/OFFSET TO	LENGTH	RADIUS	CURB TYPE	COMMENTS
577	52+71.77, 13.50' RT	52+78.23, 13.50' RT	7.00	1366.50	TC	
578	52+78.23, 13.50' RT	53+01.09, 13.50' RT	23.52	1366.50	TC	
579	53+01.09, 13.50' RT	53+09.06, 13.50' RT	7.00	1366.50	TC	
581	53+29.13, 13.50' RT	53+36.13, 13.50' RT	7.00	-	TC	
582	53+36.13, 13.50' RT	53+42.83, 13.50' RT	6.70	-	TC	
583	53+42.83, 13.50' RT	53+48.83, 13.50' RT	6.00	-	TC	
585	53+72.61, 13.50' RT	53+79.61, 13.50' RT	7.00	-	TC	
586	53+79.61, 13.50' RT	53+87.09, 13.50' RT	7.48	-	VC	
587	53+87.09, 13.50' RT	53+94.20, 13.50' RT	7.19	1296.50	VC	
588	53+94.20, 13.50' RT	54+01.13, 13.50' RT	7.00	1296.50	TC	
590	54+29.38, 13.50' RT	54+36.31, 13.50' RT	7.00	1296.50	TC	
591	54+36.31, 13.50' RT	54+43.86, 13.50' RT	7.64	1296.50	VC	
592	54+43.86, 13.50' RT	54+50.79, 13.50' RT	7.00	1296.50	TC	
594	54+77.22, 13.50' RT	54+84.14, 13.50' RT	7.00	1296.50	TC	
595	54+84.14, 13.50' RT	54+94.52, 13.50' RT	10.48	1296.50	VC	
596	54+94.52, 13.50' RT	55+01.45, 13.50' RT	7.00	1296.50	TC	
598	55+37.76, 13.50' RT	55+40.70, 13.50' RT	7.00	1296.50	TC	
599	55+40.70, 13.50' RT	55+48.48, 13.50' RT	8.88	1296.50	VC	
601	55+48.48, 13.50' RT	55+51.50, 9.99' RT	4.06	-	VC	
602	55+51.50, 9.99' RT	55+55.78, 7.50' RT	5.21	-	VC	
603	55+55.78, 7.50' RT	55+63.65, 7.50' RT	7.81	1292.50	VC	
604	55+63.65, 7.50' RT	55+73.08, 10.97' RT	10.30	13.00	VC	
605	55+73.08, 10.97' RT	55+76.12, 13.50' RT	4.00	-	TC	
606	55+76.12, 13.50' RT	55+79.38, 16.50' RT	6.04	14.50	FL	

**CURBING ABBREVIATIONS**

- VC - VERTICAL GRANITE CURB
- FL - FLUSH GRANITE CURB
- TC - TYPICAL GRANITE CURB
- VC - VERTICAL GRANITE CURB
- FL - FLUSH GRANITE CURB
- TC - TYPICAL GRANITE CURB

1 inch = 30 ft.

**CURB LAYOUT TABLE**

PT	STATION/OFFSET FROM	STATION/OFFSET TO	LENGTH	RADIUS	CURB TYPE	COMMENTS
539	54+37.37, 18.50' LT	54+39.94, 14.03' LT	5.14	-	TC	
541	54+39.94, 14.03' LT	54+44.38, 11.50' LT	5.28	5.00	VC	
542	54+44.38, 11.50' LT	54+47.70, 11.50' LT	3.22	1233.50	VC	
543	54+47.70, 11.50' LT	54+61.73, 11.50' LT	4.00	1233.50	TC	
545	54+85.73, 11.50' LT	54+89.77, 11.50' LT	4.00	1233.50	TC	
546	54+89.77, 11.50' LT	55+09.61, 11.50' LT	19.86	1233.50	VC	
547	55+09.61, 11.50' LT	55+13.65, 11.50' LT	4.00	1233.50	TC	
549	55+33.23, 11.50' LT	55+37.27, 11.50' LT	4.00	1233.50	TC	
550	55+37.27, 11.50' LT	55+41.30, 11.50' LT	4.00	1233.50	TC	
552	55+67.21, 18.50' LT	55+69.38, 15.21' LT	4.00	-	TC	
553	55+69.38, 15.21' LT	55+70.00, 10.74' LT	12.14	10.00	VC	
554	55+70.00, 10.74' LT	55+84.56, 13.50' LT	14.70	-	VC	
555	55+84.56, 13.50' LT	55+89.31, 15.79' LT	4.28	10.00	VC	
557	59+40.41, 10.32' RT	59+44.01, 8.56' RT	4.00	-	TC	
558	59+44.01, 8.56' RT	59+52.84, 6.50' RT	9.15	20.00	VC	
559	59+52.84, 6.50' RT	59+65.63, 6.50' RT	12.79	-	VC	
560	59+65.63, 6.50' RT	59+69.97, 9.01' RT	5.25	5.00	VC	
561	59+69.97, 9.01' RT	60+72.50, 13.50' RT	5.11	-	VC	
562	60+72.50, 13.50' RT	60+82.44, 13.50' RT	9.93	-	VC	
563	60+82.44, 13.50' RT	60+89.47, 13.50' RT	7.00	-	TC	
565	61+10.62, 13.50' RT	61+17.69, 13.50' RT	7.00	1366.50	TC	
566	61+17.69, 13.50' RT	61+33.94, 13.50' RT	16.13	1366.50	VC	
567	61+33.94, 13.50' RT	61+41.05, 13.50' RT	7.00	1366.50	TC	
569	61+65.39, 13.50' RT	61+72.46, 13.50' RT	7.00	1366.50	TC	
570	61+72.46, 13.50' RT	61+86.16, 13.50' RT	13.56	1366.50	TC	
571	61+86.16, 13.50' RT	61+93.23, 13.50' RT	7.00	1366.50	TC	
573	62+18.42, 13.50' RT	62+25.48, 13.50' RT	7.00	1366.50	VC	
574	62+25.48, 13.50' RT	62+39.86, 13.50' RT	14.24	1366.50	VC	
575	62+39.86, 13.50' RT	62+46.93, 13.50' RT	7.00	1366.50	TC	

**CURB LAYOUT TABLE**

PT	STATION/OFFSET FROM	STATION/OFFSET TO	LENGTH	RADIUS	CURB TYPE	COMMENTS
500	50+40.20, 13.50' LT	50+43.86, 12.21' LT	4.00	15.00	TC	
501	50+43.86, 12.21' LT	50+48.37, 11.50' LT	4.64	-	VC	
502	50+48.37, 11.50' LT	50+85.83, 11.50' LT	37.47	-	VC	
503	50+85.83, 11.50' LT	50+93.21, 11.50' LT	7.44	1391.50	VC	
504	50+93.21, 11.50' LT	50+97.17, 11.50' LT	4.00	1391.50	TC	
506	51+38.83, 11.50' LT	51+42.86, 11.50' LT	4.00	1391.50	TC	
507	51+42.86, 11.50' LT	51+57.57, 11.50' LT	14.80	1391.50	VC	
508	51+57.57, 11.50' LT	51+61.00, 13.49' LT	4.18	4.00	VC	
509	51+61.00, 13.49' LT	51+63.86, 16.50' LT	5.80	-	TC	
512	51+62.97, 18.50' LT	51+86.91, 18.50' LT	4.00	1396.50	TC	
513	51+86.91, 18.50' LT	52+06.38, 18.50' LT	19.73	1396.50	VC	
514	52+06.38, 18.50' LT	52+10.33, 18.50' LT	4.00	1396.50	TC	
516	52+33.07, 18.50' LT	52+37.02, 18.50' LT	4.00	1396.50	TC	
517	52+37.02, 18.50' LT	52+57.86, 18.50' LT	21.12	1396.50	VC	
518	52+57.86, 18.50' LT	52+61.80, 18.50' LT	4.00	1396.50	TC	
520	52+97.86, 18.49' LT	52+99.46, 13.97' LT	5.25	-	TC	
522	52+99.46, 13.97' LT	52+99.73, 11.50' LT	5.19	5.00	VC	
523	52+99.73, 11.50' LT	53+07.57, 11.50' LT	12.96	1391.50	VC	
524	53+07.57, 11.50' LT	53+11.84, 13.98' LT	5.21	5.00	VC	
525	53+11.84, 13.98' LT	53+12.45, 15.04' LT	1.22	-	VC	
526	53+12.45, 15.04' LT	53+14.43, 18.50' LT	4.00	-	TC	
528	53+30.21, 18.50' LT	53+34.21, 18.50' LT	4.00	-	TC	
529	53+34.21, 18.50' LT	53+52.82, 18.50' LT	18.61	-	VC	
532	53+52.82, 18.50' LT	53+56.82, 18.50' LT	4.00	-	TC	
534	53+78.85, 18.50' LT	53+83.65, 18.50' LT	4.00	-	TC	
535	53+83.65, 18.50' LT	53+87.08, 18.50' LT	3.24	-	VC	
536	53+87.08, 18.50' LT	54+15.24, 18.50' LT	27.73	1226.50	VC	
537	54+15.24, 18.50' LT	54+19.30, 18.50' LT	4.00	1226.50	TC	

**Curbing Layout Plan - Concord Way - Block 1**  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPHEUSE WAY, PORTSMOUTH, NH  
 City of Portsmouth  
 1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. **19**

Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPHEUSE WAY, PORTSMOUTH, NH  
 City of Portsmouth  
 1 Junkins Avenue, Portsmouth, NH 03802

Design: GPE  
 Date: 03/07/11  
 Scale: 1" = 30'

Check: MGP  
 Date: 03/07/11

Drawn: MGP  
 Date: 03/07/11

Reviewed: MGP  
 Date: 03/07/11

Approved: MGP  
 Date: 03/07/11

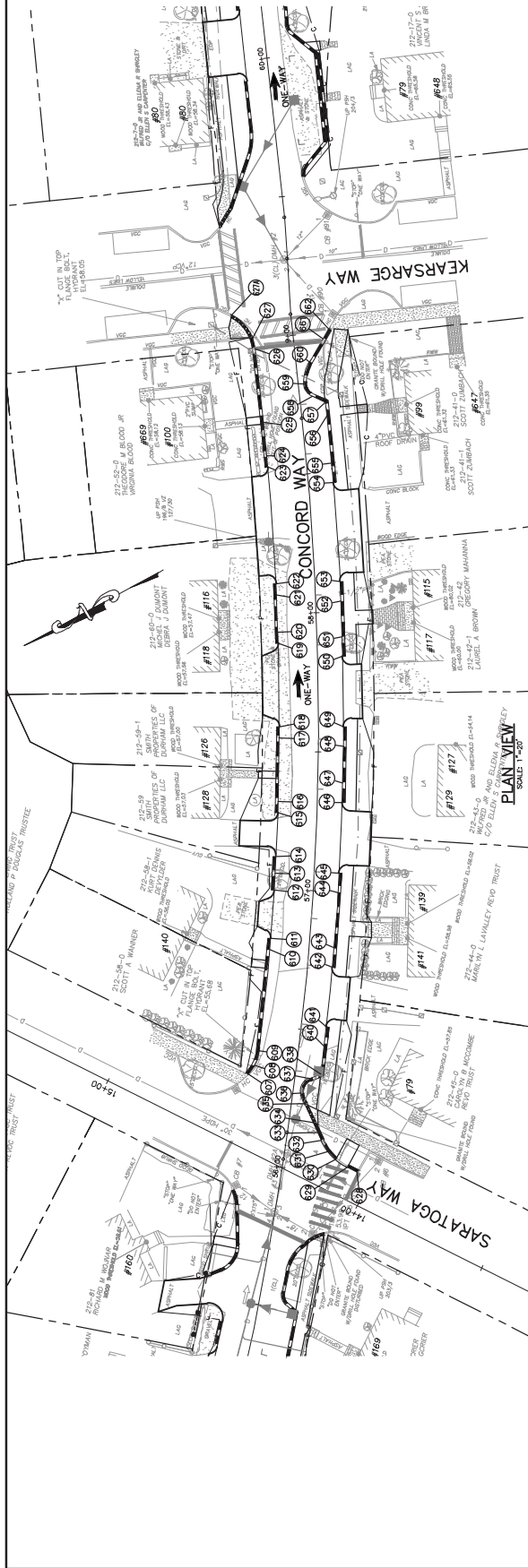
Permitted: MGP  
 Date: 03/07/11

Issued For: [ ]

Rev. Date Revision Date By

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NET	20
SHEETS	62



CURBING ABBREVIATIONS	
VC	VERTICAL GRANITE CURB
FL	FLUSH GRANITE CURB
TC	TIPDOWN CURB (CURB SECTIONS PEDESTRIAN RAMPS AND DRIVEWAYS)

CURB LAYOUT TABLE							
PT	STATION/OFFSET FROM	PT	STATION/OFFSET TO	LENGTH	RADIUS	CURB TYPE	COMMENTS
635	58+23.77, 4.54' RT	636	58+27.24, 2.60' RT	3.47	15.00	TC	
636	58+27.24, 2.60' RT	637	58+32.86, 5.12' RT	5.62	5.00	VC	
637	58+32.86, 5.12' RT	638	58+35.09, 3.00' RT	2.23	10.00	VC	
638	58+35.09, 3.00' RT	640	58+45.01, 3.00' RT	9.92	10.00	VC	
640	58+45.01, 3.00' RT	641	58+51.95, 3.00' RT	6.94	10.00	TC	
642	58+73.21, 3.00' RT	643	58+80.15, 3.00' RT	6.94	10.00	TC	
643	58+80.15, 3.00' RT	644	58+99.97, 3.00' RT	19.82	10.00	TC	
644	58+99.97, 3.00' RT	645	57+08.91, 3.00' RT	7.00	10.00	TC	
646	57+32.05, 3.00' RT	647	57+39.00, 3.00' RT	7.00	10.00	TC	
647	57+39.00, 3.00' RT	648	57+52.15, 3.00' RT	13.28	10.00	TC	
648	57+52.15, 3.00' RT	649	57+59.09, 3.00' RT	7.00	10.00	TC	
650	57+84.15, 3.00' RT	651	57+91.09, 3.00' RT	7.00	10.00	TC	
651	57+91.09, 3.00' RT	652	58+03.76, 3.00' RT	12.79	10.00	VC	
652	58+03.76, 3.00' RT	653	58+10.70, 3.00' RT	7.00	10.00	TC	
654	58+46.12, 3.00' RT	655	58+53.05, 3.00' RT	7.00	10.00	VC	
655	58+53.05, 3.00' RT	656	58+70.01, 3.00' RT	17.10	10.00	VC	
656	58+70.01, 3.00' RT	657	58+74.91, 3.00' RT	4.90	5.15	VC	
657	58+74.91, 3.00' RT	658	58+77.49, 4.54' RT	2.58	5.15	VC	
658	58+77.49, 4.54' RT	659	58+82.26, 2.06' RT	4.77	15.00	VC	
659	58+82.26, 2.06' RT	660	58+89.77, 4.89' RT	7.51	15.00	VC	
660	58+89.77, 4.89' RT	661	58+97.65, 10.63' RT	7.88	15.00	VC	
661	58+97.65, 10.63' RT	662	59+00.88, 12.99' RT	3.24	15.00	TC	

CURB LAYOUT TABLE							
PT	STATION/OFFSET FROM	PT	STATION/OFFSET TO	LENGTH	RADIUS	CURB TYPE	COMMENTS
607	56+31.61, 16.87' LT	608	56+35.18, 14.98' LT	3.57	15.00	TC	
608	56+35.18, 14.98' LT	609	56+40.84, 14.00' LT	5.66	15.00	VC	
609	56+40.84, 14.00' LT	610	56+77.87, 14.00' LT	36.51	986.00	VC	
610	56+77.87, 14.00' LT	611	56+81.72, 14.00' LT	3.85	986.00	TC	
612	56+99.47, 14.00' LT	613	57+05.56, 14.00' LT	6.09	986.00	TC	
613	57+05.56, 14.00' LT	614	57+11.84, 14.00' LT	6.28	986.00	TC	
615	57+27.67, 14.00' LT	616	57+31.73, 14.00' LT	4.06	986.00	TC	
616	57+31.73, 14.00' LT	617	57+54.85, 14.00' LT	23.12	986.00	VC	
617	57+54.85, 14.00' LT	618	57+58.91, 14.00' LT	4.06	986.00	TC	
619	57+89.41, 14.00' LT	620	57+93.46, 14.00' LT	4.05	986.00	TC	
620	57+93.46, 14.00' LT	621	58+07.09, 14.00' LT	13.63	986.00	VC	
621	58+07.09, 14.00' LT	622	58+11.14, 14.00' LT	4.05	986.00	TC	
623	58+53.74, 14.00' LT	624	58+57.80, 14.00' LT	4.06	986.00	TC	
624	58+57.80, 14.00' LT	625	58+70.01, 14.00' LT	12.04	986.00	VC	
625	58+70.01, 14.00' LT	626	58+96.68, 14.00' LT	26.68	15.00	TC	
626	58+96.68, 14.00' LT	627	59+00.64, 14.48' LT	3.76	15.00	FL	
627	59+00.64, 14.48' LT	627A	59+09.36, 21.02' LT	8.68	15.00	FL	
628	56+02.32, 26.85' RT	629	56+10.54, 23.05' RT	8.22	15.00	TC	
630	56+05.66, 16.50' RT	631	56+08.16, 15.37' RT	2.51	20.00	TC	
631	56+08.16, 15.37' RT	632	56+11.60, 12.49' RT	3.44	20.00	TC	
632	56+11.60, 12.49' RT	633	56+14.23, 10.76' RT	2.63	15.00	VC	
633	56+14.23, 10.76' RT	634	56+17.55, 8.58' RT	3.32	15.00	VC	
634	56+17.55, 8.58' RT	635	56+23.77, 4.54' RT	6.22	15.00	FL	

Design: TCG Date: 08/20/10 Scale: 1"=20'-0"

Drawn: JTB Date: MAR 2010

Checked: JTB Date: MAR 2010

Reviewed: JTB Date: MAR 2010

Final Review: JTB Date: MAR 2010

50% Review: JTB Date: MAR 2010

Final Draft Plan Review: JTB Date: MAR 2010

Issued For: \_\_\_\_\_

Client: City of Portsmouth  
1 Junkins Avenue, Portsmouth, NH 03802

Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH

Drawing No. **20**

Curbing Layout Plan - Concord Way - Block 2

**GP** Gorrill-Palmer Consulting Engineers, Inc.  
 15 Shower Road  
 Gray, ME 04939  
 Phone: 207-657-8910  
 Fax: 207-657-8912  
 E-Mail: malton@gorrillpalmer.com

Rev.	Date	Revision





**Drawing No. 23**

**Cross Sections - Porpoise Way**

Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH

City of Portsmouth  
 1 Juniper Avenue, Portsmouth, NH 03802

**Gorill-Palmer Consulting Engineers, Inc.**

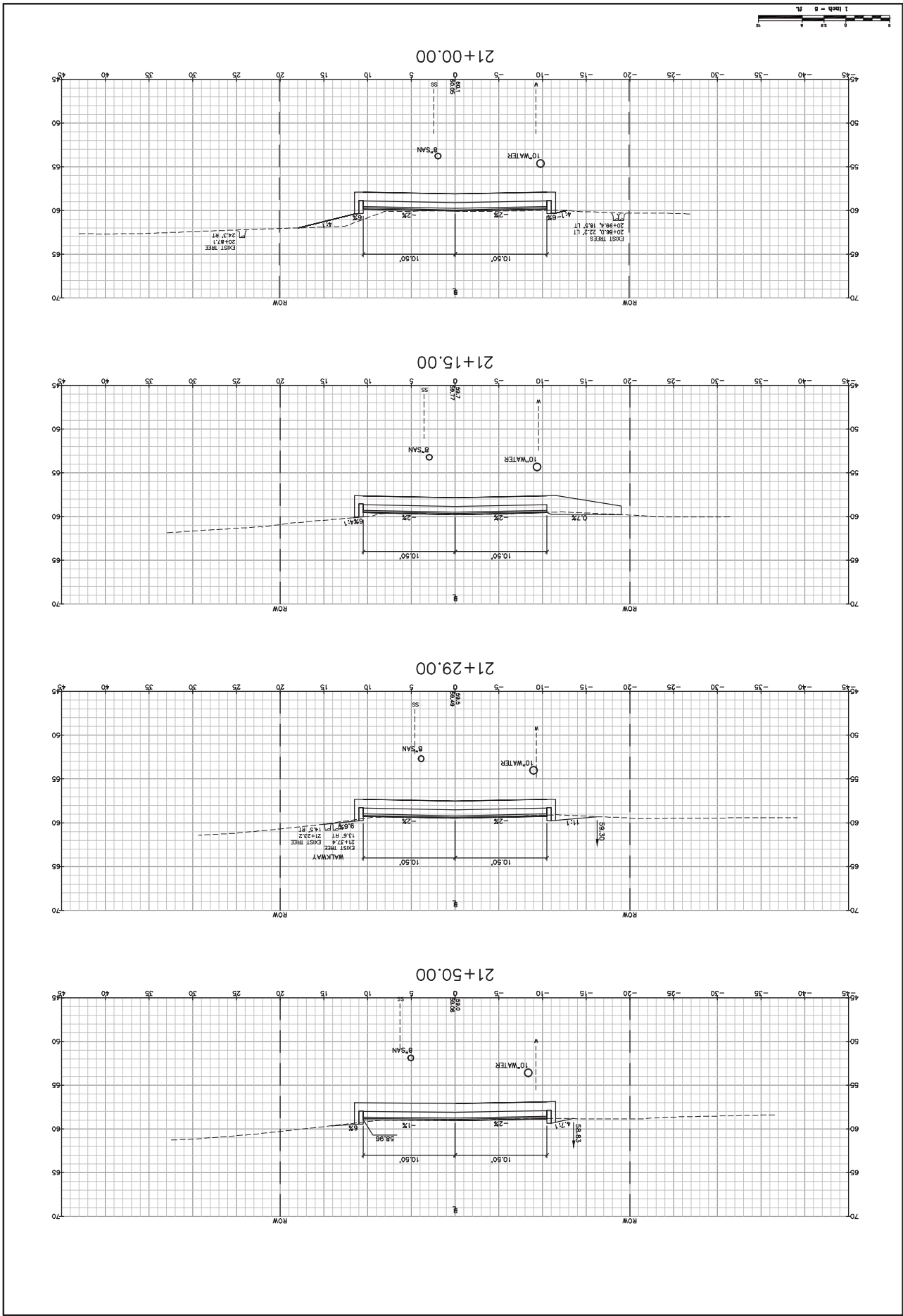
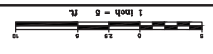
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 15 Shaker Road  
 Gray, NH 04039

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 207-657-6912  
 207-657-6910

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 Design: RJB  
 Date: 08/20/10  
 Check: TJC  
 Issue: 1/15/10  
 Job No: 2306

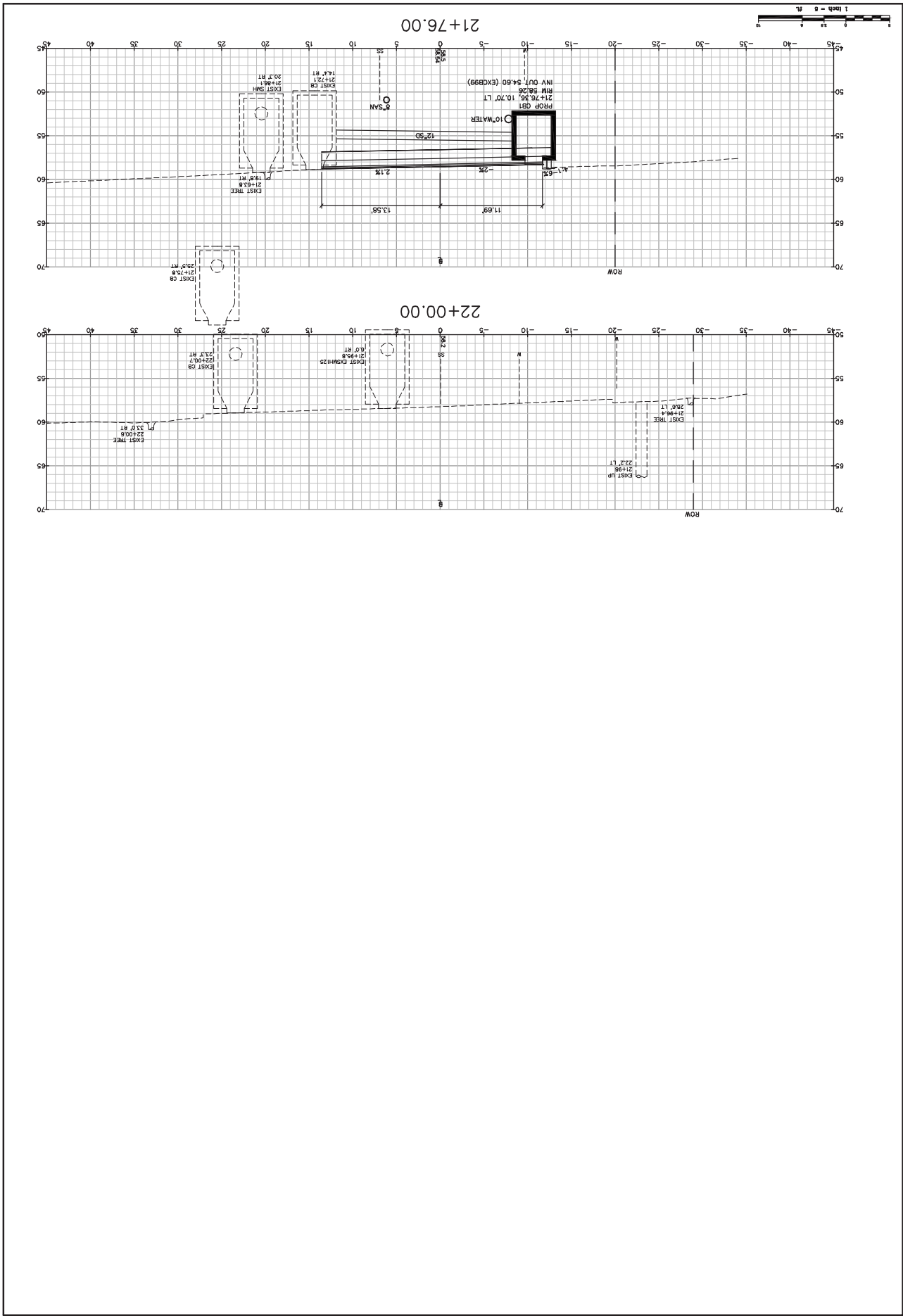


City of Portsmouth  
 1 Junks Avenue, Portsmouth, NH 03802  
 Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 Drawing Name: Cross Sections - Porpoise Way

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 Portsmouth, NH 03802  
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 Fax: 603.433.6912  
 Email: info@gpengineering.com

Design: RJS  
 Check: TJC  
 Date: 08/20/10  
 Title: Cross Section  
 Scale: 1"=10'  
 Date: 08/20/10

Drawing No. 24



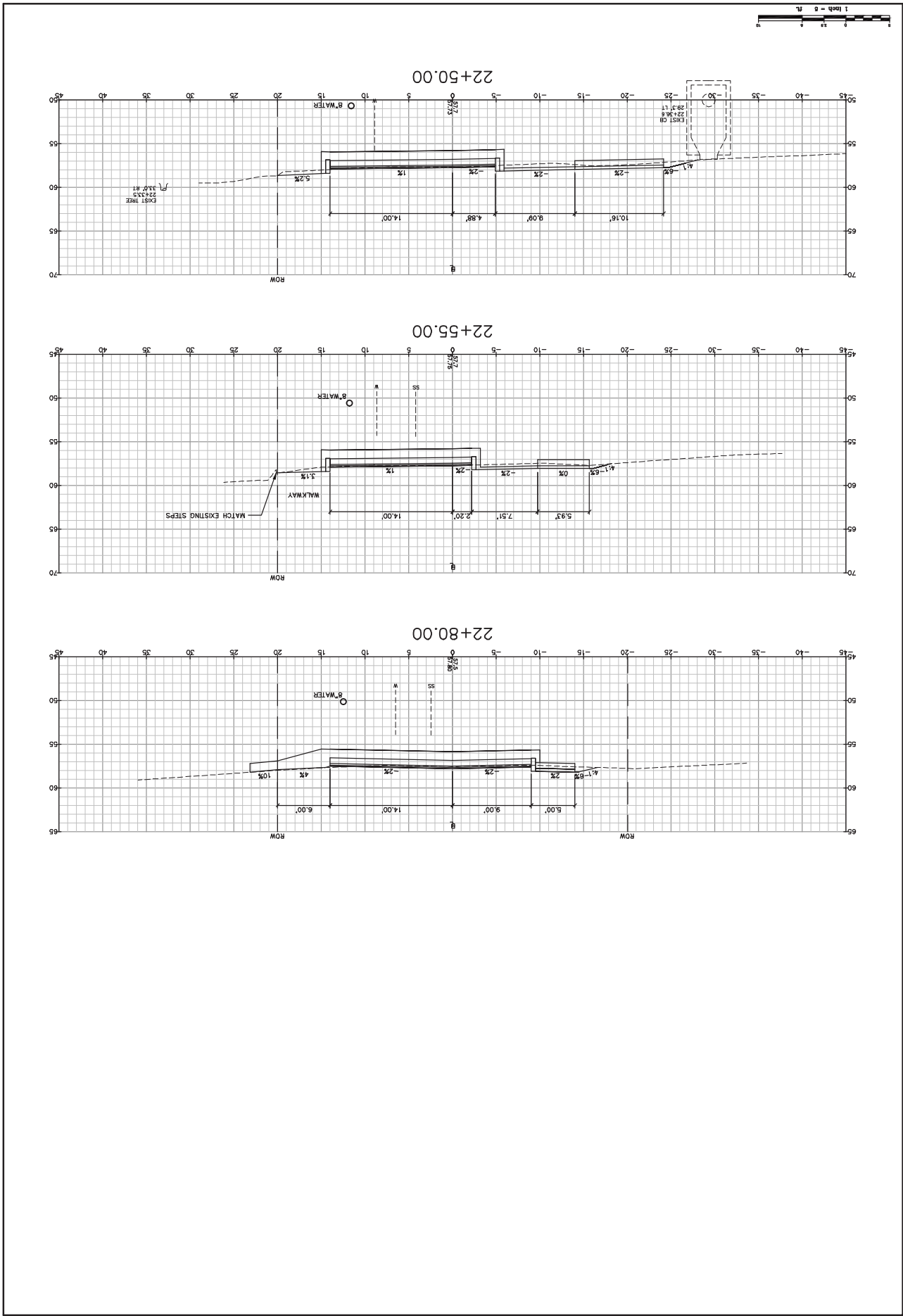


Drawing No. 25

City of Portsmouth  
 1 Juniper Avenue, Portsmouth, NH 03802  
 Project: CONCORD WAY & PORPISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS

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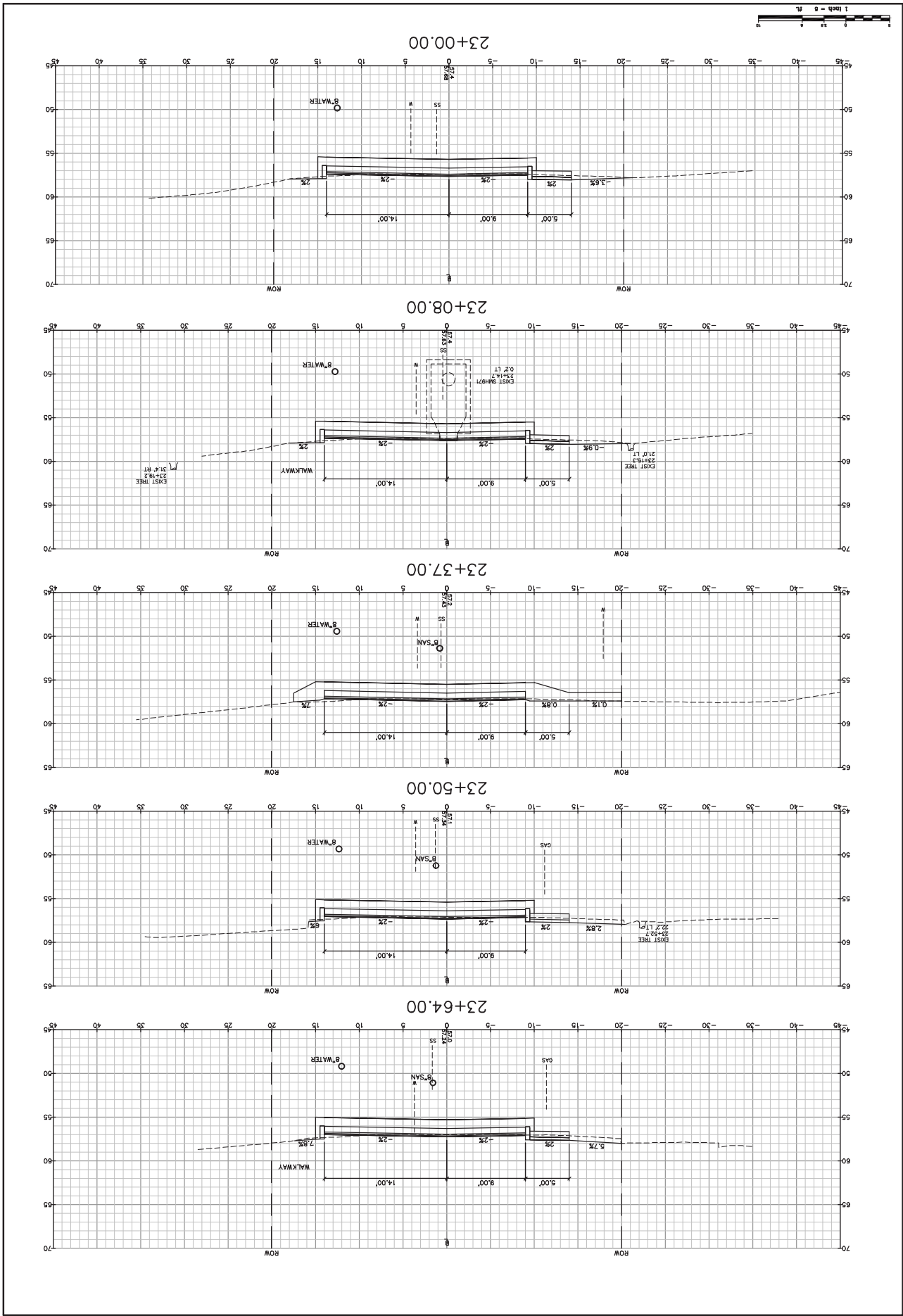
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 Date: 05/20/10  
 Design: RBS  
 Check: TJC  
 Issue: 1.0  
 Date: 05/20/10



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 Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 Drawing Name: Cross Sections - Porpoise Way  
 Drawing No. **26**

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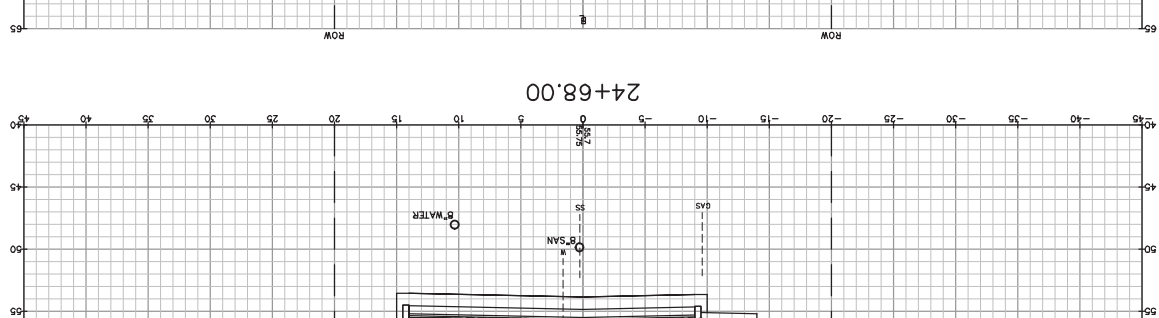
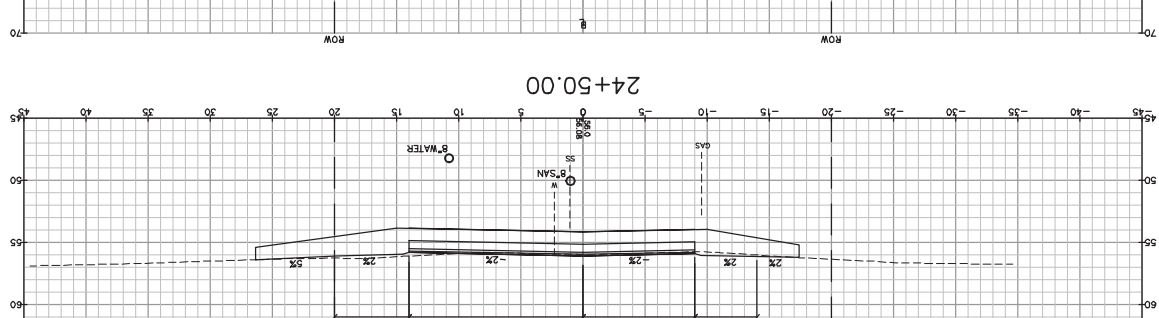
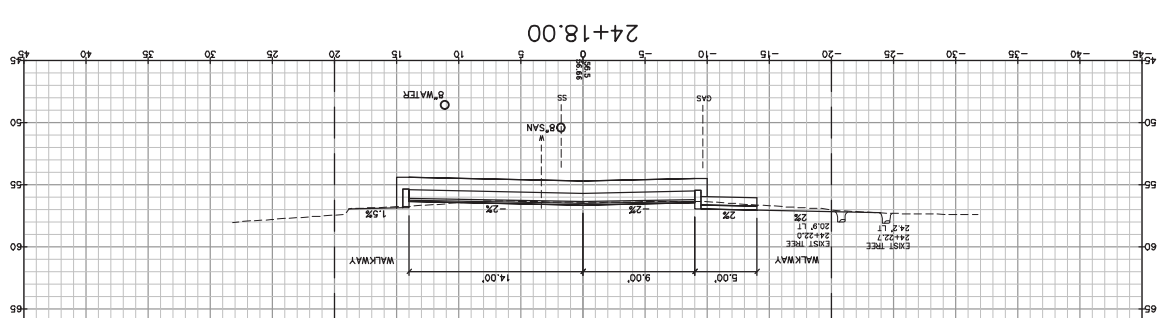
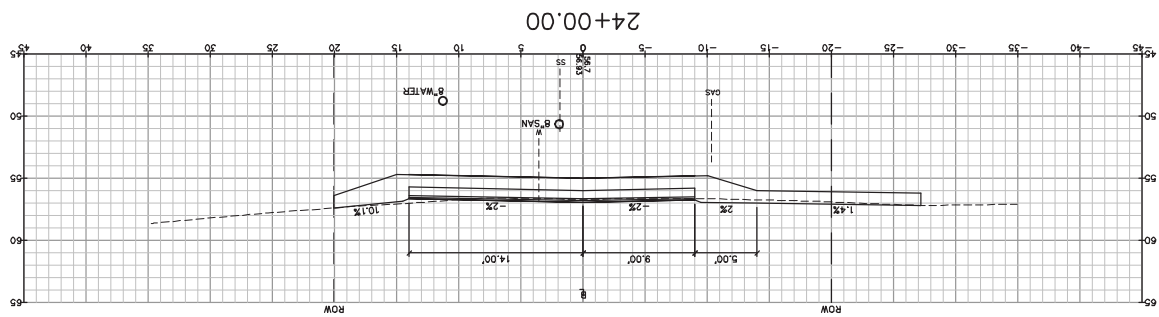
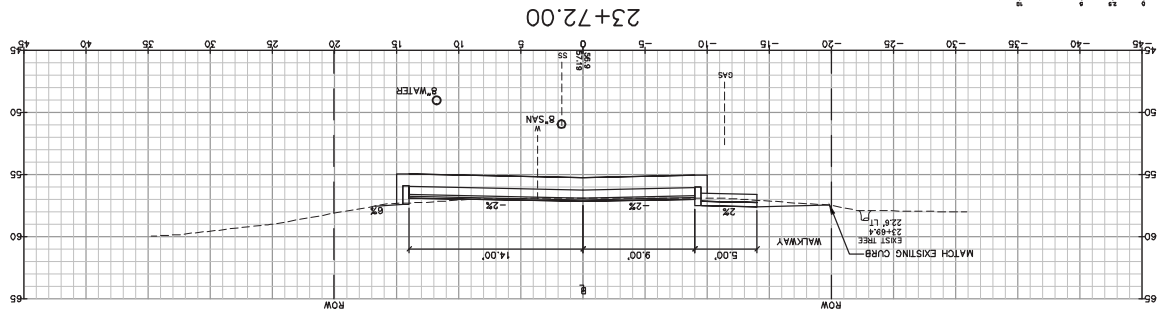
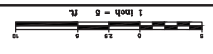


City of Portsmouth  
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 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 Drawing Name: Cross Sections - Porpoise Way

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 Check: TJC Issue: 11/11/10  
 Date: 08/10/10

Drawing No. 21





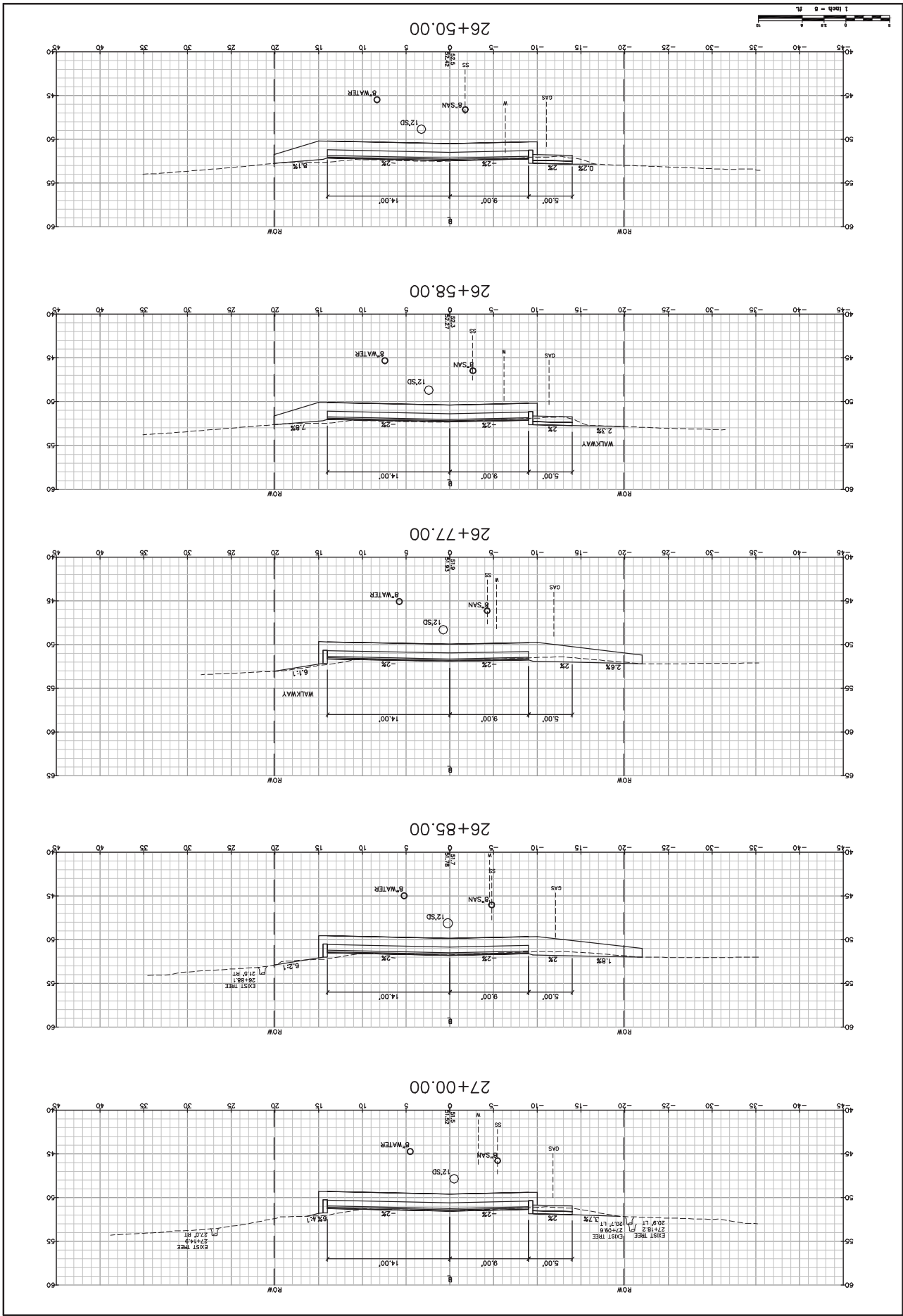


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 Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 Drawing Name: Cross Sections - Porpoise Way

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Design: RJB Date: 08  
 Checked: TJC Issue: 11/15/10 Date: 08/20/10  
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Drawing No. 30

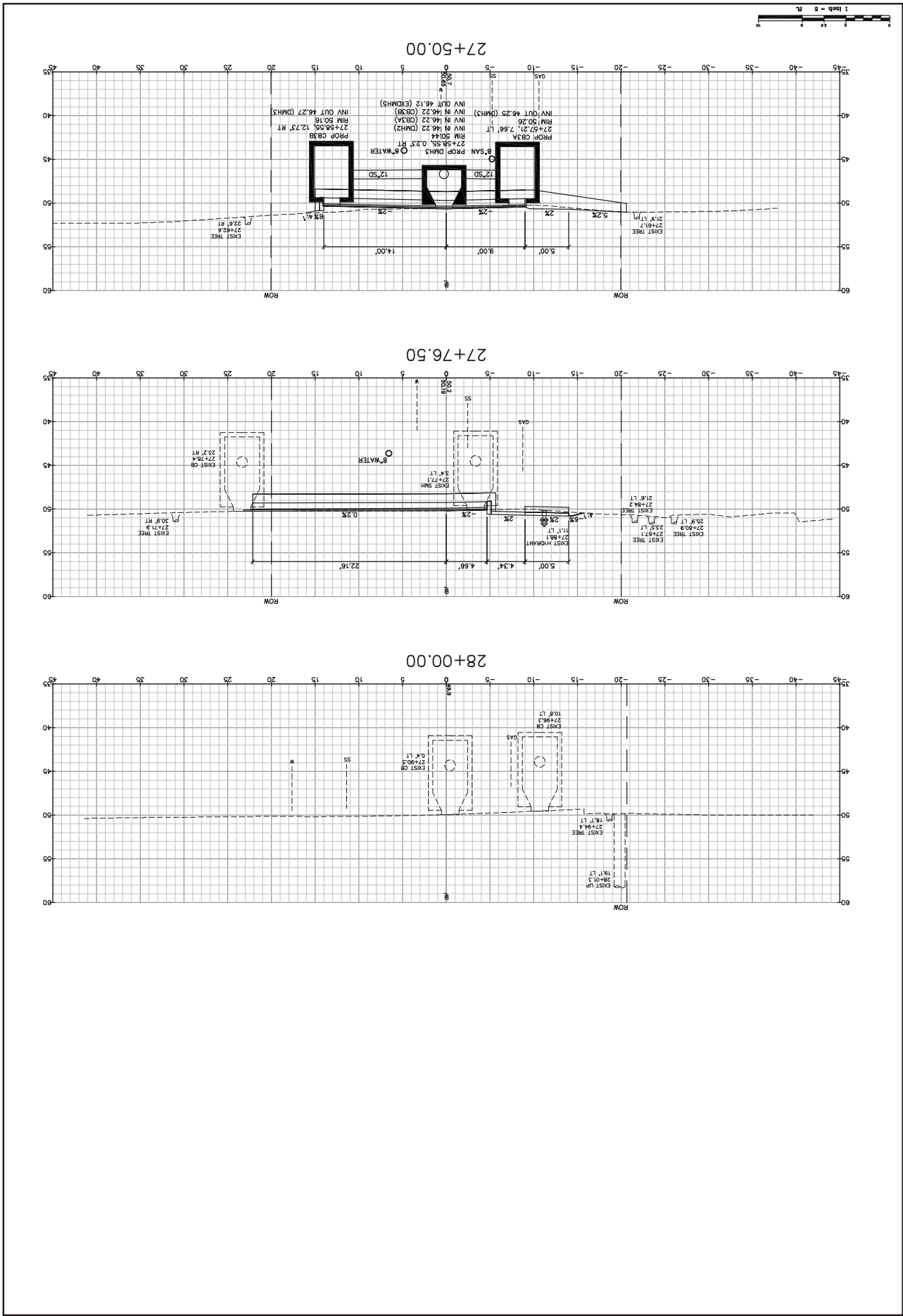


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 Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 Drawing Name: Cross Sections - Porpoise Way

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 Check: TJC Issue: 11/11/10  
 Date: 08/20/10

Drawing No. 31

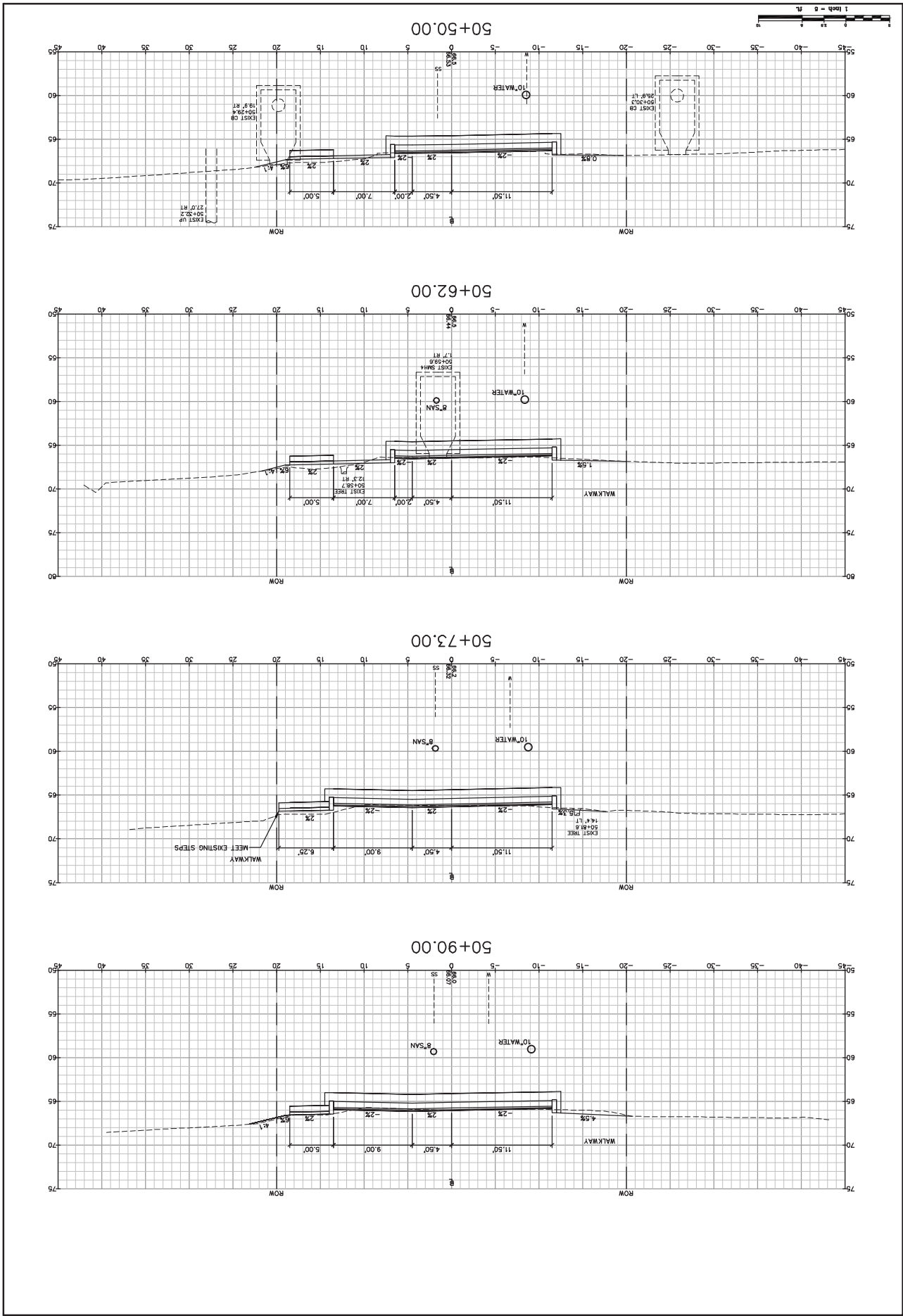


City of Portsmouth  
 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 Cross Sections - Concord Way

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Drawing No. 32



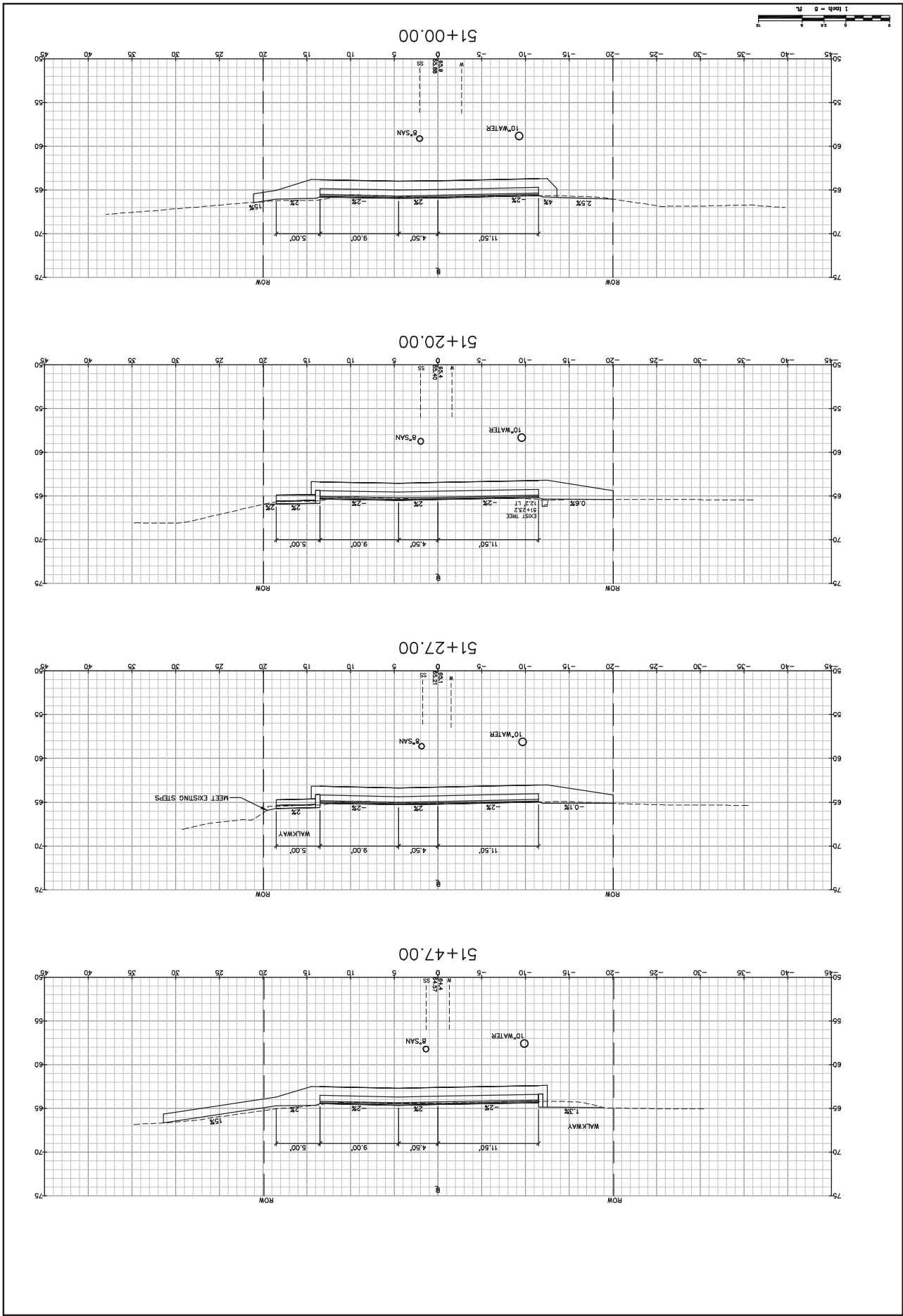


**Drawing Name:** Cross Sections - Concord Way  
**Project:** ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
**City of Portsmouth:** 1 Junks Avenue, Portsmouth, NH 03802  
**City of Portsmouth:** 1 Junks Avenue, Portsmouth, NH 03802  
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**Design:** RJS  
**Drawn:** BS  
**Check:** TLG  
**Scale:** 1"=20'  
**Date:** 08/20/10  
**Sheet:** 25 of 25

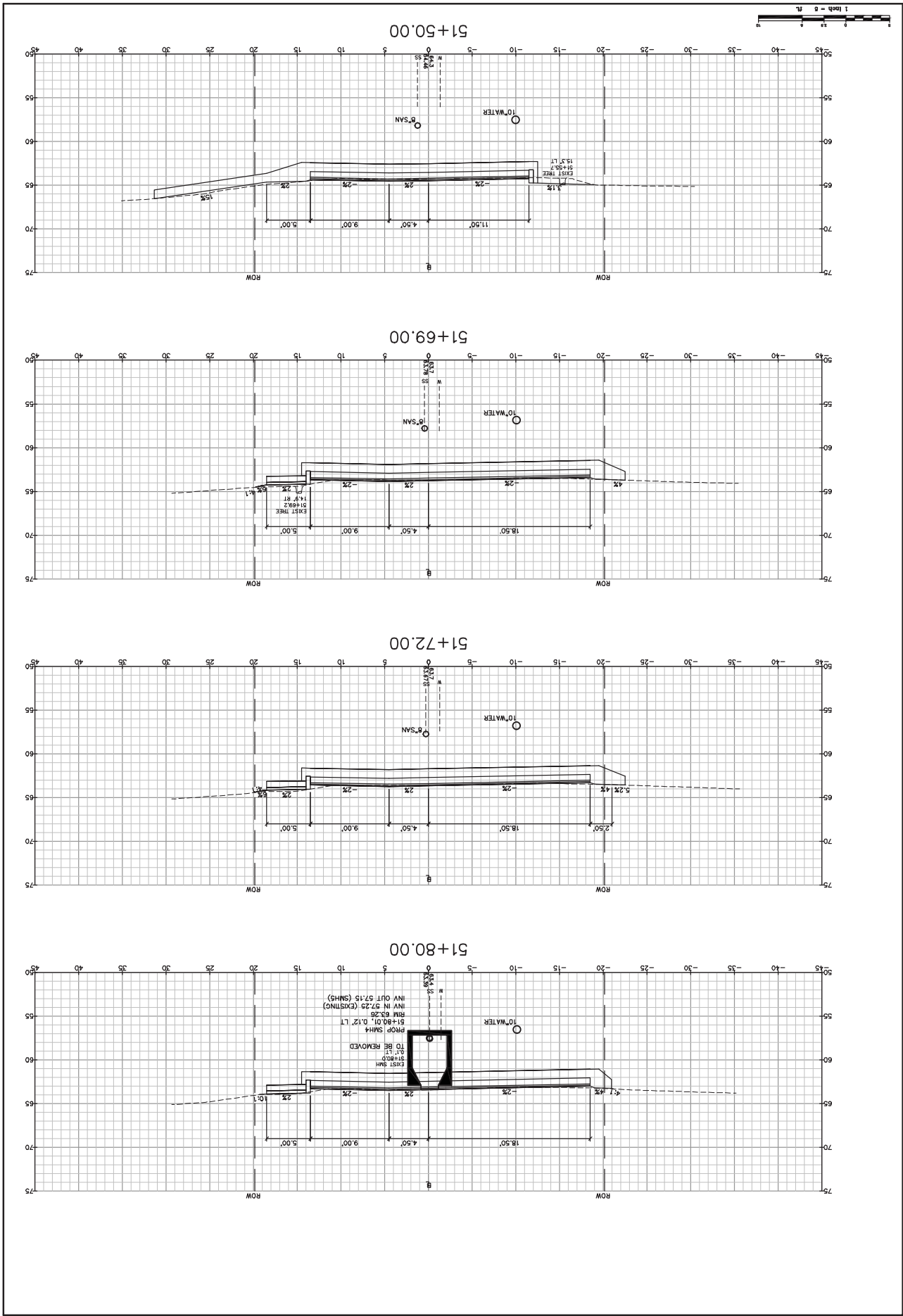
Drawing No. 33



**City of Portsmouth**  
 1 Juniper Avenue, Portsmouth, NH 03802  
 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 Drawing Name: Cross Sections - Concord Way  
 Drawing No. **34**

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 Design: RJB  
 Check: TJC  
 Issue: 1  
 Job No: 2009

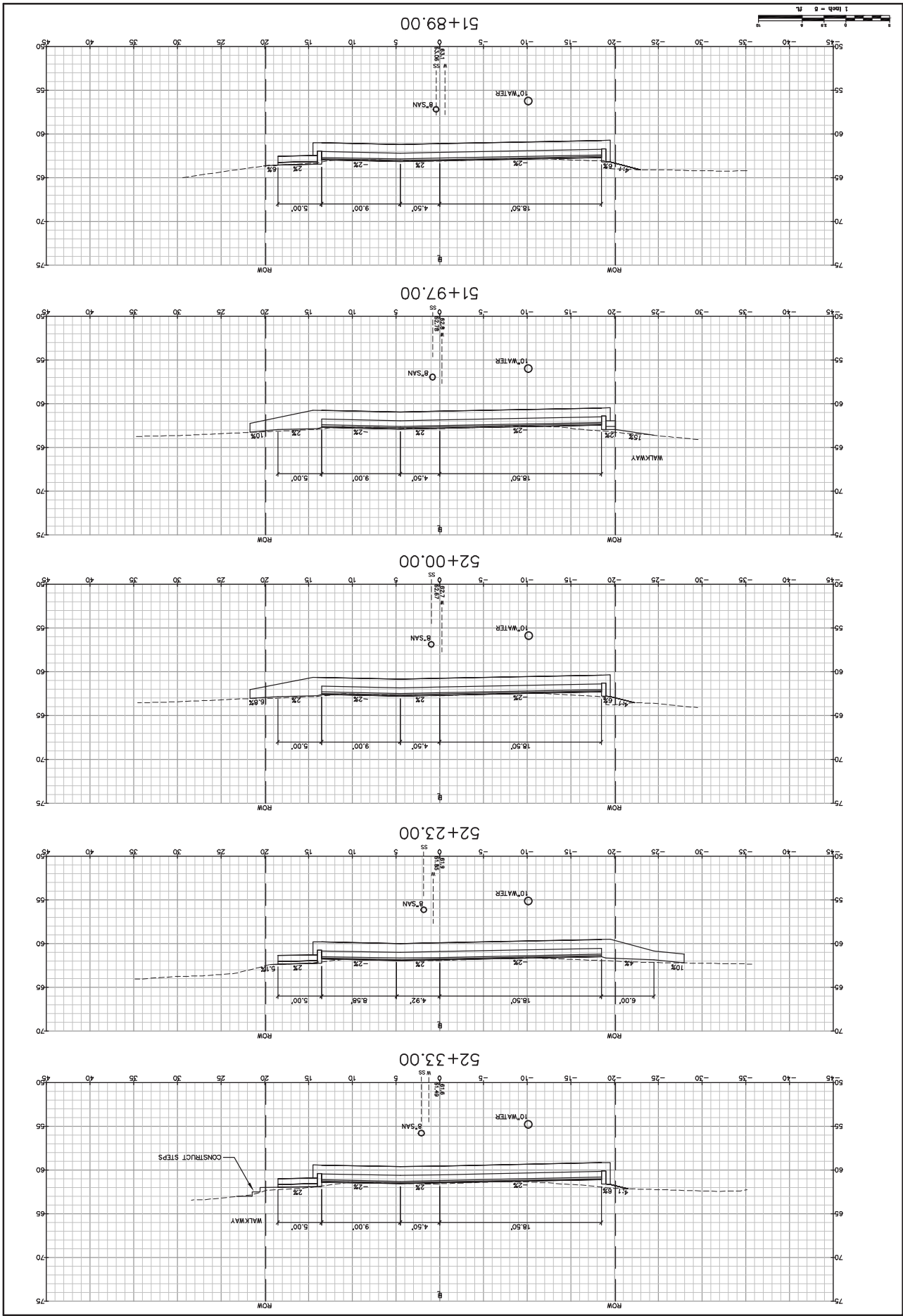


Drawing Name: Cross Sections - Concord Way  
 Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 City of Portsmouth  
 1 Juniper Avenue, Portsmouth, NH 03802  
 Contact: [Redacted]  
 Date: 12/27/11  
 15 Shaker Road  
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 City of Portsmouth  
 1 Juniper Avenue, Portsmouth, NH 03802

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 City of Portsmouth  
 1 Juniper Avenue, Portsmouth, NH 03802

Design: RB  
 Date: 08/20/11  
 Check: TG  
 Issue: 1/1/11  
 Date: 08/20/11  
 Design: RB  
 Date: 08/20/11  
 Check: TG  
 Issue: 1/1/11  
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 Date: 08/20/11  
 Check: TG  
 Issue: 1/1/11  
 Date: 08/20/11

Drawing No. 35

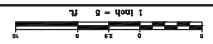
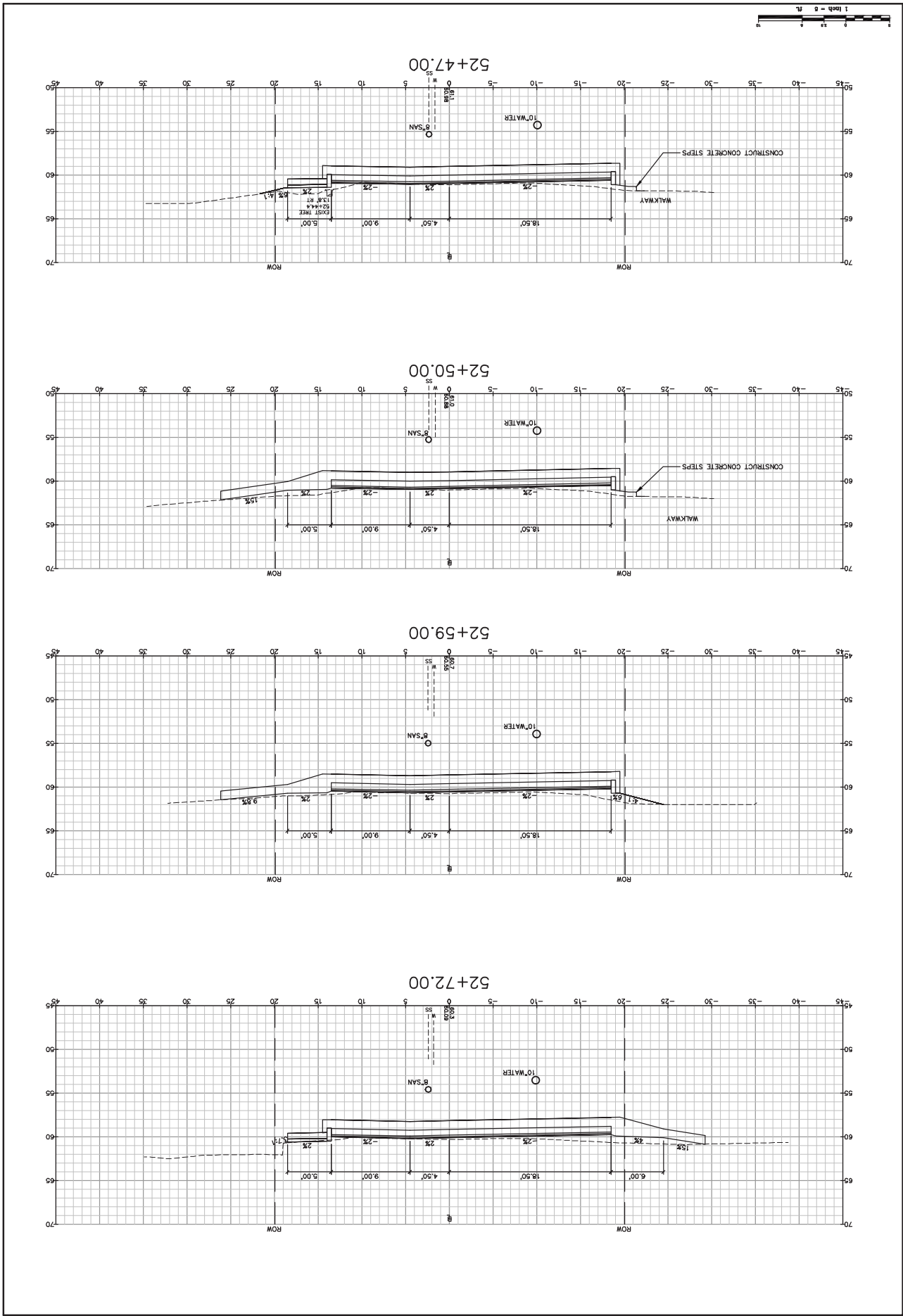


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 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETScape IMPROVEMENTS  
 Drawing Name: Cross Sections - Concord Way

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Design: RJB Date: 08  
 Check: TJC Issue: 11/15/10 Job No: 2865  
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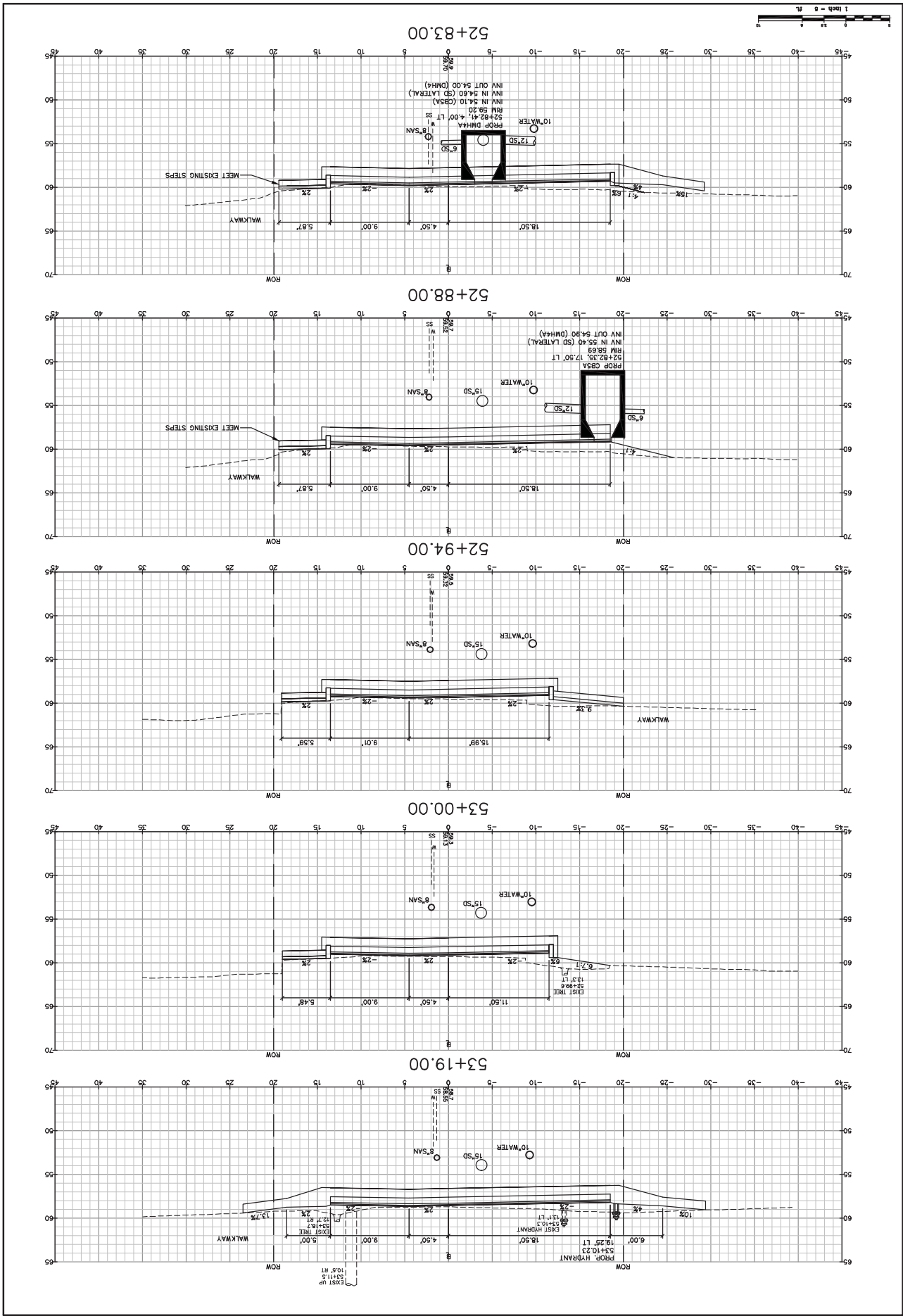
36  
 Drawing No.



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 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 Drawing Name: Cross Sections - Concord Way  
 Drawing No: 37

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 Check: TJC Issue: 11-05 Date: 08-2010

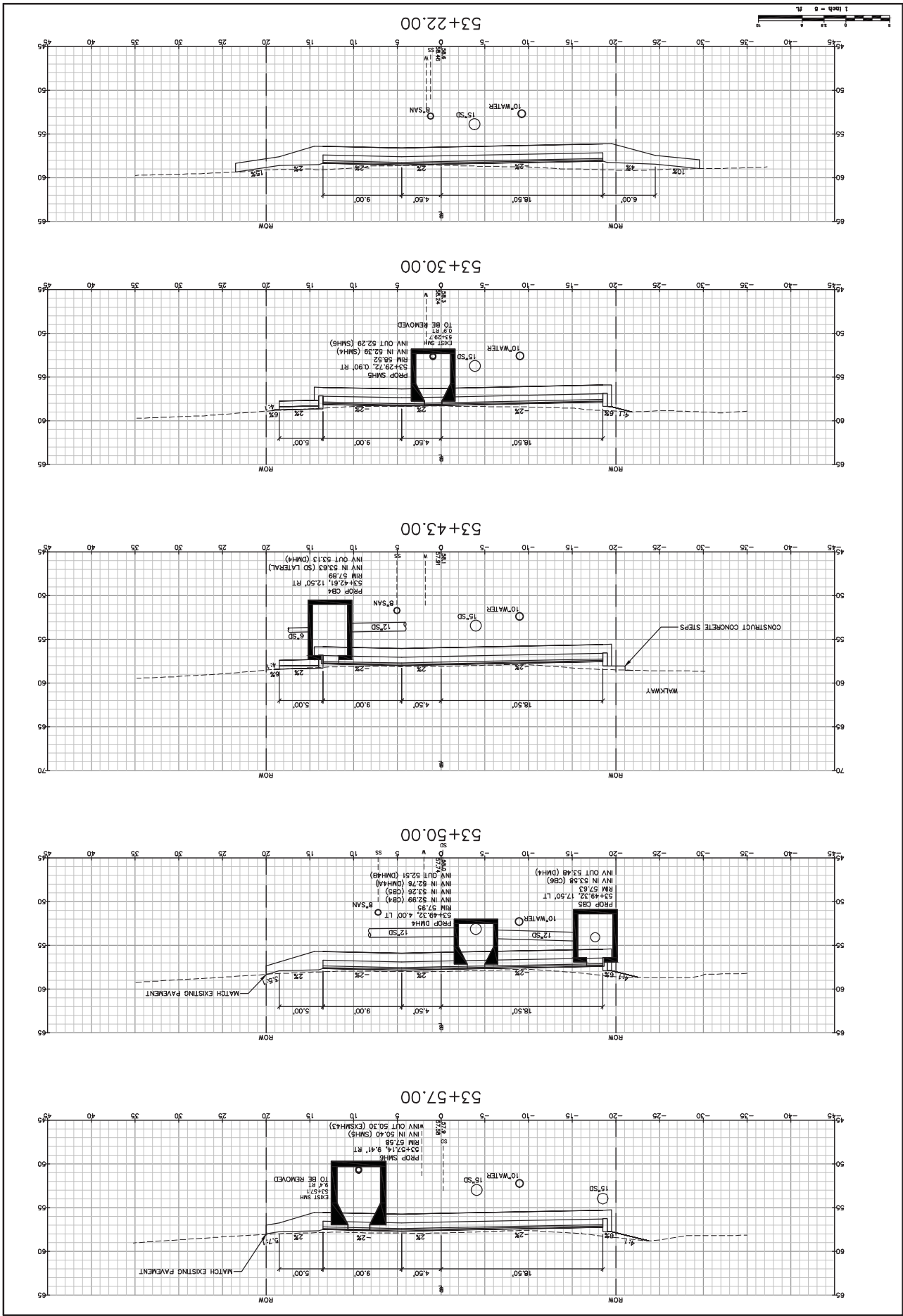


**City of Portsmouth**  
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 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 Drawing Name: Cross Sections - Concord Way

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 207-657-6912  
 Fax: 207-657-6910  
 15 Shaker Road  
 Portsmouth, NH 03802  
 207-657-6912  
 Fax: 207-657-6910

Design: RJS Date: 08/08/2010  
 Checked: TJC Issue: 11/15/2010  
 Design: RJS Date: 08/08/2010  
 Checked: TJC Issue: 11/15/2010

Drawing No. **38**







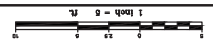
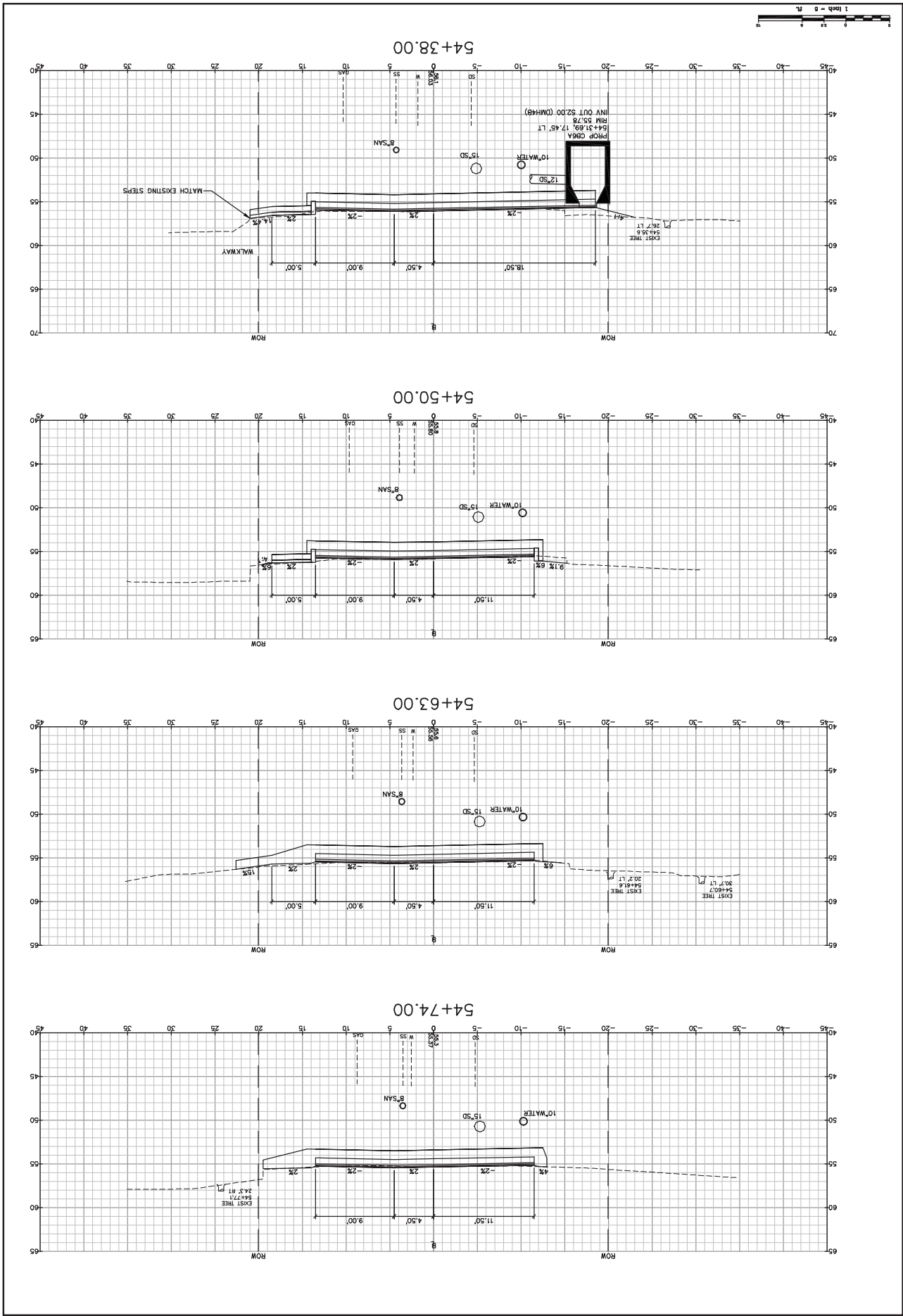


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 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 Cross Sections - Concord Way

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Design: RJB  
 Check: TJC  
 Issue: 1/15/11  
 Date: 08/20/10

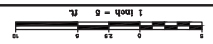
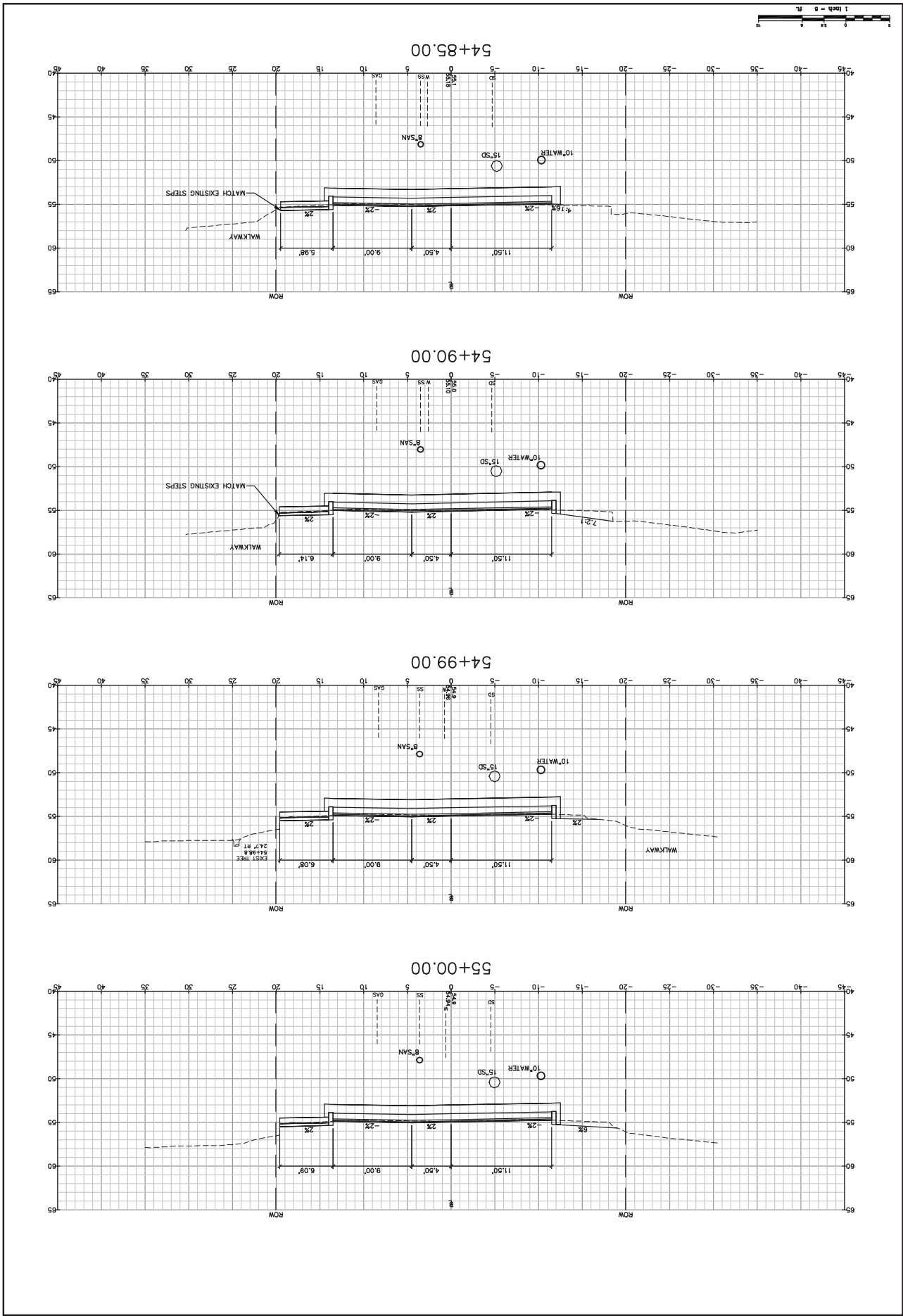
Drawing No. 41



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 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 Drawing Name: Cross Sections - Concord Way  
 Drawing No. 42

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 Check: TJC  
 Date: 08/20/10  
 Scale: 1"=20'

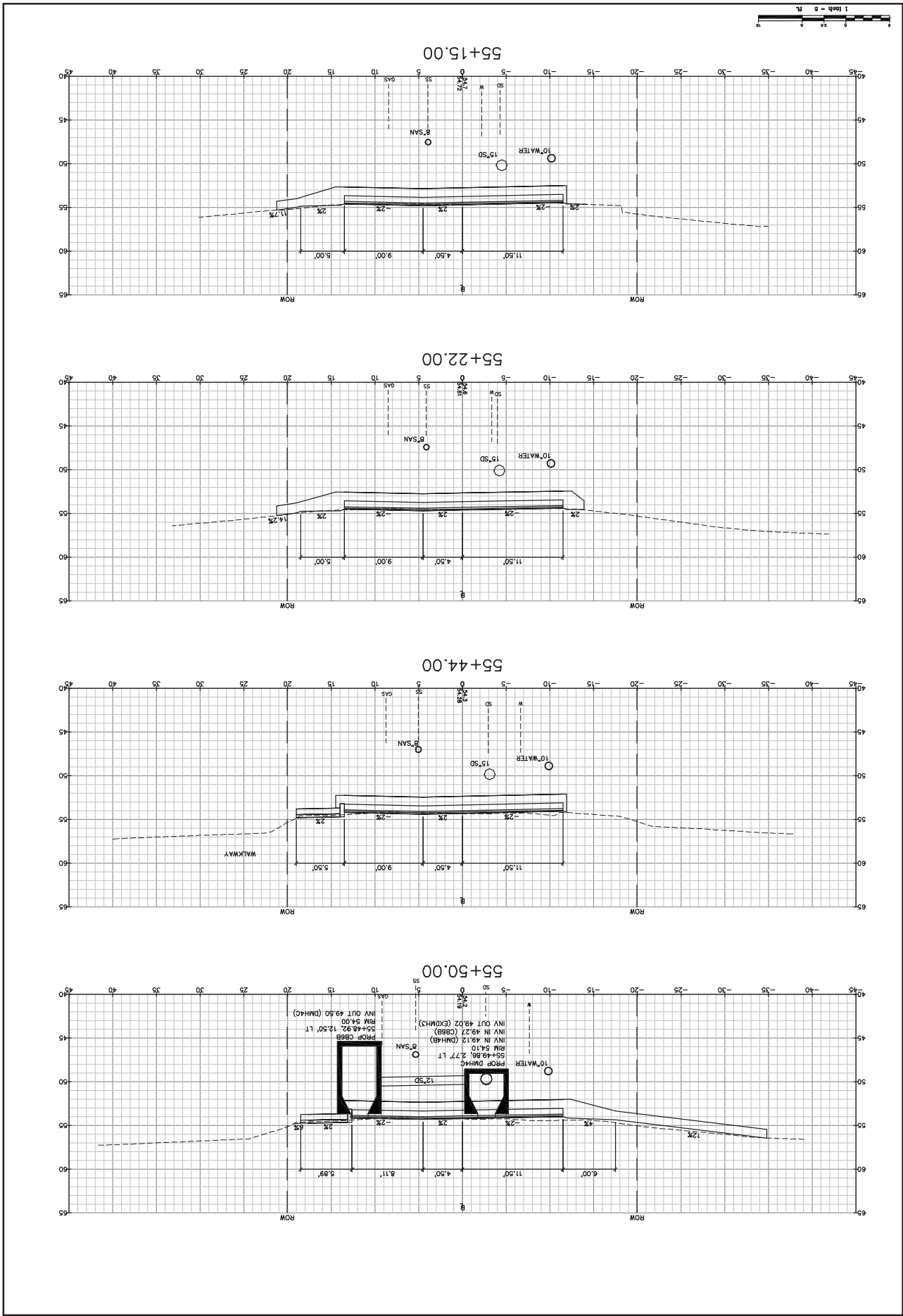


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 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS

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 Date: 03/26/2010  
 Design: RJB  
 Check: TJC  
 Issue: 1.0  
 Date: 03/26/2010

Drawing No. **43**

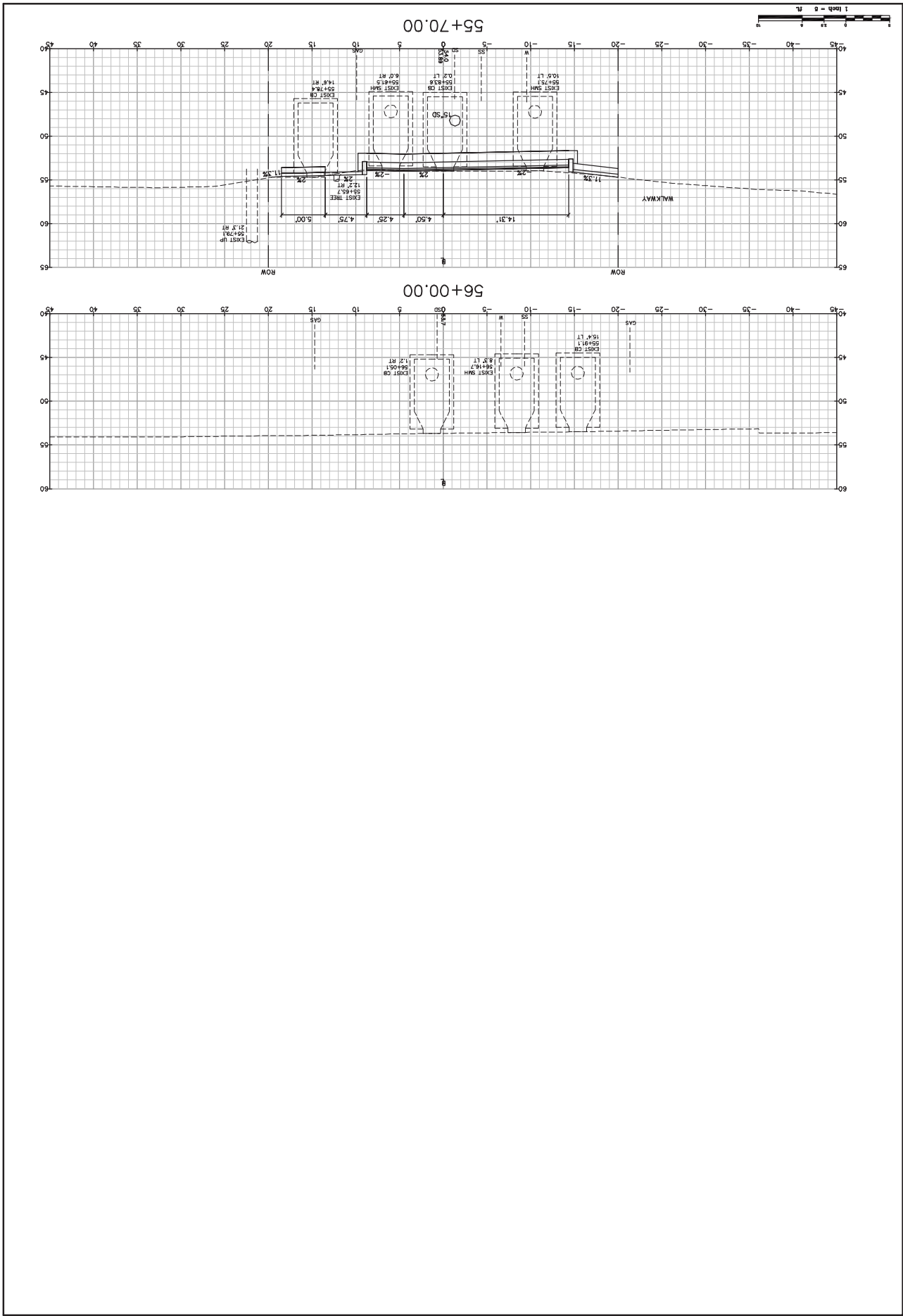


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 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 Drawing Name: Cross Sections - Concord Way

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 Checked: TJC Date: 08/20/10  
 Drawn: MJC Date: 08/20/10

Drawing No. 44

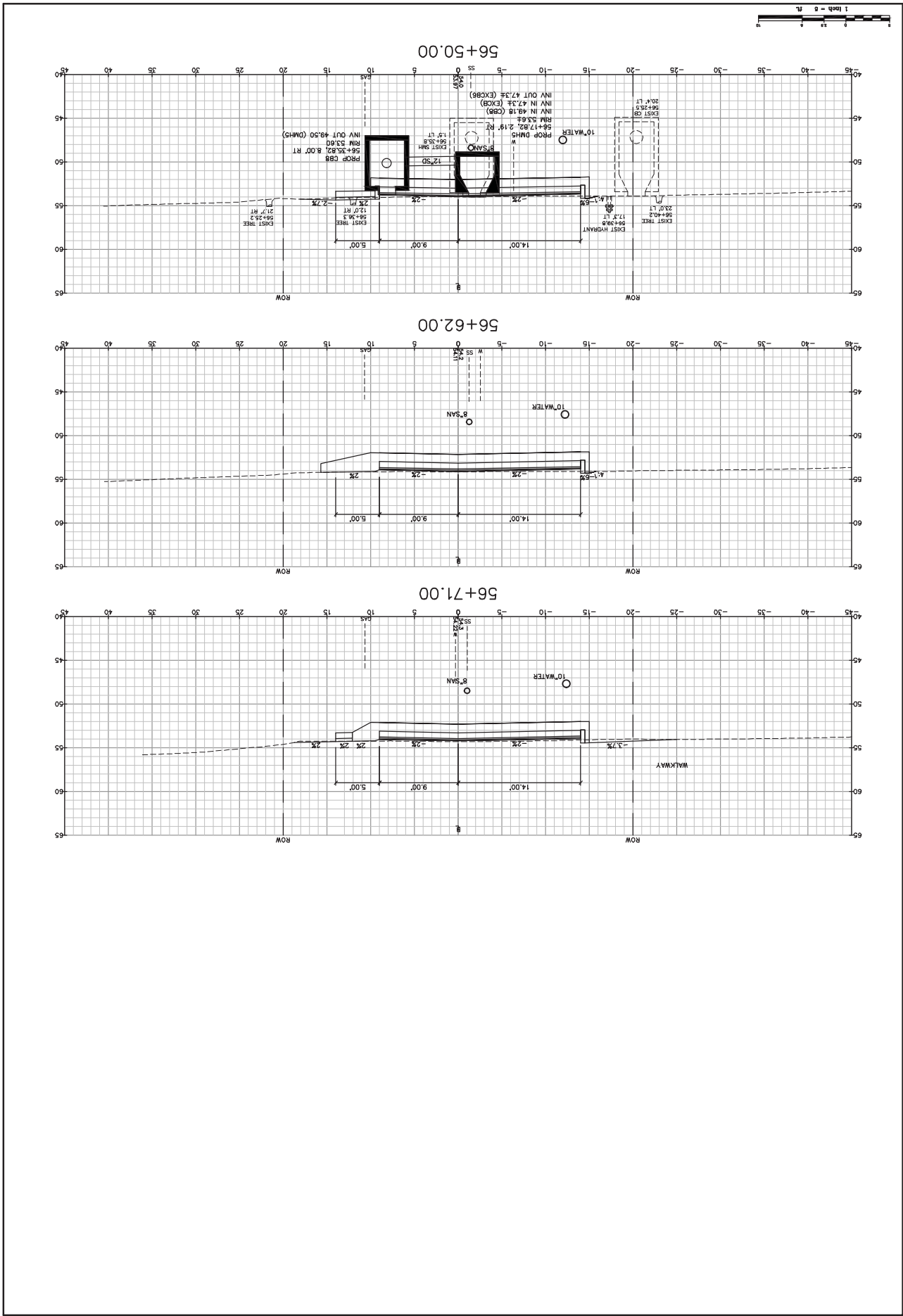


**Drawing Name:** Cross Sections - Concord Way  
**Project:** ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
**City of Portsmouth**  
 1 Juniper Avenue, Portsmouth, NH 03802

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 Roy, NH 04039  
 E-Mail: mobil@gorillpalmer.com

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Drawing No. **45**



**Drawing No. 46**

**Cross Sections - Concord Way**

**City of Portsmouth**  
 1 Junks Avenue, Portsmouth, NH 03802

**Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH**  
**ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS**

**Gorill-Palmer Consulting Engineers, Inc.**

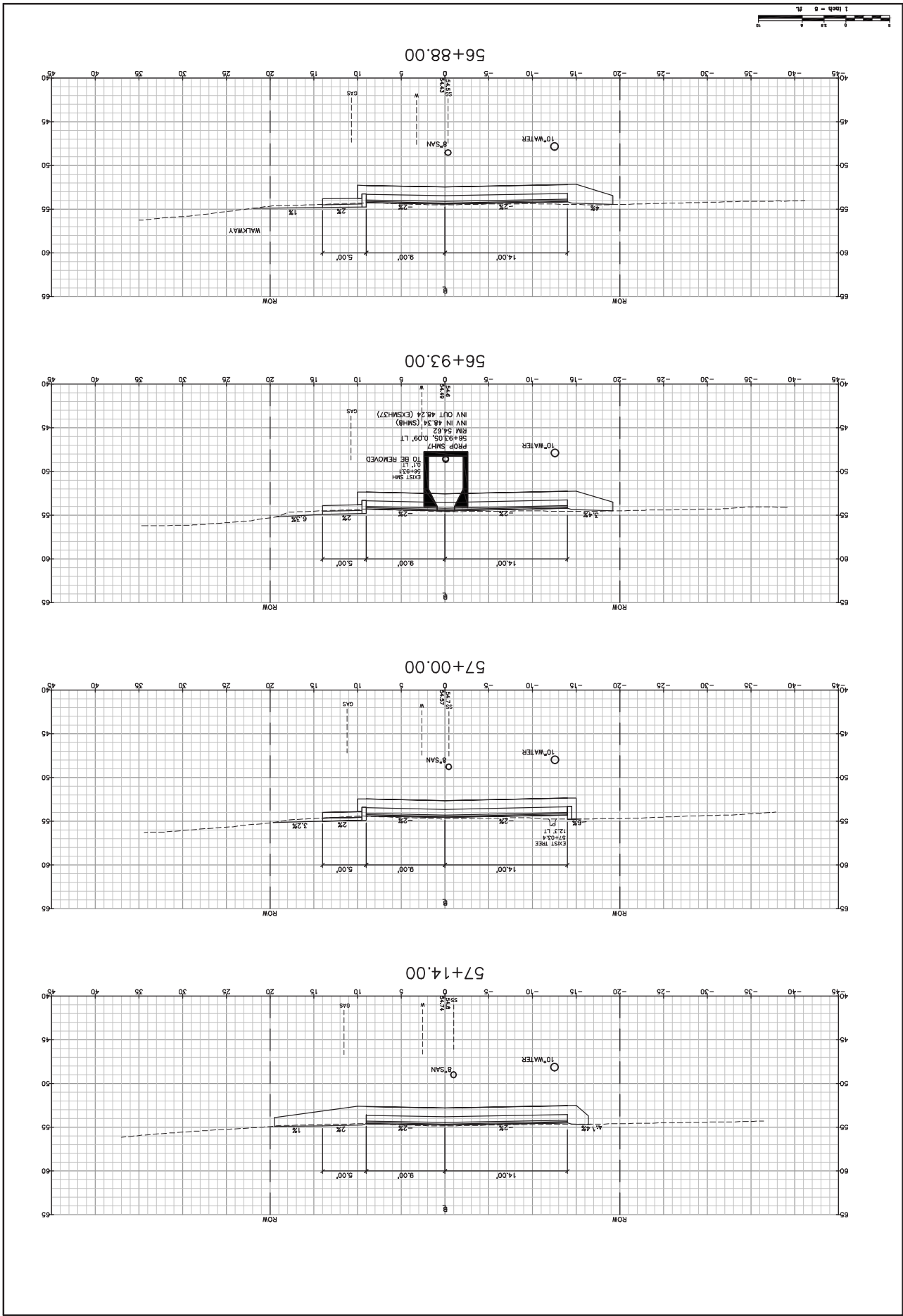
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 Gray, NE 04039

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Drawn: JAC/SEC/09  
 Checked: TJC  
 Date: 08/20/10

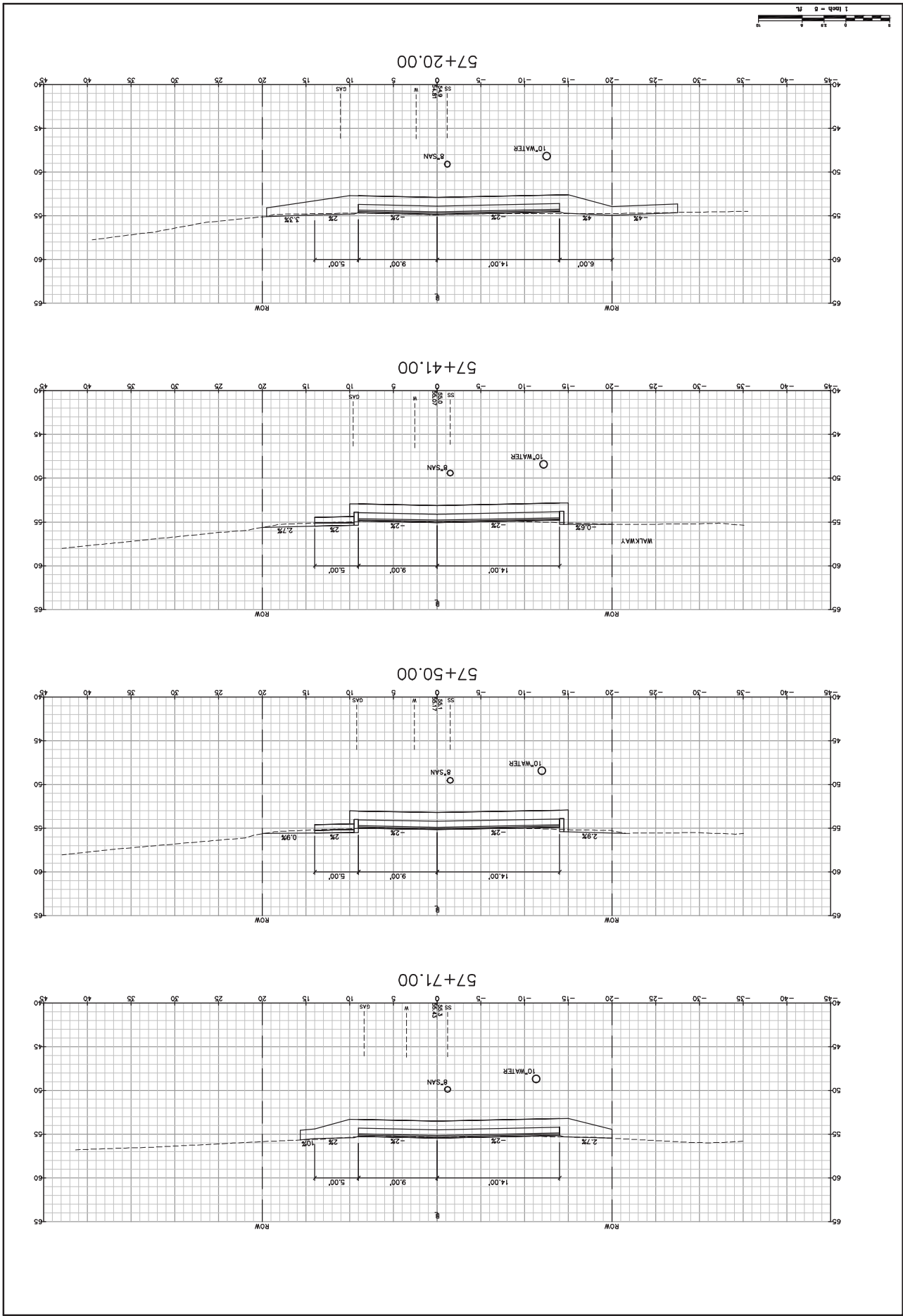
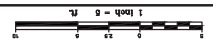


**City of Portsmouth**  
 1 Juniper Avenue, Portsmouth, NH 03802  
 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS

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 Date: 03/26/2010  
 Design: RJB  
 Check: TJC  
 Issue: 1.0  
 Date: 03/26/2010

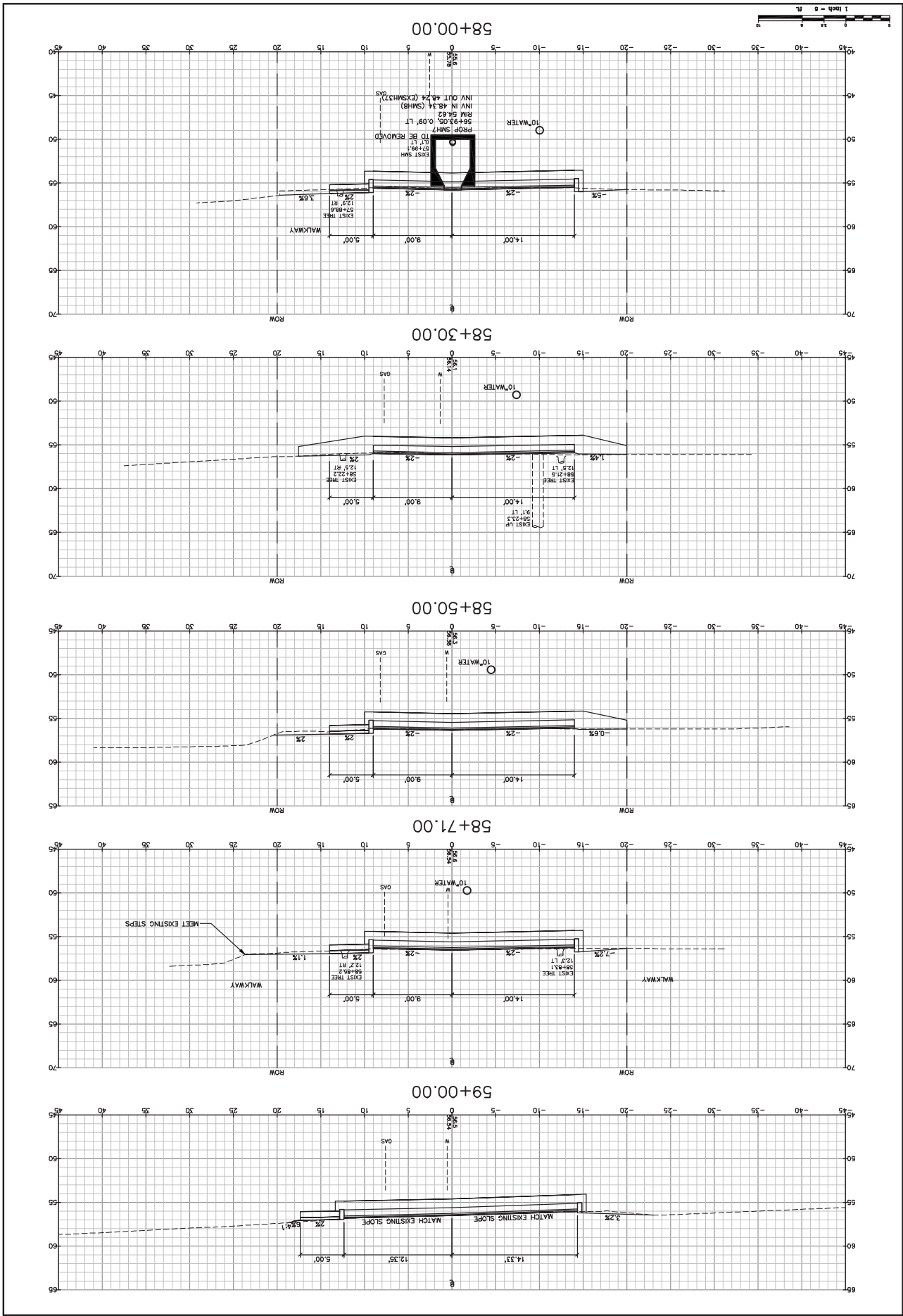
Drawing No. 4



**City of Portsmouth**  
 1 Juniper Avenue, Portsmouth, NH 03802  
 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 Drawing Name: Cross Sections - Concord Way  
 Drawing No. **48**

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 207-657-6912  
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 Date: 03/26/2010  
 Design: RJB  
 Check: TJC  
 Issue: 1.0  
 Date: 03/26/2010





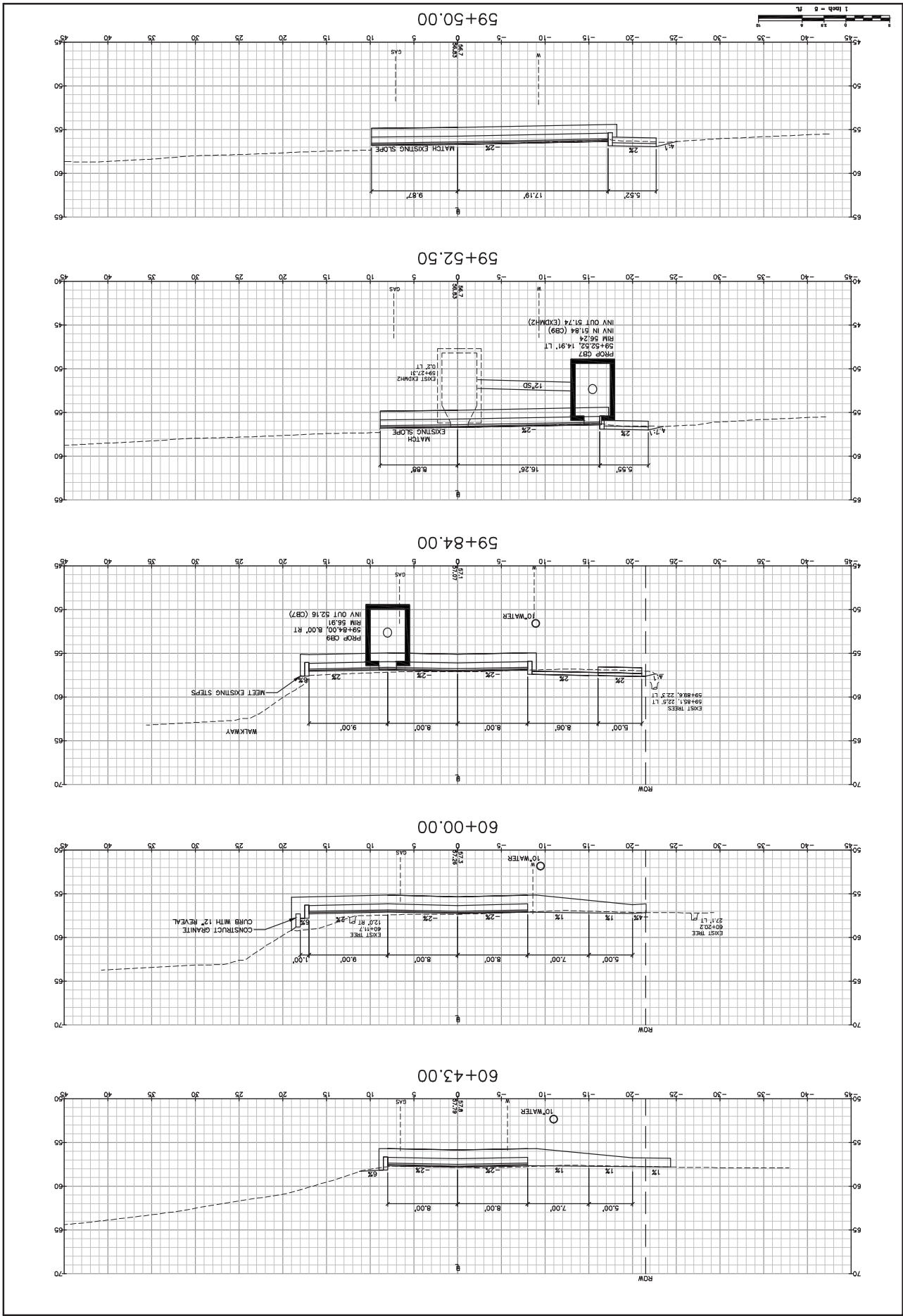
**City of Portsmouth**  
 1 Juniper Avenue, Portsmouth, NH 03802  
 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS

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 Phone: 207-657-6912  
 Fax: 207-657-6910

**Design: RJB Date: 08/20/10**  
**Check: TJC Issue: 11/15/10**  
**Drawn: MJS Date: 08/20/10**

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Drawing No. **49**

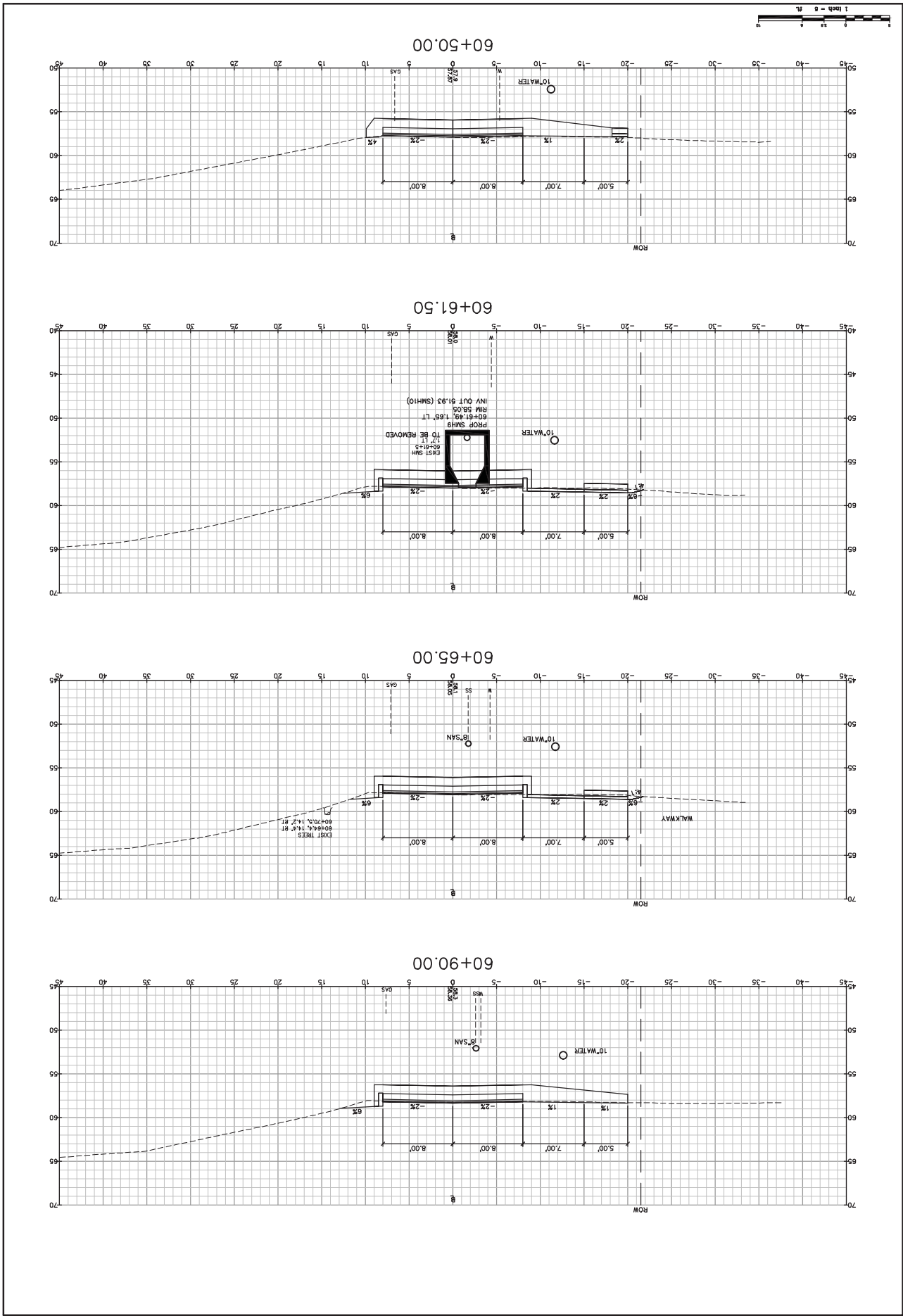


**City of Portsmouth**  
 1 Juniper Avenue, Portsmouth, NH 03802  
 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 Drawing Name: Cross Sections - Concord Way

**Gorill-Palmer Consulting Engineers, Inc.**  
 15 Shaker Road  
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 Date: 08/20/10  
 Design: RB  
 Check: TG  
 Issue: 1.0  
 Date: 08/20/10  
 Design: RB  
 Check: TG  
 Issue: 1.0  
 Date: 08/20/10

Drawing No. **50**

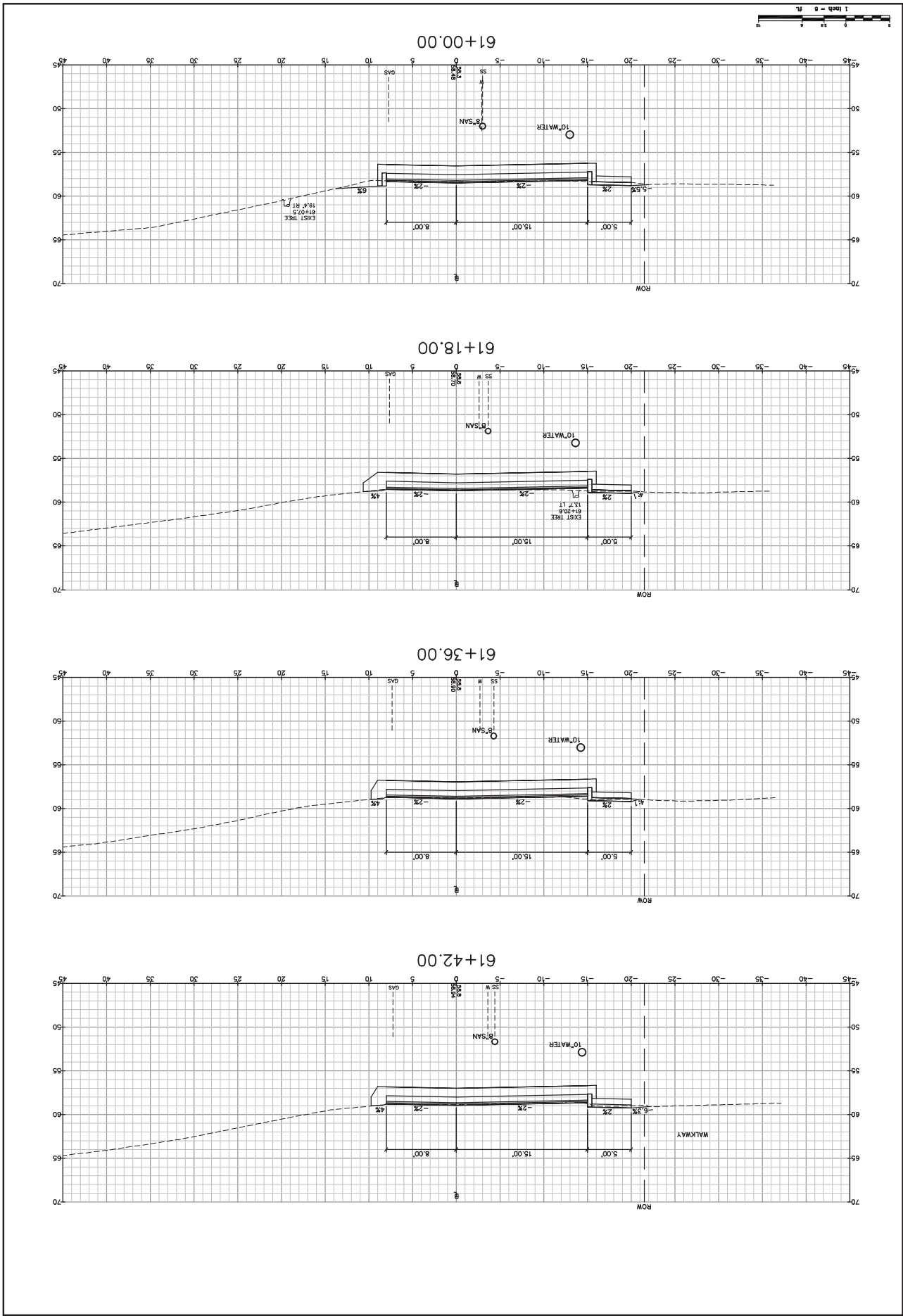


**City of Portsmouth**  
 1 Junks Avenue, Portsmouth, NH 03802  
 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 Cross Sections - Concord Way

**Gorill-Palmer Consulting Engineers, Inc.**  
 15 Shaker Road  
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 Phone: 603-431-1237  
 Fax: 603-431-1238  
 E-Mail: info@gorillpalmer.com

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 Date: 05/20/11  
 Design: RB  
 Check: TG  
 Scale: 1"=20'  
 Date: 05/20/11

Drawing No. **51**

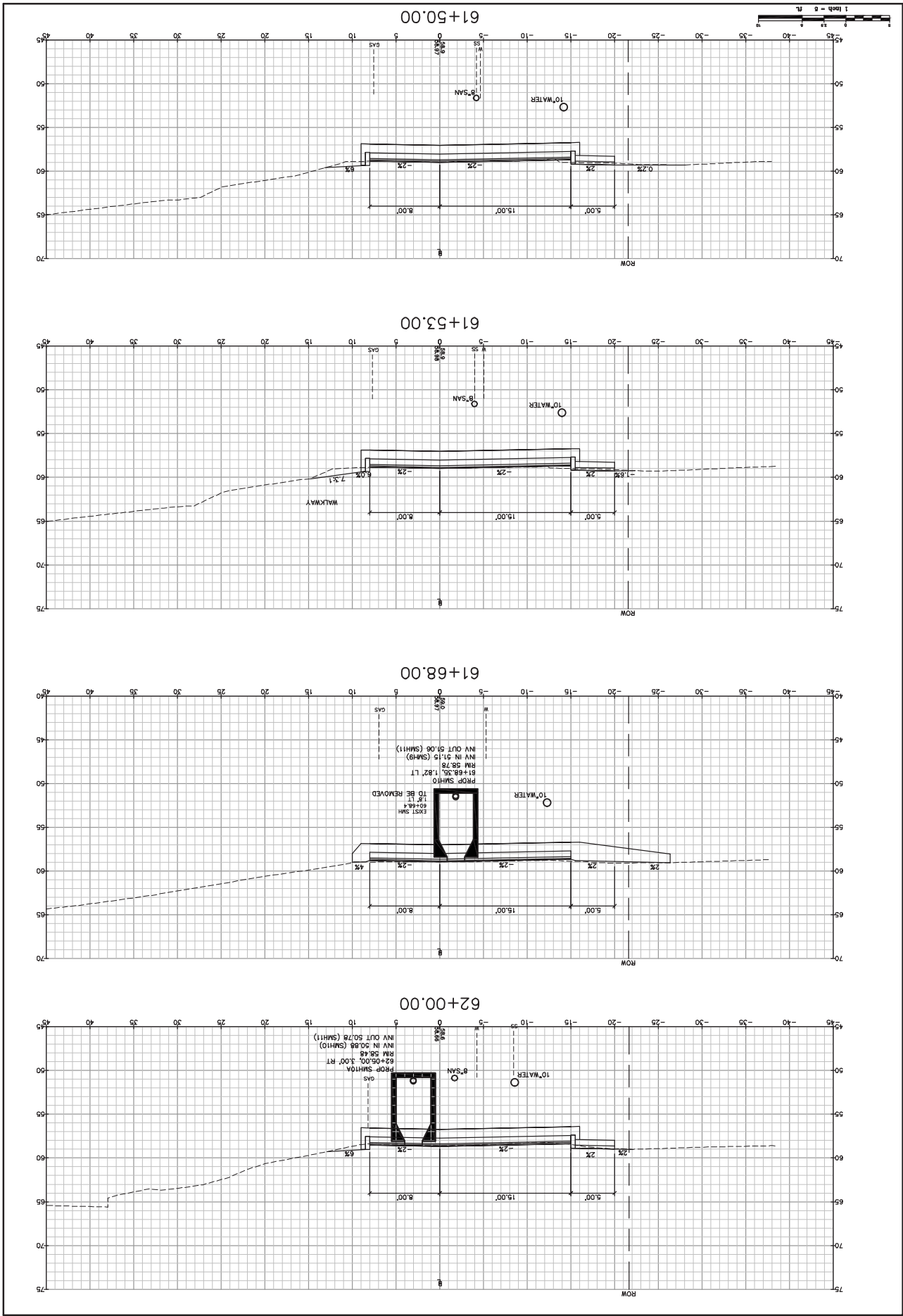


City of Portsmouth  
 1 Juniper Avenue, Portsmouth, NH 03802  
 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 Cross Sections - Concord Way

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 207-657-6910  
 Fax: 207-657-6912

Design: RJS  
 Draft: BS  
 Date: 08/20/10  
 Check: TJS  
 Issue: 1/10/10  
 Date: 08/20/10  
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Drawing No. 52



**Drawing No. 53**

**Cross Sections - Concord Way**

Project: ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH

City of Portsmouth  
 1 Juniper Avenue, Portsmouth, NH 03802

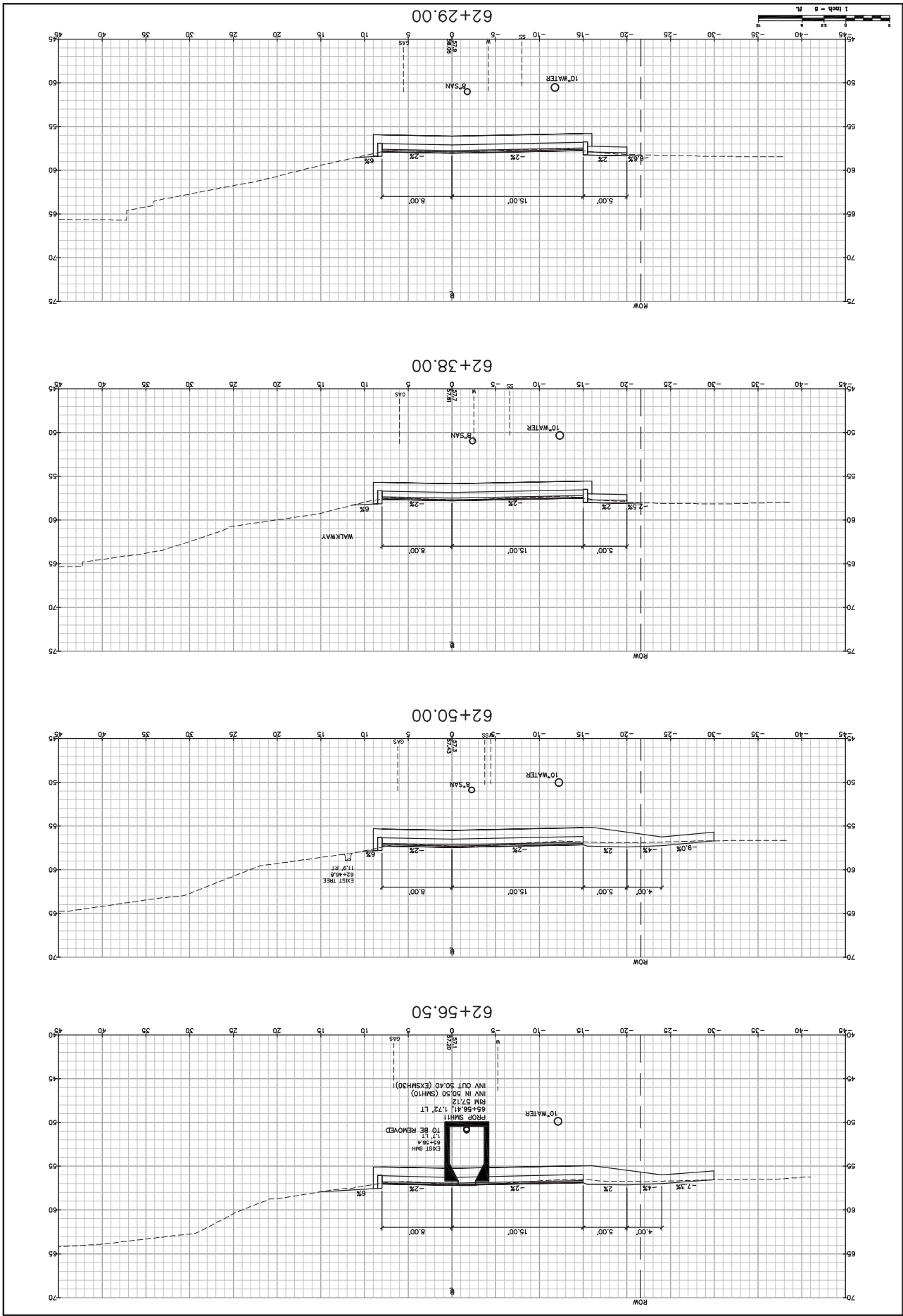
**Gorill-Palmer Consulting Engineers, Inc.**

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 Portsmouth, NH 03802  
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 E-Mail: mobil@gorillpalmer.com

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Design: RJB  
 Date: 08  
 Check: TJC  
 Issue: 1  
 Date: 2010

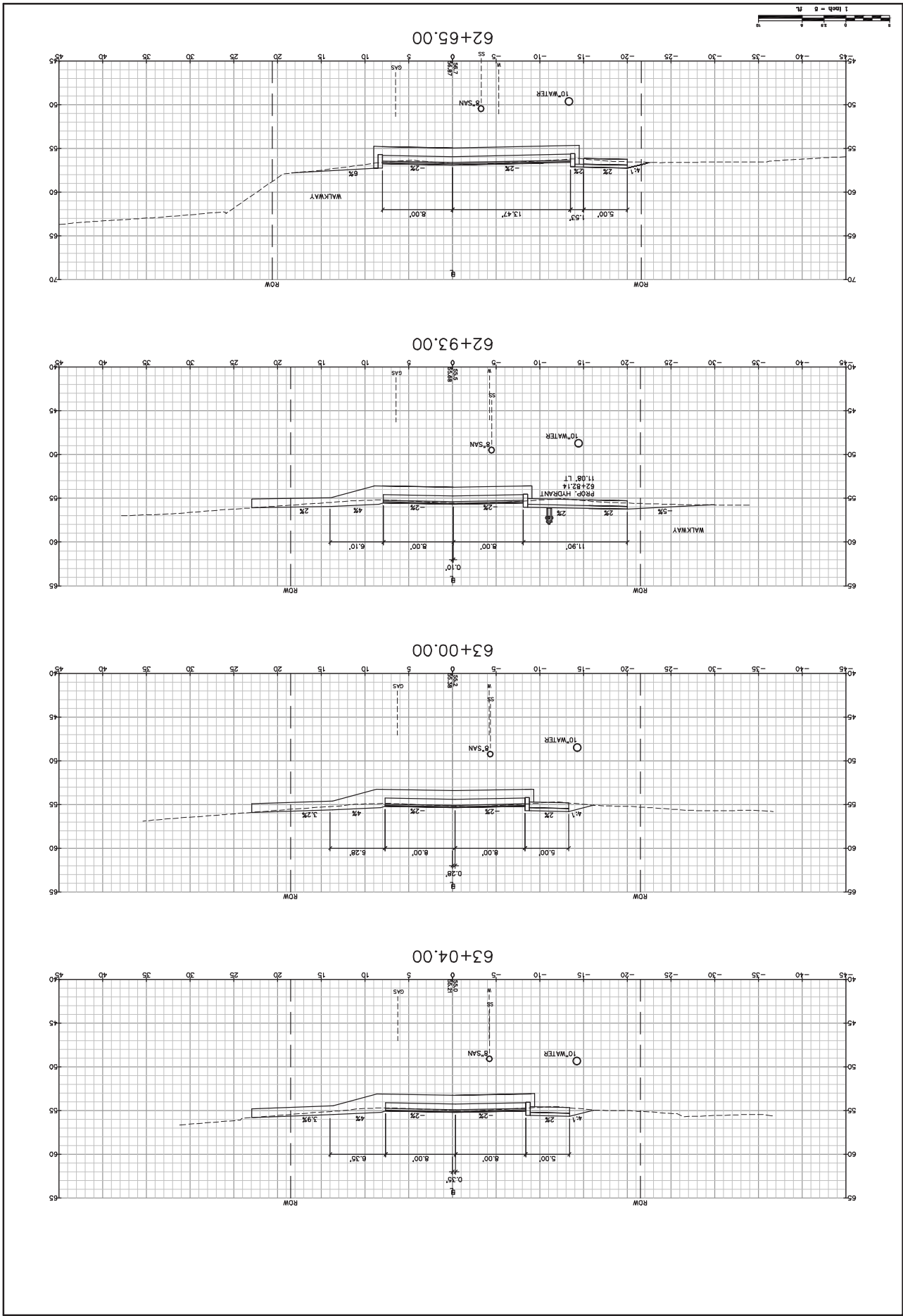


**City of Portsmouth**  
 1 Juniper Avenue, Portsmouth, NH 03802  
 Project: CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 Cross Sections - Concord Way

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**GP**  
 Design: RJS  
 Check: TJC  
 Date: 08/20/10  
 Scale: 1"=5'  
 Job No: 285

Drawing No. **54**













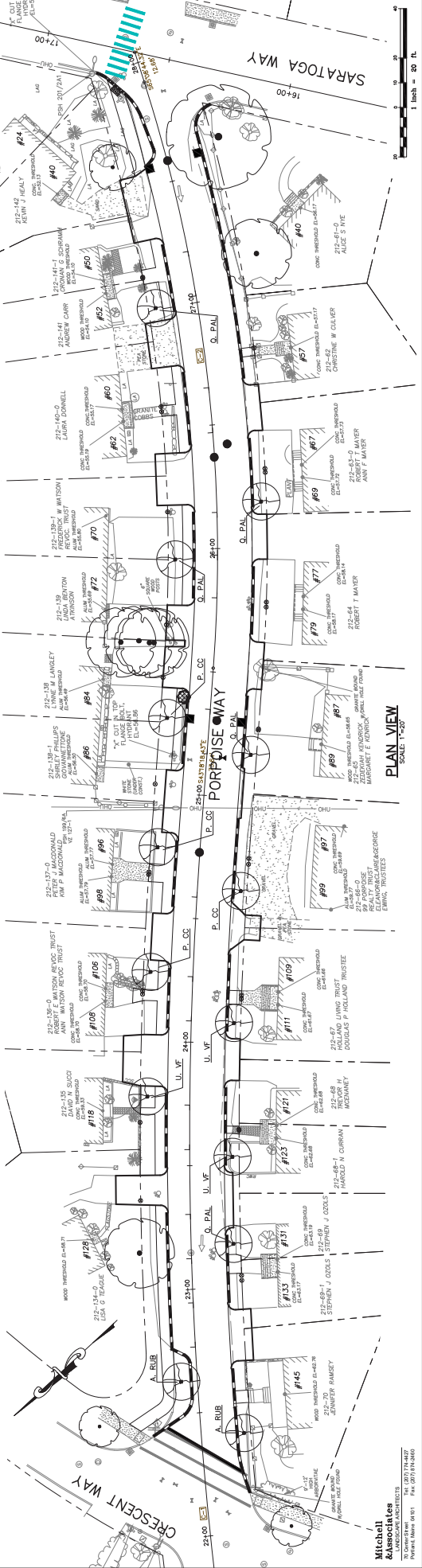
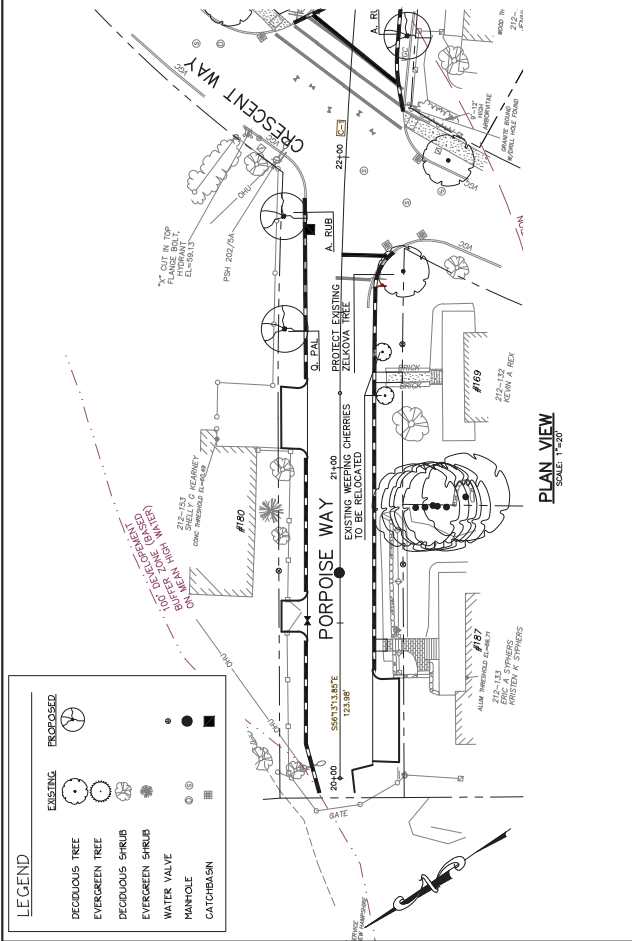


SHEET	DATE	BY	CHK
L1			X

**GENERAL PLANTING NOTES**

- DESIGN BASED ON DRAWINGS BY GORRILL-PALMER CONSULTING ENGINEERS, INC. CONTRACTOR SHALL VERIFY AND ADJUST TO ACTUAL FIELD CONDITIONS.
- CALL D.C. SAFE (61-888-344-7233) PRIOR TO BEGINNING WORK AND WATER BODIES, WETLANDS AND/OR DRAINAGE WAYS PRIOR TO ANY CONSTRUCTION.
- EXISTING TREES TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PROTECT FROM DAMAGE BY THE LANDSCAPE ARCHITECT OR CITY'S REPRESENTATIVE. SHOW FENCE SHALL BE LOCATED AT THE DRIP LINE AT A DO NOT TOUCH OR TALK ON THE TRUNK FLAKE. DO NOT DISTURB ROOTS. IN ORDER TO PROTECT THE INTEGRITY OF DRIP LINES, CONTRACTOR SHALL PROVIDE PROTECTIVE MATS OR VEHICLES OR CONSTRUCTION EQUIPMENT SHALL DRIVE OR PARK IN OR ON THE AREA WITHIN THE DRIP LINES OF THE TREE(S).
- CONTRACTOR SHALL VERIFY LAYOUT AND GRASSES TO BE PLANTED. CONTRACTOR SHALL VERIFY LAYOUT AND GRASSES TO BE PLANTED. CONTRACTOR SHALL VERIFY LAYOUT AND GRASSES TO BE PLANTED. CONTRACTOR SHALL VERIFY LAYOUT AND GRASSES TO BE PLANTED.
- CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
- DO NOT SCALE FROM DRAWINGS. ANY OMISSIONS IN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE PREDICATED BY THE LANDSCAPE ARCHITECT. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE PREDICATED BY THE LANDSCAPE ARCHITECT. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE PREDICATED BY THE LANDSCAPE ARCHITECT.
- THE GENERAL CONTRACTOR, AS PART OF THE BID DOCUMENTS, SHALL IDENTIFY THE LANDSCAPE SPACING. THE GENERAL CONTRACTOR SHALL SUBMIT CERTIFICATION FROM THE LANDSCAPE ARCHITECT THAT THE TYPE, NUMBER, LOCATION AND SET ASIDE SO THAT THEY WILL BE AVAILABLE FOR INSTALLATION AT THE END OF THE CONSTRUCTION PHASE.
- DURING LANDSCAPE OPERATIONS, THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND SHALL TAKE ALL MEANS NECESSARY TO STABILIZE AND PROTECT THE SITE FROM EROSION.
- EROSION CONTROL SHALL BE IN PLACE PRIOR TO LANDSCAPE CONSTRUCTION.
- EROSION CONTROL TO CONSIST OF PLY BALES AND EROSION CONTROL MATS TO BE INSTALLED PRIOR TO ANY CONSTRUCTION WORK AND WATER BODIES, WETLANDS AND/OR DRAINAGE WAYS PRIOR TO ANY CONSTRUCTION.
- EXISTING TREES TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PROTECT FROM DAMAGE BY THE LANDSCAPE ARCHITECT OR CITY'S REPRESENTATIVE. SHOW FENCE SHALL BE LOCATED AT THE DRIP LINE AT A DO NOT TOUCH OR TALK ON THE TRUNK FLAKE. DO NOT DISTURB ROOTS. IN ORDER TO PROTECT THE INTEGRITY OF DRIP LINES, CONTRACTOR SHALL PROVIDE PROTECTIVE MATS OR VEHICLES OR CONSTRUCTION EQUIPMENT SHALL DRIVE OR PARK IN OR ON THE AREA WITHIN THE DRIP LINES OF THE TREE(S).
- CONTRACTOR SHALL VERIFY LAYOUT AND GRASSES TO BE PLANTED. CONTRACTOR SHALL VERIFY LAYOUT AND GRASSES TO BE PLANTED. CONTRACTOR SHALL VERIFY LAYOUT AND GRASSES TO BE PLANTED. CONTRACTOR SHALL VERIFY LAYOUT AND GRASSES TO BE PLANTED.
- CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
- DO NOT SCALE FROM DRAWINGS. ANY OMISSIONS IN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE PREDICATED BY THE LANDSCAPE ARCHITECT. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE PREDICATED BY THE LANDSCAPE ARCHITECT.
- THE GENERAL CONTRACTOR, AS PART OF THE BID DOCUMENTS, SHALL IDENTIFY THE LANDSCAPE SPACING. THE GENERAL CONTRACTOR SHALL SUBMIT CERTIFICATION FROM THE LANDSCAPE ARCHITECT THAT THE TYPE, NUMBER, LOCATION AND SET ASIDE SO THAT THEY WILL BE AVAILABLE FOR INSTALLATION AT THE END OF THE CONSTRUCTION PHASE.
- DURING LANDSCAPE OPERATIONS, THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND SHALL TAKE ALL MEANS NECESSARY TO STABILIZE AND PROTECT THE SITE FROM EROSION.
- CITY OF CITY'S REPRESENTATIVE SHALL INSPECT PLANTS UPON SUCH APPROVAL SHALL NOT AFFECT THE PROGRESS OF THE PROJECT. SELECT ALL TREES AT THE PLACE OF GROWTH AND/OR ANNUAL AND GROUNDCOVER AT THE PLACE OF GROWTH. SUCH SAMPLE WILL BE USED AS A BENCHMARK STANDARD FOR ALL PLANTS OF THE SAME SPECIES USED IN THIS WORK.
- ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PORTSMOUTH PLANTING SPECIFICATIONS. PROPER PLANTING MIX, PLANT BED AND TREE FIT PREPARATION, PRUNING, STAKING OR CAGING, WEAPOPING, SPRAYING, AND MAINTENANCE SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PORTSMOUTH PLANTING SPECIFICATIONS.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR NOT LESS THAN ONE YEAR FROM THE DATE OF ACCEPTANCE.
- ALL TREE FITS AND SHRUB BEDS SHALL BE MULCHED WITH ONE YEAR-OLD, WELL COMPOSTED, SHREDDED NATIVE BLACK MULCH NOT LARGER THAN 4" IN LENGTH AND 2" IN WIDTH. MULCH SHALL BE APPLIED TO A DEPTH OF 3" IN ALL AREAS. MULCH NOT TO EXCEED 3" DEPTH. TREES IN LAWN AREAS SHALL BE MULCHED IN A 5' FOOT DIAMETER MINIMUM RADIUS, AND KEEPING MULCH AWAY FROM THE TREE TRUNK.
- ANY DEVIATION FROM THE LANDSCAPE PLAN INCLUDING PLANT SPECIES, LOCATION, PROPORTION, QUANTITY OR CONDITION SHALL BE APPROVED PRIOR TO INSTALLATION ON SITE. CITY'S REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO ANY DEVIATION.
- CITY IS SOLELY RESPONSIBLE FOR MAINTAINING VEHICULAR AND PEDESTRIAN VISION LINE'S PERTAINING TO VEGETATION GROWTH ONCE THE PLANTINGS HAVE BEEN APPROVED AND ACCEPTED.

SEE SHEET L3 FOR PLANTING DETAILS AND PLANT LIST



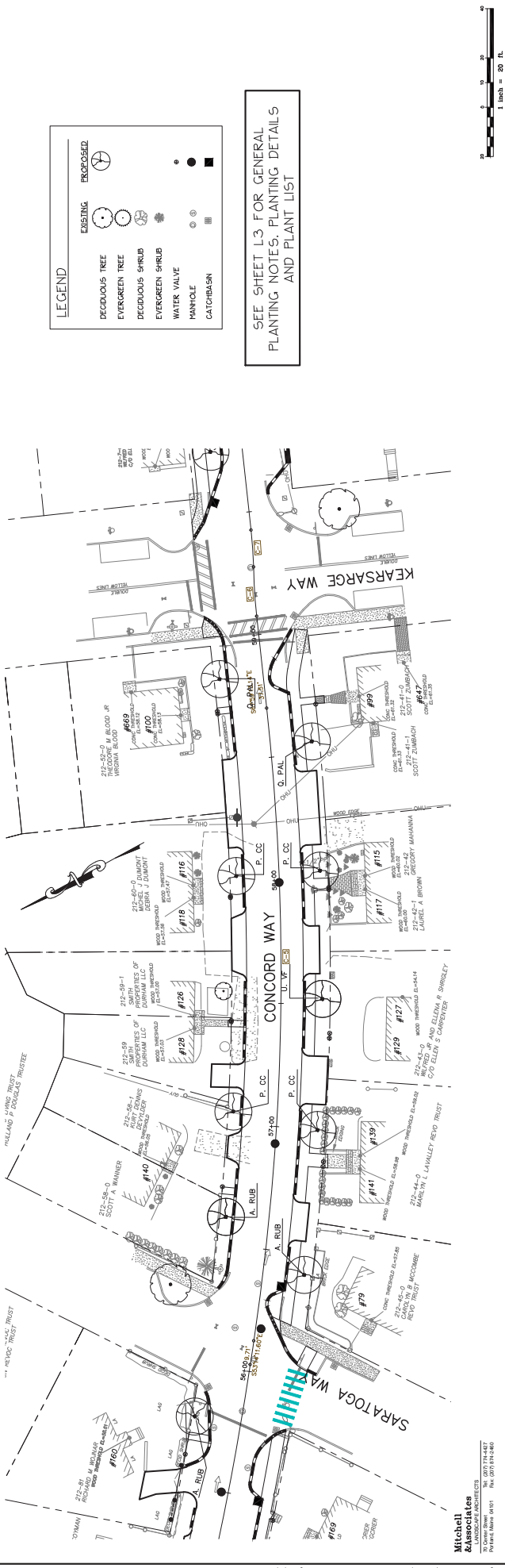
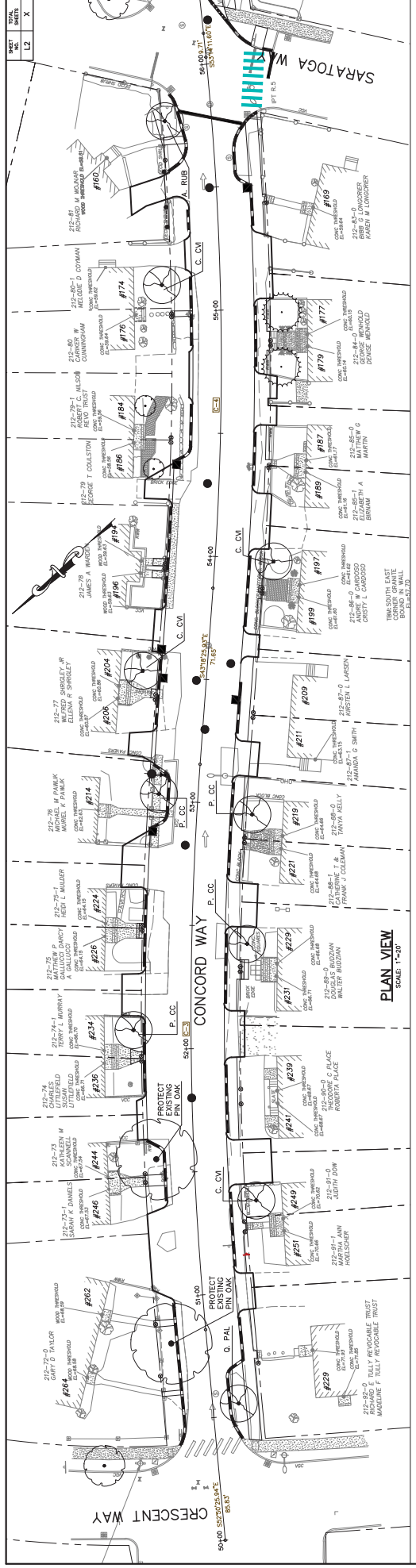
**Gorrill-Palmer Consulting Engineers, Inc.**  
 15 Shaker Road  
 Portsmouth, NH 03801  
 Phone: 603-867-8910  
 Fax: 603-867-8912  
 E-Mail: mblibow@gorrillpalmer.com

**City of Portsmouth**  
 1 Junkies Avenue, Portsmouth, NH 03802

**Streetscape Planting Plan - Porpoise Way**  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY

**Design RSM**    **Drawn:** BM    **Date:** MAR 2010  
**Checked:** T-207    **Job No.:** 2005  
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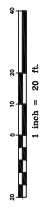
Rev.	Date	Revision
002	10/08/10	RSM
001	9/02/10	RSM
001	6/25/10	RSM



**LEGEND**

EXISTING TREE	EXISTING SHRUB	EXISTING WATER VALVE	EXISTING MANTOLE	EXISTING CATCHBASIN
PROPOSED TREE	PROPOSED SHRUB	PROPOSED WATER VALVE	PROPOSED MANTOLE	PROPOSED CATCHBASIN

SEE SHEET L3 FOR GENERAL PLANTING NOTES, PLANTING DETAILS AND PLANT LIST



Drawing No. **L2**  
**Streetscape Planting Plan - Concord Way - 1**  
 ATLANTIC HEIGHTS STREETSCAPE IMPROVEMENTS  
 CONCORD WAY & PORPOISE WAY, PORTSMOUTH, NH  
 City of Portsmouth  
 1 Junktions Avenue, Portsmouth, NH 03802

**GP** Gorrill-Palmer Consulting Engineers, Inc.  
 Engineering Excellence Since 1998  
 207-857-8910  
 207-857-8912  
 15 Shaker Road  
 Gray, ME 04039  
 E-Mail: muelhoeb@gpfirm.com

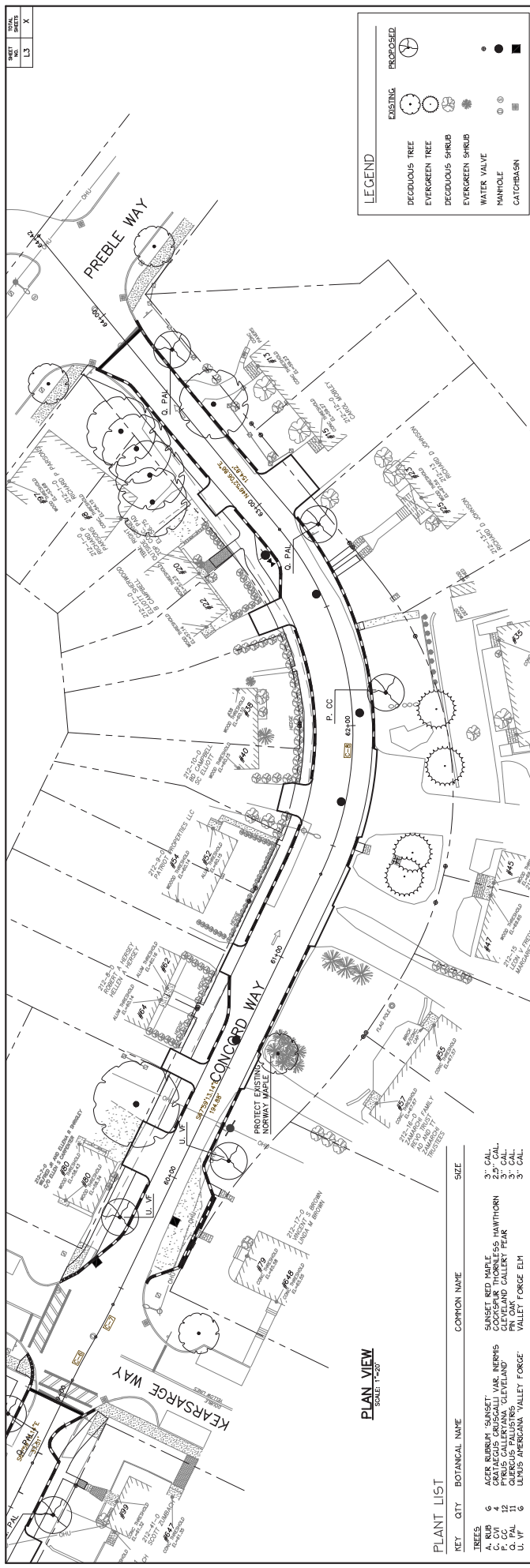
Design: RBM  
 Check: RBM  
 Scale: 1"=20'  
 Date: MAR 2010  
 Job No.: 2305  
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Rev.	Date	By
001	10/09/10	RBM
002	9/02/10	RBM
003	8/25/10	RBM

Rev.	Date	Revision

**Mitchell**  
**Associates**  
 75 Oyster Point Road  
 Portsmouth, NH 03801  
 Phone: (603) 881-1111  
 Fax: (603) 881-4460

1:\Projects\2010\2010-06-04\10-06-04\10-06-04.dwg 1/6/2011 1:05 PM



### GENERAL PLANTING NOTES

- DESIGN BASED ON DRAWINGS BY GORRILL-PALMER CONSULTING ENGINEERS. ALL PLANTING SHALL BE ADJUSTED TO MEET LOCAL CONDITIONS AND TO MATCH EXISTING PLANTING.
- CALL THE SITE SURVEYOR FOR ANY CHANGES TO THE PLANTING. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE RESPECTIVE UTILITIES PRIOR TO CONSTRUCTION AND DIGGING OPERATIONS.
- THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- LOCATION, SUPPORT, PROTECTION AND RESTORATION OR REPAIR OF ALL EXISTING UTILITIES INSTALLED FOR THE CONSTRUCTION OF PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL REPORT UTILITY OR OTHER SITE CONDITIONS TO PROVIDER PRIOR TO ANY CONSTRUCTION. LANDSCAPE MATERIAL SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.

- DO NOT SCALE FROM DRAWINGS. ANY OMISSIONS IN DIMENSIONING SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE CONTRACTOR. ANY DISCREPANCIES BETWEEN DIMENSIONS, DETAILS, NOTES AND LAYOUT AND/OR GATE RELATIONSHIPS PRIOR TO CONSTRUCTION.
- PROVIDE SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.
- CONTRACTOR SHALL FURNISH AND PLACE A MATURE OF 75% UNDER ALL TURF AREAS, OR OTHER AREAS WHICH HAVE BEEN EXPOSED TO THE SUN OR FROST FOR THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
- ALL GRASS, OTHER VEGETATION AND DEMERS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
- THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE DRAWINGS AND LISTED THEREON. ALL CONDITIONS SHALL BE AS SHOWN UNLESS OTHERWISE NOTED. MULCH NOT LARGER THAN 4" IN LENGTH AND 3" IN WIDTH. FREE OF WOODCHIPS, SANDWICHES AND OTHER DEBRIS. MULCH TO BE APPLIED TO THE ENTIRE PLANTING AREA. MULCH TO BE APPLIED IN A 9 FOOT DIAMETER RADIUS SAUCER, KEEPING MULCH AWAY FROM THE TREE TRUNK.
- ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY, OR CONDITION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CITY'S REPRESENTATIVE PRIOR TO INSTALLATION ON SITE.
- CITY IS SOLELY RESPONSIBLE FOR MAINTAINING VEHICLES AND PEDESTRIAN VISION LINES PERTAINING TO VEGETATION GROWTH ONCE THE PLANTINGS HAVE BEEN APPROVED AND ACCEPTED.

14. THE CONTRACTOR SHALL VERIFY LAYOUT AND GRADES TO REPRESENTATIVE OF ANY DISCREPANCIES OR CHANGES IN LAYOUT AND/OR GATE RELATIONSHIPS PRIOR TO CONSTRUCTION.

15. PROVIDE SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.

16. CONTRACTOR SHALL FURNISH AND PLACE A MATURE OF 75% UNDER ALL TURF AREAS, OR OTHER AREAS WHICH HAVE BEEN EXPOSED TO THE SUN OR FROST FOR THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.

17. ALL GRASS, OTHER VEGETATION AND DEMERS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.

18. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE DRAWINGS AND LISTED THEREON. ALL CONDITIONS SHALL BE AS SHOWN UNLESS OTHERWISE NOTED. MULCH NOT LARGER THAN 4" IN LENGTH AND 3" IN WIDTH. FREE OF WOODCHIPS, SANDWICHES AND OTHER DEBRIS. MULCH TO BE APPLIED TO THE ENTIRE PLANTING AREA. MULCH TO BE APPLIED IN A 9 FOOT DIAMETER RADIUS SAUCER, KEEPING MULCH AWAY FROM THE TREE TRUNK.

19. CITY OR CITY'S REPRESENTATIVE SHALL INSPECT PLANTS UPON DELIVERY TO THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUCH APPROVAL AND REJECTION DURING THE PROGRESS OF THE PROJECT. ALL TREES AT THE PLACE OF GROWTH AND AND/OR SELECT ALL TREES AT THE PLACE OF GROWTH AND AND/OR ANNUAL GROWTH RECORDS AT THE PLACE OF GROWTH. SUCH SAMPLE WILL SERVE AS A MINIMUM STANDARD FOR ALL PLANTS OF THE SAME SPECIES USED IN THIS WORK.

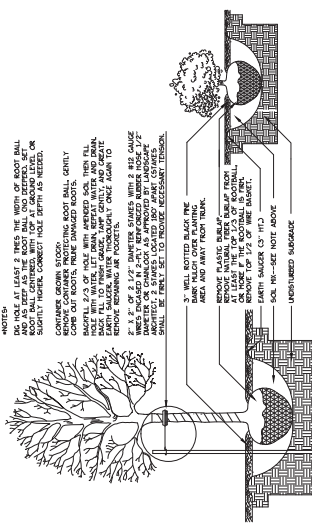
20. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING GUIDELINES: ALL PLANTS SHALL BE PLANTED IN THE PROPER PLANTING HOLE. ALL PLANTS SHALL BE PLANTED IN THE PROPER PLANTING HOLE. ALL PLANTS SHALL BE PLANTED IN THE PROPER PLANTING HOLE. ALL PLANTS SHALL BE PLANTED IN THE PROPER PLANTING HOLE.

21. THE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR NOT LESS THAN ONE YEAR FROM THE DATE OF ACCEPTANCE.

22. ALL TREES AND SHRUBS BEING PLANTED SHALL BE PLANTED WITH MULCH NOT LARGER THAN 4" IN LENGTH AND 3" IN WIDTH. FREE OF WOODCHIPS, SANDWICHES AND OTHER DEBRIS. MULCH TO BE APPLIED TO THE ENTIRE PLANTING AREA. MULCH TO BE APPLIED IN A 9 FOOT DIAMETER RADIUS SAUCER, KEEPING MULCH AWAY FROM THE TREE TRUNK.

23. ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY, OR CONDITION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CITY'S REPRESENTATIVE PRIOR TO INSTALLATION ON SITE.

24. CITY IS SOLELY RESPONSIBLE FOR MAINTAINING VEHICLES AND PEDESTRIAN VISION LINES PERTAINING TO VEGETATION GROWTH ONCE THE PLANTINGS HAVE BEEN APPROVED AND ACCEPTED.



**TREE AND SHRUB INSTALLATION**

1 inch = 20 ft

<b>Street Name</b> <b>Streetscape Planting Plan – Concord Way – 2</b>	
<b>Project:</b> ATLANTIC HEIGHTS STREET SCAPES IMPROVEMENTS CONCORD WAY & PORPHE WAY, PORTSMOUTH, NH	
<b>Client:</b> City of Portsmouth 1. Jinkins Avenue, Portsmouth, NH 03802	
<b>Drawing No.</b> <span style="font-size: 2em; font-weight: bold;">L3</span>	
<b>GP</b> Gorrill-Palmer Consulting Engineers, Inc. <i>Engineering Excellence Since 1998</i> PO Box 1337 15 Shover Road Groy, NH 04939 E-Mail: mitch@gorrillpalmer.com 207-657-8911 FAX: 207-657-8912	
<b>Design/Rev</b> Checked: 1/25/20 Date: 1/25/20 Scale: 1/2"=1'-0" Job No: 2585	This plan shall not be modified without written permission from Gorrill-Palmer Consulting Engineers, Inc. (GPCEI). Any alterations, deletions, or additions shall be the user's sole risk and without liability to GPCEI.
<b>9/8/2010</b> RRM <b>9/02/10</b> RRM <b>6/25/10</b> RRM	<b>Date</b> <b>By</b> Issued For
<b>1/26/11</b> ALIGNMENT-CONCORD ST AT PREBLE WAY	<b>Rev</b> <b>Date</b> <b>Revision</b>