CONTRACT DOCUMENTS AND SPECIFICATIONS

for

BID # 48-16

PORTSMOUTH CITY COUNCIL CHAMBERS IMPROVEMENTS

City of Portsmouth

State of New Hampshire

John P. Bohenko, City Manager

Prepared for:

City of Portsmouth Engineering Division Public Works Department

By:

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City of Portsmouth Portsmouth, New Hampshire Department of Public Works

COUNCIL CHAMBERS IMPROVEMENTS BID #48-16

INVITATION TO BID

<u>Sealed</u> bid proposals, <u>plainly marked</u>, Council Chambers Improvements, Bid Proposal #48-16 <u>on the outside of the mailing envelope as well as the sealed bid envelope</u>, addressed to the Finance/ Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire, 03801, will be accepted until 2:00 p.m., Monday June 13, 2016, at which time all bids will be publicly opened and read aloud. A mandatory pre-bid walkthrough will be held at the site on Thursday June 2, 2016 at 10:00 a.m. Vendors are to meet in the front lobby of City Hall.

Questions regarding the project must be submitted in writing to Lori MacGinnis, Purchasing Coordinator at purchasing@cityofportsmouth.com by 6:00 p.m., Monday June 6, 2016, and will be answered in the form of an addendum posted on the City's website http://www.cityofportsmouth.com/finance/purchasing.htm by 4:30 p.m., Wednesday June 8, 2016.

This project consists of replacing lighting, ceiling, carpet and paint in the Portsmouth City Council Chambers at 1 Junkins Ave, Portsmouth.

Work will be done in July and August. Final Completion of the project must occur 30 days after work has begun. Liquidated damages shall be assessed at \$300.00 per day. Hours of work will be 7AM to 6 PM weekdays.

The Council Chambers is frequently used and The Contractor will be required to perform daily cleanup to maintain access for the public and employees to the maximum degree possible.

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

Specifications may be obtained at the City's website: http://www.cityofportsmouth.com/finance/purchasing.htm Addenda to this project, if any, including written answers to questions, will not be provided directly to vendors, but will be posted by 4:30 p.m. Wednesday June 8, 2016. Electronic copies of the plans and specifications may be obtained off of the City's webpage. Documents are not available for pickup.

The City reserves the right, after bid opening and prior to award of the contract, to modify the amount of the work in the event that bids exceed budgeted amounts. The City of Portsmouth further reserves the right to reject any or all bids, to waive technical or legal deficiencies, to re-bid, and to accept any bid that it may deem to be in the best interest of the City. Also, the City reserves the right to approve or deny subcontractors for this project. An award of this project is contingent upon additional process and funding.

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 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.

INSTRUCTIONS TO BIDDERS

BIDDING REQUIREMENTS AND CONDITIONS

1. Special Notice to Bidders

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

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

Addenda to this bid document, if any, including written answers to questions, will be posted by 4:30 p.m. Wednesday June 8, 2016 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. Examination of Plans, Specifications and Site Work

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

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

3. Familiarity with Laws

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

4. Preparation of Proposal

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

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

5. Nonconforming Proposals

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

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

6. Proposal Guaranty

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

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

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

7. 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.

8. Withdrawal of Proposals

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

9. 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.

10. Disqualification of Bidders

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

- More than one proposal for the same work from an individual, firm, or corporation under the same or different name;
- Evidence of collusion among bidders;
- Failure to submit all required information requested in the bid specifications;
- Lack of competency or of adequate machinery, plant or other equipment, as revealed by the statement of bidders qualification or otherwise;
- Uncompleted work which, in the judgment of the owner, might hinder or prevent the prompt completion of additional work if awarded;
- Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts;
- Default or unsatisfactory performance on previous contracts; or
- Such disqualification would be in the best interests of the Owner.

11. Material Guaranty and Samples

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

AWARD AND EXECUTION OF CONTRACT

1. Consideration of Proposals

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

2. Award of Contract

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

3. Reservation of Rights

The Owner reserves the right to reject any or all proposals, to waive technicalities or to advertise for new proposals, if, in the sole discretion of the Owner, the best interest of the City of Portsmouth will be promoted thereby. The Owner further reserves the right to conduct such investigations of the contractor's history, financial resources, and other qualifications as it deems necessary to determine whether bidder is qualified to do the work. Bidder may be asked to execute releases. Failure to execute a release upon request may result in disqualification.

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.

The City reserves the right, after bid opening and prior to award of the contract, to modify the amount of the work in the event that bids exceed budgeted amounts. An award of this project is contingent upon additional process and funding.

4. Return of Proposal Guaranty

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

5. Contract Bonds

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

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

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

• The bond shall be in an amount equal to 20 percent of the contract amount. Such bond shall guarantee the repair of all damage due to faulty materials or workmanship provided or done by the contractor. The

guarantee shall remain in effect for a period of one year after the date of final acceptance of the job by the Owner.

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

6. Execution and Approval of Contract

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

7. Failure to Execute Contract

Failure to execute the contract and to provide acceptable bonds and proof of insurance 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 City may exercise its reserved rights including the rejection of all bids or re-advertisement.

PROPOSAL FORM

COUNCIL CHAMBERS IMPROVEMENTS

CITY OF PORTSMOUTH, N.H.

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

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

- 1. All interested in the Bid as Principals are named herein.
- 2. This bid is not made jointly, or in conjunction, cooperation or collusion with any other person, firm, corporation, or other legal entity;
- 3. No officer, agent or employee of the Owner is directly or indirectly interested in this Bid.
- 4. The bidder has carefully examined the sites of the proposed work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this Bid, and the bidder has carefully read and examined the Drawings, Agreement, Specifications and other Contract Documents therein referred to and knows and understands the terms and provisions thereof;
- 5. The bidder understands that the quantities of work indicated on the Drawings or in the Specifications are approximate and are subject to increase or decrease or deletion as deemed necessary by the Director of Public Works. 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.

To Bidder:

The City reserves the right, after bid opening and prior to award of the contract, to modify the amount of the work in the event that bids exceed budgeted amounts and/or easements and agreements from one or more impacted property owners are not received.

It is the intention of this contract that the items listed above describe completely and thoroughly the entirety of the work as shown on the plans and as described in the specifications. All other items required to accomplish the above items are considered to be subsidiary work, unless shown as a pay item.

PROPOSAL FORM (Continued)

This Project will be bid by the LUMP SUM.

TOTAL FOR PROJECT AND BASIS OF AWARD

In Figures \$	
In Words \$	
	work, if any, performed in accordance with the terms and the bidder will accept compensation as stipulated therein.
Date:	
	Bv:
Company	By:Signature
Business Address	Title:
City, State, Zip Code	Telephone:
The Bidder has received and acknowle	dged Addenda Nothrough
	rm and in a sealed envelope, plainly marked on the outside d the Project name as it appears at the top of the Proposal
sent electronically. Please provide an e	lity practices, future bid invitations/specifications may be smail address as to where I could email future bid Thank you in advance for your cooperation.
Email Address:	

BID SECURITY BOND

(This format provided for convenience, actual Bid Bond is acceptable in lieu of, if compatible.)
KNOW ALL MEN BY THESE PRESENTS, that we the undersigned
, as Principal, and
, as Surety, are hereby
held and firmly bound unto
IN THE SUM OF
as liquidated damages for payment of which, well and truly to be made we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.
The condition of this obligation is such that whereas the Principal has submitted to the
A CERTAIN Bid attached hereto and hereby made a part hereof to enter into a contract in writing, hereinafter referred to as the "AGREEMENT" and or "CONTRACT", for

NOW THEREFORE,

- (a) If said Bid shall be rejected or withdrawn as provided in the INFORMATION FOR BIDDERS attached hereto or, in the alternative,
- (b) If said Bid shall be accepted and the Principal shall duly execute and deliver the form of AGREEMENT attached hereto and shall furnish the specified bonds for the faithful performance of the AGREEMENT and/or CONTRACT and for the payment for labor and materials furnished for the performance of the AGREEMENT and or CONTRACT, then this obligation shall be void, otherwise it shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder in no event shall exceed the amount of this obligation.

BID SECURITY BOND (continued)

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

IN WITNESS W	HEREOF, the pa	arties hereto have	duly executed
this bond on the _		day of	, 20
	(Name of Pri	L.S ncipal)	
(SEAL)			
В	Y		
(N	ame of Surety)		
В	7		

STATEMENT OF BIDDER'S QUALIFICATIONS

Supply with Bid

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

1.	Name of Bidder		
2.	Permanent Main Office Address		
3.	Form of Entity		
4.	When Organized		
5.	Where Organized		
6.	How many years have you been engaged in the contracting business under your present name; also state and dates of previous firm names, if any.		
7.	Contracts on hand; (schedule these, showing gross amount of each contract and the approximate anticipated 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. the me	List the most important contracts recently executed by your company, stating approximate cost for each, and onth and year completed.		
13.	List your major equipment available for this contract.		
14.	List your key personnel such as project superintendent and foremen available for this contract.		
15.	List subcontractors for the following categories whom you will use for the following (unless this work is to be done by your own organization, in which case please state).		
	a. Electrical		
	b. Acoustical Ceiling		
	c. Carpet		
	d. Paint		

STATEMENT OF BIDDERS QUALIFICATIONS (continued)

The City reserves the right to disallow \underline{any} subcontractor including work proposed to be completed by the General Contractor.

16. With what banks do you do business?
a. Do you grant the Owner permission to contact this/these institutions?(yes)(no).
b. Latest Financial Statements, certified audited if available, prepared by an independent certified public accountant, may be requested by Owner. If requested, such statements must be provided within five (5) business days or the bid proposal will be rejected. Certified Audited Statements 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 isof(Name of Organization)
and answers to the foregoing questions and all statements contained therein are true and correct.
Sworn to before me thisday of, 20
Notary of Public
My Commission expires

CONTRACT AGREEMENT

COUNCIL CHAMBERS IMPROVEMENTS

THIS AGREEMENT made as of the	day of	in the year 2016 , by and between the City
of Portsmouth, New Hampshire (hereinafte	r call the Owner) and _	(hereinafter called the
Contractor),		

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

ARTICLE I- Work - The Contractor shall perform all work as specified or indicated in the Contract Documents for the completion of the Project. The Contractor shall provide, at his expense, all labor, materials, equipment and incidentals as may be necessary for the expeditious and proper execution of the Project.

ARTICLE II - ENGINEER - The 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. **All work shall be substantially completed no later than** 30 days after starting.

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 - Upon final acceptance of the work and settlement of all claims, Owner shall pay the Contractor the 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 **ten percent** of the Contract Price as specified in the Contract Documents for one year during the Warranty period.

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 **three hundred dollars** (\$300) for each calendar day beyond the specified completion date for each section of work. Liquidated damages shall be deducted from the Contract Price prior to final payment of the Contractor.

CONTRACT AGREEMENT (continued)

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

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

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

ARTICLE X – INDEMNIFICATION OF OWNER – Contractor will indemnify Owner against all suits, claims, judgments, awards, loss, cost or expense (including without limitation attorneys' fees) arising in any way out of the Contractor's negligent performance 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 other permits and consents required by law as necessary to perform the work and will give all notices and pay all fees and otherwise comply with all applicable City, State, and Federal laws, ordinances, rules and regulations.

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

ARTICLE XIII – MISCELLANEOUS –

- A. Neither Owner nor Contractor shall, without the prior written consent of the other, assign, sublet or delegate, in whole or in part, any of its rights or obligations under any of the Contract Documents; and, specifically not assign any monies due, or to become due, without the prior written consent of Owner.
- B. Owner and Contractor each binds himself, his partners, successors, assigns and legal representatives, to the other party hereto in respect to all covenants, agreements and obligations contained in the Contract Documents.
- C. The Contract Documents constitute the entire Agreement between Owner and Contractor and may only be altered amended or repealed by a duly executed written instrument.
- D. The laws of the State of New Hampshire shall govern this Contract without reference to the conflict of law principles thereof.
- E. Venue for any dispute shall be the Rockingham County Superior Court unless the parties otherwise agree.

IN WITNESS WHEREOF, the parties hereunto executed this

AGREEMENT the day and year first above written.

TITLE: City Manager

	BIDDER:
BY:	
TITLE:	
	CITY OF PORTSMOUTH, N.H.
BY:	John P. Bohenko

NOTICE OF INTENT TO AWARD

Date:

10:		
IN AS MUCH as you were the low responsible bidder for work entitled:		
COUNCIL CHAMBERS IMPROVEMENTS BID #48-16		
You are hereby notified that the City intends to award the aforesaid project to you.		
Immediately take the necessary steps to execute the Contract and to provide required bonds and proof of insurance within ten (10) calendar days from the date of this Notice.		
The City reserves the right to revoke this Notice if you fail to take the necessary steps to execute this Contract.		
City of Portsmouth Portsmouth, New Hampshire		
Judie Belanger,		

Finance Director

NOTICE TO PROCEED

DATE:

COUNCIL CHAMBERS IMPROVEMENTS BID #48-16

TO:	
YOU ARE HEREBY NOTIFIED TO CO	OMMENCE WORK IN ACCORDANCE
WITH THE AGREEMENT DATED	AND ALL
WORK SHALL BE COMPLETED BY	·
CITY OF PORTSM	MOUTH, N.H.
BY: Peter H. Rice,	PE
TITLE: Public Work	s Director
ACCEPTANCE OF NOTICE	
RECEIPT OF THE ABOVE NOTICE T PROCEED IS HEREBY ACKNOWLEI	
This theday of	_ 20
By:	
Title	

CHANGE ORDER

Change Order Num	ber	Date of Issuance		
Owner: CITY OF P	ORTSMOUTH, N.H			
Contractor:				
You are directed to	make the following ch	nanges in the Contract Documents:		
Description:				
Purpose of Change	Order:			
Attachments:				
CHANGE IN CONTRACT PRICE		CHANGE IN CONTRACT TIME		
Original Contract Price: \$		Original Completion Date:		
Contract Price prior to this Change Order: \$		Contract date prior to this Change Order:		
Net Increase or Decrease of this Change Order:		Net Increase or Decrease of this Change Order:		
Contract Price with all approved Change Orders: \$		Contract Due date with all approved Change Orders:		
RECOMMENDED	:	APPROVED:	APPROVED:	
by	by	by	by	
PW Director	City Finance	City Manager	Contractor	

LABOR AND MATERIAL PAYMENT BOND

(This format provided for convenience, actual Labor and Material Bond is acceptable in lieu, if compatible) Bond Number KNOW ALL MEN BY THESE PRESENTS: as Principal, hereinafter called Contractor, and _____ _____ (Surety Company) a corporation organized and existing under the laws of the State of and authorized to do business in the State of New Hampshire hereinafter called Surety, are held and firmly bound unto the City of Portsmouth, N.H. Obligee, hereinafter called Owner, for the use and benefit of claimants as herein below defined, in the _____ 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 _____ in accordance with drawings and contract with Owner for ___ specifications prepared by the Public Works Department, 680 Peverly Hill Road, Portsmouth, N.H. 03801, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract and for the hire of all equipment, tools, and all other things contracted for or used in connection therewith, then this obligation shall be void, otherwise it shall remain in full force and effect, subject however, to the following conditions:

- (1) A claimant is defined as one having a direct contract with the Principal or, with a subcontractor of the Principal for labor, material, equipment, or other things used or reasonably required for use in the performance of the Contract. "Labor and material" shall include but not be limited to that part of water, gas, power, light, heat, oil and gasoline, telephone service or rental of equipment applicable to the Contract.
- (2) The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such a claimant, may sue on this bond for the use of such claimant, prosecute the suit by final judgment for such sum or sums as may be

LABOR AND MATERIAL PAYMENT BOND (continued)

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

- (3) No suit or action shall be commenced hereunder by any claimant:
- (a) Unless Claimant, other than one having a direct contract with the Principal, shall have given notice to all the following:

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

- (b) After the expiration of one (1) year following the date on which Principal ceased all work on said contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
- (c) Other than in a State court of competent jurisdiction in and for the county or other political subdivision of the State in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere. (4) The amount of this bond may be reduced by and to the extent of any payment of payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed on record against said improvement, whether or not claim for the amount of such lien by presented under and against this bond.

Signed and sealed this	day of	, 20	In the presence of
	BY:		_
(Witness)	(Principal) (Seal)		
(Surety Company)		
	BY:		_
(Witness)		(Title) (Seal)	

LABOR AND MATERIAL PAYMENT BOND (continued)

Note:

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

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

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

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

MAINTENANCE BOND

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

CONTRACTOR'S AFFIDAVIT

STATE OF:	
COUNTY OF:	
Before me, the undersigned, a(Notary Public, Justice of the Peace	e)
in and for said County and State personally appeared,(Individual, Partner, or duly authorized repres	
who, being duly sworn, according to law deposes and sa	ays that the cost of labor, material, and
equipment and outstanding claims and indebtedness of v	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: Council Chambers I	mprovements
	(Individual, Partner, or duly authorized representative of Corporate Contractor)
Sworn to and subscribed before me thisday of 20	

CONTRACTOR'S RELEASE

KNOW ALL MEN BY THI	ESE PRESENTS that		
(Contractor) of	, County of	and State of	
	does her	eby acknowledge	
that	(Co	(Contractor)	
has on this day had, and rece	eived from the CITY OF PORTSMOUTH N	EW HAMPSHIRE, final and completed	
payment for the Constructio	n of:		
Council Chambers Im	provements NOW THEREFORE, the sai	id	
do/does by these present Portsmouth, New Hamparising from or in conneall, and all manners of a dues, duties, sum and successors, contracts, aga claims and demand, who New Hampshire, its successors and assig administrators) (it, its successor of any matter, cathese presents.	tecutors, and administrators) (for itselects remise, release, quit-claim and fore oshire, its successors and assigns, of a fection with the said Contract dated action and actions, cause and causes of money, accounts, reckonings, greements, promises, variances, damagatsoever in law of equity, or otherwise accessors and assigns, which (I, my heins) ever had, now have or which (I, muccessors and assigns) hereafter can shouse, or thing whatsoever; from the beautiful testing the same accessors and assigns are successors are successors and assigns are successors and assigns are successors and assigns are successors are successors and assigns are successors are successors and assigns are successors are succ	ever discharge the City of and from all claims and demands, and of and from of action and actions, suits, debts, bonds, bills, specifications, ges, judgments, extents, executions is, against the City of Portsmouth, irs, executors, or administrators) (it, my heirs, executors, or shall or may have, for, upon or by	
IN WITNESS WHEREOF,	Contractor:		
print name of witness:	By: Its Duly Authorized	 d	
Dated:	•		

GENERAL REQUIREMENTS

SCOPE OF WORK

1. INTENT OF CONTRACT

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

2. INCIDENTAL WORK

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

- a. Clean up
- b. Signs
- c. Mobilization/Demobilization (unless otherwise paid for)
- d. Restoration of property
- e. Cooperation with other contractors, abutters and utilities.
- f. Accessories and fasteners or components required to make items paid for under unit prices or lump sum items complete and functional.

3. ALTERATION OF PLANS OR OF CHARACTER OF WORK

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

4. EXTRA WORK ITEMS

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

5. CHANGE ORDERS

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

6. FINAL CLEANING UP

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

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

7. ERRORS AND INCONSISTENCY IN CONTRACT DOCUMENTS

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

1. Technical Specifications will govern General Requirements.

CONTROL OF WORK

1. AUTHORITY OF ENGINEER

- (a) All work shall be done under supervision of the Engineer and to his satisfaction. The Engineer will decide all questions which may arise as to the quality and acceptability of materials furnished and work performed and as to the rate of progress of the work; all questions that may arise as to the interpretation of the plans and specifications; and all questions as to the acceptable fulfillment of the Contract by the Contractor.
- (b) The Engineer will have the authority to suspend the work wholly or in part for such periods as he may deem necessary due to the failure of the Contractor to correct conditions unsafe for workers or the general public; for failure to carry out provisions of the Contract; for failure to carry out orders; for conditions considered unsuitable for the prosecution of the work, including unfit weather; or for any other condition or reason deemed to be in the public interest. The Contractor shall not be entitled any additional payments arising out of any such suspensions.
- (c) The Owner reserves the right to demand a certificate of compliance for a material or product used on the project. When the certificate of compliance is determined to be unacceptable to the Engineer the Contractor may be required to provide engineering and testing services to guarantee that the material or product is suitable for use in the project, at its expense (see Sample of Certificate of Compliance).

2. PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPES

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

3. MAINTENANCE DURING CONSTRUCTION

The Contractor shall maintain the work during construction and until the project is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and workers to ensure that the structure is kept in satisfactory conditions at all times. Daily cleanup is required that will allow off hour the use of the work area in a safe manner.

CONTROL OF WORK (continued)

4. SAFETY PRECAUTIONS

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

5. PERMITS

It will be the responsibility of the Contractor to obtain all permits required. Permit fees will be waived.

6. BARRICADES AND WARNING SIGNS

- a) The Contractor shall provide, erect and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs and other devices, and shall take all necessary precautions for the protection of the work and safety of the public. Obstructions shall be illuminated during hours of darkness. Suitable warning signs shall be provided to control and direct the public in a proper manner, as approved by the engineer.
- (b) The Contractor will be held responsible for all damage to the work due to lack of adequate controlling devices.

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

TEMPORARY FACILITIES

1. STORAGE FACILITIES

- (a) The Contractor shall not store materials or equipment in a public right-of-way beyond the needs of one working day. Equipment and materials shall be stored in an approved location.
- (b) The Contractor shall protect all stored materials from damage by weather or accident and shall insure adequate drainage at and about the storage location.
- (c) Prior to final acceptance of the work all temporary storage facilities and surplus stored materials shall be removed from the site.

2. TEMPORARY WATER

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

3. TEMPORARY ELECTRICITY

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

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

INSURANCE REQUIREMENTS

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

AMOUNT OF INSURANCE

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

Coverage amounts may be met with excess policies

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.

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 Insureds.

- 1) The contractor's insurance shall be primary in the event of a loss.
- 2) 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

MEASUREMENT AND PAYMENT

1.BASE BID

- (a) Measurement Measurement for payment for construction of this project shall be on a lumpsum basis.
- (b) Payment- Payment of the lump-sum price under the Base Bid of the Proposal shall fully compensate the Contractor for furnishing all labor, materials, equipment and incidentals required for work.

2. ADDITIONAL WORK

- (a) Increases or decreases in the quantities of certain classes of work, when ordered or approved in writing by the Engineer.
- (b)Additional Work, if any shall be performed at a mutually satisfactory price agreed upon between the Owner, Engineer and Contractor.

3. SUPPLEMTAL UNIT MEASUREMENT

- (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) The term "lump sum" when used as an item of payment will mean complete payment for the work described in the item.
- (d) 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.
- (e) Material wasted without authority will not be included in the final estimate.

2. SCOPE OF PAYMENT

- (a) The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials and for performing all work under the contract in a complete and acceptable manner and for all risk, loss, damage or expense of whatever character arising out of the nature of the work or the prosecution thereof.
- (b) The Contractor shall be liable to the Owner for failure to repair, correct, renew or replace, at his own expense, all damage due or attributable to defects or imperfections in the construction which defects or imperfections may be discovered before or at the time of the final inspection and acceptance of the work.
- (c) No monies, payable under the contract or any part thereof, except the first estimate, shall become due or payable if the Owner so elects, until the Contractor shall satisfy the Owner that the Contractor has fully

settled or paid all labor performed or furnished for all equipment hired, including trucks, for all materials used, and for fuels, lubricants, power tools, hardware and supplies purchased by the Contractor and used in carrying out said contract and for labor and parts furnished upon the order of said Contractor for the repair of equipment used in carrying out said contract; and the Owner, if he so elects, may pay any and all such bills, in whole or in part, and deduct the amount of amounts so paid from any partial or final estimate, excepting the first estimate.

3. COMPENSATION FOR ALTERED QUANTITIES

- (a) Except as provided for under the particular contract item, when the accepted quantities of work vary from the quantities in the bid schedule the Contractor shall accept as payment in full, so far as contract items are concerned, at the original contract unit prices for the accepted quantities of work done. No allowance will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense on the part of the Bidder and subsequent loss of expected reimbursements therefore or from any other cause.
- (b) Extra work performed will be paid for at the contract bid prices or at the price negotiated between the Owner and the Contractor if the item was not bid upon. If no agreement can be negotiated, the Contractor will accept as payment for extra work, cost plus 15% (overhead and profit). Costs shall be substantiated by invoices and certified payroll.

4. PARTIAL PAYMENTS

No partial payments will be made on this project. Payment will be made upon final acceptance of the work, less ten percent (10 %) retainage to be held for the duration of the one year Warranty Period.

5. FINAL ACCEPTANCE

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

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

6. ACCEPTANCE AND FINAL PAYMENT

- (a) When the project has been accepted and upon submission by the Contractor of all required reports, completed forms and certifications, the Owner will review the final estimate of the quantities of the various classes of work performed. The Contractor may be required to certify that all bills for labor and material used under this contract have been paid.
- (b) The Contractor shall file with the Owner any claim that the Contractor may have regarding the final estimate at the same time the Contractor submits the final estimate. Failure to do so shall be a waiver of all such claims and shall be considered as acceptance of the final estimate. From the total amount ascertained as payable, an amount equal to ten percent (10%) of the whole will be deducted and retained

by the Owner for the guaranty period. This retainage may be waived, at the discretion of the City, provided the required Maintenance Bond has been posted. After approval of the final estimate by the Owner, the Contractor will be paid the entire sum found to be due after deducting all previous payments and all amounts to be retained or deducted under the provisions of the contract.

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

7. GENERAL GUARANTY AND WARRANTY OF TITLE

- (a) Neither the final certification of payment nor any provision in the contract nor partial or entire use of the improvements embraced in this Contract by the Owner or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express or implied warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom which shall appear within a period of twelve (12) months from the date of final acceptance of the work. The Owner will give notice of defective materials and work with reasonable promptness.
- (b) No material, supplies or equipment to be installed or furnished under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale, lease purchase or other agreement by which an interest therein or in any part thereof is retained by the Seller or supplier. The Contractor shall warrant good title to all materials, supplies and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon by him to the Owner free from any claims, liens or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have the right to a lien upon any improvements or appurtenances thereon.

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

8. NO WAIVER OF LEGAL RIGHTS

- (a) Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or be stopped from recovering from the Contractor or his Surety, or both, such overpayment as it may sustain by failure on the part of the Contractor to fulfill his obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.
- (b) The Contractor, without prejudice to the Contract shall be liable to the terms of the Contract, shall be liable to the Owner for latent defects, fraud or such gross mistakes as may amount to fraud, and as regards the Owner's right under any warranty or guaranty.

9. TERMINATION OF CONTRACTOR'S RESPONSIBILITY

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

TECHNICAL SPECIFICATIONS

011000	Summary
017000	Execution and Closeout Requirements
024119	Selective Structure Demolition
095123	Acoustical Tile Ceilings
096513	Resilient Base and Accessories
096816	Sheet Carpeting
099100	Painting
260500	Electrical Work results
260923	Lighting Control Devices
262913	Enclosed Controllers
265000	Lighting

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY OF WORK

- A. Project: BID #00-16 Council Chambers Improvements
- B. The Work consists of:
 - 1. Removal and disposal of existing ceiling system and ceiling lighting.
 - 2. Installation of new lighting, acoustical ceiling, and projector screen mount.
 - 3. Removal and resetting of ceiling mounted speakers and ventilation registers.
 - 4. Painting of the walls
 - 5. Carpet removal and installation of new carpet.
- C. Work Under Other Contracts:
 - 1. Removal and resetting of cameras
 - 2. Installation of projector and projector screen

1.2 WORK RESTRICTIONS

- A. Work will be completed in phases:
 - 1. Phase 1 July 13 July 30, 2016.
 - a. Replace ceiling and lighting, remove and reset ceiling speakers.
 - 2. Phase 2 August 2- August 14, 2016
 - a. Paint walls
 - 3. Phase 3 August 16- September 2, 2016
 - a. Replace carpet
- B. Contractor's Use of Premises: During construction, Contractor will have limited use of space indicated. Contractor's use of premises is limited only by Owner's right to perform work or employ other contractors on portions of Project, and as follows:
 - 1. Owner will occupy premises during construction. Perform construction only during normal working hours; 7 AM to 6 PM Monday thru Friday, other than holidays. Work on Saturdays will be allowed if agreed to in advance by Owner.
 - 2. This is a public meeting room. Contractor will clean up work areas and return the room to a safe, useable condition at the end of each work day.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 011000

SUMMARY 011000 - 1

SECTION 017000 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 CLOSEOUT SUBMITTALS

- A. Electrical Record Drawings: Provide a Record Drawings to show actual installation, circuitry and panelboards.
 - 1. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
- B. Operation and Maintenance Data: Submit 2 copies of O&M manual. Organize data into threering binders with identification on front and spine of each binder, and envelopes for folded drawings. Include the following:
 - 1. Manufacturer's operation and maintenance documentation.
 - 2. Maintenance and service schedules.
 - 3. Maintenance service contracts.
 - 4. Emergency instructions.
 - 5. Spare parts list.
 - 6. Wiring diagrams.
 - 7. Copies of warranties.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Examine substrates and conditions for compliance with manufacturer's written requirements including, but not limited to, surfaces that are sound, level, plumb, smooth, clean, and free of deleterious substances; substrates within installation tolerances; and application conditions within environmental limits. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to property survey and existing benchmarks.
- C. Take field measurements as required to fit the Work properly. Where fabricated products are to be fitted to other construction, verify dimensions by field measurement before fabrication and, when possible, allow for fitting and trimming during installation.

3.2 CUTTING AND PATCHING

- A. Do not cut structural members or operational elements without prior written approval of Architect.
- B. Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.
- C. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.

3.3 INSTALLATION

- A. Comply with manufacturer's written instructions for installation. Anchor each product securely in place, accurately located and aligned with other portions of the Work. Clean exposed surfaces and protect from damage.
- B. Clean Project site and work areas daily, including common areas.

3.4 FINAL CLEANING

- A. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion:
 - 1. Remove labels that are not permanent.
 - 2. Clean transparent materials, including mirrors. Remove excess glazing compounds. Replace chipped or broken glass.
 - 3. Clean exposed finishes to a dust-free condition, free of stains, films, and foreign substances. Sweep concrete floors broom clean.
 - 4. Vacuum carpeted surfaces and wax resilient flooring.
 - 5. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication. Clean plumbing fixtures. Clean light fixtures, lamps, globes, and reflectors.
 - 6. Clean Project site, yard, and grounds, in areas disturbed by construction activities. Sweep paved areas; remove stains, spills, and foreign deposits. Rake grounds to a smooth, even-textured surface.

3.5 CLOSEOUT PROCEDURES

- A. Substantial Completion: Before requesting Substantial Completion inspection, complete the following:
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, maintenance service agreements, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

- 5. Submit Record Drawings and Specifications, operation and maintenance manuals, and similar final record information.
- 6. Deliver tools, spare parts, extra materials, and similar items.
- 7. Complete startup testing of systems.
- 8. Remove temporary facilities and controls.
- 9. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- 10. Complete final cleaning requirements, including touchup painting.
- 11. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will proceed with inspection or advise Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will advise Contractor of items that must be completed or corrected before certificate will be issued.
- C. Request inspection for Final Completion, once the following are complete:
 - 1. Submit a copy of Substantial Completion inspection list stating that each item has been completed or otherwise resolved for acceptance.
 - 2. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- D. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- E. Submit a written request for final inspection for acceptance. On receipt of request, Architect will proceed with inspection or advise Contractor of unfulfilled requirements. Architect will prepare final Certificate for Payment after inspection or will advise Contractor of items that must be completed or corrected before certificate will be issued.

3.6 DEMONSTRATION AND TRAINING

- A. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system. Include a detailed review of the following:
 - 1. Include instruction for basis of system design and operational requirements, review of documentation, emergency procedures, operations, adjustments, troubleshooting, maintenance, and repairs.

SECTION 024119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Remove and dispose of existing:
 - 1. metal ceiling
 - 2. Ceiling lights
 - 3. Floor carpet
- B. Remove and salvage ceiling mounted speakers for reinstallation.

1.2 SECTION REQUIREMENTS

- A. Items indicated to be removed and salvaged remain Owner's property. Remove, clean, and deliver to Owner's designated storage area.
- B. Comply with EPA regulations and hauling and disposal regulations of authorities having jurisdiction.
- C. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- D. It is not expected that hazardous materials will be encountered in the Work. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 DEMOLITION

- A. Maintain services/systems indicated to remain and protect them against damage during selective demolition operations. Before proceeding with demolition, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of the building.
- B. Locate, identify, shut off, disconnect, and cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
- C. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
- D. Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain or construction being demolished.
- E. Provide temporary weather protection to prevent water leakage and damage to structure and interior areas.
- F. Protect walls, ceilings, floors, and other existing finish work that are to remain. Erect and maintain dustproof partitions. Cover and protect furniture, furnishings, and equipment that have not been removed.

- G. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction.
- H. Promptly remove demolished materials from Owner's property and legally dispose of them. Do not burn demolished materials.

SECTION 095123 - ACOUSTICAL TILE CEILINGS

PART 1 - GENERAL

1.1

SECTION REQUIREMENTS

- A. Submittals: Product Data and material Samples.
- B. Surface-Burning Characteristics of Panels: ASTM E 1264, **Class A** materials, tested per ASTM E 84.
- C. Fire-Resistance-Rated Assemblies: Provide materials and construction identical to those tested in assemblies per ASTM E 119 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.
- D. Seismic Standard: Provide acoustical tile ceilings designed and installed to withstand the effects of earthquake motions according to the following:
 - 1. CISCA's Recommendations for Acoustical Ceilings: Comply with CISCA's "Recommendations for Direct-Hung Acoustical Tile and Lay-in Panel Ceilings Seismic Zones 0-2."
 - 2. CISCA's Guidelines for Systems Requiring Seismic Restraint: Comply with CISCA's "Guidelines for Seismic Restraint of Direct-Hung Suspended Ceiling Assemblies Seismic Zones 3 & 4."
 - 3. UBC Standard 25-2, "Metal Suspension Systems for Acoustical Tile and for Lay-in Panel Ceilings."

PART 2 - PRODUCTS

2.1 ACOUSTICAL TILE

- A. Product: Armstrong #1912 Ultima Ceiling Tile
- B. Thickness: 3/4 inch
- C. Modular Size: 24" by 24"

2.2 SUSPENSION SYSTEM

- A. Product: Armstrong 7500 SupraFine ML
- B. Width: 9/16"
- C. Grid size: 24" x 24" Ceiling
- D. Suspension System: Direct hung ASTM C 635, intermediate-duty structural classification.
- E. Attachment Devices: Size for 5 times the design load indicated in ASTM C 635, Table 1, Direct Hung, unless otherwise indicated.
- F. Wire Hangers, Braces, and Ties: Zinc-coated carbon-steel wire; ASTM A 641/A 641M, Class 1 zinc coating, soft temper.

- 1. Size: Provide yield strength at least 3 times the hanger design load (ASTM C 635, Table 1, Direct Hung), but not less than **0.135**" diameter wire.
- G. Seismic Struts: Manufacturer's standard product designed to accommodate seismic forces.
- H. Access: Identify access tile with manufacturer's standard unobtrusive markers for each access unit.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Ceiling Suspension System Installation: Comply with [ASTM C 636] and CISCA's "Ceiling Systems Handbook."
 - 1. Fire-Rated Assembly: Install fire-rated ceiling systems according to tested fire-rated design.
- B. Install acoustical tiles in coordination with suspension system and exposed moldings and trim. Place splines or suspension system flanges into kerfed edges so tile-to-tile joints are closed by double lap of material.
 - 1. Fit adjoining tile to form flush, tight joints. Scribe and cut tile for accurate fit at borders and around penetrations through tile.
- C. Adhesive Installation: Install acoustical tile by bonding to substrate, using amount of adhesive and procedure recommended in writing by tile manufacturer and as follows:
 - 1. Install splines in joints between tiles; maintain bottom surface of tiles in a level plane.
 - 2. Maintain tight butt joints, aligned in both directions and coordinated with ceiling fixtures.
- D. Stapled Installation: Fasten acoustical tile to substrate using a minimum of two staples per tile that are installed in flanges of tile and as follows:
 - 1. Maintain bottom surface of tiles in a level plane; shim tile or correct substrate as required.
 - 2. Maintain tight butt joints, aligned in both directions and coordinated with ceiling fixtures.
- E. Arrange directionally patterned acoustical panels as directed by the Owner

SECTION 096513 - RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data and Samples.
- B. Extra Materials: Deliver to Owner at least 10 linear feet of each type and color of resilient wall base installed.

PART 2 - PRODUCTS

2.1 RESILIENT BASE

A. Vinyl Base: ASTM F 1861, Type TV (vinyl, thermoplastic), Group I (solid, homogeneous).

1. NRF Johnsonite #92 Blue Lagoon

- B. Style: Cove (base with toe)
- C. Minimum Thickness: 0.125 inch.
- D. Height: 6 inches.
- E. Lengths: coils in manufacturer's standard lengths.
- F. Outside Corners: Job formed.
- G. Inside Corners: Job formed.

2.2 INSTALLATION ACCESSORIES

- A. Adhesives: Water-resistant type recommended by manufacturer to suit floor covering and substrate conditions indicated.
 - 1. Low-Emitting Materials: Adhesives shall have a VOC content of **50** g/L or less.
 - 2. Low-Emitting Materials: Adhesives shall comply with Green Seal's GS-36 and with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Prepare horizontal surfaces according to ASTM F 710. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
- B. Adhesively install resilient wall base and accessories.
- C. Install wall base in maximum lengths possible. Apply to walls, columns, pilasters, casework, and other permanent fixtures in rooms or areas where base is required.
- D. Install reducer strips at edges of floor coverings that would otherwise be exposed.

SECTION 096816 - SHEET CARPETING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data and Samples.
- B. Extra Materials: Deliver to Owner full-width carpet equal to 5 percent of each type and color carpet installed, packaged with protective covering for storage.

PART 2 - PRODUCTS

2.1 CARPET

- A. Available Product: J&J Fuse #3530 Meet #1456 or approved equal
- B. Fiber Content: 100 percent nylon 6
- C. Pile Characteristic: Patterned loop pile.
- D. Density: 8360 oz./cu. yd.
- E. Face Weight: 20 oz./sq. yd.
- F. Primary Backing: Manufacturer's standard material.
- G. Secondary Backing: Manufacturer's standard material
- H. Width: 12 feet
- I. Critical Radiant Flux Classification: Class I, Not less than 0.45 w/sq. cm per ASTM E 648.

2.2 CARPET CUSHION

- A. Traffic Classification: CCC Class II, heavy.
- B. ADA Compliant
- C. Critical Radiant Flux Classification: Not less than 0.45 W/sq. cm.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with CRI 104.
- B. Installation: Per manufacturer's instructions
- C. Maintain uniformity of carpet direction and lay of pile. At doorways, center seams under door in closed position. Bind or seal cut edges as recommended by carpet manufacturer.
- D. Install pattern parallel to walls and borders.

END OF SECTION 096816

SHEET CARPETING 096816 - 1

SECTION 099100 - PAINTING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Summary: Paint walls in Council Chambers
- B. Submittals:
 - 1. Product Data
 - 2. Samples.

C. MPI Standards:

- 1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
- 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.
- D. Mockups: Full-coat finish Sample of each type of coating, color, and substrate, applied where directed.
- E. Extra Materials: Deliver to Owner 1 gal. of each color and type of finish coat paint used on Project, in containers, properly labeled and sealed.

PART 2 - PRODUCTS

2.1 PAINT

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Sherwin-Williams Company products indicated or comparable product from one of the following:
 - 1. Benjamin Moore & Co.
 - 2. Duron, Inc.
 - 3. Glidden Professional, Division of PPG Architectural Finishes, Inc.
 - 4. PPG Architectural Finishes, Inc.
 - 5. Pratt & Lambert.
- B. Material Compatibility: Provide materials that are compatible with one another and with substrates.
 - 1. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- C. Colors: As selected by owner.

PART 3 - EXECUTION

3.1 PREPARATION

A. Remove hardware, lighting fixtures, and similar items that are not to be painted. Mask items that cannot be removed. Reinstall items in each area after painting is complete.

PAINTING 099100 - 1

B. Clean and prepare surfaces in an area before beginning painting in that area. Schedule painting so cleaning operations will not damage newly painted surfaces.

3.2 APPLICATION

- A. Apply paints according to manufacturer's written instructions.
 - 1. Use brushes only for exterior painting and where the use of other applicators is not practical.
 - 2. Use rollers for finish coat on interior walls and ceilings.
- B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
 - 1. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- C. Apply stains and transparent finishes to produce surface films without color irregularity, cloudiness, holidays, lap marks, brush marks, runs, ropiness, or other imperfections. Use multiple coats to produce a smooth surface film of even luster.

3.3 INTERIOR PAINT APPLICATION SCHEDULE

- A. Gypsum Board:
 - 1. Low-Sheen Latex: One coat over primer/sealer: MPI INT 9.2A.
 - 2. Flat Alkyd: One coat over latex primer/sealer: MPI INT 9.2C.

END OF SECTION 099100

PAINTING 099100 - 2

SECTION 260500 - COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals:

1. Product Data: For exposed raceways.

PART 2 - PRODUCTS

2.1 RACEWAYS

A. Raceways:

- 1. EMT: ANSI C80.3, zinc-coated steel, with set-screw or compression fittings.
- 2. ENT: NEMA TC 13, complying with UL 1653.
- 3. FMC: Zinc-coated steel.
- 4. IMC: ANSI C80.6, zinc-coated steel, with threaded fittings.
- 5. LFMC: Zinc-coated, flexible steel with sunlight-resistant and mineral-oil-resistant plastic jacket.
- 6. RNC: NEMA TC 2, with NEMA TC3 fittings.
- 7. Raceway Fittings: Specifically designed for raceway type used in Project.

B. Surface Raceways:

- 1. Plastic: PVC, extruded and fabricated to size and shape indicated, with snap-on cover and mechanically coupled connections with plastic fasteners.
- C. Floor Boxes: Cast metal, rectangular.

2.2 CONDUCTORS AND CABLES

A. Conductors:

- 1. Conductors, No. 10 AWG and Smaller: Solid or stranded copper.
- 2. Insulation: Thermoplastic, rated at 75 deg C minimum.
- 3. Wire Connectors and Splices: Units of size, ampacity rating, material, type, and class suitable for service indicated.

2.3 GROUNDING MATERIALS

- A. Conductors: Solid for No. 8 AWG and smaller, and stranded for No. 6 AWG and larger unless otherwise indicated.
 - 1. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
 - 2. Bare, Solid-Copper Conductors: Comply with ASTM B 3.
 - 3. Bare, Stranded-Copper Conductors: Comply with ASTM B 8.
- B. Ground Rods: Copper-clad steel, sectional type; 5/8 by 96 inches in diameter.
- C. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, bolted pressure-type, with at least two bolts with clamp-type pipe connectors sized for pipe.

D. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

2.4 ELECTRICAL IDENTIFICATION MATERIALS

- A. Conductor Identification Materials: Color-Coding Conductor Tape: Self-adhesive vinyl tape 1 to 2 inches wide.
- B. Underground-Line Warning Tape: Permanent, bright-colored, continuous-printed, polyethylene tape with continuous metallic strip or core.
- C. Tape Markers for Wire: Vinyl or vinyl-cloth, self-adhesive, wraparound type with circuit identification legend machine printed by thermal transfer or equivalent process.
- D. Self-Adhesive Warning Labels: Factory printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.
- E. Metal-Backed, Butyrate Warning Signs: Weather-resistant, nonfading, preprinted, cellulose-acetate butyrate signs with **0.0396-inch** galvanized-steel backing; and with colors, legend, and size required for application.
- F. Equipment Identification Labels: Engraved, laminated acrylic or melamine label; punched or drilled for screw mounting. White letters on a dark-gray background; red letters for emergency systems.
- G. Fasteners: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

2.5 SUPPORT AND ANCHORAGE COMPONENTS

- A. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed under this Project, with a minimum structural safety factor of five times the applied force.
- B. Raceway and Cable Supports: As described in NECA 1.
- C. Conduit and Cable Support Devices: Steel and malleable-iron hangers, clamps, and fittings.
- D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded malleable-iron body and insulating wedging.
- E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- F. Mounting, Anchoring, and Attachment Components:
 - 1. Powder-Actuated Fasteners: Threaded-steel stud.
 - 2. Mechanical-Expansion Anchors: Insert-wedge-type, **zinc-coated** steel, for use in hardened portland cement concrete.
 - 3. Concrete Inserts: Steel or malleable-iron, slotted-support-system units similar to MSS Type 18; complying with MFMA-3 or MSS SP-58.
 - 4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
 - 5. Through Bolts: Structural type, hex head, high strength; complying with ASTM A 325.
 - 6. Toggle Bolts: All-steel springhead type.
 - 7. Hanger Rods: Threaded steel.

PART 3 - EXECUTION

3.1 GENERAL ELECTRICAL EQUIPMENT INSTALLATION REQUIREMENTS

- A. Install electrical equipment to allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
- B. Install electrical equipment to provide for ease of disconnecting the equipment with minimum interference to other installations.
- C. Install electrical equipment to allow right of way for piping and conduit installed at required slope.
- D. Install electrical equipment to ensure that connecting raceways, cables, wireways, cable trays, and busways are clear of obstructions and of the working and access space of other equipment.
- E. Install required supporting devices and set sleeves in cast-in-place concrete, masonry walls, and other structural components as they are constructed.
- F. Coordinate location of access panels and doors for electrical items that are behind finished surfaces or otherwise concealed. Comply with requirements in Division 08 Section "Access Doors and Frames."
- G. Install sleeve and sleeve seals of type and number required for sealing electrical service penetrations of exterior walls.
- H. Comply with NECA 1.

3.2 RACEWAY AND CABLE INSTALLATION

- A. Outdoor Raceways Applications:
 - 1. Exposed or Concealed: IMC.
 - 2. Underground, Single Run: RNC.
 - 3. Connection to Vibrating Equipment: LFMC.
 - 4. Boxes and Enclosures: Metallic, NEMA 250, Type 3R or Type 4.
- B. Indoor Raceways Applications:
 - 1. Exposed or Concealed: EMT.
 - 2. Connection to Vibrating Equipment: FMC; in wet or damp locations, use LFMC.
 - 3. Damp or Wet Locations: IMC.
 - 4. Boxes and Enclosures: Metallic, NEMA 250, Type 1, unless otherwise indicated.
- C. Conceal raceways and cables, unless otherwise indicated, within finished walls, ceilings, and floors.
- D. Install raceways and cables at least **6 inches** away from parallel runs of flues and steam or hotwater pipes. Locate horizontal raceway runs above water and steam piping.
- E. Install raceways embedded in slabs in middle third of slab thickness where practical, and leave at least **1-inch-** thick concrete cover.
 - 1. Secure raceways to reinforcing rods to prevent sagging or shifting during concrete placement.
 - 2. Space raceways laterally to prevent voids in concrete.
 - 3. Install conduit larger than **1-inch** trade size, parallel to or at right angles to main reinforcement. Where conduit is at right angles to reinforcement, place conduit close to slab support.

- F. Install raceways and cables conceal within finished walls, ceilings, and floors unless otherwise indicated.
- G. Install raceways and cables at least 6 inches
- H. away from parallel runs of flues and steam or hot-water pipes. Locate horizontal raceway runs above water and steam piping.

3.3 WIRING METHODS

- A. Exposed Feeders, Branch Circuits, and Class 1 Control Circuits, Including in Crawlspaces: Nonmetallic-sheathed cable, Type NM or NMC.
- B. Feeders and Branch Circuits Concealed in Ceilings, Walls, Partitions, and Crawlspaces: Type THHN-THWN, single conductors in raceway or Nonmetallic-sheathed cable, Type NM or NMC.
- C. Feeders and Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and underground: Type THHN-THWN, single conductors in raceway.
- D. Cord Drops and Portable Appliance Connections: Type SO, hard service cord with stainless-steel, wire-mesh, and strain relief device at terminations to suit application.
- E. Class 2 Control Circuits: Type THHN-THWN, in raceway.

3.4 GROUNDING

- A. Underground Grounding Conductors: Install bare copper conductor, No. **2/0** AWG minimum. Bury at least **24 inches** below grade.
- B. Pipe and Equipment Grounding Conductor Terminations: Bolted.
- C. Underground Connections: Welded.
- D. Connections to Structural Steel: **Bolted**.
- E. Install grounding conductors routed along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- F. Install ground rods driven into ground until tops are **2 inches** below finished floor or final grade unless otherwise indicated.
- G. Make connections without exposing steel or damaging coating, if any.
- H. Install bonding straps and jumpers in locations accessible for inspection and maintenance, except where routed through short lengths of conduit.
- I. Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.

J. Bond to equipment mounted on vibration isolation hangers and supports so vibration is not transmitted to rigidly mounted equipment.

K. Grounding and Bonding for Piping:

- 1. Metal Water Service Pipe: Install insulated copper grounding conductors, in conduit, from building's main service equipment, or grounding bus, to main metal water service entrances to building. Connect grounding conductors to main metal water service pipes, using a bolted clamp connector or by bolting a lug-type connector to a pipe flange, using one of the lug bolts of the flange. Where a dielectric main water fitting is installed, connect grounding conductor on street side of fitting. Bond metal grounding conductor conduit or sleeve to conductor at each end.
- 2. Water Meter Piping: Use braided-type bonding jumpers to electrically bypass water meters. Connect to pipe with a bolted connector.
- 3. Bond each aboveground portion of gas piping system downstream from equipment shutoff valve.
- L. Test completed grounding system at each location where a maximum ground-resistance level is specified, at service disconnect enclosure grounding terminal, and at ground test wells.
 - 1. Measure ground resistance not less than two full days after last trace of precipitation and without soil being moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural ground resistance.
 - 2. Perform tests by fall-of-potential method according to IEEE 81.

3.5 IDENTIFICATION

- A. Accessible Raceways and Cables of Auxiliary Systems: Identify the following systems with color-coded, self-adhesive color coding tape-in bands:
 - 1. Fire Alarm System: Red.
 - 2. Security System: Blue and yellow.
 - 3. Telecommunication System: Green and yellow.
- B. Power-Circuit Conductor Identification: For No. 3 AWG conductors and larger, at each location where observable, identify phase using color-coding conductor tape.
- C. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, communication, and control wiring.
- D. Warning Labels for Enclosures for Power and Lighting: Comply with 29 CFR 1910.145; identify system voltage with black letters on an orange background. Apply to exterior of door, cover, or other access.
- E. Equipment Identification Labels:
 - 1. Labeling Instructions:

- a. Indoor Equipment: Adhesive film label with clear protective overlay. Provide a single line of text with 1/2-inch- high letters on 1-1/2-inch- high label; where 2 lines of text are required, use labels 2 inches high.
- b. Outdoor Equipment: Engraved, laminated acrylic or melamine label, drilled for screw attachment.
- c. Elevated Components: Increase sizes of labels and legend to those appropriate for viewing from the floor.

2. Equipment to Be Labeled:

- a. Panelboards, electrical cabinets, and enclosures.
- b. Electrical switchgear and switchboards.
- c. Transformers.
- d. Motor-control centers.
- e. Disconnect switches.
- f. Enclosed circuit breakers.
- g. Motor starters.
- h. Push-button stations.
- i. Power transfer equipment.
- j. Contactors.
- k. Terminals, racks, and patch panels for voice and data communication and for signal and control functions.
- F. Verify identity of each item before installing identification products.
- G. Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- H. Attach nonadhesive signs and plastic labels with screws and auxiliary hardware appropriate to the location and substrate.
- I. Install system identification color banding for raceways and cables at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.

3.6 INSTALLATION OF HANGERS AND SUPPORTS

- A. Fasten hangers and supports securely in place, with provisions for thermal and structural movement. Install with concealed fasteners unless otherwise indicated.
- B. Separate dissimilar metals and metal products from contact with wood or cementitious materials, by painting each metal surface in area of contact with a bituminous coating or by other permanent separation.
- C. Raceway Support Methods: In addition to methods described in NECA 1, EMT, IMC, and RMC may be supported by openings through structure members, as permitted in NFPA 70.
- D. Multiple Raceways or Cables: Install on trapeze-type supports fabricated with steel slotted channel.

- E. Strength of Support and Seismic-Restraint Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static and seismic loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.
- F. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods, unless otherwise indicated or required by Code:
 - 1. To Wood: Fasten with lag screws or through bolts.
 - 2. To New Concrete: Bolt to concrete inserts.
 - 3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
 - 4. To Existing Concrete: Expansion anchor fasteners.
 - 5. To Steel: Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69.
 - 6. To Light Steel: Sheet metal screws.
 - 7. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount on slotted-channel racks attached to substrate.
- G. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.7 SEISMIC REQUIREMENTS

- A. Install seismic-restraint components using methods approved by the evaluation service providing required submittals for component.
- B. Install bushing assemblies for anchor bolts for wall- and floor-mounted equipment, arranged to provide resilient media between anchor bolt and mounting hole in substrate.
- C. Attachment to Structure: If specific attachment is not indicated, anchor bracing to structure at flanges of beams, upper truss chords of bar joists, or at concrete members.
- D. Accommodation of Differential Seismic Motion: Make flexible connections in runs of raceways, cables, wireways, cable trays, and busways where they cross expansion and seismic-control joints, where adjacent sections or branches are supported by different structural elements, and where they terminate with connection to electrical equipment that is anchored to a different structural element than the one supporting them as they approach equipment.

3.8 SLEEVE AND SLEEVE SEALS INSTALLATION

- A. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of slabs and walls.
- B. Cut sleeves to length for mounting flush with both wall surfaces.
- C. Extend sleeves installed in floors 2 inches (50 mm) above finished floor level.

- D. Size pipe sleeves to provide 1/4-inch annular clear space between sleeve and cable unless sleeve seal is to be installed].
- E. Seal space outside of sleeves with grout for penetrations of concrete and masonry and with approved joint compound for gypsum board assemblies.
- F. Interior Penetrations of Non-Fire-Rated Walls and Floors: Seal annular space between sleeve and cable, using joint sealant appropriate for size, depth, and location of joint according to Division 07 Section "Joint Sealants."
- G. Roof-Penetration Sleeves: Seal penetration of individual cables with flexible boot-type flashing units applied in coordination with roofing work.
- H. Aboveground Exterior-Wall Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Size sleeves to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.
- I. Underground Exterior-Wall Penetrations: Install cast-iron "wall pipes" for sleeves. Size sleeves to allow for 1-inch (25-mm) annular clear space between cable and sleeve for installing mechanical sleeve seals.

3.9 FIRESTOPPING

A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly. Comply with requirements in Division 07 Section "Penetration Firestopping."

SECTION 260923 - LIGHTING CONTROL DEVICES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: Product Data.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.2 CONTROL STATIONS

- A. Available Products: Echo Control Series or approved equal
 - 1. (1) Inspire Control Station model E1004
 - 2. (1) Inspire Control Station model E1006

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install and aim sensors in locations to achieve at least 90 percent coverage of areas indicated. Do not exceed coverage limits specified in manufacturer's written instructions.
- B. Install field-mounting transient voltage suppressors for lighting control devices in Category A locations that do not have integral line-voltage surge protection.
- C. Label time switches and contactors with a unique designation.
- D. Verify actuation of each sensor and adjust time delays.

SECTION 262913 - ENCLOSED CONTROLLERS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: Product Data.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.2 CONTROLLERS AND ACCESSORIES

- A. Full-Voltage Controllers: Comply with NEMA ICS 2, general purpose, Class A.
- B. Available Products: Unison Echo Room Controller ERMCT8 (or approved equal)
 - 1. Zones: Eight (8)
 - 2. Dimmable
 - 3. Timeclock
- C. Enclosures: NEMA ICS 6, Type 1 unless otherwise indicated.

2.3 SUPPORT AND ANCHORAGE COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly, and provide finish suitable for the environment in which installed.
 - 1. Channel Dimensions: Selected for structural loading.
- B. Mounting, Anchoring, and Attachment Components:
 - 1. Powder-Actuated Fasteners: Threaded-steel stud.
 - 2. Mechanical-Expansion Anchors: Insert-wedge-type, [zinc-coated] [stainless] steel, for use in hardened portland cement concrete.
 - 3. Concrete Inserts: Steel or malleable-iron, slotted-support-system units similar to MSS Type 18; complying with MFMA-3 or MSS SP-58.
 - 4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
 - 5. Through Bolts: Structural type, hex head, high strength; complying with ASTM A 325.
 - 6. Toggle Bolts: All-steel springhead type.
 - 7. Hanger Rods: Threaded steel.
 - 8. Bushings for Floor-Mounted Equipment Anchors: Neoprene units designed for seismically rated rigid equipment mountings and matched to type and size of anchor bolts and study used.

9. Bushing Assemblies for Wall-Mounted Equipment Anchorage: Assemblies of neoprene elements and steel sleeves designed for seismically rated rigid equipment mountings and matched to type and size of attachment devices used.

PART 3 - EXECUTION

3.1 GENERAL INSTALLATION REQUIREMENTS

- A. Install electrical equipment to allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
- B. Install electrical equipment to provide for ease of disconnecting the equipment with minimum interference to other installations.
- C. Install electrical equipment to allow right of way for piping and conduit installed at required slope.
- D. Install electrical equipment to ensure that connecting raceways, cables, wireways, cable trays, and busways are clear of obstructions and of the working and access space of other equipment.
- E. Install required supporting devices in cast-in-place concrete, masonry walls, and other structural components as they are constructed.
- F. Comply with NECA 1.

3.2 ENCLOSED CONTROLLER INSTALLATION

- A. Select features of each enclosed controller to coordinate with ratings and characteristics of supply circuit and motor; required control sequence; duty cycle of motor, controller, and load; and configuration of pilot device and control circuit affecting controller functions.
- B. For control equipment at walls, bolt units to wall or mount on lightweight structural-steel channels bolted to wall. For controllers not at walls, provide freestanding racks complying with specification requirements.
- C. Connect selector switches to bypass only the manual and automatic control devices that have no safety functions when switch is in the hand position.
- D. Connect selector switches with motor-control circuit in both hand and automatic positions for safety-type control devices, such as low- and high-pressure cutouts, high-temperature cutouts, and motor overload protectors.
- E. Set field-adjustable switches and circuit-breaker trip ranges.

SECTION 265000 - LIGHTING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: Product Data for each luminaire, including lamps.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fixtures, Emergency Lighting Units, Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.2 LIGHTING FIXTURES AND COMPONENTS, GENERAL REQUIREMENTS

- A. Recessed Fixtures: Comply with NEMA LE 4 for ceiling compatibility for recessed fixtures.
- B. Comply with IESNA RP-8 for parameters of lateral light distribution patterns indicated for luminaires.
- C. Plastic Parts: High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.

2.3 REQUIREMENTS FOR INDIVIDUAL LIGHTING FIXTURES

A. Fixture 01

- 1. Basis-of-Design Product: Subject to compliance with requirements, provide **Pathway** Coventry Series 6VLFLX or comparable product:
 - a. Quantity: 25 each
 - b. Voltage: 120 V ac.
 - c. Mounting: Recessed ceiling
 - d. Lumens: 4000 (dimmable)
 - e. Color temp: 3500K
 - f. Dimming: 0-10v, 10%
 - g. Reflector: Medium 58* Downlight
 - h. Trim finish: Soft Specular Clear Alzak

B. Fixture 02

1. Basis-of-Design Product **Pathway Coventry Series 6SCALBV Sloped Ceiling** or comparable product:

a. Quantity: 37 each

b. Voltage: 120 V ac.

c. Mounting: Sloped ceiling

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d. Lumens: 2000 dimmable

e. Color temp: 3500K

f. Dimming: 0-10v, 10%

g. Beam Distribution: 55*

h. Trim finish: Soft Specular Clear Alzak

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Coordinate ceiling-mounted luminaires with ceiling construction, mechanical work, and security and fire-prevention features mounted in ceiling space and on ceiling.
- B. Lighting Fixtures: Set level, plumb, and square with ceilings and walls. Install lamps in each fixture.
- C. Comply with NFPA 70 for minimum fixture supports.
- D. Seismic Protection: Luminaire attachments to building walls and ceilings shall comply with seismic criteria in Section 260500 "Common Work Results for Electrical."
- E. Air-Handling Fixtures: Install with dampers closed and ready for adjustment.
- F. Adjust aimable lighting fixtures to provide required light intensities.

END OF SECTION 265000

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