



Buildings and General Services

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<http://bgs.vermont.gov/purchasing>

SEALED BID

REQUEST FOR PROPOSAL

CONSTRUCTION MANAGEMENT SERVICES
FOR THE

COSTELLO COURTHOUSE
PARKING GARAGE REPAIRS
32 CHERRY STREET
BURLINGTON, VT

ISSUE DATE	April 30, 2024
BIDDERS CONFERENCE	May 15, 2024 – 10:00 AM (EST)
QUESTIONS DUE	May 29, 2024 – 4:30 PM (EST)
RFP RESPONSES DUE BY	June 12, 2024 – 4:30 PM (EST)

PLEASE BE ADVISED THAT ALL NOTIFICATIONS, RELEASES, AND ADDENDUMS ASSOCIATED WITH THIS RFP WILL BE POSTED AT: <http://www.bgs.state.vt.us/pca/bids/bids.php>

THE STATE WILL MAKE NO ATTEMPT TO CONTACT INTERESTED PARTIES WITH UPDATED INFORMATION. IT IS THE RESPONSIBILITY OF EACH BIDDER TO PERIODICALLY CHECK THE ABOVE WEBPAGE FOR ANY AND ALL NOTIFICATIONS, RELEASES AND ADDENDUMS ASSOCIATED WITH THIS RFP.

STATE CONTACT: James Meyers, State Senior Purchasing Agent
E-MAIL: BGS.OPCVendorDocs@vermont.gov

1. OVERVIEW:

- 1.1. **SCOPE AND BACKGROUND:** Through this Request for Proposal (RFP) the Department of Buildings and General Services (hereinafter the "State") is seeking to establish a contract with a Construction Management firm to provide Construction Management services (hereinafter the "CM") for the Costello Court House Parking Garage Repairs.
- 1.2. **CONTRACT PERIOD:** The State anticipates the contract start date will be **July 15, 2024** (see Section 5 – Project Schedule for specific proposed dates).
- 1.3. **SINGLE POINT OF CONTACT:** All communications concerning this RFP are to be addressed in writing to the State Contact listed on the front page of this RFP. Actual or attempted contact with any other individual from the State concerning this RFP is strictly prohibited and may result in disqualification.
- 1.4. **BIDDERS' CONFERENCE:** A non-mandatory bidder's conference will be held in person at the date and time indicated on the front page of this RFP. We will meet at the front entry of the Costello Courthouse.
- 1.5. **QUESTION AND ANSWER PERIOD:** Any bidder requiring clarification of any section of this RFP or wishing to comment on any requirement of the RFP must submit specific questions in writing no later than the deadline for question indicated on the first page of this RFP. Questions may be e-mailed to the point of contact on the front page of this RFP. Questions or comments not raised in writing on or before the last day of the question period are thereafter waived. At the close of the question period a copy of all questions or comments and the State's responses will be posted on the State's web site <http://www.bgs.state.vt.us/pca/bids/bids.php> . Every effort will be made to post this information as soon as possible after the question period ends, contingent on the number and complexity of the questions.
- 1.6. **CHANGES TO THIS RFP:** Any modifications to this RFP will be made in writing by the State through the issuance of an Addendum to this RFP and posted online at <http://www.bgs.state.vt.us/pca/bids/bids.php> . Modifications from any other source are not to be considered.
- 1.7. **BIDDERS ATTENTION IS DIRECTED TO: Please be advised that all notifications, releases, and addendums associated with this RFP will be posted at the website noted on the front page of this RFP. The State will make no attempt to contact contractors with updated information. It is the responsibility of each contractor to periodically check the posting site for any and all notifications, releases and addendums associated with the RFP.**
 - 1.7.1. **SOURCE OF FUNDS:**
 - 1.7.1.1. This project is being funded, in whole or in part, through the American Rescue Plan Act (ARPA) funds and/or Vermont Capital Construction Act funds. Wages for construction employees shall be paid no less than the Vermont Prevailing Wage and Fringe Benefit Rate requirements (reference Instructions to Bidders, Prevailing Wage Rate Requirements). A complete list of occupations and associated wage rates are available on the internet at: <http://www.vtlni.info/lmipub.htm>.
 - 1.7.1.2. **BONDING:** Full bonding is required for this Project.
 - 1.7.1.3. It is the Bidder's responsibility to thoroughly read and comply with all instructions and requirements of this bid solicitation. Your attention is directed to the special instructions regarding the bid proposal submissions. Please follow the Instructions to Bidders carefully.

2. DETAILED REQUIREMENTS/DESIRED OUTCOMES:

- 2.1. The CM will join the project at the beginning of the Design Development phase. The CM will be required to participate in the design process in order to enhance constructability and design quality, reduce amount of change orders, control costs and reduce the length of the overall construction period.

3. PROJECT DESCRIPTION:

- 3.1. The primary objective of this project is to extend the life of the parking garage and to maximize the available parking in the structure. The Costello Courthouse Parking Garage is a two-level conventionally reinforced cast-in-place concrete garage with the courthouse above. The courthouse was designed in 1966 with the garage extending under the north plaza and under the courthouse. The expansion to the

courthouse was built in the early 1990's to include the lower-level parking garage and additional courthouse space. The *Condition Assessment Report* submitted to the State of Vermont by Thornton Tomasetti, Inc. in April 2020 found the structure to be in fair condition, and that it could be safely used for another five (5) years without major repairs. The following shall be included in the construction management firm's scope of work:

3.1.1. Structural Repairs

- 3.1.1.1. Slab on grade repairs
- 3.1.1.2. Elevated slab repairs
- 3.1.1.3. Repair tripping hazards
- 3.1.1.4. Overhead and vertical repairs – columns, beams and underside deck
- 3.1.1.5. Plaza deck repairs
- 3.1.1.6. Replace exterior concrete stairs
- 3.1.1.7. Traffic membrane replacement
- 3.1.1.8. Miscellaneous repairs

3.1.2. Architectural

- 3.1.2.1. Replacement of plaza waterproofing at North and West plazas
- 3.1.2.2. Air infiltration and thermal insulation - parking area to occupied space.
- 3.1.2.3. Overhead door replacement upper and lower entrance/exit including controls.
- 3.1.2.4. Painting
- 3.1.2.5. Upper and Lower-level gypsum ceiling assembly
- 3.1.2.6. Replace exterior concrete stairs
- 3.1.2.7. Landscaping
 - 3.1.2.7.1. Replacement of north and west plaza plantings and hardscape.

3.1.3. Civil

- 3.1.3.1. Replace asphalt pavement and concrete curbing at entrance ramp.

3.1.4. Mechanical

- 3.1.4.1. Exhaust system repairs/upgrades

3.1.5. Electrical/Communication

- 3.1.5.1. Electrical conduit replacement within garage footprint only
- 3.1.5.2. Lighting replacement within garage footprint only
- 3.1.5.3. Relay to control vehicle detection loop for overhead door/swing arm gate at lower level garage

3.1.6. Plumbing

- 3.1.6.1. Replacement/repairs for drainage system.
- 3.1.6.2. Replace deteriorated floor drains.
- 3.1.6.3. Install new floor drains at areas of ponding water.

3.1.7. Fire Protection

- 3.1.7.1. Design replacement for sprinklers in each garage

- 4. **PROJECT BUDGET:** The project estimate, which includes all pre-construction and construction services, costs and fees, General Conditions, Cost of Work, and project contingencies, is \$2,700,000.00.
- 5. **PROJECT SCHEDULE:** The preliminary Project Schedule has the following proposed dates. The project is anticipated to begin as soon as this Contract is awarded with a Preconstruction start date of approximately July 15, 2024, and a Substantial Completion date on or before July 1, 2026. Final project schedule, sequences and milestones will be determined by the State Project Manager, Engineer, and the Construction Manager.

Preconstruction Start	July 15, 2024
Construction Start	January 1, 2025
Substantial Completion	July 1, 2026

Project Completion	August 1, 2026
Contract Completion	July 1, 2027

5.1. All construction, demobilization, final performance testing, Operations and Maintenance Manuals, and Substantial Completion related to the scope of work performed by the CM must be completed by July 1, 2026; however, the Project Completion date is set for August 1, 2026, to allow for final payments, and other administrative purposes.

6. PROPOSAL REQUIREMENTS:

6.1. **PRE-CONSTRUCTION SERVICES:** The pre-construction services shall include the services noted in the State of Vermont Standard Contract for Construction Management Services (see Section 11 – Attachments, Item #11.1) with the following additions, clarifications, modifications, and requirements.

- 6.1.1. For constructability review, the CM will be required, through meetings, phone conferences, etc., to review the project design and develop a schedule, and advise on construction costs and schedule implications.
- 6.1.2. The CM shall provide budget estimates for the project based on the Design Development Plans and the completed Construction Documents and on the As-Built drawings. The budget estimates are to include all costs associated with the project: CM fees, General Conditions, Cost of the Work, fit up costs, and construction contingency, and shall include descriptions of any assumptions, clarifications, budgets or allowances used in the preparation of the budget estimates. The budget estimates will serve as the basis for evaluating the State's budget for construction and for determining the necessity of incorporating cost-saving measures.
- 6.1.3. The CM shall provide constructability reviews along with the budget estimates and will be required to submit a tracking list to assemble all review comments in one document and to allow for the corresponding response to each item. Any cost values associated to a comment should also be assigned to that comment. Comments are to include a thorough review of all MEP systems by qualified specialists. The final constructability review shall also include verification that the documents are complete and coordinated among disciplines.
- 6.1.4. Provide cost saving suggestions and value engineering throughout the Pre-Construction phase.
- 6.1.5. An overall site logistics plan is to be developed in close coordination with BGS. This plan is to be updated throughout the project as site conditions dictate and should address, at minimum: Site safety, schedule management, State operational needs and limitations.
- 6.1.6. The CM will follow the procedures for receiving and evaluating proposals which are acceptable to the State. If, with the approval of the State, the CM elects to self-perform a portion of the work, they must submit their own bid 24 hours prior to receiving a competitor's bid. Any work performed by the CM will include the required supervision (foreman, etc.), separate from the proposed CM supervision. If bids are not available in time to complete the GMP, then allowances may be used in the GMP if clearly identified. A schedule of rates for all CM staff shall be submitted with the proposal and approved by the State.
- 6.1.7. The CM will submit a GMP for construction for the entire project prior to the commencement of construction. Subsequent to the CM's submittal of the GMP, the CM will work with the State and the design team on value engineering, cost saving measures, alternative pricing, etc., as required by the State to bring the guaranteed maximum price within the State's budget.
- 6.1.8. The CM will be required to receive a minimum of three (3) bids on all trade contracts and major supply items greater than \$15,000 when establishing the GMP.
- 6.1.9. Providing the State and the CM can establish a GMP, which is acceptable to both parties, the State and the CM will amend the State CM Agreement Form between the State and Construction Manager. The Fixed Fee for General Conditions and the Fixed Fee for Construction Services shall be incorporated into the final agreement for construction.

6.2. **GENERAL CONDITIONS:** Based on the proposed schedule and the available design information, provide a lump sum fixed fee for all general conditions on the enclosed Project Cost Matrix, including the following:

- 6.2.1. Full-time and part-time supervision, including job superintendents, and project managers.
- 6.2.2. All job site and home office recordkeeping and clerical functions, including all required payroll functions and reporting.
- 6.2.3. Job site office trailer suitable for the CM's site office, including space for job meetings, the Clerk-of-the-Works, and space for use by the Independent Commissioning Agent's field staff.

- 6.2.4. Job site sanitary facilities as required for construction.
 - 6.2.5. Job Site Power. CM will be responsible for temporary power hookups as well as costs for power during construction of the project.
 - 6.2.6. Administration and execution of all safety programs and safety personnel required by the CM's operations and as required to comply with all applicable safety regulations.
 - 6.2.7. Maintaining and completing As-Built drawings, record documents and approved submittals.
 - 6.2.8. Lockable barriers at all access roads, halls, doors, walkways, etc., to prevent unauthorized vehicular, public, and staff traffic in construction areas.
 - 6.2.9. Storage trailers as required for the CM's work.
 - 6.2.10. Job site security consisting of reasonable care and diligence in preventing unauthorized activities on the job site, and the safety and well-being of staff, State employees and the general public at all times.
 - 6.2.11. Layout for Line and Grade. CM will be responsible for providing adequate horizontal and vertical controls.
 - 6.2.12. Labor and equipment to install and maintain temporary heat, including fuel costs, if and when required to maintain temperature requirements of the facility or for construction.
 - 6.2.13. Coordinating and maintaining dumpster service for all trades. Tipping fees shall be paid by the CM as part of the cost of the work, not as a general condition.
 - 6.2.14. Daily and final cleaning.
 - 6.2.15. Employee transportation and employee overnight expenses.
 - 6.2.16. General Material Handling, Labor and Equipment. Specific material handling equipment, such as cranes for setting structural steel and masons lifts, may be carried as a cost of the work with the applicable trades.
 - 6.2.17. All required job support vehicles.
 - 6.2.18. All costs associated with conducting weekly job meetings and the distribution of meeting minutes.
 - 6.2.19. Creating and Revising the Construction Schedule. All schedules and schedule revisions are to be posted and distributed to State, Engineer, State's Consultants and Architect, and all trade contractors and suppliers.
 - 6.2.20. Assisting the State in scheduling and planning for move in and fit up.
 - 6.2.21. Commissioning for All Systems, including Functional Verification at Startup. This process shall include attendance by required factory representatives, testing equipment at all required speeds, and the completion of necessary controls to allow safe and proper start-up of equipment, and Functional Performance Testing. After startup, this process is to confirm that the individual pieces work together. Tests shall be performed on any moving part including, but not limited to, all Mechanical/HVAC systems, Building Automation Systems and controls, electrical equipment, devices, lighting and controls, plumbing and piping systems, water transport and treatment systems, performance testing, verification, and documentation, Architectural elements including building envelope, doors and operating/moveable items, etc. See Commissioning Specifications and BGS Design Guidelines at <http://bgs.vermont.gov/facilities/forms> for more information. The CM shall be responsible for assisting with and coordination of all subcontractors with the Commissioning Agent for observations, inspections, documentation, verification, testing, and reporting.
 - 6.2.22. Punch List and Training for All Systems. See Specifications and BGS Design Guidelines for more information at <http://bgs.vermont.gov/facilities/forms>.
 - 6.2.23. All warranty work, including coordinating any and all warranty work required by subcontractors.
 - 6.2.24. Warranty Inspection one month prior to expiration of one-year warranty.
- 6.3. **CONSTRUCTION SERVICES FEE (Construction Manager's Fee):** The fee for the construction phase of the project shall be a lump sum fixed fee developed using the scope of work indicated herein, as well as the proposed project budget and schedule. For this purpose, the cost of construction will include all competitively bid portions of the work, plus the fixed fee for General Conditions established by this proposal. Construction services for Change Orders shall be included in the overhead and mark-up percentage, included in this proposal. The fee for the construction phase of the project shall include the following:
- 6.3.1. All direct contractor overhead not included in the general conditions.
 - 6.3.2. All estimating.
 - 6.3.3. All data processing costs.
 - 6.3.4. All indirect contractor overhead costs.

- 6.3.5. All unidentified contractor overhead costs.
- 6.3.6. All contractor profit.

6.4. **GENERAL INFORMATION AND REQUIREMENTS:**

- 6.4.1. The form of agreement will be the STATE OF VT CM CONTRACT between the State and Construction Manager.
- 6.4.2. The General Conditions for the Contract will be the STATE OF VT GENERAL CONDITIONS DOCUMENT.
- 6.4.3. The State shall receive copies of all proposals, contracts, subcontracts and material price proposals for the proposed GMP and material price proposals for which the CM has estimated using their own forces.
- 6.4.4. All cost savings will be returned to the State and any unused portion of any contingency or allowance carried in the GMP will revert to the State once the project is complete. The GMP shall include assumptions and clarifications, agreed upon by the CM and State.
- 6.4.5. Labor rates used in establishing the cost of the work shall not include any payroll administrative costs, clerical costs, general administrative costs, or any costs other than the actual wages paid plus Workers' Compensation insurance costs, unemployment insurance costs, payroll taxes, and employee benefits.
- 6.4.6. Vermont State Wage Rates documentation and reporting shall apply to this project. Proper wage documentation and reports shall be forwarded to the appropriate State Departments as required.
- 6.4.7. The cost of the work shall not include any supervisory costs or administrative labor cost. Any supervisory costs or administrative labor costs are to be included in the fixed fee for general conditions or the fee for the contractor CM services.
- 6.4.8. There shall be no reimbursable costs except costs specifically identified in this RFP. All reimbursable costs shall be at cost with no additional mark up.
- 6.4.9. The State and the CM will have separate contingencies. Use of the CM's contingency (in the GMP) will only be with the approval of the State and will include proposed scope, costs and reason for change, and shall be maintained in a log and reflected in a change order at the end of the project. At the end of the project, any remaining CM contingency will be returned to the State. Use of State's contingency (not in the GMP) will be added via change order.
- 6.4.10. At any time during the pre-construction phase, the State may terminate the agreement with the CM without prejudice. In the event the State elects to terminate the agreement with the CM, the CM shall provide copies of all records, bids, estimates, quotations, and other pertinent material developed by the CM during the pre-construction phase. The State shall pay the CM for the portion of the pre-construction services performed up to the point of termination. Upon payment for the portion of the pre-construction services performed, the CM shall have no further claims or rights under the executed agreement. Materials provided by the CM, and paid for by the State, shall become the property of the State.
- 6.4.11. All invoices including, but not limited to, invoices for materials, labor, equipment rental, and trade contracts used in establishing the cost of the work shall reflect all discounts and rebates of which the CM was able to take advantage. In order to take advantage of quick payment discounts, the State may be willing to make accommodations to meet specific terms. The CM will keep the State apprised of potential discounts and savings. The CM will be allowed to keep savings attributed to quick pay discounts unless the State is able to provide payment in such circumstances in the required time frame.
- 6.4.12. The State shall be responsible for paying all fees associated with obtaining the local and state permits required for the project. Trade permits shall be the responsibility of the CM or regulated trade.
- 6.4.13. Electronic Submittal Procedures will be used for the submittal process, RFIs, reports, drawings and pay applications throughout the project. This account shall be used through the design process and continue through closeout of the project.
- 6.4.14. **SUBMITTAL EXCHANGE®:** Submittal Exchange® (www.submittalexchange.com) shall be used to provide an on-line database and repository, which shall be used to transmit and track project-related documents. The intent for using this service is to expedite the construction process by reducing paperwork, improving information flow, and decreasing submittal review turnaround time.

- 6.4.14.1. Project submittals (shop drawing, product data and quality assurance submittals) shall be transmitted by the Contractor in PDF to Submittal Exchange®, where it will be tracked and stored for retrieval for review. After the submittal is reviewed it shall be uploaded back to Submittal Exchange® for action and use by the Contractor and Director's Representatives.
- 6.4.14.2. The service also tracks and stores documents related to the project such as Request for Information (RFI's), Architect's Supplemental Instructions (ASI), Information Bulletins (IB's), CAD Coordination, Commission, Construction Change Directive (CCD), Contractor's Daily Reports, Minutes, Photos, Quality Control, Shop Drawings, Testing, Closeout Documents including As-Built Drawings, Operations and Maintenance Manuals and other project related documents.
- 6.4.14.3. The electronic submittal process shall not be used for color samples, color charts, or physical material samples. Training and support during this project will be provided by Submittal Exchange at no additional cost to the selected contractor(s).

7. GENERAL REQUIREMENTS:

- 7.1. **PRICING:** Bidders must price the terms of this solicitation at their best pricing. Any and all costs that Bidder wishes the State to consider must be submitted for consideration. If applicable, all equipment pricing is to include F.O.B. delivery to the ordering facility. No request for extra delivery cost will be honored. All equipment shall be delivered assembled, serviced, and ready for immediate use, unless otherwise requested by the State.
 - 7.1.1. Prices and/or rates shall remain firm for the initial term of the contract. The pricing policy submitted by Bidder must (i) be clearly structured, accountable, and auditable and (ii) cover the full spectrum of materials and/or services required.
 - 7.1.2. **Retainage.** In the discretion of the State, a contract resulting from this RFP may provide that the State withhold a percentage of the total amount payable for some or all deliverables, such retainage to be payable upon satisfactory completion and State acceptance in accordance with the terms and conditions of the contract.
 - 7.1.2.1. The State shall withhold 10% retainage for all construction related invoices. At the State's discretion, retainage on any given phase of the work may be waived on work beyond the point when the project is 50% complete. At Substantial Completion of the entire project, retainage may be further reduced as agreed upon by State, CM and Engineer. There shall be no retainage withheld on Pre-Construction services.
- 7.2. **WORKER CLASSIFICATION COMPLIANCE REQUIREMENTS:** In accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), Bidders must comply with the following provisions and requirements.
 - 7.2.1. Self Reporting: For bid amounts exceeding \$250,000.00, Bidder shall complete the appropriate section in the attached Certificate of Compliance for purposes of self-reporting information relating to past violations, convictions, suspensions, and any other information related to past performance relative to coding and classification of workers. The State is requiring information on any violations that occurred in the previous 12 months.
 - 7.2.2. Subcontractor Reporting: For bid amounts exceeding \$250,000.00, Bidders are hereby notified that upon award of contract, and prior to contract execution, the State shall be provided with a list of all proposed subcontractors and subcontractors' subcontractors, together with the identity of those subcontractors' workers compensation insurance providers, and additional required or requested information, as applicable, in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54). This requirement does not apply to subcontractors providing supplies only and no labor to the overall contract or project. This list MUST be updated and provided to the State as additional subcontractors are hired. A sample form is available online at <http://bgs.vermont.gov/purchasing-contracting/forms> . **The subcontractor reporting form is not required to be submitted with the bid response.**
- 7.3. **METHOD OF AWARD:** Awards will be made in the best interest of the State. All other considerations being equal, preference will be given first to resident bidders of the state and/or to products raised or manufactured in the state, and then to bidders who have practices that promote clean energy and address climate change, as identified in the applicable Certificate of Compliance.

- 7.3.1. **Evaluation Criteria:** The evaluation criteria for this project are:
- 7.3.1.1. Strength and Experience of the Construction Management Team
 - 7.3.1.2. Process
 - 7.3.1.3. Fee Structure (scored separately after evaluation of other criteria)
 - 7.3.1.3.1. Fixed Fee for Pre-Construction Services
 - 7.3.1.3.2. Fixed Fee for Construction Services (CM Fee)
 - 7.3.1.3.3. Fixed Fee for General Conditions
 - 7.3.1.3.4. Percent Markup for Overhead and Profit for changes in the work after the GMP has been established.
 - 7.3.1.3.5. Mark-up for Profit on Materials Purchased by the CM
 - 7.3.1.3.6. Hourly Rate for the Project Manager & Superintendent
- 7.3.2. Proposals should respond to each criterion. The evaluations will respond to the proposer's ability to provide thorough and detailed information relating to all deliverables outlined.
- 7.3.3. The final selection will be based on the cumulative point score of the evaluation criteria assigned by the Selection Committee. This score will be converted to an ordinal scoring system (majority rule) achieved by one of the competing firms.
- 7.3.4. As these are the evaluation criteria upon which the selection will be based, your proposals should **respond to each criterion** in a **well-organized manner** and **in the order in which they are listed**. Respond to each criterion but restrict information to that requested. Unorganized or excessive and irrelevant information would impede our review of your proposal and could adversely affect the score for one or more criteria. **Non-responsive proposals will result in disqualification. All questions must be answered.**
- 7.3.4.1. **CRITERION 1: Strength and Experience of the CM Team**
- 7.3.4.1.1. Has the CM had at least five (5) years of experience with Construction Management projects of this size, and complexity, and include a list of projects that are similar in size, and complexity for the last five (5) years. List project costs, dates of construction and delivery method (Construction Management, Design/Bid/Build, and Design Build).
 - 7.3.4.1.2. Has the CM had at least five (5) years of experience with Construction Management projects of this size, and complexity, and include a list of projects that are similar in size, and complexity for the last five (5) years. List project costs, dates of construction and delivery method (Construction Management).
 - 7.3.4.1.3. Does the CM have experience with mental health care facilities or similar institutional facilities? Provide a specific list of those projects, including cost and dates of construction.
 - 7.3.4.1.4. Describe how the experience of the team members are appropriate for this project.
 - 7.3.4.1.5. Provide the name and resume of the Project Manager to be assigned to the project, include a list of projects that he/she has worked on that are similar in size, type of construction and complexity for the last five (5) years with references, project costs, dates of construction and delivery method (Construction Management, Design/Bid/Build, and Design Build).
 - 7.3.4.1.6. Provide the name and resume of Supervisory personnel to be assigned to the project, include a list of projects that he/she has worked on that are similar in size, type of construction and complexity for the last five (5) years with references, project costs, dates of construction and delivery method (Construction Management, Design/Bid/Build, and Design Build).
 - 7.3.4.1.7. Who will represent the CM in the office and the field? Provide resumes, experience and references for key management and supervisory personnel.
 - 7.3.4.1.8. Has the team worked together before on projects that are similar in size and complexity? If so, provide a list of the projects and indicate the team members on those projects, and the cost and years constructed?

7.3.4.2. **CRITERION 2: Process**

- 7.3.4.2.1. Provide a short dialog on your company’s proposed approach to the project; include anticipated challenges and recommended solutions.
- 7.3.4.2.2. Describe your firms’ cost control methods for the pre-construction and construction phases.
- 7.3.4.2.3. Describe how you develop cost estimates, how often they are updated and what degree of accuracy you achieve.
- 7.3.4.2.4. Provide an evaluation of the proposed schedule. Include in your proposal the Date of Commencement, Substantial Completion of each phase of the work, and any other relevant milestones. Does the schedule present a challenge? Can the duration be shortened.

7.3.4.3. **CRITERION 3: Fee Structure**

- 7.3.4.3.1. The Committee will compare the fees for the Pre-Construction fee, fixed CM fee, fixed General Conditions, the percent markup for change orders and the hourly rates.
- 7.3.4.3.2. For the Committee to equitably compare the Construction fees for Services and General Conditions, the CM must structure their fees as outlined in the attached Project Cost Matrix. Once a contract is awarded, changes in the way the fee is apportioned may be considered by the State.
- 7.3.4.3.3. Complete the attached “Hourly Rate Schedule”.
- 7.3.4.3.4. The committee will compare the combined cost of the CM services with the “mean” cost of all proposals?

7.3.5. **SCORING:** The scoring by the Evaluation Committee members will be based on the cumulative point score of the evaluation criteria assigned by the Selection Committee. This score will be converted to an ordinal scoring system (majority rule). This contract will be awarded to the firm receiving the majority of 1st place votes resulting from the conversion, subject to the approval of the Commissioner of Buildings & General Services.

CRITERIA	WEIGHT	MAXIMUM POINTS	WEIGHTED TOTAL
Strength and Experience of CM Team	3	10	30
Process	2	10	20
Fee Structure			
Pre-Construction Fixed Fee	1	10	10
CM Fixed Fee	1	10	10
General Conditions Fixed Fee	1	10	10
Overhead & Profit on Change Orders	0.5	10	5
Mark-up for Profit on Materials Purchased by the CM	0.5	10	5
Hourly Rate for the Project Manager & Superintendent	1	10	10

PLEASE NOTE: The Project Cost Matrix must be included with the Bid Proposal.

Project Cost Matrix					
Construction Management Services					
Costello Court House Parking Garage Repairs 32 Cherry Street, Burlington, VT					
Description (As applicable to project)	General Conditions		CM Fee	Cost of Work	Comments
	Included in bid	To be added at GMP			
General					
Profit			X		
Corporate Officer's Salary & Benefits			X		
Home Office Rent			X		
Home Office Autos & Travel			X		
Home Office Overhead			X		
Interest on Borrowed Capital			X		
Payroll/Bookkeeping/Clerical			X		
Project Management					
Project Executive	X				
Project Manager	X				
Assistant Project Manager	X				
Project Engineer	X				
Estimator			X		
Scheduler			X		
Superintendent	X				
Assistant Superintendent	X				
MEP Engineer/Manager	X				
Field Engineers	X				
Accounting	X				
Safety Officer			X		
Administrative Support	X				
Purchasing			X		
Travel	X				
Lodging	X				
Temporary Housing	X				
Project Vehicles	X				
Surveying		X			
Shop Drawings	X			X	By subcontractor, processed by CM
As-Built Drawings	X			X	By subcontractor, processed by CM
O&M Manuals	X			X	By subcontractor, processed by CM

Project Cost Matrix					
Construction Management Services					
Costello Court House Parking Garage Repairs 32 Cherry Street, Burlington, VT					
Description (As applicable to project)	General Conditions		CM Fee	Cost of Work	Comments
	Included in bid	To be added at GMP			
Mobilization/Demobilization		X			
Safety Program			X		
Mock-ups				X	
Insurance/Bonding/Taxes/Permits					
Builder's Risk Insurance		X			
General Liability Insurance		X			
Workers' Compensation Insurance				X	Includes Management & Hourly Workers
Performance Bond				X	
Payment Bond				X	
Warranty Bond				X	
Sales Tax (where applicable)		X		X	On rented equipment only
Trade Permits				X	
Temporary Services					
Temporary Plumbing				X	
Temporary Power/Lighting				X	
Temporary Heat & Cooling Equipment				X	
Temporary Fire Protection				X	
Temporary Fire Alarm				X	
Temporary Parking Area				X	
Dust & Noise Control				X	
Safety Procedures				X	
Temporary Heat Fuel				X	
Electric Power Compensation				X	
Winter Conditions				X	
Tool Rental				X	
Enclosures				X	
Storage Trailers				X	
Snow Removal				X	
Construction Fencing				X	
Staging Area/Access Roads				X	
Equipment Rentals				X	
Guardrail & Protection at Openings				X	

Project Cost Matrix					
Construction Management Services					
Costello Court House Parking Garage Repairs 32 Cherry Street, Burlington, VT					
Description (As applicable to project)	General Conditions		CM Fee	Cost of Work	Comments
	Included in bid	To be added at GMP			
Barriers				X	
Watchman/Guard Services				X	
Police Details				X	
Lull				X	
Lifts				X	
Scaffolding				X	
Temporary Protection					
General Protection & Safety - Materials				X	
Protect Finished Work				X	
First Aid				X	
Fire Extinguishers				X	
Rubbish, Recycling & Clean-up					
Trash Chutes				X	
Dumpsters & Tipping Fees				X	
Recycling Containers				X	
Street Cleaning				X	
Storm Drain Cleaning				X	
General Cleaning				X	
Final Cleaning				X	
Exterior Window Cleaning				X	
Field Office Expenses					
Office Furniture & Computers	X				
Office Equipment	X				
Office Copier/Scanner/Facsimile	X				
Supplies	X				
Project Sign	X				
Temporary Signage	X				
Telephone (hard wired/cellular)	X				
Postage, Messengers	X				
High Speed Wired & Wireless Data	X				
2-Way Radios	X				
Travel	X				
Progress Photos	X				

Project Cost Matrix					
Construction Management Services					
Costello Court House Parking Garage Repairs 32 Cherry Street, Burlington, VT					
Description (As applicable to project)	General Conditions		CM Fee	Cost of Work	Comments
	Included in bid	To be added at GMP			
Miscellaneous General Expenses		X			
Sanitary Facilities				X	
Small Tools				X	
Tools & Consumables				X	
Office Trailer(s) – (CM, Meetings & Subcontractors)		X			
Punch List	X			X	In General Conditions unless provided by subcontractor
Demonstration & Training		X		X	In General Conditions unless provided by subcontractor

- 7.4. **STATEMENT OF RIGHTS:** The State of Vermont reserves the right to obtain clarification or additional information necessary to properly evaluate a proposal. Vendors may be asked to give a verbal presentation of their proposal after submission. Failure of vendor to respond to a request for additional information or clarification could result in rejection of that vendor's proposal. To secure a project that is deemed to be in the best interest of the State, the State reserves the right to accept or reject any and all bids, in whole or in part, with or without cause, and to waive technicalities in submissions. The State also reserves the right to make purchases outside of the awarded contracts where it is deemed in the best interest of the State.
- 7.5. **CONTRACT TERMS:** The selected bidder(s) will be expected to sign a contract with the State, including the Standard Contract Form and Attachment C as attached to this RFP for reference. The contract will obligate the bidder to provide the services and/or products identified in its bid, at the prices listed.
- 7.5.1. **Business Registration:** To be awarded a contract by the State of Vermont a vendor (except an individual doing business in his/her own name) must be registered with the Vermont Secretary of State's office <https://bizfilings.vermont.gov/online/Registration> and must obtain a Contractor's Business Account Number issued by the Vermont Department of Taxes <http://tax.vermont.gov/>.
- 7.5.2. The contract will obligate the bidder to provide the services and/or products identified in its bid, at the prices listed.
- 7.5.3. **Payment Terms:** All invoices are to be rendered by the Contractor on the vendor's standard billhead and forwarded directly to the institution or agency ordering materials or services and shall specify the address to which payments will be sent. Payment terms are Net 30 days from receipt of an error-free invoice with all applicable supporting documentation. Percentage discounts may be offered for prompt payments of invoices; however, such discounts must be in effect for a period of 30 days or more in order to be considered in making awards.
- 7.5.4. **Quality:** If applicable, all products provided under a contract with the State will be new and unused, unless otherwise stated. Factory seconds or remanufactured products will not be accepted unless specifically requested by the purchasing agency. All products provided by the contractor must meet all federal, state, and local standards for quality and safety requirements. Products not meeting these standards will be deemed unacceptable and returned to the contractor for credit at no charge to the State.
8. **CONTENT AND FORMAT OF RESPONSES:** The content and format requirements listed below are the minimum requirements for State evaluation. These requirements are not intended to limit the content of a Bidder's proposal. Bidders may include additional information or offer alternative solutions for the State's consideration. However, the State discourages overly lengthy and costly proposals, and Bidders are advised to include only such information in their response as may be relevant to the requirements of this RFP.
- 8.1. **COVER LETTER:**
- 8.1.1. **Confidentiality.** To the extent your bid contains information you consider to be proprietary and confidential, you must comply with the following requirements concerning the contents of your cover letter and the submission of a redacted copy of your bid (or affected portions thereof).
- 8.1.2. The successful response will become part of the contract file and will become a matter of public record, as will all other responses received. If the response includes material that is considered by the bidder to be proprietary and confidential under the State's Public Records Act, 1 V.S.A. § 315 et seq., the bidder shall submit a cover letter that clearly identifies each page or section of the response that it believes is proprietary and confidential. The bidder shall also provide in their cover letter a written explanation **for each marked section** explaining why such material should be considered exempt from public disclosure in the event of a public records request, pursuant to 1 V.S.A. § 317(c), including the prospective harm to the competitive position of the bidder if the identified material were to be released. Additionally, the bidder must include a redacted copy of its response for portions that are considered proprietary and confidential. Redactions must be limited so that the reviewer may understand the nature of the information being withheld. It is typically inappropriate to redact entire pages, or to redact the titles/captions of tables and figures. Under no circumstances can the entire response be marked confidential, and the State reserves the right to disqualify responses so marked.

- 8.1.3. Exceptions to Terms and Conditions. If the bidder wishes to propose an exception to any terms and conditions set forth in this RFP, including the Standard State Provisions for Contracts and Grants, such exceptions must be included in the cover letter to the RFP response. Failure to note exceptions when responding to the RFP will be deemed to be acceptance of the State terms and conditions. If exceptions are not noted in the response to this RFP but raised during contract negotiations, the State reserves the right to cancel the negotiation if deemed to be in the best interests of the State.
- 8.2. **BACKGROUND AND EXPERIENCE**. Provide details concerning the form of business organization, company size and resources; describe particular experiences relevant to the proposed project and list all current or past State projects.
- 8.3. **REFERENCES**. Provide the names, addresses, and phone numbers of at least three companies with whom you have transacted similar business in the last 12 months. You must include contact names who can talk knowledgeably about performance.
- 8.4. **REPORTING REQUIREMENTS**: Provide a sample of any reporting documentation that may be applicable to the Detailed Requirements of this RFP.
- 8.5. **PRICING**: Bidders shall submit their pricing information in the Bid Proposal attached to the RFP. Bidders may be required to submit pricing information separate from their bid package, if specifically required above.
- 8.6. **CERTIFICATE OF COMPLIANCE**: This form must be completed and submitted as part of the response for the proposal to be considered valid.
9. **SUBMISSION INSTRUCTIONS**:
- 9.1. **CLOSING DATE**: Bids must be received by the due date specified on the front page of this RFP. Late bids will not be considered.
- 9.1.1. The Office of Purchasing & Contracting may, for cause, change the date and/or time of bid openings or issue an addendum. If a change is made, the State will make a reasonable effort to inform all bidders by posting at: <http://www.bgs.state.vt.us/pca/bids/bids.php>
- 9.1.2. There will not be a public bid opening. However, the State will record the name, city, and state for any and all bids received by the due date. This information will be posted as promptly as possible following the due date online at: <https://bgs.vermont.gov/content/opc-bid-tabulation-sheets-0>
- 9.2. **SECURITY PROCEDURES: Please be advised extra time will be needed when visiting and/or delivering information to 133 State Street. All individuals visiting 133 State Street must present a valid government issued photo ID when entering the facility.**
- 9.2.1. During the pendency of the State emergency relating to Covid-19, State office buildings may be locked or otherwise closed to the public.
- 9.3. **BID DELIVERY INSTRUCTIONS**:
- 9.3.1. **ELECTRONIC**: Electronic bids **will** be accepted.
- 9.3.1.1. **E-MAIL BIDS**: Emailed bids **will** be accepted. Bids will be accepted via email submission to the contact listed on the front page of this RFP. Bids must consist of a single email with a single, digitally searchable PDF attachment containing all components of the bid. Multiple emails and/or multiple attachments will not be accepted. There is an attachment size limit of 40 MB. It is the Bidder's responsibility to compress the PDF file containing its bid, if necessary, in order to meet this size limitation.
- 9.3.1.2. **FAXED BIDS**: Faxed bids will **not** be accepted.
- 9.3.2. **PAPER BIDS**: Paper format bids will **not** be accepted.

10. BID SUBMISSION CHECKLIST:

- ✓ Cover Letter
- ✓ Signed Bid Bonding Form
- ✓ Signed Certificate as to Corporate Principal
- ✓ Project Cost Matrix
- ✓ Signed Certificate of Compliance
- ✓ Signed Bid Proposal

11. ATTACHMENTS:

- 11.1. **SAMPLE** Standard Contract Form for Construction Management Services (January 5, 2024)
 - 11.1.1. Attachment A-1 Scope of Work Overview
 - 11.1.2. Attachment A-2 State Standard Construction Management Form
 - 11.1.3. Attachment B Payment Provisions
- 11.2. Attachment C: Standard State Contract Provisions (December 7, 2023)
- 11.3. Attachment D: General Conditions for Construction Contracts (May 22, 2019, Revised)
- 11.4. Certificate of Compliance (3 pages)
- 11.5. Bid Proposal Form (5 pages)
- 11.6. Instructions to Bidders – Full Bond
- 11.7. Instructions & Bond Forms (Bid, Performance, Payment and Guaranty)
- 11.8. Certificate as to Corporate Principal
- 11.9. Vermont Prevailing Wage Rate Notice
- 11.10. Attachment E: Guaranteed Maximum Price Amendment Between State and Contractor
- 11.11. Attachment F: Schematic Design Technical Specifications

	Cover Page & Table of Contents
01 1000	Summary – To be provided at a later date
01 1400	Work Restrictions – To be provided at a later date
01 2200	Unit Prices – To be provided at a later date
01 2500	Substitution Procedures
01 2900	Payment Procedures - To be provided at a later date
01 3114	Facility Services Coordination - To be provided at a later date
01 3300	Submittal Procedures - To be provided at a later date
01 3517	Renovation Requirements
01 4000	Quality Requirements
01 5000	Temporary Facilities and Controls - To be provided at a later date
01 6000	Product Requirements - To be provided at a later date
01 7300	Execution - To be provided at a later date
01 7500	Construction Sequencing and Shoring - To be provided at a later date
01 7700	Closeout Procedures - To be provided at a later date
01 7823	Operations and Maintenance Data - To be provided at a later date
01 7839	Project Record Documents - To be provided at a later date
02 4100	Demolition
03 3000	Cast-In-Place Concrete - To be provided at a later date
03 3100	Cast-In-Place Concrete Repair - To be provided at a later date
03 3200	Embedded Galvanic Anode - To be provided at a later date
04 0100	Maintenance of Masonry
04 2000	Unit Masonry
05 1200	Structural Steel - To be provided at a later date
05 5000	Metal Fabrications

- 07 0150.19 Preparation for Re-Roofing
- 07 1800 Traffic Coatings - To be provided at a later date
- 07 2113 Phenolic Insulation – Ceiling/Soffit Board - To be provided at a later date
- 07 5556 Fluid-Applied Protected Membrane Roofing
- 07 5563 Vegetated Protected Membrane Roofing
- 07 9200 Joint Sealants - To be provided at a later date
- 08 3100 Access Doors and Panels
- 08 3613 Sectional Doors
- 09 2116 Gypsum Board Assemblies
- 09 9113 Exterior Painting
- 09 9600 High-Performance Coatings
- 21 0010 Fire Suppression Sprinklers - To be provided at a later date
- 21 0500 Common Work Results for Fire Suppression - To be provided at a later date
- 21 0553 Identification for Fire Suppression Piping and Equipment - To be provided at a later date
- 22 0500 Plumbing General Provisions - To be provided at a later date
- 22 0529 Hangers and Supports for Plumbing and Equipment - To be provided at a later date
- 22 0553 Identification for Plumbing Piping and Equipment- To be provided at a later date
- 22 0719 Plumbing Piping Insulation - To be provided at a later date
- 22 1006 Plumbing Piping Specialties - To be provided at a later date
- 22 1008 Sanitary Waste and Vent Piping - To be provided at a later date
- 22 3000 Plumbing Equipment - To be provided at a later date
- 26 0500 Electrical General Provisions - To be provided at a later date
- 26 0505 Electrical Demolition - To be provided at a later date
- 26 0526 Grounding and Bonding for Electrical Systems - To be provided at a later date
- 26 0529 Hangers and Supports for Electrical Systems - To be provided at a later date
- 26 0533.13 Conduit - To be provided at a later date
- 26 0533.16 Boxes - To be provided at a later date
- 26 0553 Identification for Electrical Systems - To be provided at a later date
- 26 0583 Equipment Wiring - To be provided at a later date
- 26 5100 Interior Lighting - To be provided at a later date
- 32 1216 Asphalt Paving - To be provided at a later date
- 32 1723.13 Painted Pavement Markings - To be provided at a later date

11.12. Attachment G: Schematic Design Drawings

- COVER PAGE
- DRAWING LIST
- S-001 GENERAL NOTES
- S-100 PLAZA LEVEL PLAN
- S-101 UPPER LEVEL PLAN
- S-102 UPPER LEVEL REFLECTED CEILING PLAN
- S-103 LOWER LEVEL PLAN
- S-104 LOWER LEVEL REFLECTED CEILING PLAN
- S-201 SOUTHWEST STAIR PLAN
- S-202 SOUTHWEST STAIR SECTIONS
- S-500 REPAIR DETAILS
- S-501 REPAIR DETAILS
- A-100 SCOPE OF WORK PLAN
- A-101 PLAZA LEVEL PLAN
- A-102 PLAZA LEVEL PLAN @ GARAGE ROOF
- A-103 UPPER LEVEL GARAGE PLAN
- A-104 LOWER LEVEL GARAGE PLAN
- A-110 UPPER LEVEL GARAGE REFLECTED CEILING PLAN
- A-111 LOWER LEVEL GARAGE REFLECTED CEILING PLAN
- A-300 SITE SECTIONS @ PLAZA
- A-410 ENLARGED PLANS AND DETAILS
- A-411 ENLARGED PLANS @ PLAZA (NOT USED)
- A-412 STAIR PLANS AND SECTIONS
- A-500 DETAILS @ STAIRS
- A-501 DETAILS AND SECTIONS @ PLAZA

A-502	DETAILS @ PLAZA AND GARAGE
LA-1.00	CONCEPT PLAN
LA-2.00	LANDSCAPE DETAILS
LA-2.01	PLANTING DETAILS
LA-4.00	LANDSCAPE LIGHTING PLAN
LA-4.01	LANDSCAPE LIGHTING DETAILS
P-001	GENERAL NOTES
P-100	UPPER LEVEL PLAN - To be provided at a later date
E-001	GENERAL NOTES
ED-100	DEMOLITION UPPER LEVEL REFLECTED CEILING PLAN
ED-101	DEMOLITION LOWER LEVEL REFLECTED CEILING PLAN
E-100	UPPER LEVEL PLAN
E-101	UPPER LEVEL REFLECTED CEILING PLAN
E-102	LOWER LEVEL PLAN
E-103	LOWER LEVEL REFLECTED CEILING PLAN
SP-101	LOWER LEVEL FIRE PROTECTION PLAN
FP-001	GENERAL NOTES

BGS CONTRACT FORM FOR CONSTRUCTION MANAGEMENT SERVICES

1. **Parties.** This is a contract for services between the State of Vermont, [REDACTED] (hereinafter called "State"), and [REDACTED], with a principal place of business in [REDACTED], (hereinafter called "Contractor"). Contractor's form of business organization is [REDACTED] (**incorporated, limited liability company, sole proprietor, etc.**). It is the contractor's responsibility to determine if, by law, the contractor is required to be registered with the Vermont Department of Taxes for the purposes of filing required Vermont taxes.
2. **Subject Matter.** The subject matter of this contract is services generally on the subject of construction services. Services to be provided by the contractor are described in Attachment A.
3. **Maximum Amount.** In consideration of the services to be performed by Contractor, the State agrees to pay Contractor, in accordance with the payment provisions specified in Attachment B, a sum not to exceed \$XXX.

MAXIMUM AMOUNT: \$XXX.00. The initial contract value will be written to include the Pre-Construction services (\$XXX.00), Fee for Construction Services (\$XXX.00), the Fee for General Conditions (\$XXX.00) and the anticipated Phase I Cost of Work (\$XXX.00) which includes any allowances or reimbursables included in this contract. The final contract value will be determined and adjusted after the establishment of a Guaranteed Maximum Price (GMP), inclusive of the estimated construction cost of Phase II and in accordance with the terms of the contract.

4. **Contract Term.** The period of contractor's performance shall begin on XXX, and end on XXX with a substantial work completion date of XXX.
5. **Prior Approvals.** This Contract shall not be binding unless and until all requisite prior approvals have been obtained in accordance with current State law, bulletins, and interpretations.

5A. Sole Source Contract for Services. This Contract results from a "sole source" procurement under State of Vermont Administrative Bulletin 3.5 process and Contractor hereby certifies that it is and will remain in compliance with the campaign contribution restrictions under 17 V.S.A. § 2950.

6. **Amendment.** No changes, modifications, or amendments in the terms and conditions of this contract shall be effective unless reduced to writing, numbered and signed by the duly authorized representative of the State and Contractor.
7. **Cancellation.** Cancellation of this contract shall be done in a manner consistent with applicable conditions of Article 14 of Attachment D.
8. **Attachments.** This contract consists of XXX pages including the following attachments which are incorporated herein:

ATTACHMENT A-1: Scope of Work Overview

ATTACHMENT A-2: State Standard Construction Management Form

ATTACHMENT B: Payment Provisions

ATTACHMENT C: Standard State Provisions for Contracts and Grants, a preprinted form (revision dated 12/07/2023), except that the following numbered paragraphs are hereby deleted in their entirety: 8. Insurance

ATTACHMENT D: General Conditions for Construction Contracts

ATTACHMENT E: GUARANTEED MAXIMUM PRICE AMENDMENT FORM

ATTACHMENT F: **IF THERE ARE TECHNICAL SPECIFICATIONS – LIST HERE**
ETC.
Addendum No. 1 dated XXX
Addendum No. 2 dated XXX
ETC.

ATTACHMENT G: PLANS, ETC.
You will need to list the various plans from the INDEX
ETC.
ETC.

ATTACHMENT H: Supplementary General Conditions **REMOVE IF NOT APPLICABLE**

9. **Order of Precedence.** Any ambiguity, conflict or inconsistency in the Contract Documents shall be resolved according to the following order of precedence:

- (1) Standard Contract
- (2) Attachment C (Standard Contract Provisions for Contracts and Grants rev 12.7.2023)
- (3) Attachment D General Terms and Conditions for Construction Contracts
- (4) Attachment F
- (5) Attachment G
- (6) Attachment H
- (7) Attachment A-1
- (8) Attachment A-2
- (10) Attachment E
- (11) Attachment B

10. **Plan Security Certification.** Contractor acknowledges that the plans pertaining to this project have been declared exempt from public record inspection for security reasons and have been disclosed to Contractor as per 1 V.S.A. §317(c)(32) for the performance of the Work specified herein. Contractor hereby expressly acknowledges and agrees to disclose plans only to a licensed architect, engineer, or Contractor who is bidding to work on, or actually performing work on, buildings, facilities, infrastructures, systems, or other structures owned, operated, or leased by the state and specifically related to this project. Furthermore, Contractor agrees to abide by BGS Administrative Policy # 35 and any existing or future directives set forth by the State concerning the copying or distribution of the plans. Fraud, misrepresentation, falsification, or concealing or covering up material facts relating to compliance with these directives may result in one or more of the following actions: termination of the contract(s), suspension of bidding privileges, withholding, deducts, forfeiture of security bonds, and criminal prosecution punishable by imprisonment of up to five years and/or up to a \$10,000 fine as per 13 V.S.A. §3016.

11. **Laws.** Contractor shall comply with all public laws, ordinances, and requirements respecting the work, obtain and pay for all required permits and comply with regulations of any insurance company which issues a policy on any part of the work or site.

The Contractor agrees to comply with all of the requirements of Title 21 V.S.A., Chapter 5, Subchapter 6 relating to fair employment practices, to the extent applicable, and agrees further to include a similar provision in any and all subcontracts.

Contractor shall acquaint himself with limits of the property or right-of-way of the State and shall not trespass on other property. All work shall be done in such a manner as not to interfere with

the State's operating functions. Contractor and his employees shall familiarize themselves and comply with all posted rules.

12. ***Non-Collusion.*** The State of Vermont is conscious of and concerned about collusion. It should therefore be understood by all that in signing bid and contract documents they agree that the prices quoted have been arrived at without collusion and that no prior information concerning these prices has been received from or given to a competitive company. If there is sufficient evidence to warrant investigation of the bid/contract process by the Office of the Attorney General, all bidders should understand that this paragraph might be used as a basis for litigation. We reserve the right to cancel the contract if we suspect collusion.
13. ***Assignment.*** Contractor shall not have the right to transfer, or assign this Contract or any part thereof, without the prior written consent of the State and such consent shall not relieve the Contractor of any liability or responsibility hereunder. The failure of the State to assert any of its rights hereunder shall not be construed as a waiver thereof.
14. ***Employment of Women and Minorities.*** The State of Vermont encourages an increase in work force participation rates for women and minorities in all aspects of publicly funded capital construction projects. The contractor is encouraged to seek out and employ qualified women and minorities for work covered under this contract. The following provisions and requirements shall apply when the total contract exceeds \$50,000, and the general contractor shall require all first-tier subcontractors to comply with these requirements when their contract exceeds \$50,000.
 - a. At the conclusion of the project, the affected contractors must complete the Construction Employment Report and submit it to the Department of Buildings and General Services for recording. A complete description and dollar value of the work or supplies provided, and percentage value of the overall construction contract for each such M/WBE transaction must be included. Final payment will not be made until this requirement has been satisfied.
15. ***Minority and Women Business Enterprises (M/WBE).*** It is the policy of the State of Vermont that M/WBE's shall have the maximum opportunity to participate in the performance of contracts financed with state funds. All Bidders are encouraged to contact M/WBE's in an effort to recruit them to submit proposals for the work or portions thereof. The contractor shall not discriminate on the basis of race, color, national origin or sexual orientation in the award and performance of subcontracts. The Department of Buildings and General Services shall, in accordance with Executive Order #15-91, and for publicly funded capital construction projects exceeding \$50,000.00, comply with the following provisions and requirements. Upon receipt of letter of intent to award contract, the successful bidder shall submit an M/WBE Reporting Form along with certificates of insurance and other pre-contract information. The form includes space to report the name, address and phone number of the M/WBE's contacted, the trade, if their price was included in the bid proposal, and if not, the reason for rejection of their bid. The contract will not be executed until the M/WBE Form is received. Failure to contact M/WBE's on or when projects require sub-contract work may constitute non-compliance and may result in forfeiture of future bidding privileges until resolved.
16. ***AS OF JULY 1, 2016, Vermont Prevailing Wage Rate Requirements.*** Vermont law requires this project comply with the prevailing wage rate requirements set forth in 29 V.S.A. §161(2)(b)(c)(d). The full text of 29 V.S.A. § 161 (2)(b)(c)(d) is as follows:

(b) Each contract awarded under this section [29 V.S.A. § 161 (2)(b)] for any State project with a construction cost exceeding \$ 100,000.00 and which is authorized or funded in whole or in part

by a capital construction act pursuant to 32 V.S.A. § 701a shall provide that all construction employees working on the project shall be paid no less than the mean prevailing wage published periodically by the Vermont Department of Labor in its occupational employment and wage survey plus an additional fringe benefit of 42 and one-half percent of wage, as calculated by the current Vermont prevailing wage survey. As used in this section, “fringe benefit” means benefits, including paid vacations and holidays, sick leave, employer contributions and reimbursements to health insurance and retirement benefits, and similar benefits that are incidents of employment.

(c) In the construction of any State project, local capable labor shall be utilized whenever practicable, but this section shall not be construed to compel any person to discharge or lay off any regular employee.

(d) Subsections (a) through (c) of this section shall not apply to maintenance or construction projects carried out by the Agency of Transportation and by the Department of Forests, Parks and Recreation.

Important Note: Certain contracts will remain subject to the mean prevailing wage rate **WITHOUT THE ADDITIONAL FRINGE BENEFIT** indicated in 29 V.S.A. § 161(b), above

ANY CONTRACT THAT FALLS INTO ONE OF THE CATEGORIES BELOW, SHALL REMAIN SUBJECT TO THE MEAN PREVAILING WAGE REQUIREMENTS IN EFFECT PRIOR TO JULY 1, 2016:

- (a) Any contract for a State construction project that is executed prior to July 1, 2016.
- (b) Any change order or amendment, even if that change order or amendment was executed after July 1, 2016, if that change order or amendment modifies an existing contract for a state construction project when the original existing contract was executed prior to July 1, 2016.

The Vermont Prevailing Wage Requirement in effect prior to July 1, 2016 is described below:

- (b) Each contract awarded under this section [29 V.S.A. § 161] for any State project with a construction cost exceeding \$ 100,000.00 and which is authorized or funded in whole or in part by a capital construction act pursuant to 32 V.S.A. § 701a shall provide that all construction employees working on the project shall be paid no less than the mean prevailing wage published periodically by the Vermont Department of Labor in its occupational employment and wage survey.*

General requirements for all State construction projects:

The general contractor, and all subcontractors to the general contractor on the site, shall:

- (a) Pay wages at or above the Vermont Prevailing Wage and Fringe Benefit Rate determined by the Vermont Department of Labor. A list of frequent/common occupations and required wage rates are available at: <http://www.vtlmi.info/lmipub.htm#pw> .
- (b) The Vermont Prevailing Wage and Fringe Benefit Rates provided shall be posted in a prominent location or locations where they may be viewed by all employees affected by these provisions.
- (c) The Vermont Department of Labor Point of Contact information, and telephone shall be affixed to the Vermont Prevailing Wage and Fringe Benefit Rate Notice posted at the site

for purposes of inquiries from employees and for reporting complaints regarding these provisions.

The complete text of 29 V.S.A. §161 is available at:

<http://legislature.vermont.gov/statutes/section/29/005/00161>

17. **Worker Classification.** State Contracts Compliance Requirements: The Department of Buildings and General Services in accordance with Act 54, Section 32 of the Acts of 2009 and for total projects costs exceeding \$250,000.00 requires bidders comply with the following provisions and requirements. ((a) (3) For construction and transportation projects over \$250,000.00, a payroll process by which during every pay period the contractor collects from the subcontractors or independent contractors a list of all workers who were on the jobsite during the pay period, the work performed by those workers on the jobsite, and a daily census of the jobsite. This information, including confirmation that contractors, subcontractors, and independent contractors have the appropriate workers' compensation coverage for all workers at the jobsite, and similar information for the subcontractors regarding their subcontractors shall also be provided to the department of labor and to the department of banking, insurance, securities, and health care administration, upon request, and shall be available to the public.
18. **Debarment by the Department of Labor (DOL) or the Department of Financial Regulation.** The State of Vermont reserves the right to terminate this contract with fifteen (15) day notice to contractor, upon determination that the contractor or a subcontractor to the contractor has been debarred by the Department of Labor (DOL) or the Department of Financial Regulation. Additionally, the State of Vermont reserves the right to withhold payment and / or terminate this contract if contractor fails to provide payroll records requested by the DOL and the Department of Financial Regulation within thirty (30) days of receipt of the request from DOL or the Department of Financial Regulation.
19. **Miscellaneous.** Paragraph headings are inserted for convenience only and are not to be relied upon for content. The Contractor is required to ensure that any and all agreements with subcontractors conform to the requirements contained herein and that subcontractors abide by all applicable provisions of this contract including, but not limited to, the requirement that Contractor has complied with and shall continue to comply with all requirements with respect to qualification to do business in Vermont and registration with the office of the Secretary of State. In the event that all or a portion of the project is to be subject to a subcontract, it shall be the responsibility of the Contractor to determine that the subcontractor has complied with the above requirements of registration and qualification as well as all other applicable provisions of this contract.
20. **Waste Reduction Planning.** It is the intent of the State of Vermont to significantly reduce the amount of construction debris going into the total waste stream. Contractor is required to prepare and submit a Construction Site Waste Reduction Plan prior to contract execution. A sample plan is available at: <https://dec.vermont.gov/waste-management/solid/materials-mgmt/construction-waste> . Failure to comply with this provision or a failure to comply with the plan itself will result in withholding of general conditions' money from the contractor's monthly requisition until Contractor has rectified the situation and is in full compliance with these provisions.

ATTACHMENT A-1: SCOPE OF WORK OVERVIEW

Contractor shall provide all labor, materials and equipment necessary to satisfactorily complete the construction of the **XXX** Project located at **XXX** in **XXX**, Vermont.

Construction shall be in accordance with the construction documents (drawings and specifications) prepared by the Department of Buildings and General Services **OR XXX Consultants** dated **XXX** and in accordance with the work described in **Attachments D, E, F, G, and Attachment H, I**. The following represents a summary description of the Project.

DESCRIPTION OF WORK:

A. The work consists of, but not limited to, the construction of **XXXX**. Including, but not limited to, the following major components:

1. **XXX**
2. **ETC.**

B. **ETC.**

WORK UNDER ANOTHER CONTRACT: **REMOVE IF NOT APPLICABLE**

A. State shall award separate contract for the following work. Work under this contract shall include:

1. **XXX**

B. General: Contractor shall cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Contractor shall coordinate the Work of this Contract with work performed under separate contracts.

PRE-ORDER PRODUCTS (PURCHASE BY CONTRACTOR(S)): **REMOVE IF NOT APPLICABLE**

A. None ordered at this time; however State may place orders with suppliers for specific products, to expedite delivery and for other purposes in State's interests.

B. A copy of each purchase order shall be required to be bound at the back of each referenced Section as an attachment for information to Supplier.

C. On execution of State Contractor Agreement, Contractor shall execute purchase agreement with designated supplier, in accordance with terms stated in State's purchase order to supplier.

D. Contractor responsibility for purchase, handling and installation of pre-ordered products is the same as for other Contractor furnished products.

ATTACHMENT A-2: STATE STANDARD CONSTRUCTION MANAGEMENT FORM

ARTICLE 1 **GENERAL PROVISIONS**

1.1 STATEMENT OF EXPECTATIONS

The Construction Manager accepts the relationship of trust and confidence established with the State by this Agreement, and covenants with the State to furnish the Construction Manager's reasonable skill and judgment and to cooperate with the Architect in furthering the interests of the State. The Construction Manager, hereinafter referred to as the Contractor, shall furnish preconstruction, construction, and post-construction administration and management services, and use the Contractor's best efforts to perform the Project in an expeditious and economical manner consistent with the best interests of the State. Both parties understand and agree that cooperation with the Architect is vital to the successful completion of the project.

1.2 GENERAL CONDITIONS

This contract includes the State of Vermont General Conditions for Construction which is incorporated herein by reference. The General Conditions of the contract apply to all phases of construction unless otherwise specifically excepted in this Agreement. The term "Contractor", as used in the General Conditions, shall mean the Construction Manager.

ARTICLE 2 **CONTRACTOR'S RESPONSIBILITIES**

The Contractor shall perform the services described in this Article. The services to be provided under Sections 2.1 and 2.2 of this Article constitute the Preconstruction Phase services. If the State after consultation with the Architect, and Contractor agree, the Construction Phase may commence before the Preconstruction Phase is completed, in which case both phases shall proceed concurrently.

2.1 PRECONSTRUCTION PHASE

2.1.1 PRELIMINARY EVALUATION

The Contractor shall provide a preliminary evaluation of the State's program and Project budget requirements, each in terms of the other.

2.1.2 CONSULTATION

The Contractor, after consultation with the State and the Architect, shall schedule and attend regular meetings with the State and Architect. The Contractor shall consult with the State and Architect regarding site use and improvements, and the selection of materials, building systems

and equipment. The Contractor shall provide recommendations on construction feasibility; actions designed to minimize adverse effects of labor or material shortages; time requirements for procurement, installation and construction completion; and factors related to construction cost, including estimates of alternative designs or materials, preliminary budgets and possible economies.

2.1.3 PROJECT SCHEDULES

When Project requirements described in Section 3.1.1 have been sufficiently identified, the Contractor shall prepare, and periodically update, a Project schedule for the Architect's review and the State's approval. The Contractor must obtain the Architect's approval of the portion of the Project schedule relating to the performance of the Architect's services prior to submitting the project schedule to the State for State approval. The Contractor shall coordinate and integrate the Project schedule with the services and activities of the State, Architect and Contractor. As design proceeds, the Project schedule shall be updated to indicate proposed activity sequences and durations, milestone dates for receipt and approval of pertinent information, submittal of a Guaranteed Maximum Price proposal, preparation and processing of shop drawings and samples, delivery of material or equipment requiring long-lead time procurement, the State's occupancy requirements showing portions of the Project having occupancy priority, and proposed date of Substantial Completion. If Project schedule updates indicate that previously approved schedules may not be met, the Contractor shall notify the State and Architect that the previously approved schedule will not be met and the Contractor will make appropriate recommendations to the State and Architect, which shall include the information contained in this Section (2.1.3) and, in addition, include recommendations on how to meet the previously approved schedule; possible measures to avoid future delays; and a revised schedule.

2.1.4 PHASED CONSTRUCTION

The Contractor shall make recommendations to the State and Architect regarding the phased issuance of Drawings and Specifications to facilitate phased construction of the Work taking into consideration such factors as economies, time of performance, availability of labor and materials, and provisions for temporary facilities.

2.1.5 PRELIMINARY COST ESTIMATES

2.1.5.1 When the State has sufficiently identified the Project requirements and the Architect has prepared other basic design criteria, the Contractor shall prepare, for the review of the Architect and approval of the State, a preliminary cost estimate utilizing area, volume or similar conceptual estimating techniques.

2.1.5.2 When Schematic Design Documents have been prepared by the Architect and approved by the State, the Contractor shall prepare for the review of the Architect and approval of the State, a more detailed estimate with supporting data. During the preparation of the Design Development Documents, the Construction Manager shall update and refine this estimate at appropriate intervals agreed to by the Architect and Contractor and approved by the State.

2.1.5.3 When Design Development Documents have been prepared by the Architect and approved by the State, the Contractor shall prepare a detailed estimate with supporting data for review by the Architect and approval by the State. During the preparation of the Construction Documents, the Contractor shall update and refine this estimate at appropriate intervals agreed to by the State.

2.1.5.4 If any estimate submitted to the State exceeds previously approved estimates or the State's budget, the Contractor shall include with the aforementioned estimate, appropriate recommendations to the State and Architect.

2.1.6 SUBCONTRACTORS AND SUPPLIERS

The Contractor shall seek to develop subcontractor interest in the Project and shall furnish to the State and Architect for their information a list of possible subcontractors, including suppliers who are to furnish materials or equipment fabricated to a special design, from whom proposals will be requested for each principal portion of the Work. The Architect will promptly notify the State in writing if the Architect knows of any objection to such subcontractor or supplier. The State will promptly reply in writing to the Contractor if the State knows of any objection to such subcontractor or supplier.

The receipt of such list shall not require the State or Architect to investigate the qualifications of proposed subcontractors or suppliers, nor shall it waive the right of the State or Architect to later object to or reject any proposed subcontractor or supplier under the terms of this contract.

2.1.7 LONG LEAD TIME ITEMS

The Contractor shall recommend to the State and Architect a schedule for procurement of long lead time items, which will constitute part of the Work as required to meet the Project schedule. If such long lead time items are procured by the State, they shall be procured on terms and conditions consistent with all applicable state laws, regulations, and bulletins. Upon the State's acceptance of the Contractor's Guaranteed Maximum Price proposal, all contracts for such items shall be assigned by the State to the Contractor, who shall accept responsibility for such items as if procured by the Contractor. The Contractor shall expedite the delivery of long lead time items.

2.1.8 EXTENT OF RESPONSIBILITY

The Contractor does not warrant or guarantee estimates and schedules except as may be included as part of the Guaranteed Maximum Price. The recommendations and advice of the Contractor concerning design alternatives shall be subject to the review and approval of the State and the State's professional consultants. It is not the Contractor's responsibility to ascertain that the Drawings and Specifications are in accordance with applicable laws, statutes, ordinances, building codes, rules and regulations. However, if the Contractor recognizes that portions of the Drawings and Specifications are at variance therewith, the Contractor shall promptly notify the Architect and State in writing.

2.2 GUARANTEED MAXIMUM PRICE PROPOSAL AND CONTRACT TIME

2.2.1 When the Drawings and Specifications are sufficiently complete, the Contractor shall propose a Guaranteed Maximum Price, which shall be the sum of the estimated Cost of the Work and the Contractor's Fee.

2.2.2 The Drawings and Specifications may not be finished at the time the Guaranteed Maximum Price proposal is prepared. The Contractor shall provide in the Guaranteed Maximum Price for further development of the Drawings and Specifications by the Architect that is consistent with the Contract Documents and reasonably inferable therefrom. "Further development", as that term is used in the previous sentence, does not include the development of additional Drawings and Specifications due to such things as changes in scope, systems, kinds and quality of materials, finishes or equipment, all of which, if required, shall be incorporated by Change Order.

2.2.3 The estimated Cost of the Work shall include the Contractor's contingency, a sum established by the Contractor for the Contractor's exclusive use to cover costs arising under Section 2.2.2 and other costs which are properly reimbursable as a Cost of the Work. Use of the Contractor's contingency shall be documented and made available for review upon request by the State at the time of submission of monthly requisitions. The amount of contingency being carried by the Contractor in the GMP shall be reduced by change order once the project has been completely "bought out" and after reaching milestones that are mutually agreed upon by the Contractor, State and Architect.

2.2.4 BASIS OF GUARANTEED MAXIMUM PRICE

The Contractor shall include with the Guaranteed Maximum Price proposal a written statement of its basis, which shall include:

- (a) A list of the Drawings and Specifications, including all addenda thereto and the Conditions of the Contract, which were used in preparation of the Guaranteed Maximum Price proposal.
- (b) A list of allowances and a statement of their basis.
- (c) A list of the clarifications and assumptions made by the Contractor in the preparation of the Guaranteed Maximum Price proposal to supplement the information contained in the Drawings and Specifications.
- (d) The proposed Guaranteed Maximum Price, including a statement of the estimated cost organized by trade categories, allowances, contingency, and other items and the fee that comprise the Guaranteed Maximum Price.
- (e) The Date of Substantial Completion upon which the proposed Guaranteed Maximum Price is based, and a schedule of the Construction Documents issuance dates upon which the date of Substantial Completion is based.

2.2.5 The Contractor shall meet with the State and Architect to review the Guaranteed Maximum Price proposal and the written statement of its basis. In the event that the State or Architect discover any inconsistencies or inaccuracies in the information presented, the State shall promptly notify the Contractor, who shall make appropriate adjustments to the Guaranteed Maximum Price proposal, its basis or both.

2.2.6 The Guaranteed Maximum Price proposal shall not be effective without written acceptance by the State.

2.2.7 Prior to the State's acceptance of the Contractor's Guaranteed Maximum Price proposal and issuance of a Notice to Proceed, the Contractor shall not incur any cost to be reimbursed as part of the Cost of the Work, unless, prior to incurring the cost, the contractor has submitted a written request to the State and the State has approved the request in writing.

2.2.8 Upon acceptance by the State of the Guaranteed Maximum Price proposal, the Guaranteed Maximum Price and its basis shall be set forth in the Guaranteed Maximum Price Amendment. The Guaranteed Maximum Price shall be subject to additions and deductions by a change in the Work as provided in the Contract Documents and the date of Substantial Completion shall be subject to adjustment as provided in the Contract Documents.

2.2.9 The State shall authorize and cause the Architect to revise the Drawings and Specifications to the extent necessary to reflect the agreed-upon assumptions and clarifications contained in the Guaranteed Maximum Price Amendment. Such revised Drawings and Specifications shall be furnished to the Contractor in accordance with schedules agreed to by the State, Architect and Contractor. The Contractor shall promptly notify the Architect and State if such revised Drawings and Specifications are inconsistent with the agreed upon assumptions and clarifications.

2.2.10 The Guaranteed Maximum Price shall include in the Cost of the Work any taxes applicable to the project at the time the Guaranteed Maximum Price is established.

2.3 CONSTRUCTION PHASE

2.3.1 COMMENCEMENT

The Construction Phase shall commence, in whole or in part, upon receipt of a Notice to Proceed from the Commissioner of Buildings and General Services.

2.3.2 ADMINISTRATION

2.3.2.1 Those portions of the Work that the Contractor has not identified in his or her Guaranteed Maximum Price as being self performed with the Contractor's own personnel, or as otherwise approved by the State, shall be performed under subcontracts or by other appropriate agreements with the Contractor. The Contractor shall obtain bids from and select Subcontractors and suppliers according to the following conditions and requirements:

- (a) The Contractor shall publically advertise **or** invite three or more bids for any supplier or subcontractor whose proposed work or materials and/or equipment for use on the project exceeds Fifteen Thousand dollars (\$ 15,000.00). The term “suppliers” includes those who are to furnish materials or equipment fabricated to a special design, from whom proposals will be requested for each principal portion of the Work.
- (b) Subject to approval by the State, the Contractor shall award the bid to one of the three lowest responsible bidders, conforming to specifications, with consideration being given to quantities involved, time required for delivery, purpose for which required, competency and responsibility of bidder, and his or her ability to render satisfactory service.
- (c) Subject to approval by the State, the Contractor is permitted to bid on specific aspects of the project. The Contractor must submit a bid consistent with the terms of this contract and present it to the State prior to other bids being opened. Any bid in which the Contractor has submitted a bid must be awarded to the lowest bidder unless approved in writing by the State.
- (d) The commissioner of Buildings and General Services has the right to reject any and all bids and to invite other bidders.

The Contractor shall not be required to contract with anyone to whom the Contractor has reasonable objection.

2.3.2.2 If the Guaranteed Maximum Price has been established and a specific bidder among those whose bids are delivered by the Contractor to the State and Architect (1) is recommended to the State by the Contractor; (2) is qualified to perform that portion of the Work; (3) has submitted a bid which conforms to the requirements of the Contract Documents without reservations or exceptions, but the State fails to approve the bid, then the Contractor may require that a change in the Work be issued to adjust the Contract Time and the Guaranteed Maximum Price by the difference between the bid of the person or entity the State failed to approve and the amount of the subcontract or other agreement actually signed with the person or entity eventually selected by Contractor.

2.3.2.3 Subcontracts and agreements with suppliers furnishing materials or equipment fabricated to a special design shall conform to the payment provisions of Sections 7.1.8 and 7.1.9 and shall not be awarded on the basis of cost plus a fee without the prior consent of the State.

2.3.2.4 The Contractor shall schedule and conduct meetings, at least bi-weekly, at which the State, Architect, Contractor and appropriate Subcontractors can discuss the status of the Work. The Contractor shall prepare and promptly distribute meeting minutes.

2.3.2.5 Promptly after the State's acceptance of the Guaranteed Maximum Price proposal, the Contractor shall prepare a schedule in accordance with Section 4.10 of the State of Vermont General Conditions (Attachment F). The schedule must consider the impacts on the Project and Work caused by the State's occupancy requirements.

2.3.2.6 The Contractor shall provide monthly written reports to the State and Architect on the progress of the entire Work. The Contractor shall maintain a daily log containing a record of weather, Subcontractors working on the site, number of workers, Work accomplished, problems encountered and other similar relevant data as the State may reasonably require. The log shall be available to the State and Architect.

2.3.2.7 The Contractor shall develop a system of cost control for the Work, including regular monitoring of actual costs for activities in progress and estimates for uncompleted tasks and proposed changes. The Contractor shall identify variances between actual and estimated costs and report the variances to the State and Architect at regular intervals.

2.4 PROFESSIONAL SERVICES

The Contractor shall not be required to provide professional services which constitute the practice of architecture or engineering, unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor has specifically agreed in writing to provide such services. In such event, the Contractor shall cause such services to be performed by appropriately licensed professionals. Contractor shall require licensed professionals to comply with all insurance requirements contained in Attachment C.

2.5 UNSAFE MATERIALS

In addition to the provisions of Section 10.1 of the State's General Conditions, if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance encountered but not created on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the State and Architect in writing. The State, Contractor and Architect shall then proceed in the same manner described in Section 10.2 of the State's General Conditions. The State shall be responsible for obtaining the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to verify that it has been rendered harmless. Unless otherwise required by the Contract Documents, the State shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance. The Contractor and Architect will promptly reply to the State in writing stating whether or not either has reasonable objection to the persons or entities proposed by the State. If either the Contractor or Architect has a reasonable objection to a person or entity proposed by the State, the State shall propose another to whom the Contractor and Architect have no reasonable objection.

ARTICLE 3

STATE'S RESPONSIBILITIES

3.1 INFORMATION AND SERVICES

3.1.1 The State shall provide full information in a timely manner regarding the requirements of the Project, including a program which sets forth the State's objectives, constraints and criteria, including space requirements and relationships, flexibility and expandability requirements, special equipment and systems, and site requirements.

3.1.2 The State shall establish and update an overall budget for each phase of the Project, based on consultation with the Contractor and Architect, which shall include contingencies for changes in the Work and other costs which are the responsibility of the State.

3.1.3 STRUCTURAL AND ENVIRONMENTAL TESTS, SURVEYS AND REPORTS

During the Preconstruction Phase, the State shall furnish the following with reasonable promptness and at the State's expense, and the Contractor shall be entitled to rely upon the accuracy of any such information: reports, surveys, drawings and tests described in Sections 3.1.3.1 through 3.1.3.4 of this Article except to the extent that the Contractor knows of any inaccuracy.

3.1.3.1 Reports, surveys, drawings, tests and any and all permits and their conditions concerning the conditions of the site which are required by law.

3.1.3.2 Surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a written legal description of the site: The surveys and legal information shall include, as available and applicable, grades and lines of streets, alleys, pavements and adjoining property, and structures; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and necessary data pertaining to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All information on the survey shall be referenced to a project benchmark.

3.1.3.3 The services of geotechnical engineers when such services are reasonably required by the scope of the project and are requested by the Contractor. Such services may include, but are not limited to, test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, ground corrosion and resistivity tests, including, necessary operations for anticipating subsoil conditions, with reports and appropriate professional recommendations.

3.1.3.4 Structural, mechanical, chemical, air and water pollution tests, tests for hazardous materials, and other laboratory and environmental tests, inspections and reports, which are required by law.

3.1.3.5 The services of other consultants when such services are reasonably required by the scope

of the Project and are requested by the Contractor.

3.2 STATE'S DESIGNATED REPRESENTATIVE

The State shall designate a Project Manager who shall have express authority to bind the State with respect to all matters requiring the State's approval or authorization. The Project Manager shall have the authority to make decisions on behalf of the State concerning estimates and schedules, construction budgets, and changes in the Work, and shall render such decisions promptly and furnish information expeditiously, so as to avoid unreasonable delay in the services or Work of the Contractor.

3.3 ARCHITECT

The State shall retain an Architect to provide the Basic Services, including normal civil, structural, mechanical and electrical engineering services, other than cost estimating services. The State shall authorize and cause the Architect to provide those services requested by the Contractor, which must necessarily be provided by the Architect for the Preconstruction and Construction Phases of the Work. Such services shall be provided in accordance with time schedules agreed to by the State, Architect and Contractor. In the event that an Architect has not been utilized for the project, the Project Manager will be responsible for administration of the contract. All other functions, duties, or obligations of the Architect, under these Standard Construction Management Form, in the absence of an Architect, will be performed by the Project Manager.

ARTICLE 4

COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES

The State shall compensate and make payments to the Contractor for Preconstruction Phase services as follows:

4.1 COMPENSATION

4.1.1 For the services described in Section 2.1 (preconstruction phase) and Section 2.2 (work regarding Guaranteed Maximum price) the Contractor's compensation shall be calculated as detailed and described in Contract Documents, specifically the Contractor's response to the State's RFP.

4.1.2 Compensation for Preconstruction Phase services shall be equitably adjusted if such services extend beyond the dates established in this Agreement or if the originally contemplated scope of services is significantly modified.

4.1.3 If compensation is based on a multiple of Direct Personnel Expense, Direct Personnel Expense is defined as the direct salaries of the Contractor's personnel engaged in the Project and the portion of the cost of their mandatory and customary contributions and benefits related

thereto, such as employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, pensions and similar contributions and benefits.

4.2 PAYMENTS

4.2.1 Payments shall be made monthly following presentation of the Contractor's invoice and, where applicable, shall be in proportion to services performed.

4.2.2 Payments are due and payable thirty (30) days from the date the Contractor's invoice is received by the State. Amounts unpaid after the date on which payment is due shall bear interest at the rate entered below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

ARTICLE 5

COMPENSATION FOR CONSTRUCTION PHASE SERVICES

The State shall compensate the Contractor for Construction Phase services as follows:

5.1 COMPENSATION

5.1.1 For the Contractor's performance of the Work as described in Section 2.3 of this Agreement, the State shall pay the Contractor in current funds the Contract Sum consisting of the Cost of the Work as defined in Article 6 and the Contractor's Fee determined as follows for Phase I and Phase II:

1. *The initial contract value will be written to include the Pre-Construction services (\$XXXX.00), Fee for Construction Services (\$XXXX.00), the Fee for General Conditions (\$XXXX.00) and the anticipated Phase I Cost of Work (\$XXXX.00), which includes any allowances or reimbursables included in the RFP. The final contract value will be determined and adjusted after the establishment of a Guaranteed Maximum Price (GMP), inclusive of the estimated construction cost of Phase II and in accordance with the terms of the contract.*

2. *Change Orders = XX% overhead plus XX% profit.*

5.2 GUARANTEED MAXIMUM PRICE

5.2.1 The sum of the Cost of the Work and the Contractor's Fee are guaranteed by the Contractor not to exceed the amount provided in Guaranteed Maximum Price Amendment (Attachment E), subject to additions and deductions by changes in the Work as provided in the Contract Documents. Such maximum sum as adjusted by approved changes in the Work is referred to in the Contract Documents as the Guaranteed Maximum Price. Costs which would cause the Guaranteed Maximum Price to be exceeded shall be paid by the Contractor without reimbursement by the State.

All savings that result in a total cost below the Guaranteed Maximum Price shall accrue 100 %

to the owner.

5.3 CHANGES IN THE WORK

5.3.1 Adjustments to the Guaranteed Maximum Price on account of changes in the Work subsequent to the execution of Guaranteed Maximum Price Amendment (Attachment E) may be determined by any of the following methods:

- (a) mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- (b) unit prices stated in the Contract Documents or subsequently agreed upon; or
- (c) cost to be determined in a manner agreed upon by the parties and a mutually accepted fixed or percentage fee.

5.3.2 In calculating adjustments to subcontracts (except those awarded with the State's prior consent on the basis of cost plus a fee), the terms "cost" and "fee" as used in Section 12.1.3(c) of the State's General Conditions and the terms "costs" and "a reasonable allowance for overhead and profit" as used in Section 12.1.4 of the State's General Conditions shall have the meanings assigned to them in that document and shall not be modified by this Article 5. Adjustments to subcontracts awarded with the State's prior consent on the basis of cost plus a fee shall be calculated in accordance with the terms of those subcontracts.

5.3.3 In calculating adjustments to the Contract, the terms "cost" and "costs" as used in the above referenced provisions of the State's General Conditions shall mean the Cost of the Work as defined in Article 6 of this Agreement and the terms "and a reasonable allowance for overhead and profit" shall mean the Contractor's Fee as defined in Article 5, Section 5.1 of this Agreement.

5.3.4 If no specific provision is made in Article 5, Section 5.1 for adjustment of the Contractor's Fee in the case of changes in the Work, or if the extent of such changes is such, in the aggregate, that application of the adjustment provisions of Section 5.1 will cause substantial inequity to the State or Contractor, the Contractor's Fee shall be equitably adjusted on the basis of the fee established for the original Work.

ARTICLE 6

COST OF THE WORK FOR CONSTRUCTION PHASE

6.0 COSTS TO BE REIMBURSED

The term "Cost of the Work" shall mean costs necessarily incurred by the Contractor in the proper performance of the Work. Such costs shall be at rates not higher than those customarily paid at the place of the Project except with prior consent of the State. The Cost of the Work shall include only the items set forth in this Article 6.

6.1 LABOR COSTS

(a) Wages of construction workers directly employed by the Contractor to perform the construction of the Work at the site or, with the State's agreement, at off-site workshops.

(b) Wages or salaries of the Contractor's supervisory and administrative personnel when stationed at the site with the State's agreement.

(c) Wages and salaries of the Contractor's supervisory or administrative personnel engaged, at factories, workshops or on the road, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of their time required for the Work.

(d) Costs paid or incurred by the Contractor for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements, and, for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, provided that such costs are based on wages and salaries included in the Cost of the Work under Clauses 6.1(a) through 6.1(c).

6.2 SUBCONTRACT COSTS

Payments made by the Contractor to Subcontractors in accordance with the requirements of the subcontracts.

6.3 COSTS OF MATERIALS AND EQUIPMENT INCORPORATED IN THE COMPLETED CONSTRUCTION

(a) Costs, including transportation, of materials and equipment incorporated or to be incorporated in the completed construction.

(b) Costs of materials described in the preceding Section 6.3(a) in excess of those actually installed but required to provide reasonable allowance for waste and for spoilage. Unused excess materials, if any, shall be handed over to the State at the completion of the Work or, at the State's option, shall be sold by the Contractor. Any amounts realized from such sales shall be credited to the State as a deduction from the Cost of the Work.

6.4 COSTS OF OTHER MATERIALS AND EQUIPMENT, TEMPORARY FACILITIES AND RELATED ITEMS

(a) Costs, including transportation, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment, and hand tools not customarily owned by the construction workers, which are provided by the Contractor at the site and fully consumed in the performance of the Work; and cost less salvage value on such items if not fully consumed, whether sold to others or retained by the Contractor. Cost for items previously used by the Contractor shall mean fair market value.

(b) Rental charges for temporary facilities, machinery, equipment, and hand tools not customarily owned by the construction workers, which are provided by the Contractor at the site, whether rented from the Contractor or others, and costs of transportation, installation, minor repairs and replacements, dismantling and removal thereof. Rates and quantities of equipment rented shall be subject to the State's prior approval.

(c) Costs of removal of debris from the site.

(d) Reproduction costs, costs of telegrams, facsimile transmissions and long-distance telephone calls, postage and express delivery charges, telephone service at the site and reasonable petty cash expenses of the site office.

(e) That portion of the reasonable travel and subsistence expenses of the Contractor's personnel incurred while traveling in discharge of duties connected with the Work.

6.5 MISCELLANEOUS COSTS

(a) That portion directly attributable to this Contract for insurance premiums and bonds.

(b) Sales, use or similar taxes assessed by a governmental authority which are related to the Work and for which the Contractor is liable.

(c) Fees and assessments for the building permit and for other permits, licenses and inspections for which the Contractor is required by the Contract Documents to pay.

(d) Fees of testing laboratories for tests required by the Contract Documents, except those related to nonconforming Work other than that for which payment is permitted by Section 6.7(b).

(e) Royalties and license fees paid for the use of a particular design, process or product required by the Contract Documents; the cost of defending suits or claims for infringement of patent or other intellectual property rights arising from such requirement by the Contract Documents; payments made in accordance with legal judgments against the Contractor resulting from such suits or claims and payments of settlements made with the State's consent; provided, however, that such costs of legal defenses, judgments and settlements shall not be included in the calculation of the Contractor's Fee or the Guaranteed Maximum Price and provided that such royalties, fees and costs are not excluded by the last sentence of Section 4.17 of the State's General Conditions or other provisions of the Contract Documents.

(f) Deposits lost for causes reasonably attributable to the State through change orders, revisions in scope of project, or undue delay directly attributable to the State.

6.6 OTHER COSTS

Other costs incurred in the performance of the Work if and to the extent approved in advance in writing by the State.

6.7 EMERGENCIES AND REPAIRS TO DAMAGED OR NONCONFORMING WORK

The Cost of the Work shall also include costs described in Article 6 which are incurred by the Contractor:

(a) In taking action to prevent threatened damage, injury or loss in case of an emergency affecting the safety of persons and property, as provided in Section 10.3 of the State's General Conditions.

(b) In repairing or correcting damaged or nonconforming Work executed by the Contractor or the Contractor's Subcontractors or suppliers, provided that such damaged or nonconforming Work was not caused by the negligence or failure to fulfill a specific responsibility to the State set forth in this Agreement of the Contractor or the Contractor's foremen, engineers or superintendents, or other supervisory, administrative or managerial personnel of the Contractor, or the failure of the Contractor's personnel to supervise adequately the Work of the Subcontractors or suppliers, and only to the extent that the cost of repair or correction is not recoverable by the Contractor from insurance, Subcontractors or suppliers.

6.8 The costs described in Sections 6.1 through 6.8 shall be included in the Cost of the Work notwithstanding any provision of the State's General Conditions or other Conditions of the Contract which may require the Contractor to pay such costs, unless such costs are excluded by the provisions of Section 6.9 of this Agreement.

6.9 COSTS NOT TO BE REIMBURSED

The Cost of the Work shall not include:

(a) Salaries and other compensation of the Contractor's personnel stationed at the Contractor's principal office or offices other than the site office.

(b) Expenses of the Contractor's principal office and offices other than the site office.

(c) Overhead and general expenses.

(d) The Contractor's capital expenses, including interest on the Contractor's capital employed for the Work.

(e) Rental costs of machinery and equipment except as provided in Section 6.4(b).

(f) Costs due to the negligence of the Contractor or to the failure of the Contractor to fulfill a specific responsibility to the State set forth in this Agreement.

(g) Costs incurred in the performance of Preconstruction Phase Services.

(h) Costs which would cause the Guaranteed Maximum Price to be exceeded.

6.10 DISCOUNTS, REBATES AND REFUNDS

(a) Cash discounts obtained on payments made by the Contractor shall accrue to the State if (1) before making the payment, the Contractor included them in an Application for Payment and received payment therefore from the State, or (2) the State has deposited funds with the Contractor with which to make payments; otherwise, cash discounts shall accrue to the Contractor. Trade discounts, rebates, refunds and amounts received from sales of surplus materials and equipment shall accrue to the State, and the Contractor shall make provisions so that they can be secured.

(b) Amounts which accrue to the State in accordance with the provisions of Section 6.10(a) shall be credited to the State as a deduction from the Cost of the Work.

6.11 ACCOUNTING RECORDS

The Contractor shall keep full and detailed accounts and exercise such controls as may be necessary for proper financial management under this Contract; the accounting and control systems shall be satisfactory to the State. The State and the State's accountants shall be afforded access to the Contractor's records, books, correspondence, instructions, drawings, receipts, subcontracts, purchase orders, vouchers, memoranda and other data relating to this Project, and the Contractor shall preserve these for a period of three years after final payment, or for such longer period as may be required by law.

ARTICLE 7

CONSTRUCTION PHASE

7.1 PROGRESS PAYMENTS

7.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the State shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

7.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.

7.1.3 Provided an Application for Payment is received by the Architect no later than the twentieth (20th) day of a month, the State shall make payment to the Contractor no later than the twentieth (20th) day of the following month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the State no later than

thirty (30) days after the Architect receives the Application for Payment.

7.1.4 With each Application for Payment, the Contractor shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the State or Architect to demonstrate that cash disbursements already made by the Contractor on account of the Cost of the Work equal or exceed (1) progress payments already received by the Contractor; less (2) that portion of those payments attributable to the Contractor's Fee; plus (3) payrolls for the period covered by the present Application for Payment.

7.1.5 Each Application for Payment shall be based upon the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Guaranteed Maximum Price among the various portions of the Work, except that the Contractor's Fee shall be shown as a single separate item. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.

7.1.6 Applications for Payment shall show the percentage completion of each portion of the Work as of the end of the period covered by the Application for Payment. The percentage completion shall be the lesser of (1) the percentage of that portion of the Work which has actually been completed or (2) the percentage obtained by dividing (a) the expense which has actually been incurred by the Contractor on account of that portion of the Work for which the Contractor has made or intends to make actual payment prior to the next Application for Payment by (b) the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values.

7.1.7 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

(a) Take that portion of the Guaranteed Maximum Price properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values. Pending final determination of cost to the State of changes in the Work, amounts not in dispute may be included even though the Guaranteed Maximum Price has not yet been adjusted by Change Order. The amount of credit to be allowed by the Contractor to the State for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be calculated on the basis of net increase, if any, with respect to that change.

(b) Add that portion of the Guaranteed Maximum Price properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work or, if approved in advance by the State, suitably stored off the site at a location agreed upon in writing.

(c) Add the Contractor's Fee then subtract retainage from the total payment amount requested. The Contractor's Fee shall be computed upon the Cost of the Work described in the two preceding Clauses (a & b) at the rate stated in Section 5.1.1 or, if the Contractor's Fee is stated as a fixed sum in that section, shall be an amount which bears the same ratio to that fixed-sum Fee as the Cost of the Work in the two preceding Clauses bears to a reasonable estimate of the probable Cost of the Work upon its completion.

(d) Subtract the aggregate of previous payments made by the State.

(e) Subtract the shortfall, if any, indicated by the Contractor in the documentation required by Section 7.1.4 to substantiate prior Applications for Payment, or resulting from errors subsequently discovered by the State.

(f) Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.6 of State's General Conditions.

7.1.8 Except with the State's prior approval, payments to Subcontractors shall be subject to retention of not less than ten percent (10 %). The State and the Contractor shall agree upon a mutually acceptable procedure for review and approval of payments and retention for subcontracts.

7.1.9 Except with the State's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

7.1.10 In taking action on the Contractor's Applications for Payment, the Architect shall be entitled to rely on the accuracy and completeness of the information furnished by the Contractor and shall not be deemed to represent that the Architect has made a detailed examination, audit or arithmetic verification of the documentation submitted in accordance with Article 7, Section 7.1.4 of this Agreement or other supporting data; that the Architect has made exhaustive or continuous on-site inspections or that the Architect has made examinations to ascertain how or for what purposes the Contractor has used amounts previously paid on account of the Contract. Such examinations, audits and verifications, if required by the State, will be performed by the State's accountants acting in the sole interest of the State.

7.2 FINAL PAYMENT

7.2.1 Final payment shall be made by the State to the Contractor when (1) the Contract has been fully performed by the Contractor except for the Contractor's responsibility to correct nonconforming Work, as provided in Section 13.2 of the State's General Conditions and to satisfy other requirements, if any, which necessarily survive final payment; (2) a final Application for Payment and a final accounting for the Cost of the Work have been submitted by the Contractor and reviewed by the State; and (3) a final Certificate for Payment has then been issued by the Architect; such final payment shall be made by the State not more than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

7.2.2 The amount of the final payment shall be calculated as follows:

(a) Take the sum of the Cost of the Work substantiated by the Contractor's final accounting and the Contractor's Fee; but not more than the Guaranteed Maximum Price.

(b) Subtract amounts, if any, for which the Architect withholds, in whole or in part, a final Certificate for Payment as provided in Section 9.6 of State's General Conditions or other provisions of the Contract Documents.

(c) Subtract the aggregate of previous payments made by the State.

If the aggregate of previous payments made by the State exceeds the amount due the Contractor, the Contractor shall reimburse the difference to the State.

7.2.3 The State will review and report in writing on the Contractor's final accounting within 30 days after delivery of the final accounting to the Architect by the Contractor. Based upon such Cost of the Work as the State reports to be substantiated by the Contractor's final accounting, and provided the other conditions of Section 7.2.1 of this Agreement have been met, the Architect will, within seven (7) days after receipt of the written report of the State, either issue to the State a final Certificate for Payment with a copy to the Contractor, or notify the Contractor and State in writing of the Architect's reasons for withholding a Certificate as provided in Section 9.6 of the State's General Conditions. The time periods stated in this Section 7.2 supersede those stated elsewhere in the Contract Documents.

7.2.4 If the State reports the Cost of the Work as substantiated by the Contractor's final accounting to be less than claimed by the Contractor, the Contractor shall be entitled to proceed in accordance with Article 9 without a further decision of the Architect. Unless agreed to otherwise, a demand for mediation of the disputed amount shall be made by the Contractor within 60 days after the Contractor's receipt of a copy of the Architect's final Certificate for Payment. Failure to make such demand within this 60-day period shall result in the substantiated amount reported by the State becoming binding on the Contractor. Pending a final resolution of the disputed amount, the State shall pay the Contractor the amount certified in the Architect's final Certificate for Payment:

7.2.5 If, subsequent to final payment and at the State's request, the Contractor incurs costs described in Sections 6.1 through 6.8 which are not excluded by Section 6.9 of this Agreement (1) to correct nonconforming Work, or (2) arising from the resolution of disputes, the State shall reimburse the Contractor such costs and the Contractor's Fee, if any, related thereto on the same basis as if such costs had been incurred prior to final payment, but not in excess of the Guaranteed Maximum Price. If the Contractor has participated in savings, the amount of such savings shall be recalculated and appropriate credit given to the State in determining the net amount to be paid by the State to the Contractor.

ARTICLE 8

INSURANCE AND BONDS

8.1 INSURANCE REQUIRED OF THE CONTRACTOR

During both phases of the Project, the Contractor shall purchase and maintain insurance as set forth in these Contract Documents (Attachment C).

8.2 INSURANCE REQUIRED OF THE STATE

During preconstruction and construction phases of the Project, the State shall purchase and maintain liability and property insurance, including waivers of subrogation, as set forth in the Contract Documents.

8.3 PERFORMANCE BOND, PAYMENT BOND AND WARRANTY BOND

The Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising there under as specified in the Contract Documents (Instructions to Bidders). Bonds may be obtained through the Contractor's usual source and the cost thereof shall be included in the Cost of the Work.

ARTICLE 9

MISCELLANEOUS PROVISIONS

9.1 DISPUTE RESOLUTION FOR THE PRECONSTRUCTION PHASE

9.1.1 Disputes involving the meaning and application of the terms of the Contract Documents which arise prior to the commencement of the Construction Phase or which relate solely to the Preconstruction Phase services of the Contractor or to the State's obligations to the Contractor during the Preconstruction Phase, may be resolved by mediation if agreement cannot be reached by the parties utilizing the processes outlined in the Contract Documents.

9.1.2 Any mediation conducted pursuant to this Section 9.1 shall be held in accordance with the Construction Industry Mediation Rules of the American Arbitration Association in effect at the time of execution of the Contract Documents, unless the parties mutually agree otherwise. Demand for mediation shall be filed in writing with the other party to this Agreement and with the American Arbitration Association. Any demand for mediation shall be made within thirty (30) days after the claim, dispute or other matter in question has arisen. In no event shall the demand for mediation be made after the date when institution of legal or equitable proceedings based upon such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

9.2 DISPUTE RESOLUTION FOR THE CONSTRUCTION PHASE

9.2.1 The parties shall endeavor to settle any other claim, dispute or other matter in question arising out of or related to this Agreement or breach thereof by mediation in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect unless the parties mutually agree otherwise. Any mediation arising under this section shall be conducted in accordance with the provisions of Sections 9.1.2 and 9.1.3.

9.3 OTHER PROVISIONS

Unless otherwise noted, the terms used in this Agreement shall have the same meaning as those in the State's General Conditions.

9.3.1 OWNERSHIP AND USE OF DOCUMENTS

The Drawings, Specifications and other documents prepared by the Architect and the state, and copies thereof furnished to the Contractor, are for use solely with respect to this Project. They are not to be used by the Contractor, Subcontractors, Sub-subcontractors or suppliers on other projects, or for additions to this Project outside the scope of the Work, without the specific written consent of the State and Architect. The Contractor, Subcontractors, Sub-subcontractors and suppliers are granted a limited license to use and reproduce applicable portions of the Drawings, Specifications and other documents prepared by the Architect and State appropriate to, and for use in, the execution of their Work under the Contract Documents.

9.3.2 ASSIGNMENT

The Contractor and the Contractor's partners, successors, assigns and legal representatives are bound to the State and the State's successors and assigns in respect to covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as a whole without written consent of the other. If Contractor attempts to make such an assignment without such consent, Contractor shall nevertheless remain legally responsible for all obligations under the Contract.

ARTICLE 10

TERMINATION OR SUSPENSION

10.1 TERMINATION PRIOR TO ESTABLISHING GUARANTEED MAXIMUM PRICE

10.1.1 Prior to execution by both parties of Guaranteed Maximum Price Amendment establishing the Guaranteed Maximum Price, the State may terminate this Contract at any time without cause, and the Contractor may terminate this Contract for any of the reasons described in Section 14.1 of the State's General Conditions.

10.1.2 If the State or Contractor terminates this Contract pursuant to this Section 10.1 of this Agreement prior to commencement of the Construction Phase, the Contractor shall be equitably compensated for Preconstruction Phase services performed prior to receipt of notice of

termination; provided, however, that the compensation for such services shall not exceed the compensation set forth in Section 4.1 of this Agreement.

10.1.3 If the State or Contractor terminates this Contract pursuant to this Section 10.1 of this Agreement after commencement of the Construction Phase, the Contractor shall, in addition to the compensation provided in Section 10.1.2, be paid an amount calculated as follows:

(a) Take the Cost of the Work incurred by the Contractor.

(b) Add the Contractor's Fee computed upon the Cost of the Work to the date of termination at the rate stated in Section 5.1 of this Agreement or, if the Contractor's Fee is stated as a fixed sum in that section, an amount which bears the same ratio to that fixed-sum Fee as the Cost of Work at the time of termination bears to a reasonable estimate of the probable Cost of the Work upon its completion.

(c) Subtract the aggregate of previous payments made by the State on account of the Construction Phase. The State shall also pay the Contractor fair compensation, either by purchase or rental at the election of the State, for any equipment owned by the Contractor which the State elects to retain and which is not otherwise included in the Cost of the Work under Section 10.1.3(a) of this Agreement. To the extent that the State elects to take legal assignment of subcontracts and purchase orders (including rental agreements), the Contractor shall, as a condition of receiving the payments referred to in this Article 10, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Contractor, as the State may require for the purpose of fully vesting in the State the rights and benefits of the Contractor under such subcontracts or purchase orders. Subcontracts, purchase orders and rental agreements entered into by the Contractor with the State's written approval prior to the execution of Amendment No. 1 shall contain provisions permitting assignment to the State as described above. If the State accepts such assignment, the State shall reimburse the Contractor with respect to all costs arising under the subcontract, purchase order or rental agreement except those which would not have been reimbursable as Cost of the Work if the contract had not been terminated. If the State elects not to accept the assignment of any subcontract, purchase order or rental agreement which would have constituted a Cost of the Work had this agreement not been terminated, the Contractor shall terminate such subcontract, purchase order or rental agreement and the State shall pay the Contractor the costs necessarily incurred by the Contractor by reason of such termination.

10.2 TERMINATION SUBSEQUENT TO ESTABLISHING GUARANTEED MAXIMUM PRICE

Subsequent to execution by both parties of Guaranteed Maximum Price Amendment, the Contract may be terminated as provided in Article 14 of the State's General Conditions.

10.2.1 In the event of such termination by the State for reasons included in Section 14.2 of the State's General Conditions, the amount payable to the Contractor shall not exceed the amount

the Contractor would have been entitled to receive pursuant to Sections 10.1.2 and 10.1.3 of this Agreement.

10.2.2 In the event of such termination by the Contractor for reasons included in Section 14.1 of the State's General Conditions, the amount to be paid to the Contractor shall not exceed the amount the Contractor would be entitled to receive under Sections 10.1.2 or 10.1.3 above, except that the Contractor's Fee shall be calculated as if the Work had been fully completed by the Contractor, including a reasonable estimate of the Cost of the Work for Work not actually completed.

10.3 SUSPENSION

The Work may be suspended by the State as provided in Article 14 of the State's General Conditions; in such case, the Guaranteed Maximum Price, if established, shall be increased as provided in Section 14.4.2 of the State's General Conditions except that the term "cost of performance of the Contract" in that section shall be understood to mean the Cost of the Work and the term "profit" shall be understood to mean the Contractor's Fee as described in Sections 5.1.1 and 5.3.4 of this Agreement.

ARTICLE 11

OTHER CONDITIONS AND SERVICES

This Agreement entered into as of the day and year first written above.

STATE:

By: _____

Date: _____

ATTEST: _____

CONTRACTOR:

By: _____

Date: _____

ATTEST: _____

MASTER COPY DISTRIBUTED: _____

Contractor, Accounting, PM,

DEPT ID:

FUND SOURCE:

PROJECT #:

BUILDING #:

ATTACHMENT B – PAYMENT PROVISIONS

The State shall pay the Contractor a maximum amount of **\$XXXX** upon satisfactory completion of the project and acceptance thereof by the state for all work identified in Attachment A, as follows:

1. **Contract Sum:** The State shall pay Contractor compensation as follows: Maximum Amount of **\$XXXX.00**.
 - a) Withholding shall be at 10% pursuant to Paragraph #3 in the Additional Terms and Conditions for Construction Renovation **OR New Construction**.
 - b) Payments under this Contract shall be made in a manner consistent with paragraphs 3, 5, 9 and 14 of Attachment D and with applicable conditions in Attachment E.
2. **MAXIMUM LIMITING AMOUNT:** **\$***. The initial contract value will be written to include the Pre-Construction services (**\$***), Fee for Construction Services (**\$***), the Fee for General Conditions (**\$***) and the anticipated Phase I Cost of Work (**\$***) which includes any allowances or reimbursables included in this contract. The final contract value will be determined and adjusted after the establishment of a Guaranteed Maximum Price (GMP), inclusive of the estimated construction cost of Phase II and in accordance with the terms of the contract.
3. Construction Management Fee Schedule: **TO BE INSERTED - Project Specific**

ITEM	AMOUNT
Fixed Fee for Pre-Construction Services	\$
Fixed Fee for Construction Services (Construction Manager's Fee)	\$
Fixed Fee for General Conditions	\$
Rate (%) for providing 100% Performance, Payment and Guarantee Bonds.	
Percent Markup for Overhead and Profit for changes in the work after the GMP has been established.	

4. **Hourly Rate Schedule:** The following are a list of all employees that are not charged as part of the CM fee. The far right column indicates how all of the tasks will be charged to the project using the following letter abbreviations: G = General Conditions; F = CM Fee; O = Owner Supplied; W = Cost of the Work; NA = Not Applicable **TO BE INSERTED - Project Specific**

Employee Title (do not list names)	Base Pay Rate	Est. Hours	Direct Personal Expenses	Billable Rate	Method of Payment
Project Executives					
Project Manager					
Assistant Project Manager					
Project Engineer					
Estimator					

Clerical					
Accounting					
Superintendent					
Assistant Superintendent(s)					
Scheduler					
Foreman					
Carpenter					
Laborer					
Other:					

5. Project Cost Matrix: **TO BE INSERTED - Project Specific**

6. **LANGUAGE USED UNDER SECTION 3 IS DEPENDENT ON FUNDING SOURCE IDENTIFIED IN RFP. OPTIONS ARE:**

Contractor shall comply with the Prevailing Mean Wage Rate requirements as required by law (29 V.S.A. §161(b)) and as stipulated in these Contract Documents.

OR

Contractor shall comply with the Davis-Bacon Act. Wages shall be paid using rates no less than those established under the Davis-Bacon prevailing wage rates.

OR

This project is being funded using both federal funds and Vermont Capital Construction Act funds. Contractor shall comply with the Davis-Bacon Act. In addition to the various requirements of the Davis-Bacon Act, wages shall be paid using no less than the higher of either the federal (Davis-Bacon Act) or Vermont’s prevailing wage rates.

OR

REMOVE ALL IF NOT APPLICABLE.

7. The amount of compensation paid to the undersigned for **work deemed outside the scope as determined by the State** will be in one of the following manners as directed by the Owner.

- a. A price agreed upon between the Owner and the Contractor.
- b. A price determined by adding XX% for overhead and profit for changes in the work after the GMP has been established.
- c. For the Contractor’s subcontractors: A price determined by adding XX% for overhead and profit to the total direct cost of any extra work excluding unit pricing.
- d. For the Contractor’s subcontractors: A price determined by extending unit price work.

8. Contractor shall provide a detailed description of all work completed with each invoice.

9. The State shall not pay for any unauthorized labor, materials, equipment or expenses of Contractor.
10. Any services outside of agreement shall not be allowed.
11. Upon substantial completion of the work, and upon receipt of approved O&M manuals and record drawings, the State shall make payment, reflecting adjustment in retainage, if any, for work to be completed or corrected.
12. Upon certification by the State that all work has been completed, the following documentation must be received prior to final payment being made:
 - a) Contractor shall keep State property free from liens arising hereunder. Prior to any progress payment, the State may require Contractor to furnish waivers of liens or such other evidence of compliance herewith. The State shall require every Contractor to furnish final lien waivers prior to final payment.
 - b) At the conclusion of the project, the affected contractors must complete the Construction Employment Report and submit it to the Dept. of Buildings and General Services for recording. A complete description and dollar value of the work or supplies provided, and percentage value of the overall construction contract for each such M/WBE transition must be included. Final payment will not be made until this requirement has been satisfied.
13. Payment Terms: Net 30. Payment of progress and final invoices shall be due from the State 30 days after delivery of an invoice free of errors in documentation and approved by the State's project representative. Retainage withheld, if any, is due from the State within 30 days after receipt of the final invoice, which may be submitted after final acceptance of the work or issuance of a Certificate of Substantial Completion less an amount, as determined by the State, to complete unfinished work.
14. Contractor shall submit invoices to the Department of Buildings and General Services on Contractor's standard billhead and shall specify the address to which payments will be sent. Invoices shall include documentation and itemization of all work performed during that period, including a detail of services, dates and hours of work performed and the rate of pay. Invoicing must also contain a detail of items and costs for allowable reimbursable expenses.
15. Invoices shall include documentation of when work was performed. Contractor shall invoice the State at:

State of Vermont
Department of Buildings and General Services
2 Governor Aiken Avenue
Montpelier, VT 05633-5801
Attention: Project Manager

GUARANTEED MAXIMUM PRICE AMENDMENT (ATTACHMENT E)
BETWEEN STATE AND CONTRACTOR

Pursuant to Article 2, Section 2 of the Agreement, dated _____ between *The State of Vermont* and **XXXXX** (*Construction Manager*), for the **XXXX Project** at **XXXX, XXXX**, Vermont (*the Project*), the State and Contractor establish a Guaranteed Maximum Price and Contract Time for the Work as set forth below.

ARTICLE I

GUARANTEED MAXIMUM PRICE

The Contractor's Guaranteed Maximum Price for the Work, including the estimated Cost of the Work as defined in Article 6 and the Contractor's Fee as defined in Article 5 of this agreement, is _____ (write amount out) Dollars (\$ _____).

This Price is for the performance of the Work in accordance with the Contract Documents listed and attached to this Amendment and marked Exhibits A through F, as follows:

Exhibit A Drawings, Specifications, addenda and General, Supplementary and other Conditions of the Contract on which the Guaranteed Maximum Price is based, pages _____ through, _____ dated _____

Exhibit B Allowance items, pages _____ through _____, dated _____

Exhibit C Assumptions and clarifications made in preparing the Guaranteed Maximum Price, pages _____ through _____, dated _____

Exhibit D Completion schedule, pages _____ through _____, dated _____

Exhibit E Alternate prices, pages _____ through _____, dated _____

Exhibit F Unit prices, pages _____ through _____, dated _____

ARTICLE II

CONTRACT TIME

The date of Substantial Completion established by this Amendment is: _____.

STATE: _____
By: _____
Date: _____
ATTEST: _____

CONTRACTOR: _____
By: _____
Date: _____
ATTEST: _____

ATTACHMENT C: STANDARD STATE PROVISIONS FOR CONTRACTS AND GRANTS**REVISED DECEMBER 7, 2023**

1. Definitions: For purposes of this Attachment, “Party” shall mean the Contractor, Grantee, or Subrecipient, with whom the State of Vermont is executing this Agreement and consistent with the form of the Agreement. “Agreement” shall mean the specific contract or grant to which this form is attached.

2. Entire Agreement: This Agreement, whether in the form of a contract, State-funded grant, or Federally-funded grant, represents the entire agreement between the parties on the subject matter. All prior agreements, representations, statements, negotiations, and understandings shall have no effect. Where an authorized individual is either required to click-through or otherwise accept, or made subject to, any electronic terms and conditions to use or access any product or service provided hereunder, such terms and conditions are not binding and shall have no force or effect. Further, any terms and conditions of Party’s invoice, acknowledgment, confirmation, or similar document, shall not apply, and any such terms and conditions on any such document are objected to without need of further notice or objection.

3. Governing Law, Jurisdiction and Venue; No Waiver of Jury Trial: This Agreement will be governed by the laws of the State of Vermont without resort to conflict of laws principles. Any action or proceeding brought by either the State or the Party in connection with this Agreement shall be brought and enforced in the Superior Court of the State of Vermont, Civil Division, Washington Unit. The Party irrevocably submits to the jurisdiction of this court for any action or proceeding regarding this Agreement. The Party agrees that it must first exhaust any applicable administrative remedies with respect to any cause of action that it may have against the State regarding its performance under this Agreement. Party agrees that the State shall not be required to submit to binding arbitration or waive its right to a jury trial.

4. Sovereign Immunity: The State reserves all immunities, defenses, rights, or actions arising out of the State’s sovereign status or under the Eleventh Amendment to the United States Constitution. No waiver of the State’s immunities, defenses, rights, or actions shall be implied or otherwise deemed to exist by reason of the State’s entry into this Agreement.

5. No Employee Benefits For Party: The Party understands that the State will not provide any individual retirement benefits, group life insurance, group health and dental insurance, vacation or sick leave, workers compensation or other benefits or services available to State employees, nor will the State withhold any state or Federal taxes except as required under applicable tax laws, which shall be determined in advance of execution of the Agreement. The Party understands that all tax returns required by the Internal Revenue Code and the State of Vermont, including but not limited to income, withholding, sales and use, and rooms and meals, must be filed by the Party, and information as to Agreement income will be provided by the State of Vermont to the Internal Revenue Service and the Vermont Department of Taxes.

6. Independence: The Party will act in an independent capacity and not as officers or employees of the State.

7. Defense and Indemnity:

- A.** The Party shall defend the State and its officers and employees against all third-party claims or suits arising in whole or in part from any act or omission of the Party or of any agent of the Party in connection with the performance of this Agreement. The State shall notify the Party in the event of any such claim or suit, and the Party shall immediately retain counsel and otherwise provide a complete defense against the entire claim or suit. The State retains the right to participate at its own expense in the defense of any claim. The State shall have the right to approve all proposed settlements of such claims or suits.
- B.** After a final judgment or settlement, the Party may request recoupment of specific defense costs and may file suit in Washington Superior Court requesting recoupment. The Party shall be entitled to recoup costs only upon a showing that such costs were entirely unrelated to the defense of any claim arising from an act or omission of the Party in connection with the performance of this Agreement.
- C.** The Party shall indemnify the State and its officers and employees if the State, its officers, or employees become legally obligated to pay any damages or losses arising from any act or omission of the Party or an agent of the Party in connection with the performance of this Agreement.

D. Notwithstanding any contrary language anywhere, in no event shall the terms of this Agreement or any document furnished by the Party in connection with its performance under this Agreement obligate the State to (1) defend or indemnify the Party or any third party, or (2) otherwise be liable for the expenses or reimbursement, including attorneys' fees, collection costs or other costs of the Party or any third party.

8. Insurance: During the term of this Agreement, Party, at its expense, shall maintain in full force and effect the insurance coverages set forth in the Vermont State Insurance Specification in effect at the time of incorporation of this Attachment C into this Agreement. The terms of the Vermont State Insurance Specification are hereby incorporated by reference into this Attachment C as if fully set forth herein. A copy of the Vermont State Insurance Specification is available at: <https://aoa.vermont.gov/Risk-Claims-COI>.

9. Reliance by the State on Representations: All payments by the State under this Agreement will be made in reliance upon the accuracy of all representations made by the Party in accordance with this Agreement, including but not limited to bills, invoices, progress reports, and other proofs of work.

10. False Claims Act: Any liability to the State under the Vermont False Claims Act (32 V.S.A. § 630 et seq.) shall not be limited notwithstanding any agreement of the State to otherwise limit Party's liability.

11. Whistleblower Protections: The Party shall not discriminate or retaliate against one of its employees or agents for disclosing information concerning a violation of law, fraud, waste, abuse of authority, or acts threatening health or safety, including but not limited to allegations concerning the False Claims Act. Further, the Party shall not require such employees or agents to forego monetary awards as a result of such disclosures, nor should they be required to report misconduct to the Party or its agents prior to reporting to any governmental entity and/or the public.

12. Use and Protection of State Information:

- A. As between the State and Party, "State Data" includes all data received, obtained, or generated by the Party in connection with performance under this Agreement. Party acknowledges that certain State Data to which the Party may have access may contain information that is deemed confidential by the State, or which is otherwise confidential by law, rule, or practice, or otherwise exempt from disclosure under the State of Vermont Access to Public Records Act, 1 V.S.A. § 315 et seq. ("Confidential State Data").
- B. With respect to State Data, Party shall:
 - i. take reasonable precautions for its protection;
 - ii. not rent, sell, publish, share, or otherwise appropriate it; and
 - iii. upon termination of this Agreement for any reason, Party shall dispose of or retain State Data if and to the extent required by this Agreement, law, or regulation, or otherwise requested in writing by the State.
- C. With respect to Confidential State Data, Party shall:
 - i. strictly maintain its confidentiality;
 - ii. not collect, access, use, or disclose it except as necessary to provide services to the State under this Agreement;
 - iii. provide at a minimum the same care to avoid disclosure or unauthorized use as it provides to protect its own similar confidential and proprietary information;
 - iv. implement and maintain administrative, technical, and physical safeguards and controls to protect against any anticipated threats or hazards or unauthorized access or use;
 - v. promptly notify the State of any request or demand by any court, governmental agency or other person asserting a demand or request for Confidential State Data so that the State may seek an appropriate protective order; and
 - vi. upon termination of this Agreement for any reason, and except as necessary to comply with subsection B.iii above in this section, return or destroy all Confidential State Data remaining in its possession or control.
- D. If Party is provided or accesses, creates, collects, processes, receives, stores, or transmits Confidential State Data in any electronic form or media, Party shall utilize:
 - i. industry-standard firewall protection;

- ii. multi-factor authentication controls;
 - iii. encryption of electronic Confidential State Data while in transit and at rest;
 - iv. measures to ensure that the State Data shall not be altered without the prior written consent of the State;
 - v. measures to protect against destruction, loss, or damage of State Data due to potential environmental hazards, such as fire and water damage;
 - vi. training to implement the information security measures; and
 - vii. monitoring of the security of any portions of the Party's systems that are used in the provision of the services against intrusion.
- E. No Confidential State Data received, obtained, or generated by the Party in connection with performance under this Agreement shall be processed, transmitted, stored, or transferred by any means outside the United States, except with the express written permission of the State.
- F. Party shall notify the State within twenty-four hours after becoming aware of any unauthorized destruction, loss, alteration, disclosure of, or access to, any State Data.
- G. State of Vermont Cybersecurity Standard Update: Party confirms that all products and services provided to or for the use of the State under this Agreement shall be in compliance with State of Vermont Cybersecurity Standard Update in effect at the time of incorporation of this Attachment C into this Agreement. The State of Vermont Cybersecurity Standard Update prohibits the use of certain branded products in State information systems or any vendor system, and a copy is available at: <https://digitalservices.vermont.gov/cybersecurity/cybersecurity-standards-and-directives>
- H. In addition to the requirements of this Section 12, Party shall comply with any additional requirements regarding the protection of data that may be included in this Agreement or required by law or regulation.

13. Records Available for Audit: The Party shall maintain all records pertaining to performance under this Agreement. "Records" means any written or recorded information, regardless of physical form or characteristics, which is produced or acquired by the Party in the performance of this Agreement. Records produced or acquired in a machine-readable electronic format shall be maintained in that format. The records described shall be made available at reasonable times during the period of this Agreement and for three years thereafter or for any period required by law for inspection by any authorized representatives of the State or Federal Government. If any litigation, claim, or audit is started before the expiration of the three-year period, the records shall be retained until all litigation, claims, or audit findings involving the records have been resolved.

14. Fair Employment Practices and Americans with Disabilities Act: Party agrees to comply with the requirement of 21 V.S.A. Chapter 5, Subchapter 6, relating to fair employment practices, to the full extent applicable, and shall include this provision in all subcontracts for work performed in Vermont. Party shall also ensure, to the full extent required by the Americans with Disabilities Act of 1990, as amended, that qualified individuals with disabilities receive equitable access to the services, programs, and activities provided by the Party under this Agreement.

15. Offset: The State may offset any sums which the Party owes the State against any sums due the Party under this Agreement; provided, however, that any offset of amounts due the State of Vermont as taxes shall be in accordance with the procedures more specifically provided in 32 V.S.A. § 3113.

16. Taxes Due to the State: Party certifies under the pains and penalties of perjury that, as of the date this Agreement is signed, the Party is in good standing with respect to, or in full compliance with, a plan to pay any and all taxes due the State of Vermont.

17. Taxation of Purchases: All State purchases must be invoiced tax free. An exemption certificate will be furnished upon request with respect to otherwise taxable items.

18. Child Support: (Only applicable if the Party is a natural person, not a corporation or partnership.) Party states that, as of the date this Agreement is signed, Party is not under an obligation to pay child support or is in good standing with respect to or in full compliance with a plan to pay any and all child support payable under a support order. Party makes this statement with regard to support owed to any and all children residing in Vermont. In addition, if the Party is a resident of Vermont, Party makes this statement with regard to support owed to any and all children residing in any other state or territory of the United States.

19. Sub-Agreements: Party shall not assign, subcontract, or subgrant the performance of this Agreement or any portion thereof to any other Party without the prior written approval of the State. Party shall be responsible and liable to the State for all acts or omissions of subcontractors and any other person performing work under this Agreement pursuant to an agreement with Party or any subcontractor.

In the case this Agreement is a contract with a total cost in excess of \$250,000, the Party shall provide to the State a list of all proposed subcontractors and subcontractors' subcontractors, together with the identity of those subcontractors' workers compensation insurance providers, and additional required or requested information, as applicable, in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), as amended by Section 17 of Act No. 142 (2010) and by Section 6 of Act No. 50 (2011).

Party shall include the following provisions of this Attachment C in all subcontracts for work performed solely for the State of Vermont and subcontracts for work performed in the State of Vermont: Section 10 ("False Claims Act"); Section 11 ("Whistleblower Protections"); Section 12 ("Confidentiality and Protection of State Information"); Section 14 ("Fair Employment Practices and Americans with Disabilities Act"); Section 16 ("Taxes Due the State"); Section 18 ("Child Support"); Section 20 ("No Gifts or Gratuities"); Section 22 ("Certification Regarding Debarment"); Section 30 ("State Facilities"); and Section 32.A ("Certification Regarding Use of State Funds").

20. No Gifts or Gratuities: Party shall not give title or possession of anything of substantial value (including property, currency, travel, and/or education programs) to any officer or employee of the State during the term of this Agreement.

21. Regulation of Hydrofluorocarbons: Party confirms that all products provided to or for the use of the State under this Agreement shall not contain hydrofluorocarbons, as prohibited under 10 V.S.A. § 586.

22. Certification Regarding Debarment: Party certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, neither Party nor Party's principals (officers, directors, owners, or partners) are presently debarred, suspended, proposed for debarment, declared ineligible, or excluded from participation in Federal programs, or programs supported in whole or in part by Federal funds. Party further certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, Party is not presently debarred, suspended, nor named on the State's debarment list at: <https://bgs.vermont.gov/purchasing-contracting/debarment>.

23. Conflict of Interest: Party shall fully disclose, in writing, any conflicts of interest or potential conflicts of interest.

24. Vermont Public Records Act: Party acknowledges and agrees that this Agreement, any and all information obtained by the State from the Party in connection with this Agreement, and any obligations of the State to maintain the confidentiality of information are subject to the State of Vermont Access to Public Records Act, 1 V.S.A. § 315 *et seq.*

25. Force Majeure: Neither the State nor the Party shall be liable to the other for any failure or delay of performance of any obligations under this Agreement to the extent such failure or delay shall have been wholly or principally caused by acts or events beyond its reasonable control rendering performance illegal or impossible (excluding strikes or lockouts) ("Force Majeure"). Where Force Majeure is asserted, the nonperforming party must prove that it made all reasonable efforts to remove, eliminate or minimize such cause of delay or damages, diligently pursued performance of its obligations under this Agreement, substantially fulfilled all non-excused obligations, and timely notified the other party of the likelihood or actual occurrence of an event described in this paragraph.

26. Marketing: Party shall not use the State's logo or otherwise refer to the State in any publicity materials, information pamphlets, press releases, research reports, advertising, sales promotions, trade shows, or marketing materials or similar communications to third parties except with the prior written consent of the State.

27. Termination:

- A. Non-Appropriation:** If this Agreement extends into more than one fiscal year of the State (July 1 to June 30), and if appropriations are insufficient to support this Agreement, the State may cancel this Agreement at the end of the fiscal year, or otherwise upon the expiration of existing appropriation authority. In the case that this Agreement is funded in whole or in part by Federal funds, and in the event Federal funds become unavailable or reduced, the State may suspend or cancel this Agreement immediately, and the State shall have no obligation to pay Party from State revenues.

- B. Termination for Cause:** Either party may terminate this Agreement if a party materially breaches its obligations under this Agreement, and such breach is not cured within thirty (30) days after delivery of the non-breaching party's notice or such longer time as the non-breaching party may specify in the notice.
- C. Termination Assistance:** Upon nearing the end of the final term or termination of this Agreement, without respect to cause, the Party shall take all reasonable and prudent measures to facilitate any transition required by the State. All State property, tangible and intangible, shall be returned to the State upon demand at no additional cost to the State in a format acceptable to the State.

28. Continuity of Performance: In the event of a dispute between the Party and the State, each party will continue to perform its obligations under this Agreement during the resolution of the dispute until this Agreement is terminated in accordance with its terms.

29. No Implied Waiver of Remedies: Either party's delay or failure to exercise any right, power, or remedy under this Agreement shall not impair any such right, power, or remedy, or be construed as a waiver of any such right, power, or remedy. All waivers must be in writing.

30. State Facilities: If the State makes space available to the Party in any State facility during the term of this Agreement for purposes of the Party's performance under this Agreement, the Party shall only use the space in accordance with all policies and procedures governing access to, and use of, State facilities, which shall be made available upon request. State facilities will be made available to Party on an "AS IS, WHERE IS" basis, with no warranties whatsoever.

31. Requirements Pertaining Only to Federal Grants and Subrecipient Agreements: If this Agreement is a grant that is funded in whole or in part by Federal funds:

- A. Requirement to Have a Single Audit:** The Subrecipient will complete the Subrecipient Annual Report annually within 45 days after its fiscal year end, informing the State of Vermont whether or not a Single Audit is required for the prior fiscal year. If a Single Audit is required, the Subrecipient will submit a copy of the audit report to the Federal Audit Clearinghouse within nine months. If a single audit is not required, only the Subrecipient Annual Report is required. A Single Audit is required if the subrecipient expends \$750,000 or more in Federal assistance during its fiscal year and must be conducted in accordance with 2 CFR Chapter I, Chapter II, Part 200, Subpart F. The Subrecipient Annual Report is required to be submitted within 45 days, whether or not a Single Audit is required.
- B. Internal Controls:** In accordance with 2 CFR Part II, §200.303, the Party must establish and maintain effective internal control over the Federal award to provide reasonable assurance that the Party is managing the Federal award in compliance with Federal statutes, regulations, and the terms and conditions of the award. These internal controls should be in compliance with guidance in "Standards for Internal Control in the Federal Government" issued by the Comptroller General of the United States and the "Internal Control Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission.
- C. Mandatory Disclosures:** In accordance with 2 CFR Part II, §200.113, Party must disclose, in a timely manner, in writing to the State, all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award. Failure to make required disclosures may result in the imposition of sanctions which may include disallowance of costs incurred, withholding of payments, termination of the Agreement, suspension/debarment, etc.

32. Requirements Pertaining Only to State-Funded Grants:

- A. Certification Regarding Use of State Funds:** If Party is an employer and this Agreement is a State-funded grant in excess of \$1,000, Party certifies that none of these State funds will be used to interfere with or restrain the exercise of Party's employee's rights with respect to unionization.
- B. Good Standing Certification (Act 154 of 2016):** If this Agreement is a State-funded grant, Party hereby represents: (i) that it has signed and provided to the State the form prescribed by the Secretary of Administration for purposes of certifying that it is in good standing (as provided in Section 13(a)(2) of Act 154) with the Agency of Natural Resources and the Agency of Agriculture, Food and Markets, or otherwise explaining the circumstances surrounding the inability to so certify; and (ii) that it will comply with the requirements stated therein.

(End of Standard Provisions)

ATTACHMENT D

STATE OF VERMONT STANDARD FORM

GENERAL CONDITIONS FOR CONSTRUCTION CONTRACTS (May 22, 2019)

The following general conditions are for use with all construction contracts with the State of Vermont, administered through the Department of Buildings and General Services.

These general conditions will be attached to, and become part of, the Contract Documents.

If there is a conflict between the terms and conditions stated in these general conditions and the terms and conditions contained in the State-Contractor Agreement; the terms of the State-Contractor Agreement control.

ARTICLE 1

CONTRACT DOCUMENTS

1.1 DEFINITIONS

The term “State-Contractor Agreement” refers to the specific agreement between the State of Vermont and a particular contractor whereby the State and the contractor identify, explain and agree to the specific contractual obligations of each party and identify the nature and scope of a particular project. The “State-Contractor Agreement” will utilize one of the following construction delivery methods: (i) A general contractor hired by the State to provide all services necessary for the construction of the particular project. The general contractor is responsible for completing the particular project for a fixed price; (ii) a construction manager hired by the State to provide professional services and act as a consultant to the State in the design development and construction phases and to deliver the particular project for a Guaranteed Maximum Price; or (iii) a design-build contractor hired by the State to provide both design and construction services, under a single contract, for a particular project.

1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents consist of the State-Contractor Agreement, the Conditions of the Contract (General, Supplementary and other Conditions), the Drawings, the Specifications, and all Addenda issued prior to bid opening and any Change Orders after execution of the Contract.-

1.1.2 THE CONTRACT

The Contract Documents form the contract for construction. This contract represents the entire and integrated agreement between the parties and supersedes all prior negotiations, representations, or agreements, either written or oral. The contract may only be amended by Change Order. The Contract Documents shall not be construed to create any contractual relationship of any kind between the Architect and the Contractor, but the Architect shall be entitled to performance of obligations intended for his benefit, and to enforcement thereof. Nothing contained in the Contract Documents shall create any contractual relationship between the State or the Architect and any Subcontractor or Sub-subcontractor.

1.1.3 THE WORK

The Work comprises the completed construction required by the Contract Documents and includes all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.

1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part.

1.1.5 PROJECT MANAGER

The term “Project Manager” refers to the employee of the State who has been assigned responsibility for overseeing and managing the proper and timely implementation of the project.

1.2 EXECUTION & INTENT

1.2.1 Upon request, the State-Contractor Agreement will be signed in duplicate by the State and Contractor.

1.2.2 By executing the Contract, the Contractor represents that he or she has visited and examined the site; is fully informed as to the extent and character of the Project; familiarized himself or herself with the local conditions under which the Work is to be performed, and correlated his / her observations with the requirements of the Contract Documents and understands that no consideration will be given for any alleged misunderstanding of same.

1.2.3 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as, if required by all. Work not covered in the Contract Documents will not be required unless it is consistent with the Contract Documents and is reasonably inferable from the Contract Documents as being necessary to produce the intended results. Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.

1.2.4 The organization of the Specifications into divisions, sections and articles, and the arrangement of Drawings shall not control the Contractor in dividing the Work among

Subcontractors or in establishing the extent of Work to be performed by any trade.

1.3 OWNERSHIP AND USE OF DOCUMENTS

1.3.1 All drawings, specifications, estimates, and all other documents, including shop drawings and calculations, prepared at any time in connection with the Project, shall, upon payment for services in connection therewith, become the sole property of the State.

ARTICLE 2

ARCHITECT

2.1 DEFINITION

The term Architect, as used in this document, means a person, or entity, lawfully licensed to practice architecture or a person or entity lawfully licensed to provide professional engineering services and has been identified as such in the State-Contractor Agreement. The term Architect means the Architect or his / her authorized representative. These General Conditions are applicable whether or not an Architect is utilized for a particular project. In the event that an Architect has not been utilized for the project, the Project Manager will be responsible for administration of the contract as specifically enumerated in paragraph 2.2. All other functions, duties, or obligations of the Architect, under these General Conditions, in the absence of an Architect, will be performed by the Project Manager.

2.2 ADMINISTRATION OF THE CONTRACT

2.2.1 The Architect will provide administration of the Contract as hereinafter described.

2.2.2 The Architect will be the State's representative during construction and until final payment is due. The Architect will advise and consult with the State. The State's instructions to the Contractor shall be forwarded through the Architect. The Architect will have authority to act on behalf of the State only to the extent provided in the Contract Documents, unless otherwise modified by written instrument in accordance with Subparagraph 2.2.10.

2.2.3 The Architect will visit the site at intervals appropriate to the stage of construction to familiarize himself or herself generally with the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of his or her on-site observations as an architect, he or she will keep the State informed of the progress of the Work, and will endeavor to guard the State against defects and deficiencies in the Work of the Contractor.

2.2.4 The Architect will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and he or she will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Architect will not be responsible for or have control or charge over the acts or omissions of the Contractor,

Subcontractors, or any of their agents or employees, or any other persons performing any of the Work.

2.2.5 The Architect shall at all times have access to the Work wherever it is in preparation and progress. The Contractor shall provide facilities for such access so the Architect may perform his or her functions under the Contract Documents.

2.2.6 Based on the Architect's observations of the Work and an evaluation of the Contractor's Applications for Payment, the Architect will determine the amounts owing to the Contractor and will issue Certificates for Payment in such amounts, as provided in Paragraph 9.4 of these General Conditions.

2.2.7 The Architect will review and approve or take other appropriate action upon Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for conformance with the design concept of the Work and with the information given in the Contract Documents. Such action shall be taken with reasonable promptness so as to cause no delay.

2.2.8 The Architect will prepare Change Orders in accordance with Article 12. The Architect has authority to order minor changes in the Work with the consent of the owner.

2.2.9 The Architect will conduct inspections to determine the dates of Substantial Completion and final completion, will receive and forward to the State for the State's review written warranties and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment upon compliance with the requirements of Paragraph 9.9.

2.2.10 The duties, responsibilities and limitations of authority of the Architect as the State's representative during construction as set forth in the Contract Documents will not be modified or extended without written consent of the State and the Architect. In the event that the duties, responsibilities and limitations of authority of the Architect as State's representative during construction as set forth in the Contract Documents is modified or extended, the State will immediately notify the Contractor, in writing, of the modification or extension and the date that the modified or extended authority is effective. If the change of duties, responsibilities, or limitations of authority of the Architect, causes the Contractor to incur new, additional, and unexpected expenses completing the Work, then the State and the Contractor shall agree to an equitable adjustment to be implemented by Change Order to the State-Contractor Agreement.

2.2.11 In case of the termination of the employment of Architect, the State may appoint a subsequent architect in which case, the subsequent architect will have the same status under the Contract Documents as that of the former architect. In the event of termination of the Architect, the State will immediately notify the Contractor, in writing, of the termination and the appointment of a replacement architect, if any.

2.2.12 The Architect will be the interpreter of the requirements of the Contract Documents and will make recommendations to the State regarding the progress and quality of the Work and whether the Work is proceeding in accordance with the Contract Documents.

2.2.13 The Architect will render interpretations necessary for the proper execution and progress of the Work, with reasonable promptness and in accordance with any time limit agreed

upon, in writing, by the Architect, Contractor, and the State.

2.2.14 Claims, disputes and other matters in question between the Contractor and the State relating to the execution or progress of the Work or the interpretation of the Contract Documents shall be referred initially to the Architect for review. The Architect will review the nature of the claim, dispute or other matter, along with any documentation provided by the Contractor or the State, and within a reasonable time, the Architect will provide a written recommendation to the State.

ARTICLE 3

STATE

3.1 DEFINITION

The State of Vermont, by and through the Department of Buildings and General Services is the entity identified as “State” in the State-Contractor Agreement and is referred to throughout the Contract Documents as the “State”.

3.2 RESPONSIBILITIES OF THE STATE

3.2.1 The State will identify a Project Manager for the Project. The Project Manager will be the sole point of contact between the Contractor and the State. The Project Manager will be the State’s representative authorized to communicate the State’s position and directions related to all contract work and to coordinate all change orders with the Commissioner of Buildings and General Services as deemed necessary.

3.2.2 If applicable, the State shall furnish all surveys describing the physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site.

3.2.3 Except as provided in Subparagraph 4.7.1, the State shall secure and pay for necessary approvals, easements, assessments and charges required for the construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

3.2.4 Information or services under the State's control shall be furnished by the State with reasonable promptness to avoid delay in the orderly progress of the Work.

3.2.5 Unless otherwise provided in the Contract Documents, the Contractor will be furnished, free of charge, all copies of Drawings and Specifications reasonably necessary for the execution of the Work.

3.2.6 The State shall forward instructions to the Contractor through the Architect.

3.2.7 The foregoing are in addition to any other duties and responsibilities of the State enumerated in the Contract Documents including those responsibilities described in Articles 6, 9 and 11 of this agreement.

3.2.8 The State may utilize a Clerk-of-the-Works to provide inspection and monitoring work on behalf of the State. If a Clerk-of-the-Works is utilized, it is the responsibility of the Architect and the Contractor to review and understand the Clerk's duties, responsibilities and limitations of authority. Upon request, the State shall provide a copy of the Clerk-of-the-Works contract to Architect and Contractor.

3.3 STATE'S RIGHT TO STOP THE WORK

3.3.1 If the Contractor fails to correct defective Work as required by Paragraph 13.2 or persistently fails to carry out the Work in accordance with the Contract Documents, the State, by a written order signed personally or by an agent specifically so empowered by the State in writing, may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the State to stop the Work shall not give rise to any duty on the part the State to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Subparagraph 6.1.3.

3.4 STATE'S RIGHT TO CARRY OUT THE WORK

3.4.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within seven days after receipt of written notice from the State to commence and continue correction of such default or neglect with diligence and promptness, the State may, after seven days following receipt by the Contractor of an additional written notice and without prejudice to any other remedy he may have, make good such deficiencies. In such case an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the Architect's and the State's additional services made necessary by such default, neglect or failure. Such action by the State and the amount charged to the Contractor are both subject to review by the Architect under Paragraph 2.2.14 of these General Conditions. If the payments then or thereafter due the Contractor are not sufficient to cover the amounts paid by the State to make good such deficiencies, then the Contractor shall pay the difference to the Owner.

ARTICLE 4

CONTRACTOR

4.1 DEFINITION

The Contractor is the person or entity identified as such in the State Contractor Agreement and is referred to throughout the Contract Documents as Contractor. The term Contractor means the Contractor or his authorized representative.

4.2 REVIEW OF CONTRACT DOCUMENTS

4.2.1 The Contractor shall carefully study and compare the Contract Documents and shall immediately report in writing to the Architect and the State any error, inconsistency or omission he may discover. The Contractor shall not be liable to the State or the Architect for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents. The

Contractor shall perform no portion of the Work at any time without Contract Documents or, where required, approved Shop Drawings, Product Data or Samples for such portion of the Work.

4.3 SUPERVISION AND CONSTRUCTION PROCEDURES

4.3.1 The Contractor shall supervise and direct the Work, using his / her best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract. All aspects of the Project shall be subject to the inspection and approval of the State. Contractor guarantees to repair, replace, re-execute or otherwise correct any defect in workmanship, materials, or the like that fails to conform to the requirements of this Contract or that appears during the progress of the Work or within one year of final acceptance by the State.

4.3.2 The Contractor shall be responsible to the State for the acts and omissions of his / her employees, Subcontractors and their agents and employees, and other persons performing any of the Work under a contract with the Contractor.

4.3.3 The Contractor shall not be relieved from his / her obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of the Architect in his / her administration of the Contract, or by inspections, tests or approvals required or performed under Paragraph 7.7 by persons other than the Contractor.

4.3.4 The Contractor shall acquaint himself (herself / itself) with the limits of the property or right-of-way of the State and shall not trespass on other property. The Contractor shall adequately protect the project, adjacent property and the public, and shall be responsible for any damage or injury due to the Contractor's act or neglect, and shall save the State harmless in respect thereto.

4.3.5 All work shall be done in such a manner as not to interfere with the State's operating functions. Contractor and his employees shall familiarize themselves and comply with all rules and regulations applicable to the project.

4.3.6 The Contractor shall keep the premises free from liens arising out of or from the Project. Contractor shall obtain and submit waivers of liens with a request for a progress or final payment.

4.4 LABOR AND MATERIALS

4.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Contractor guarantees that materials shall be of the best quality, that work shall be completed in a neat and workmanlike manner, that equipment will be installed in a first class manner, and that all aspects of the project will be delivered in good working order complete and perfect in every respect and that all systems and materials necessary to make the project a complete operating utility as contemplated by the above description of the project is included in the Contract price.

4.4.2 The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him.

4.5 WARRANTY

4.5.1 The Contractor warrants to the State and the Architect that all materials and equipment furnished under this Contract will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If requested by the Architect or the State, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of Paragraph 13.2 of these General Conditions.

4.6 TAXES

The State is exempt from all sales and federal excise taxes. Contractors will be responsible for the payment of any sales, consumer, use and other similar taxes for the Work or portions thereof provided by the Contractor which are legally enacted at the time bids are received, whether or not yet effective.

4.7 PERMITS, FEES AND NOTICES

4.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for all permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work which are customarily secured after execution of the Contract and which are legally required at the time the bids are received. Contractor shall comply with the regulations and requirements of any insurance company which issues a policy on any part of the work or site.

4.7.2 The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work.

4.7.3 It is not the responsibility of the Contractor to make certain that the Contract Documents are in accordance with applicable laws, statutes, building codes and regulations. However, if the Contractor observes that any of the Contract Documents are at variance therewith in any respect, he / she shall promptly notify the Architect in writing, and any necessary changes shall be accomplished by appropriate modification.

4.7.4 If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Architect, he / she shall assume full responsibility therefor and shall bear all costs attributable thereto.

4.7.5 The Contractor agrees to comply with all the requirements of Title 21 V.S.A., Chapter 5, Subchapter 6 relating to fair employment practices and agrees further to include a similar provision in any and all subcontracts. A link to 21 V.S.A. Chapter 5, Subchapter 6 is provided: <http://legislature.vermont.gov/statutes/section/21/005/00495>

4.8 ALLOWANCES

4.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by these allowances shall be supplied for such amounts and by such persons as dictated by the process contained in the Contract Documents.

4.8.2 Unless otherwise provided in the Contract Documents:

(a) these allowances shall cover the cost to the Contractor, less any applicable trade discount, of the materials and equipment required by the allowance delivered at the site, and all applicable taxes;

(b) the Contractor's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the original allowance shall be included in the Contract Sum and not in the allowance;

(c) whenever the cost is more than or less than the allowance, the Contract Sum shall be adjusted accordingly by Change Order, the amount of which will recognize changes, if any, in handling costs on site, labor, installation costs, overhead, profit and other expenses.

4.9 SUPERINTENDENT

The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during the progress of the Work. The superintendent shall represent the Contractor and all communications given to the superintendent shall be as binding as if given to the Contractor. All Communications shall be in writing when made or shall be confirmed in writing, by the Contractor, within twenty-four (24) hours of the communication.

4.10 PROGRESS SCHEDULE

The Contractor, within ten (10) working days of receiving notice of the award of the contract, shall prepare and submit for the State's and Architect's information an estimated progress schedule for the Work. The progress schedule shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

4.11 DOCUMENTS AND SAMPLES AT THE SITE

4.11.1 The Contractor shall maintain at the site for the State one record copy of all Drawings, Specifications, Addenda, Change Orders and other modifications, in good order and marked currently to record all changes made during construction, and approved Shop Drawings, Product Data and Samples. These shall be available to the Architect and the State for monthly review prior to approval of Contractor's monthly application for payment. Prior to substantial completion of the Work, the Contractor shall ensure that one record copy of all Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to record all changes made during construction, and approved Shop Drawings, Product Data and Samples are delivered to the Architect for the State and a duplicate copy shall be delivered to the State for the State's use.

4.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

4.12.1 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or any Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

4.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate a material, product or system for some portion of the Work.

4.12.3 Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

4.12.4 The Contractor shall review, approve and submit, with reasonable promptness and in such sequence as to cause no delay in the Work or in the work of the State or any separate contractor, all Shop Drawings, Product Data and Samples required by the Contract Documents.

4.12.5 By approving and submitting Shop Drawings, Product Data and Samples, the Contractor represents that he / she has determined and verified all materials, field measurements, and field construction criteria related thereto, or will do so, and that he / she has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

4.12.6 The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data or Samples under Subparagraph 2.2.7 of these General Conditions unless the Contractor has specifically informed the Architect and the State in writing of such deviation at the time of submission and the Architect and the State has given written approval to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omissions in the Shop Drawings, Product Data or Samples by the Architect's approval thereof.

4.12.7 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data or Samples, to revisions other than those requested by the Architect on previous submittals.

4.12.8 No portion of the Work requiring submission of a Shop Drawing, Product Data or Sample shall be commenced until the submittal has been approved by the Architect as provided in Subparagraph 2.2.7 of these General Conditions. All such portions of the Work shall be in accordance with approved submittals.

4.13 USE OF SITE

4.13.1 The Contractor shall confine operations at the site to areas permitted by law, including areas designated for operations or prohibited from operations by any applicable permit and or regulation, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with any materials or equipment.

4.14 CUTTING AND PATCHING OF WORK

4.14.1 The Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the Work or to make its several parts fit together properly.

4.14.2 The Contractor shall not damage or endanger any portion of the Work or the work of the State or any separate contractors by cutting, patching or otherwise altering any work, or by excavation. The Contractor shall not cut or otherwise alter the work of the State or any separate contractor except with the written consent of the State and of such separate contractor. The Contractor shall not unreasonably withhold from the State or any separate contractor his consent to cutting or otherwise altering the Work.

4.15 CLEANING UP

4.15.1 Before commencement of any on-site activities, Contractor is required to prepare and submit to the Project Manager a Construction Site Waste Reduction Plan. A sample plan is available at: <http://www.anr.state.vt.us/dec/wastediv/recycling/CandD.htm> . Failure to comply with this provision or a failure to comply with the plan itself will result in withholding of general conditions' money from the contractor's monthly requisition until Contractor has rectified the situation and is in full compliance with these provisions.

4.15.2 The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish. At the completion of the Work he shall remove all his waste materials and rubbish from and about the Project as well as all his tools, construction equipment, machinery and surplus materials and shall leave the premises in a clean and satisfactory condition.

4.15.3 If the Contractor fails to clean up at the completion of the Work, the State may do so as provided in Paragraph 3.4 and the cost thereof shall be charged to the Contractor.

4.16 COMMUNICATIONS

4.16.1 The Contractor shall forward all communications to the State through the Architect.

4.17 ROYALTIES AND PATENTS

The Contractor shall pay all royalties and license fees. The Contractor shall defend all suits or claims for infringement of any patent rights and shall save the State harmless from loss on account thereof, except that the State shall be responsible for all such loss when a particular design, process or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, The Contractor shall be responsible for such loss unless he promptly gives such information to the Architect.

4.18 INDEMNIFICATION

The Contractor hereby agrees and consents to indemnify and hold harmless the State under the terms and conditions specified in "Attachment C".

SUBCONTRACTORS

5.1 DEFINITION

5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform any of the Work at the site. The term Subcontractor means a Subcontractor or his / her authorized representative. The term Subcontractor does not include any separate contractor or his / her subcontractors.

5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform any of the Work at the site. The term Sub-subcontractor means a Sub-subcontractor or an authorized representative thereof.

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

Unless other procedures are specified or required by the Contract Documents or the Bidding Documents, then the following provisions are applicable:

5.2.1 The Parties agree that it is in the best interests of both the Contractor and the State to determine and select subcontractors as soon as possible after the Contractor has been awarded the Project. Therefore, the Contractor agrees, to furnish to the State and the Architect in writing the names of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work within Ten (10) working days of award of the Project to Contractor. The State will reply within Ten (10) working days to the Contractor in writing stating whether or not the State, after due investigation, has reasonable objection to any such proposed person or entity.

5.2.2 The Contractor shall not contract with any such proposed person or entity to whom the State has made reasonable objection under the provisions of Subparagraph 5.2.1 of these General Conditions. The Contractor shall not be required to contract with anyone to whom he has a reasonable objection.

5.2.3 If the State has reasonable objection to any such proposed person or entity, the Contractor shall submit a substitute to whom the State has no reasonable objection, and the Contract Sum shall be increased or decreased by the difference in cost occasioned by such substitution and an appropriate Change Order shall be issued; however, no increase in the Contract Sum shall be allowed for any such substitution unless the Contractor has acted promptly and responsively in submitting names as required by Subparagraph 5.2.1. of these General Conditions.

5.2.4 The Contractor shall make no substitution for any Subcontractor, person or entity previously selected if the State makes a reasonable objection to such substitution.

5.3 SUBCONTRACTUAL RELATIONS

5.3.1 By written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities

which the Contractor, by these Documents, assumes toward the State and the Architect. Said agreement shall preserve and protect the rights of the State and the Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that the subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the Contractor Subcontractor agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by these Documents, has against the State. The Contractor shall require each Subcontractor to enter into similar agreements with his Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the Subcontract, copies of the Contract Documents to which the Subcontractor will be bound by this Paragraph 5.3, and identify to the Subcontractor any terms and conditions of the proposed Subcontract which may be at variance with the Contract Documents. Each Subcontractor shall similarly make copies of such Documents available to his / her Sub-subcontractors.

ARTICLE 6

WORK BY STATE OR BY SEPARATE CONTRACTORS

6.1 STATE'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

6.1.1 The State reserves the right to perform work related to the Project with its own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar Conditions of the Contract. If the Contractor claims that delay or additional cost is involved because of such action by the State, he / she shall make such claim as provided elsewhere in the Contract Documents.

6.1.2 When separate Contracts are awarded for different portions of the Project or other work on the site, the term Contractor in the Contract Documents in each case shall mean the Contractor who executes each separate State Contractor Agreement.

6.1.3 The State will provide for the coordination of the work of its own forces and of each separate contractor with the Work of the Contractor, who shall cooperate therewith as provided in Paragraph 6.2.

6.2 MUTUAL RESPONSIBILITY

6.2.1 The Contractor shall afford the State and separate contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall connect and coordinate his / her Work with the work of the State and separate contractors as required by the Contract Documents.

6.2.2 If any part of the Contractor's Work depends for proper execution or results upon the work of the State or any separate contractor, the Contractor shall, prior to proceeding with the Work, promptly report to the Architect any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acceptance of the State's or separate contractors work as fit and proper to receive

his Work, except as to defects which may subsequently become apparent in such work by others.

6.2.3 Any costs caused by defective or ill-timed work shall be borne by the party responsible therefor.

6.2.4 Should the Contractor wrongfully cause damage to the work or property of the State, or to other work on the site, the Contractor shall promptly remedy such damage as provided in Subparagraph 10.2.5 of these General Conditions.

6.3 STATE'S RIGHT TO CLEAN UP

6.3.1 If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up as required by Paragraph 4.15 of these General Conditions, the State may clean up and charge the cost thereof to the Contractor.

ARTICLE 7

MISCELLANEOUS PROVISIONS

7.1 GOVERNING LAW

7.1.1 The Contract shall be governed by the laws of the State of Vermont.

7.2 SUCCESSORS AND ASSIGNS

7.2.1 The State and the Contractor each bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due or to become due to him or her hereunder, without the previous written consent of the State.

7.3 WRITTEN NOTICE

7.3.1 Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to him who gives the notice.

7.4 CLAIMS FOR DAMAGES

7.4.1 Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the other party or of any of his / her employees, agents or others for whose acts he / she is legally liable, claim shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

7.5 BOND REQUIREMENTS

The Contractor hereby agrees to comply with the State's bonding requirements as identified in the Instructions to Bidders which are included in the RFP and are attached and incorporated into the Contract Documents.

7.6 RIGHTS AND REMEDIES

7.6.1 The duties and obligations imposed by the Contract Documents and the rights and remedies available there under shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

7.6.2 No action or failure to act by the State, Architect or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

7.7 TESTS

7.7.1 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested or approved, the Contractor shall give the Architect timely notice of its readiness so the Architect may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests or approvals conducted by public authorities.

7.7.2 If the Architect determines that any Work requires special inspection, testing, or approval which Subparagraph 7.7.1 does not include, he or she will, upon written authorization from the State, instruct the Contractor to order such special inspection, testing or approval, and the Contractor shall give notice as provided in Subparagraph 7.7.1. If such special inspection or testing reveals a failure of the Work to comply with the requirements of the Contract Documents, the Contractor shall bear all costs thereof, including compensation for the Architect's additional services made necessary by such failure; otherwise the State shall bear such costs, and an appropriate Change Order shall be issued.

7.7.3 Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered by him to the Architect.

7.7.4 If the Architect is to observe inspections, tests or approvals required by the Contract Documents, he will do so promptly.

7.8 INTEREST

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at a rate of twelve percent (12 %) per annum. A payment is NOT due and payable unless and until the State has received an invoice filled out correctly and completely with all required supporting documentation.

7.9 DISPUTE RESOLUTION PROCESS

Any claim, dispute or other matter in question not resolved by the process identified in Paragraph

2.2.14 of these General Conditions shall be subject to the following dispute resolution process: Contractor may seek review by the Commissioner of Buildings and General Services of the Architect's recommendation. Contractor must seek review by the Commissioner within ten (10) days of the Architect's written recommendation otherwise the recommendation shall be deemed accepted by the Contractor. Failing resolution by the Commissioner, the Contractor then may request that the parties submit the claim to non-binding mediation with a mutually agreed upon mediator utilizing the most current Construction Industry Mediation Rules of the American Arbitration Association.

ARTICLE 8

TIME

8.1 DEFINITIONS

8.1.1 Unless otherwise provided, the Contract Time is the period of time allotted in the Contract Documents for Substantial Completion of the Work as defined in Subparagraph 8.1.3 of these General Conditions, including authorized adjustments thereto.

8.1.2 The date of commencement of the Work is the date established in a notice to proceed. If there is no notice to proceed, it shall be the date indicated in State Contractor Agreement. In the absence of a notice to proceed and an express commencement date in the State Contractor Agreement, then the date of execution of the State Contractor Agreement shall be the commencement date.

8.1.3 The Date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Architect when construction is sufficiently complete, in accordance with the Contract Documents, so the State can occupy or utilize the Work or designated portion thereof for the use for which it is intended. The Work shall not be considered substantially complete prior to the receipt of approved O & M manuals and record drawings as required by paragraph 4.11 and as required elsewhere in the Contract Documents.

8.1.3.1 Contract completion date shall be defined as: The contract work shall not be considered complete prior to the receipt of approved O & M manuals and record drawings as required by paragraph 4.11 and as required elsewhere in the contract documents.

8.1.4 The term day as used in the Contract Documents shall mean calendar day unless otherwise specifically designated.

8.2 PROGRESS AND COMPLETION

8.2.1 All time limits stated in the Contract Documents are material terms and time is the essence of the Contract. A failure by Contractor to do what is required by the time specified in the Contract Documents is a breach of the contract.

8.2.2 The Contractor shall begin the Work on the date of commencement as defined in

Subparagraph 8.1.2 of these General Conditions. He or She shall carry the Work forward expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

8.2.3 If in the sole opinion of the State, the Contractor fails to commence work on the project or to complete the work of said project within the time specified above, or to prosecute the work in such a manner that it appears that the completion date can be assured, the State shall have the right to notify the Contractor by Certified Mail that the terms of the Contract have been violated, and that effective immediately the Contract is terminated and the State has the right to and in fact is taking over and attending to completion of the project without prejudice to the State's remedies for any losses sustained

8.3 DELAYS AND EXTENSIONS OF TIME

8.3.1 If the Contractor is delayed at any time in the progress of the Work by any act or failure to act by the State or the Architect, or by any employee of either, or by any separate contractor employed by the State, or by changes ordered in the Work, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any causes beyond the Contractor's control, or by delay authorized by the State pending alternative dispute resolution proceedings, or by any other cause which may justify the delay, then the Contract Time shall be extended by Change Order for such reasonable time as recommended by the Architect and approved by the State.

8.3.2 Any claim for extension of time shall be made in writing to the Architect not more than twenty days after the commencement of the delay; otherwise it shall be waived. In the case of a continuing delay only one claim is necessary. The Contractor shall provide an estimate of the probable effect of such delay on the progress of the Work.

8.3.3 This Paragraph 8.3 does not exclude the recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9

PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

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

9.2 SCHEDULE OF VALUES

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

9.3 APPLICATIONS FOR PAYMENT

9.3.1 At least ten days before the date for each progress payment established in the State-Contractor Agreement, the Contractor shall submit to the Architect an itemized Application for Payment, notarized if required, supported by such data substantiating the Contractor's right to payment as the State or the Architect may require. The application for payment must, at a minimum, reflect retainage and the required waivers of lien and any other support documentation enumerated elsewhere in the Contract Documents.

9.3.2 Unless otherwise provided in the Contract Documents, payments will be made on account of materials or equipment not incorporated in the Work but delivered and suitably stored at the site and, if approved in advance by the State, payments may similarly be made for materials or equipment suitably stored at some other location agreed upon in writing. Payments for materials or equipment stored on or off the site shall be conditioned upon submission by the Contractor of bills of sale or such other procedures satisfactory to the State to establish the State's title to such materials or equipment or otherwise protect the State's interest, including applicable insurance and transportation to the site for those materials and equipment stored off the site.

9.3.3 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Payment will pass to the State either by incorporation in the construction or upon the receipt of payment by the Contractor, whichever occurs first, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in this Article 9 as "liens"; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any other person performing Work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

9.4 CERTIFICATES FOR PAYMENT

9.4.1 The Architect will, within seven days after the receipt of the Contractor's completed Application for Payment, either issue a Certificate for Payment to the State, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor in writing his or her reasons for withholding a Certificate as provided in Subparagraph 9.6.1 of these General Conditions. In case of conflict between any time requirements in this paragraph and any time requirements for action by the Architect on Contractor's Application for Payment contained in the State-Contractor Agreement, the time requirements contained in the State-Contractor Agreement shall control.

9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the State, based on his observations at the site as provided in Subparagraph 2.2.3 of these General Conditions and the data comprising the Application for Payment, that the Work has progressed to the point indicated; that, to the best of his or her knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to the results of any subsequent tests required by or performed under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to any specific

qualifications stated in his Certificate); and that the Contractor is entitled to payment in the amount certified.

9.5 PROGRESS PAYMENTS

9.5.1 After the Architect has issued a Certificate for Payment, the State shall make payment in the manner and within the time provided in the Contract Documents.

9.5.2 The Contractor shall promptly pay each Subcontractor, upon receipt of payment from the State, out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which said Subcontractor is entitled, reflecting the percentage actually retained, if any, from payments to the Contractor on account of such Subcontractor's Work. The Contractor shall, by an appropriate agreement with each Subcontractor, require each Subcontractor to make payments to his or her Sub-subcontractors in similar manner.

9.5.3 The Architect may, on request and at his discretion, furnish to any Subcontractor, if practicable, information regarding the percentages of completion or the amounts applied for by the Contractor and the action taken thereon by the Architect on account of Work done by such Subcontractor.

9.5.4 Neither the State nor the Architect shall have any obligation to pay or to see to the payment of any moneys to any Subcontractor.

9.5.5 No Certificate for a progress payment, nor any progress payment, nor any partial or entire use or occupancy of the Project by the State, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

9.6 PAYMENTS WITHHELD

9.6.1 The Architect may decline to certify payment and may withhold his or her Certificate in whole or in part, to the extent necessary reasonably to protect the State, if in the Architect's opinion he or she is unable to make representations to the State as provided in Subparagraph 9.4.2 of these General Conditions. If the Architect is unable to make representations to the State as provided in the aforementioned Subparagraph 9.4.2 and to certify payment in the amount of the Application, he or she will notify the Contractor as provided in Subparagraph 9.4.1 of these General Conditions. If the Contractor and the Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which he or she is able to make such representations to the State. The Architect may also decline to certify payment or, because of subsequently discovered evidence or subsequent observations, he or she may nullify the whole or any part of any Certificate for Payment previously issued, to such extent as may be necessary in his or her opinion to protect the State from loss because of:

- (a) Defective Work not remedied,
- (b) Third party claims filed or reasonable evidence indicating probable filing of such claims,
- (c) Failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment,
- (d) Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum,

- (e) Damage to the State or another contractor,
- (f) Reasonable evidence that the Work will not be completed within the Contract Time, or
- (g) Persistent failure to carry out the Work in accordance with the Contract Documents.

9.6.2 When the above grounds in Subparagraph 9.6.1 are removed, payment shall be made for amounts withheld because of them.

9.7 FAILURE OF PAYMENT

9.7.1 If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the State does not pay the Contractor within seven days after the date established in the Contract Documents any amount certified by the Architect or awarded by alternative dispute resolution proceedings, then the Contractor may, upon seven additional days written notice to the State and the Architect, stop the Work until payment of the amount owing has been received. The Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, which shall be effected by appropriate Change Order in accordance with Paragraph 12.3.

9.8 SUBSTANTIAL COMPLETION

9.8.1 When the Contractor considers that the Work, or a designated portion thereof which has been accepted in writing to by the State, is substantially complete as defined in Subparagraph 8.1.3 of these General Conditions, the Contractor shall prepare for submission to the Architect a list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Architect on the basis of an inspection determines that the Work or designated portion thereof is substantially complete, he will then prepare a Certificate of Substantial Completion which shall establish the Date of Substantial Completion, shall state the responsibilities of the State and the Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time, which shall not exceed thirty (30) days, within which the Contractor shall complete the items listed therein. Warranties required by the Contract Documents shall commence on the Date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the State and the Contractor for their written acceptance of the responsibilities assigned to them in such Certificate. The Work shall not be considered substantially complete prior to the receipt of approved O & M manuals and record drawings as required by paragraph 4.11 and as required elsewhere in the Contract Documents.

9.8.2 Upon Substantial Completion of the Work or designated portion thereof and upon application by the Contractor and certification by the Architect, the State shall make payment, reflecting adjustment in retainage, if any, for such Work or portion thereof, as provided in the Contract Documents.

9.9 FINAL COMPLETION AND FINAL PAYMENT

9.9.1 Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such

inspection and, when he or she finds the Work acceptable under the Contract Documents and the Contract fully performed, he or she will promptly issue a final Certificate for Payment stating that to the best of his / her knowledge, information and belief, and on the basis of his or her observations and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor, and noted in said final Certificate, is due and payable. The Architect's final Certificate for Payment will constitute a further representation that the Contractor has fulfilled the conditions entitling him or her to final payment as set forth in Subparagraph 9.9.2 of these General Conditions.

9.9.2 Neither the final payment nor the remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the State or its property might in any way be responsible, have been paid or otherwise satisfied; (2) consent of surety, if any, to final payment; (3) Other data establishing payment or satisfaction of all such obligations, including, but not limited to, receipts, releases, or other supporting documentation. and (4) final waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the State. If any Subcontractor refuses to furnish a release or waiver required by the State, the Contractor may furnish a bond satisfactory to the State to indemnify him against any such lien. If any such lien remains unsatisfied after all payments are made, the Contractor shall refund to the State all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

9.9.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by the issuance of Change Orders affecting final completion, and the Architect so confirms, the State shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than the retainage stipulated in the Contract Documents, and if bonds have been furnished as required by the Contract Documents, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

9.9.4 The making of final payment shall constitute a waiver of all claims by the State except those arising from:

- (a) unsettled liens,
- (b) faulty or defective Work appearing after Substantial Completion,
- (c) failure of the Work to comply with the requirements of the Contract Documents, or
- (d) terms of any special warranties required by the Contract Documents.

9.9.5 The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application for Payment.

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.

10.2 SAFETY OF PERSONS AND PROPERTY

10.2.1 The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:

- (a) all employees on the Work and all other persons who may be affected thereby;
- (b) all the Work and all materials and equipment to be incorporated therein, whether in storage on or off-the site, under the care; custody or control of the Contractor or any of his Subcontractors or Sub-subcontractors; and
- (c) other property at the site or adjacent thereto, including trees, shrubs; lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

10.2.2 The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

10.2.3 The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.

10.2.4 When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall: (1) exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel; and (2) give the State notice, in writing, seven (7) days in advance of the planned activity of the Contractor's intent to store and/ or use explosives or other hazardous materials or equipment on the project site.

10.2.5 When the project involves the placement or replacement of roofing systems of all types on State- owned buildings, including flat, low-pitched and steep roofs, Contractor must comply with all requirements of the latest edition of VOSHA Safety and Health Standards for Construction (29 CFR 1926) including, but not limited to, Subpart M – Fall Protection. Prior to execution of a contract by BGS, contractors engaged in placement or replacement of roofing systems of all types must submit a signed certification statement attesting to their intention to comply with VOSHA Fall Protection Regulations. Such certification shall be submitted on a State-provided form along with proof of insurance.

10.2.6 The Contractor shall promptly remedy all damage or loss (consistent with Contractor's obligations described in Attachment C) to any property referred to in Clauses 10.2.1(b) and 10.2.1(c) of these General Conditions caused in whole or in part by the Contractor, any

Subcontractor, any Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible under Clauses 10.2.1(b) and 10.2.1(c), except damage or loss attributable to the acts or omissions of the State or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to his obligations referenced under Paragraph 4.18.

10.2.7 The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the State and the Architect.

10.2.8 The Contractor shall not load or permit any part of the Work to be loaded so as to endanger its safety.

10.3 EMERGENCIES

10.3.1 In any emergency affecting the safety of persons or property, the Contractor shall act to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 12 for Changes in the Work.

ARTICLE 11

INSURANCE

Insurance obligations of the parties to this agreement are fully set forth below:

Attachment "C", numbered paragraph 8 has been deleted in its entirety and the following provisions are applicable:

11 INSURANCE – GENERAL REQUIREMENTS

11.1 Insurance obtained by the Contractor to cover the below-listed requirements shall be procured from an insurance company registered and licensed to do business in the State of Vermont. Before the Contract is executed, the Contractor shall file with the State a certificate of insurance, executed by an insurance company or its licensed agent(s), on form(s) satisfactory to the State, stating that with respect to the Contract awarded, the Contractor carries insurance in accordance with the following requirements:

- (a) **Workers' Compensation Insurance:** With respect to all operations performed, the Party shall carry workers' compensation insurance in accordance with the laws of the State of Vermont. Vermont will accept an out-of-state employer's workers' compensation coverage while operating in Vermont provided that the insurance carrier is licensed to write insurance in Vermont and an amendatory endorsement is added to the policy adding Vermont for coverage purposes. Otherwise, the party shall secure a Vermont workers' compensation policy, if necessary to comply with Vermont law.

- (b) Commercial General Liability (CGL) Insurance: With respect to all operations performed by the Contractor and any Subcontractors, the Contractor shall carry Commercial General Liability (CGL) Insurance affording all major divisions of coverage including, but not limited to:

Premises Operations
Independent Contractors' Protective Products and Completed Operations
Personal Injury Liability
Contractual Liability
Broad Form Property Damage
Explosion, Collapse and Underground (XCU) Coverage
Fire Legal Liability

State may require additional specific liability coverage(s) when applicable.

Limits of Coverage shall be not less than:

\$1,000,000 Each Occurrence
\$2,000,000 General Aggregate Applying, In Total To This Project
Only \$1,000,000 Products/Completed Operations Aggregate
\$1,000,000 Personal Injury and Advertising Liability
\$ 50,000 Fire Legal Liability
\$ 5,000 Medical Expense

Aggregate Limits of Insurance (Per Project) Form must be included (or as excepted in f below) with the Commercial General Liability Policy.

- (c) Automobile Liability Insurance: Contractor shall carry Automobile Liability Insurance covering all motor vehicles, including owned, hired, borrowed and non-owned vehicles, used in connection with the project. Limits of Coverage shall be not less than:

\$1,000,000 Combined Single Limit

- (d) The Contractor shall require each Subcontractor, if any, to maintain the same Workers' Compensation, Commercial General Liability, and Automobile Liability coverage as specified in paragraphs (a), (b), and (c) above.

- (e) Scope of Insurance & Special Hazards: The insurance required under subparagraphs (b), (c), and (d) above shall provide protection for the Contractor and the Subcontractors, if any, against damage claims which may arise from work being performed. Special hazards, may be encountered by the insured or by any person directly or indirectly employed by the Contractor or a Subcontractor, and may be required.

- (f) If Contractor is unable to provide Aggregate Limits of Insurance (Per Project) as required in (b) above, Contractor shall purchase an Owner's Protective Liability Insurance Policy in the name of the State of Vermont to cover all exposures, including bodily injury and death, arising out of and in the course of this Contract. Limits of liability shall be the same as those required of the Contractor under paragraph (b) above.

Additional Insured. The General Liability and Property Damage coverages required for performance of this Agreement shall include the State of Vermont and its agencies, departments, officers and employees as Additional Insureds. If performance of this Agreement involves construction, or the transport of persons or hazardous materials, then the required Automotive Liability coverage shall include the State of Vermont and its agencies, departments, officers and employees as Additional Insureds. Coverage shall be primary and non-contributory with any other insurance and self-insurance.

Notice of Cancellation or Change. There shall be no cancellation, change, potential exhaustion of aggregate limits or non-renewal of insurance coverage(s) without thirty (30) days written prior written notice to the State of Vermont, Office of Purchasing & Contracting.

11.2 Insurance Requirements for Builder's Risk Insurance. The State of Vermont does not require Contractor to obtain Builder's Risk insurance for every construction project. The State of Vermont will evaluate each project prior to accepting bids to determine if the State will require the Contractor to obtain and maintain Builder's Risk insurance for the project.

Any project that involves NEW CONSTRUCTION will require the Contractor to obtain and maintain Builder's Risk insurance for the project.

At the discretion of the State, Contractor may not be required to obtain and maintain Builder's Risk insurance on CONSTRUCTION RENOVATION projects. Whether or not the State is going to require Contractor to obtain and maintain Builder's Risk insurance for a particular CONSTRUCTION RENOVATION project will be determined by the State prior to bidding the project and the requirement will be included in the Instructions to Bidders.

11.2.1 BUILDER'S RISK FOR NEW CONSTRUCTION PROJECTS. If the project is NEW CONSTRUCTION, then the following provisions apply:

- (1) The State will require Contractor to purchase and maintain Builder's Risk Insurance. The Contractor shall name the Contractor and the State of Vermont as their interest may occur. Other parties shall be insured as the State may reasonably require.
- (2) Contractor shall effect and maintain insurance on portions of the work stored off-site, on site and in transit. Boiler & Machinery Insurance may be used in conjunction with this coverage if it is required to meet the testing requirement.
- (3) Any deductible applicable to loss covered by insurance provided hereunder shall be borne by the Contractor.
- (4) Except as provided for in (1) above the State and Contractor waive all rights against each other and the Subcontractor, Sub-subcontractors, agents and employees of the other.

11.2.2 BUILDER'S RISK FOR CONSTRUCTION RENOVATION PROJECTS. If the project is CONSTRUCTION RENOVATION of an existing structure, and the State has already determined that Contractor will not be obligated to obtain and maintain Builder's Risk insurance, then the following provisions apply:

- (1) The State will maintain property insurance upon the construction site and will not require Contractor to purchase and maintain Builder's Risk Insurance upon the entire work at the site.
- (2) The decision of the State to waive the requirement that the Contractor maintain builder's risk coverage does not waive Contractor's liability for damage to the State's real and personal property. Contractor's liability for loss to the State's real and personal property will be limited to the first \$100,000 of each and every property loss at the work site provided such loss is covered under the State's property insurance coverage. If the Contractor elects to meet this obligation by purchase of commercial insurance, this insurance shall name the Contractor and the State of Vermont as Named Insureds and shall include the interests of the Contractor and Subcontractors. Other parties shall be insured as the State may reasonably require.
- (3) Contractor shall effect and maintain insurance on portions of the work stored off-site, on site and in transit. Boiler & Machinery Insurance may be used in conjunction with this coverage if it is required to meet the testing requirement. The cost of any deductible applicable to loss covered by insurance provided hereunder shall be borne by the Contractor.
- (4) Except as provided for in 11.2.2 (1)-(3) above the State and Contractor waive all rights against each other and the Subcontractor, Sub-subcontractors, agents and employees of the other.

11.2.3 Builder's Risk – additional provisions

The insurance specified shall be maintained in force until final acceptance of the project by the State.

- (5) Umbrella Excess Liability Policies may be used in conjunction with primary policies to comply with any of the limit requirements specified above.
- (6) "Claims-made" coverage forms are not acceptable without the express written prior consent of the State. Each policy furnished shall contain a rider or non-cancellation clause reading in substance as follows:

Anything herein to the contrary notwithstanding, notice of any cancellation, termination or alteration to the insurance contracts must be delivered by registered mail to the Commissioner, Department of Buildings and General Services, State of Vermont, Montpelier, Vermont, at least 60 days before effective cancellation, termination or alteration date unless all work required to be performed under the terms of the Contract is satisfactorily completed as evidenced by the formal acceptance by the State of Vermont.

- (7) No warranty is made that the coverages and limits listed herein are adequate to cover and protect the interests of the Contractor for the Contractor's operations. These are solely minimums that have been set to protect the interests of the State.

11.3 The State shall have power to adjust and settle any loss with the insurers.

ARTICLE 12

CHANGES IN THE WORK

12.1 CHANGE ORDERS

12.1.1 A Change Order is a written order to the Contractor signed by the State, the Architect, and the Contractor issued after execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time may be changed only by Change Order. A Change Order signed by the Contractor indicates his agreement therewith, including the adjustment in the Contract Sum or the Contract Time. A Proposed Change Order (PCO) is a written request submitted to the Architect by either the Contractor or the State requesting a change to the contract price and / or schedule. A Construction Change Directive (CCD) is a written document prepared by the State and / or Architect directing the Contractor to make changes in the Work where the State and the Contractor have not reached an agreement on proposed changes in the contract sum or contract time. A Construction Change Directive becomes part of a PCO.

Payment for changes in the Work will only be made after a Change Order is signed by the Contractor and Architect and executed by the State.

12.1.2 The State, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and the Contract Time being adjusted accordingly. All such changes in the Work REQUIRE AGREEMENT IN WRITING BY THE ARCHITECT, STATE AND CONTRACTOR AND shall be authorized by A PROPOSED Change Order (PCO), and shall be performed under the applicable conditions of the Contract Documents. The State will prescribe a Proposed Change Order form for use by the Contractor. The Contractor shall submit all requests for Proposed Change Orders on the prescribed form.

The process, by which changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, is as follows:

- (1) A Proposed Change Order (PCO) is submitted to the Architect for review. Said PCO is to be submitted on the State approved form.
- (2) If the PCO originated with the Contractor, the Architect will review the PCO and if the Architect approves the PCO, it is then presented to the State for approval.
- (3) The PCO is signed by the Project Manager.
- (4) The Project Manager shall coordinate with the Contractor through email or other written documentation every 30 days as to the merit of issuing a Change Order. If the Project Manager and Contractor agree that a Change Order should be submitted, the Architect will compile all approved PCOs and incorporate them into one (1) Change Order.
- (5) The Change Order is then submitted to the Project Manager who immediately processes the CO with OPC as required by Bulletin 3.5 and BGS' Contracting Plan.

12.1.3 The cost or credit to the State resulting from a change in the Work shall be determined in one or more of the following ways:

- (a) by mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- (b) by unit prices stated in the Contract Documents or subsequently agreed upon;
- (c) by cost to be determined in a manner agreed upon by the parties and a mutually

acceptable fixed or percentage fee; or
(d) by the method provided in Subparagraph 12.1.4.

12.1.4 If none of the methods set forth in Clauses 12.1.3(a) –(d) is agreed upon, or cannot be agreed upon at the time due to the nature of the change, emergent conditions, or lack of required information, the Contractor, provided he receives a Construction Change Directive (CCD)) signed by the State, shall promptly proceed with the Work involved. Upon receipt of the CCD, the Contractor shall proceed with implementation of the CCD. The cost of such Work shall then be recommended by the Architect on the basis of the reasonable expenditures and savings of those performing the Work attributable to the change, including, in the case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. In such case, and also under Clauses 12.1.3(c) and 12.1.3(d) above, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data for inclusion in the CCD. Unless otherwise provided in the Contract Documents, cost shall be limited to the following: cost of materials, cost of delivery; cost of labor, including social security, medicare and unemployment insurance, and fringe benefits required by agreement or custom; workers' or workmen's compensation insurance; bond premiums; rental value of equipment and machinery; and the additional costs of supervision and field office personnel directly attributable to the change. Pending final determination of cost to the State, payments on account shall be made on the State's Certificate for Payment. The amount of credit to be allowed by the Contractor to the State for any deletion or change which results in a net decrease in the Contract Sum will be the amount of the actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in any one change, the allowance for Overhead and profit shall be figured on the basis of the net increase, if any, with respect to that change. It is the Project Manager's responsibility to ensure that All CCD's are converted / incorporated into a PCO within Thirty (30) days of completion of the changes to the Work that was the subject of the CCD. The parties agree to utilize the CCD form provided or approved by the State.

12.1.5 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in a Proposed Change Order that application of the agreed unit prices to the quantities of Work proposed will cause substantial in- equity to the State or the Contractor, the applicable unit prices shall be equitably adjusted.

12.2 CONCEALED CONDITIONS

12.2.1 Should concealed conditions encountered in the performance of the Work below the surface of the ground, or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated by the Contract Documents or should unknown physical conditions below the surface of the ground or should concealed or unknown conditions in an existing structure of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract, be encountered, the Contract Sum shall be equitably adjusted by Change Order upon claim by either

party made within twenty days after the first observance of the conditions.

12.3 CLAIMS FOR ADDITIONAL COST

12.3.1 If the Contractor wishes to make a claim for an increase in the Contract Sum, he shall give the Architect written notice thereof within twenty days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed in accordance with Paragraph 10.3 of these General Conditions. No such claim shall be valid unless so made. If the State and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by the Architect. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order.

12.3.2 If the Contractor claims that additional cost is involved because of, but not limited to, (1) any order by the State to stop the Work pursuant to Paragraph 3.3 of these General Conditions where the Contractor was not at fault, or (2) failure of payment by the State pursuant to Paragraph 9.7(of these General Conditions), the Contractor shall make such claim as provided in Subparagraph 12.3.1 of this agreement.

12.3.3 The Architect will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the State and Contractor within 10 days unless the Contractor or the State objects to the change in writing.

ARTICLE 13

UNCOVERING AND CORRECTION OF WORK

13.1 UNCOVERING OF WORK

13.1.1 If any portion of the Work should be covered contrary to the request of the Architect or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Architect, be uncovered for his or her observation and shall be replaced at the Contractor's expense.

13.1.2 If any other portion of the Work has been covered which the Architect has not specifically requested to observe prior to being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the State. If such Work is found not to be in accordance with the Contract Documents, the Contractor shall pay such costs unless it is found that this condition was caused by the State or a separate contractor as provided in Article 6 of these General Conditions, in which event the State shall be responsible for the payment of such costs.

13.2 CORRECTION OF WORK

13.2.1 The Contractor shall be responsible for correcting all Work which the Architect has found to be defective or which fails to conform to the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including compensation for the Architect's and the State's additional services made necessary thereby.

The Architect, upon a finding of defect or failure to conform, shall immediately notify the State and Contractor, in writing, of the defect. The Contractor shall begin correcting the defective or non-conforming Work within ten (10) days unless the State agrees to a Change Order which reflects the reduction in Contract Sum due to the value of diminishment of the defective or nonconforming Work.

13.2.2 If, within one year after the Date of Substantial Completion of the Work or designated portion thereof or within one year after acceptance by the State of designated equipment or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall correct it promptly after receipt of a written notice from the State to do so unless the State has previously given the Contractor a written acceptance of such condition. This obligation shall survive termination of the Contract. The State shall give such notice promptly after discovery of the condition.

13.2.3 The Contractor shall remove from the site all portions of the Work which are defective or non-conforming and which have not been corrected under Subparagraphs 4.5.1, 13.2.1 and 13.2.2 of these General Conditions, unless removal is waived by the State.

13.2.4 If the Contractor fails to correct defective or nonconforming Work as provided in Subparagraphs 4.5.1, 13.2.1 and 13.2.2, the State may correct it in accordance with Paragraph 3.4 of these General Conditions.

13.2.5 If the Contractor does not proceed with the correction of such defective or non-conforming Work within a reasonable time fixed by written notice from the Architect, the State may remove it and may store the materials or equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten days thereafter, the State may upon ten additional days written notice sell such Work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for the Architect's and the State's additional services and expenses made necessary thereby. If such proceeds of sale do not cover all costs which the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the State.

13.2.6 The Contractor shall bear the cost of making good all work of the State or separate contractors destroyed or damaged by such correction or removal.

13.2.7 Nothing contained in this Paragraph 13.2 shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the

Contract Documents, including Paragraph 4.5 of these General Conditions. The establishment of the time period of one year after the Date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which his obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to his obligations other than specifically to correct the Work.

13.3 ACCEPTANCE OF DEFECTIVE OR NON-CONFORMING WORK

13.3.1 The State may accept defective or nonconforming Work pursuant to Paragraph 13.2.1 of this agreement. If the State elects to accept the defective or nonconforming Work, a Change Order will be issued to reflect a reduction in the Contract Sum. The Architect will recommend to the State the value of diminishment of the defective or nonconforming Work. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 14

TERMINATION AND SUSPENSION OF THE CONTRACT

14.1 TERMINATION BY THE CONTRACTOR

If the Work is stopped for a period of thirty days under an order of any court or other public authority having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with the Contractor, or if the Work should be stopped for a period of thirty days by the Contractor because the Architect has not issued a Certificate for Payment as provided in Paragraph 9.7 of these General Conditions or because the State has not made payment thereon as provided in Paragraph 9.7, then the Contractor may, upon seven additional days written notice to the State and the Architect, terminate the Contract and recover from the State payment for all Work executed and for any proven loss sustained upon any materials, equipment, tools, construction equipment and machinery, including reasonable profit and damages.

14.2 TERMINATION BY THE STATE FOR CAUSE

14.2.1 If the Contractor is adjudged a bankrupt, or if he or she makes a general assignment for the benefit of his/ her creditors, or if a receiver is appointed on account of his/ her insolvency, or if he or she persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he or she fails to make prompt payment to Subcontractors or for materials or labor, or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise is guilty of a substantial violation of a provision of the Contract Documents, then the State, upon certification by the Architect that sufficient cause exists to justify such action, may, without prejudice to any right or remedy and after giving the Contractor and his surety, if any, seven days written notice, terminate the employment of the Contractor and take possession of the

site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished.

14.2.2 If the costs of finishing the Work, including compensation for the Architect's and State's additional services and expenses made necessary thereby, exceed the unpaid balance of the Contract Sum, the Contractor shall pay the difference to the State.

If the unpaid balance of the Contract Sum exceeds the costs of finishing the Work, including compensation for the Architect's and the State's additional services and expenses made necessary thereby, such excess shall be paid to the Contractor.

The amount owed by Contractor to the State shall be certified by the Architect, upon application, in the manner provided in section 9.4 of these General Conditions, and this obligation for payment shall survive the termination of the Contract.

14.3 TERMINATION BY STATE FOR CONVENIENCE

14.3.1 The State may, at any time, terminate this agreement for the State's convenience and without cause.

14.3.2 Upon receipt of written notice from the State of such termination for the State's convenience, the Contractor shall:

- (a) cease operations as directed by the State in the notice;
- (b) take actions necessary, or that the State may direct, for the protection and preservation of the Work; and
- (c) except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

14.3.3 In case of such termination for the State's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

14.4 SUSPENSION BY STATE FOR CONVEVIENCE

14.4.1 The State may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the State may determine.

14.4.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in section 14.4.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent:

- (a) that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
- (b) that an equitable adjustment is made or denied under another provision of this Contract.

CERTIFICATE OF COMPLIANCE

For a bid to be considered valid, this form must be completed in its entirety, executed by a duly authorized representative of the bidder, and submitted as part of the response to the proposal.

- A. NON COLLUSION:** Bidder hereby certifies that the prices quoted have been arrived at without collusion and that no prior information concerning these prices has been received from or given to a competitive company. If there is sufficient evidence to warrant investigation of the bid/contract process by the Office of the Attorney General, bidder understands that this paragraph might be used as a basis for litigation.
- B. CONTRACT TERMS:** Bidder hereby acknowledges that is has read, understands and agrees to the terms of this RFP, including Attachment C: Standard State Contract Provisions, and any other contract attachments included with this RFP.
- C. WORKER CLASSIFICATION COMPLIANCE REQUIREMENT:** In accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), the following provisions and requirements apply to Bidder when the amount of its bid exceeds \$250,000.00.

Self-Reporting. Bidder hereby self-reports the following information relating to past violations, convictions, suspensions, and any other information related to past performance relative to coding and classification of workers, that occurred in the previous 12 months.

Summary of Detailed Information	Date of Notification	Outcome

Subcontractor Reporting. Bidder hereby acknowledges and agrees that if it is a successful bidder, prior to execution of any contract resulting from this RFP, Bidder will provide to the State a list of all proposed subcontractors and subcontractors' subcontractors, together with the identity of those subcontractors' workers compensation insurance providers, and additional required or requested information, as applicable, in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), and Bidder will provide any update of such list to the State as additional subcontractors are hired. Bidder further acknowledges and agrees that the failure to submit subcontractor reporting in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54) will constitute non-compliance and may result in cancellation of contract and/or restriction from bidding on future state contracts.

D. Executive Order 05 – 16: Climate Change Considerations in State Procurements Certification

Bidder certifies to the following (Bidder may attach any desired explanation or substantiation. Please also note that Bidder may be asked to provide documentation for any applicable claims):

1. Bidder owns, leases or utilizes, for business purposes, space that has received:

- Energy Star® Certification
- LEED®, Green Globes®, or Living Buildings ChallengeSM Certification
- Other internationally recognized building certification:

2. Bidder has received incentives or rebates from an Energy Efficiency Utility or Energy Efficiency Program in the last five years for energy efficient improvements made at bidder's place of business. Please explain:

3. Please Check all that apply:

- Bidder can claim on-site renewable power or anaerobic-digester power ("cow-power"). Or bidder consumes renewable electricity through voluntary purchase or offset, provided no such claimed power can be double-claimed by another party.
- Bidder uses renewable biomass or bio-fuel for the purposes of thermal (heat) energy at its place of business.
- Bidder's heating system has modern, high-efficiency units (boilers, furnaces, stoves, etc.), having reduced emissions of particulate matter and other air pollutants.
- Bidder tracks its energy consumption and harmful greenhouse gas emissions. What tool is used to do this? _____
- Bidder promotes the use of plug-in electric vehicles by providing electric vehicle charging, electric fleet vehicles, preferred parking, designated parking, purchase or lease incentives, etc.
- Bidder offers employees an option for a fossil fuel divestment retirement account.
- Bidder offers products or services that reduce waste, conserve water, or promote energy efficiency and conservation. Please explain:

4. Please list any additional practices that promote clean energy and take action to address climate change:

E. Executive Order 02 – 22: Solidarity with the Ukrainian People

- 1. By checking this box, Bidder certifies that none of the goods, products, or materials offered in response to this solicitation are Russian-sourced goods or produced by Russian entities. If Bidder is unable to check the box, it shall indicate in the table below which of the applicable offerings are Russian-sourced goods and/or which are produced by Russian entities.

An additional column is provided for any note or comment that you may have.

Provided Equipment or Product	Note or Comment

F. Acknowledge receipt of the following Addenda:

Addendum No.: _____ Dated: _____

Addendum No.: _____ Dated: _____

Addendum No.: _____ Dated: _____

Bidder Name: _____ Contact Name: _____

Address: _____ Fax Number: _____

Telephone: _____

E-Mail: _____

By: _____ Name: _____

Signature of Bidder (or Representative)

(Type or Print)

END OF CERTIFICATE OF COMPLIANCE

Department of Buildings and General Services

**CONSTRUCTION MANAGEMENT SERVICES
COSTELLO COURTHOUSE
PARKING GARAGE REPAIRS
32 CHERRY STREET
BURLINGTON, VERMONT**

BID PROPOSAL FORM

TO: STATE OF VERMONT
Agency of Administration
Department of Buildings and General Services
133 State Street – Fifth Floor
Montpelier, Vermont 05609-3001

DATE: _____

Ladies and Gentlemen:

The undersigned proposes to provide Construction Management (CM) Services for the 32 Cherry Street Parking Garage Repairs, in Burlington, Vermont. These services shall be provided in accordance with the requirements of this Request for Proposal and its attachments prepared by the Department of Buildings and General Services dated January 2024, for the following fee based on a total preliminary Guaranteed Maximum Price (GMP) of \$2,700,000.00 (including Fixed Fees).

A. CONSTRUCTION MANAGEMENT FEE:

ITEM	AMOUNT
Fixed Fee for Pre-Construction Services	\$
Fixed Fee for Construction Services (Construction Manager's Fee)	\$
Fixed Fee for General Conditions based on attached list.	\$
Rate (%) for providing 100% Performance, Payment and Guarantee Bonds.	%
Percent (%) Markup for Overhead and Profit for changes in the work after the GMP has been established (change orders)	%
Percent (%) Mark-up for Profit on Materials Purchased by the CM	%

The initial contract value will be written to include the Fee for Pre-Construction Services, Fee for Construction Services and the Fee for General Conditions based on a preliminary estimated GMP of \$2,700,000.00. The final contract value will be determined and adjusted after the establishment and approval of a Guaranteed Maximum Price (GMP), in accordance with the terms of the contract.

B. **HOURLY RATE SCHEDULE:** Instructions: List the following for all employees that are not charged as part of the CM fee.

Employee Title (do not list names)	Base Pay Rate*	Direct Personal Expenses	Billable Rate
Key Personnel or Project Executives	\$	\$	\$
Project Manager	\$	\$	\$
Assistant Project Manager	\$	\$	\$
Project Engineer	\$	\$	\$
MEP Coordinator	\$	\$	\$
Estimator	\$	\$	\$
Clerical	\$	\$	\$
Accounting	\$	\$	\$
Superintendent	\$	\$	\$
Assistant Superintendents	\$	\$	\$
Safety Officer	\$	\$	\$
Scheduler	\$	\$	\$
Foreman	\$	\$	\$
Carpenter	\$	\$	\$
Laborer	\$	\$	\$
Other:	\$	\$	\$

*Prevailing minimum wage rate plus fringe benefits

It is the Bidder's responsibility to thoroughly read and comply with all instructions and requirements of this bid solicitation.

Please Note: The Project Cost Matrix must be included with this Bid Proposal.

The undersigned certifies that they are familiar with the contents of this Proposal and that they have examined the site and accept the existing conditions as those under which the work will be done.

The undersigned further agrees:

1. To hold their bid open for sixty (60) days after this day of Bid Opening.
2. To accept the provisions of the "Instructions for CM Firms Submitting Proposals" and "State Standard Construction Management Form", "General Conditions" and the "Instructions to Bidders".
3. To enter into and execute a contract, if awarded on the basis of this proposal within ten (10) calendar days of notification of award.
4. To accomplish the work in accordance with the Bid Documents.
5. The substantial completion date will be **July 1, 2026**, the project completion date shall be by **August 1, 2026**, and the contract completion date will be **July 1, 2027**, includes 1-year warranty period.
6. The amount of compensation paid to subcontractors for extra work and change orders in one of the following manners as directed by the Owner.
 - a. A price agreed upon between the Owner and the Contractor.
 - b. A price determined by adding 15% for overhead and profit to the total direct cost of any extra work excluding unit pricing.
 - c. A price determined by extending unit price work.

Corporate Seal (If Bidder is a Corporation)

Contractor Name: _____ Contact Name: _____

State of Corporation: _____ VT Business Account #: _____

Address: _____ Fax Number: _____

Telephone: _____

E-Mail: _____

By: _____ Name: _____
Signature (Bid Not Valid Unless Signed) (Type or Print)

NOTE: If Bidder is a Partnership, give full names of all Partners.

END OF PROPOSAL

WORKER CLASSIFICATION COMPLIANCE REQUIREMENT

Self-Reporting Form

This form must be completed in its entirety and submitted as part of the response for the proposal to be considered valid.

The Department of Buildings and General Services in accordance with Act 54, Section 32 of the Acts of 2009 and for total projects costs exceeding \$250,000.00, requires bidders comply with the following provisions and requirements.

Bidder is required to self report the following information relating to past violations, convictions, suspensions, and any other information related to past performance relative to coding and classification for worker's compensation. The state is requiring information on any violations that occurred in the previous 12 months.

Summary of Detailed Information	Date of Notification	Outcome

WORKER CLASSIFICATION COMPLIANCE REQUIREMENT: Bidder hereby certifies that the company/individual is in compliance with the requirements as detailed in Act 54, Section 32 of the Acts of 2009.

Date: _____

Name of Company: _____ Contact Name: _____

Address: _____ Title: _____

_____ Phone Number: _____

Email: _____ Fax Number: _____

By: _____ Name: _____
Signature (Bid Not Valid Unless Signed)* (Type or Print)

***Form must be signed by individual authorized to sign on the bidder's behalf.**

SUBCONTRACTOR REPORTING FORM

This form must be completed in its entirety and submitted prior to contract execution and updated as necessary and provided to the State as additional subcontractors are hired.

The Department of Buildings and General Services in accordance with Act 54, Section 32 of the Acts of 2009 and for total project costs exceeding \$250,000.00 requires bidders to comply with the following provisions and requirements.

Contractor is required to provide a list of subcontractors on the job along with lists of subcontractor's subcontractors and by whom those subcontractors are insured for workers' compensation purposes. Include additional pages if necessary. This is not a requirement for subcontractor's providing supplies only and no labor to the overall contract or project.

Subcontractor	Insured By	Subcontractor's Sub	Insured By

Date: _____

Name of Company: _____ Contact Name: _____

Address: _____ Title: _____

_____ Phone Number: _____

Email: _____ Fax Number: _____

By: _____ Name: _____

Failure to adhere to Act 54, Section 32 of the Acts of 2009 and submit Subcontractor Reporting: Worker Classification Compliance Requirement will constitute non-compliance and may result in cancellation of contract and/or forfeiture of future bidding privileges until resolved.

Send Completed Form to: Office of Purchasing & Contracting
 133 State Street, 5th Floor
 Montpelier, VT 05633-8000

INSTRUCTIONS TO BIDDERS – FULL BOND

STATE OF VERMONT DEPARTMENT OF BUILDINGS AND GENERAL SERVICES MONTPELIER, VERMONT

To be considered, Proposals must be made in accord with these Instructions to Bidders:

1. **DOCUMENTS:** Bona fide Bidders may obtain drawings and specifications from the Department of Buildings and General Services.
2. **PLAN SECURITY CERTIFICATION:** Contractor acknowledges that the plans pertaining to this project have been declared exempt from public record inspection for security reasons and have been disclosed to Contractor as per 1 V.S.A. §317(c)(32) for the performance of the Work specified herein. Contractor hereby expressly acknowledges and agrees to disclose plans *only to a licensed architect, engineer, or Contractor who is bidding on or performing work on or related to buildings, facilities, infrastructures, systems, or other structures owned, operated, or leased by the state.*

Furthermore, Contractor agrees to abide by BGS Administrative Policy # 35 and any existing or future directives set forth by the State concerning the copying or distribution of the plans. Fraud, misrepresentation, falsification, or concealing or covering up material facts relating to compliance with these directives may result in one or more of the following actions: termination of the contract(s), suspension of bidding privileges, withholding, deducts, forfeiture of security bonds, and criminal prosecution punishable by imprisonment of up to five years and/or up to a \$10,000 fine as per 13 V.S.A. §3016.

3. **WORKER CLASSIFICATION COMPLIANCE REQUIREMENT:** The Department of Buildings and General Services in accordance with Act 54, Section 32 of the Acts of 2009 and for total projects costs exceeding \$250,000.00, requires bidders comply with the following provisions and requirements.
 - (1) Bidder is required to self report detailed information including information relating to past violations, convictions, suspensions, and any other information related to past performance and likely compliance with proper coding and classification of employees requested by the applicable agency.

The bidder is required to report information on any violations that occurred in the previous 12 months. The Self Reporting requirements are identified and included as part of the Bid Proposal Form.
 - (2) Bidder is required to provide a list of subcontractors on the job along with lists of subcontractor's subcontractors and by whom those subcontractors are insured for workers' compensation purposes. Include additional pages if necessary. This is not a requirement for subcontractor's providing supplies only and no labor to the overall contract or project.

The Subcontractor Reporting requirements shall be required upon award of contract, and prior to contract execution. Failure to adhere to Act 54, Section 32 of the Acts of 2009 and submit Subcontractor Reporting: Worker Classification Compliance Requirement will constitute non-compliance and may result in cancellation of contract and/or forfeiture of future bidding privileges until resolved.
 - (3) For construction and transportation projects over \$250,000.00, a payroll process by which during every pay period the contractor collects from the subcontractors or independent contractors a list of all workers who were on the jobsite during the pay period, the work performed by those workers on the jobsite, and a daily census of the jobsite. This information, including confirmation that contractors, subcontractors, and independent contractors have the appropriate workers' compensation coverage for all workers at the jobsite, and similar information for the subcontractors regarding their subcontractors shall also be provided to the department of labor and to the department of banking, insurance, securities, and health care administration, upon request, and shall be available to the public.

4. **EXAMINATION:** Bidders shall carefully examine the documents and the construction site to obtain first-hand knowledge of existing conditions. Contractors will not be given extra payment for conditions, which can be determined by examining the site and documents.
5. **INTERPRETATION:** All requests for interpretation shall be directed to the Department of Buildings and General Services. Any interpretation of documents will be made by Addendum only. Addendums shall be posted on-line in the Plan Room where the original solicitation resides. **PLEASE BE ADVISED THAT ALL NOTIFICATIONS, RELEASES, AND ADDENDUMS ASSOCIATED WITH THIS RFP WILL BE POSTED ON-LINE IN THE PLAN ROOM WHERE THE ORIGINAL SOLICITATION RESIDES UNLESS OTHERWISE DETERMINED THAT A HARD COPY IS NECESSARY. THE STATE WILL MAKE NO ATTEMPT TO CONTACT CONTRACTORS WITH UPDATED INFORMATION. IT IS THE RESPONSIBILITY OF EACH CONTRACTOR TO PERIODICALLY CHECK THE POSTING SITE FOR ANY AND ALL NOTIFICATIONS, RELEASES AND ADDENDUMS ASSOCIATED WITH THE RFP.**

NOTE: On occasion hard copy addendums may be required due to size or type of media/requirements. If applicable and as determined by the Department of Buildings and General Services, Addendums that require hard copy distribution, a copy of such addenda will be mailed or delivered for each set of plans and specifications issued to the bidders, prior to the bid date. However, it is the responsibility of the bidder to be sure they have received all addenda, and must so state the number of addenda they have received on the proposal. All addenda will become part of the Contract Documents.

6. **CONFLICTING INFORMATION:** If any part of the plans or specifications conflict with any other part and no clarification is made by

the Department of Buildings and General Services in an addendum, the most expensive method or materials as described or suggested will be used.

7. **SUBSTITUTIONS:** To obtain approval to use unspecified products, bidders shall submit written requests at least 7 days before bid date. Requests shall clearly describe the product for which approval is asked, including all data necessary to demonstrate acceptability. If the product is acceptable, the approval will be issued in Addendum to all prime bidders on record in a manner consistent with 5. **INTERPRETATION** identified above.
8. **PROPOSALS:** Proposals shall be made on unaltered Proposal forms furnished by State of Vermont, Department of Buildings and General Services. Fill in all blank spaces. **One (1)** copy is requested. Proposal shall be signed with name typed or printed below signature. Where bidder is a corporation, Proposal must be signed with legal name of the corporation followed by the name of the State of incorporation and the legal signatures of an officer authorized to bind the corporation to a contract.
9. **BID SECURITY:** Bid Security shall be made payable to the Treasurer, State of Vermont, in the amount of five (5) percent of the Proposal sum. Security shall be bid bond issued by surety licensed to conduct business in the State of Vermont or other security as specified herein. The successful bidder's security will be retained until he has signed the Contract and furnished the required security. The Owner reserves the right to retain the security of the next three lowest bidders until the low bidder enters into contract or until 60 days after bid opening, whichever is the shorter. All other bid security will be returned as soon as practicable. If any bidder refuses to enter into a Contract, the Owner will retain his Bid Security as liquidated damages, but not as a penalty.
10. **BONDS:** The Contractor will furnish the following bonds and the obtaining of these bonds is a condition precedent to the effectuation of the contract between Owner and Contractor.

Bid Bond in the amount of 5% of bid - **No checks will be accepted.**
Guaranty Bond in the amount of 100% of the contract price.
Performance Bond in the amount of 100% of the contract price.
Payment Bond - Labor & Materials - 100% of the contract price.

All bonds are to be executed according to instructions. The Department of Buildings and General Services will furnish Bond forms.

11. **MINORITY/WOMEN BUSINESS ENTERPRISES (M/WBE):** It is the policy of the State of Vermont that M/WBE's shall have the maximum opportunity to participate in the performance of contracts financed with state funds. All Bidders are encouraged to contact M/WBE's in an effort to recruit them to submit proposals for the work or portions thereof. The contractor shall not discriminate on the basis of race, color, national origin or sexual orientation in the award and performance of subcontracts.

The Department of Buildings and General Services shall, in accordance with Executive Order #15-91, and for publicly funded capital construction projects exceeding \$50,000.00, comply with the following provisions and requirements. Upon receipt of letter of intent to award contract, the successful bidder shall submit a M/WBE Reporting Form along with certificates of insurance and other pre-contract information. The form includes space to report the name, address and phone number of the M/WBE's contacted, the trade, if their price was included in the bid proposal, and if not, the reason for rejection of their bid. The contract will not be executed until the M/WBE Form is received.

Failure to contact M/WBE's on or when projects require sub-contract work may constitute non-compliance and may result in forfeiture of future bidding privileges until resolved.

12. **VERMONT PREVAILING WAGE RATE REQUIREMENTS:** Vermont law requires this project comply with the prevailing wage rate requirements set forth in 29 V.S.A. §161. The full text of 29 V.S.A. §161 is available at: <https://legislature.vermont.gov/statutes/section/29/005/00161>
13. **MODIFICATION AND WITHDRAWAL:** Proposals may not be modified after they are received and recorded by Department of Buildings and General Services. Bidders may withdraw Proposals at any time before bid opening, but **may not** resubmit a bid. No proposal may be withdrawn or modified after the bid opening except where the award of Contract has been delayed for beyond 60 days.
14. **DISQUALIFICATION:** The Commissioner of Buildings and General Services reserves the right to disqualify Proposals, before or after opening, upon evidence of collusion with intent to defraud or other illegal practices upon the part of the bidder. Furthermore, failure to substantively comply with bidding requirements may constitute non-compliance and may result in forfeiture of future bidding privileges until resolved.
15. **SUBMITTAL:** Submit Proposal in sealed envelope. Identify the envelope with: (1) project name, (2) name of bidder. Submit Proposals in accord with Invitation to Bid.
16. **OPENING:** Proposals will be opened as announced in the Invitation to Bid.
17. **BASIS OF BID AWARD:** Method of award will be based on Title 29, Chapter 5 § 161. Requirements on state construction projects.

The contract shall be awarded to one of the three lowest responsible bidders, conforming to the plans and specifications, with consideration being given to quantities involved, time required for delivery, purpose for which required, competency and responsibility of bidder, and his

or her ability to render satisfactory service, but the commissioner of buildings and general services with the approval of the secretary of administration, shall have the right to reject any and all bids and to invite other bids.

No segregated proposals or assignments will be considered. The Contract will be awarded on the basis of the Maximum Limiting Amount, including full consideration of unit prices and alternates in the order in which they appear on Proposal form.

18. **EXECUTION OF CONTRACT:** The Contract or Contracts will be signed for the State of Vermont by the Commissioner of Buildings and General Services.
19. **TAXES:** The State is exempt from all sales and federal excise taxes. Contractors will be responsible for the payment of any sales, consumer, use and other similar taxes for the Work or portions thereof provided by the Contractor which are legally enacted at the time bids are received, whether or not yet effective. Federal excise tax registration number covering taxable items will be furnished upon request. Quote less these taxes.

As required by law (32 V. S. A. §3113) the Contractor hereby certifies, under the pains and penalties of perjury, that he/she is in good standing with respect to, or in full compliance with a plan to pay, any and all taxes due the State of Vermont as of the date the Contractor signs this contract.

20. **CONSTRUCTION CONTRACTOR EVALUATION FORM:** The Department of Buildings and General Services (BGS) may require contractor evaluations on construction projects greater than \$100,000 or at the discretion of the BGS Director. Evaluations will be used to compile contractor's performance on BGS projects to provide a history and assessment of the contractor's performance.

STATE OF VERMONT
AGENCY OF ADMINISTRATION
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
MONTPELIER, VERMONT

INSTRUCTIONS

BID•PERFORMANCE•PAYMENT•GUARANTY BONDS

1. This form shall be used whenever a bond is required. There shall be no deviation from this form except as authorized by the Department Commissioner.
2. The bond shall be procured from an insurance company authorized to do business in the State of Vermont.
3. The name, including full legal name and residence of each individual party to the bond, shall be inserted in the body thereof, and each such party shall sign the bond with their usual signature on the line opposite the scroll seal.
4. If the principals are partners, their individual names shall appear in the body of the bond, with the recital that they are partners composing a firm, naming it, and all the members of the firm shall execute the bond as individuals.
5. The signature of a witness shall appear in the appropriate place, attesting the signature of each individual party to the bond.
6. If the principal or surety is a corporation, the name of the state in which incorporated shall be inserted in the appropriate place in the body of the bond, and said instrument shall be executed and attested under the corporate seal as indicated in the form.
7. The official character and authority of the person or persons executing the bond for the principal if a corporation, shall be certified by the secretary or assistant secretary, according to the form attached thereto. In lieu of such certificate there may be attached to the bond copies of as much of the records of the corporation as required to show the official character and authority of the officer signing, duly certified by the secretary or assistant secretary, under the corporate seal, to be true copies.
8. The date of the performance and payment bonds must be no later than the date of the instrument for which it is given.
9. The guaranty bond is for a period of one year and begins on the date of substantial completion established by the architect or project manager and approved by the Department Commissioner.

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
PURCHASING AND CONTRACT ADMINISTRATION
MONTPELIER VT 05633

PERFORMANCE BOND

Know All Men By These Presents, that we, as principal,
and
..... as surety,
are held and firmly bound unto the State of Vermont, hereinafter called the State, in the penal sum of
..... Dollars
for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors,
jointly and severally, firmly by these presents.

The condition of this obligation is such, that whereas the principal entered into a certain contract, which contract is by
reference made a part hereof, with the State, dated, 2024, for

Now, therefore, if the principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions,
and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the
State, with or without notice to the surety, and during the life of any guaranty required under the contract, and shall also well and
truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized
modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then,
this obligation to be void; otherwise to remain in full force and virtue.

In witness whereof, the above-bounden parties have executed this instrument under their several seals this
..... day of, 2024, the name and corporate seal of each corporate party
being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

in presence of-

..... (Address)	..... (Seal) (Individual Principal)
..... (Address)	..... (Business Address)
..... (Address)	..... (Seal) (Individual Principal)
..... (Address)	..... (Business Address)
..... (Address)	..... (Business Address)

Attest:

.....	..... (Corporate Principal)
.....	..... (Business Address)
.....	..... (Affix) Corporate Seal

Attest:

.....	..... (Corporate Surety)
.....	..... (Business Address)
.....	..... (Affix) Corporate Seal

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
PURCHASING AND CONTRACT ADMINISTRATION DIVISION
MONTPELIER VT 05633

PAYMENT BOND

(Labor and Material)

Know All Men By These Presents, that we, as principal, and
.....
..... as surety,
are held and firmly bound unto the State of Vermont, hereinafter called the State, in the penal sum of
..... Dollars
for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly
and severally, firmly by these presents.

The condition of this obligation is such, that whereas the principal entered into a certain contract, which contract is by
reference made a part hereof, with the State, dated, 2024, for

Now, therefore, if the principal shall promptly make payment to all persons supplying labor and material in the prosecution of
the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice
of such modifications to the surety being hereby waived, then this obligation to be void; otherwise to remain in full force and virtue.

In witness whereof, the above-bounden parties have executed this instrument under their several seals this
..... day of, 2024 the name and corporate seal of each corporate party being
hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

in presence of-

	(Seal)
	(Individual Principal)
(Address)	(Business Address)
	(Seal)
	(Individual Principal)
(Address)	(Business Address)
(Address)	(Business Address)

Attest:

	(Corporate Principal)
	(Business Address)
	(Affix)
	Corporate Seal)

Attest:

	(Corporate Surety)
	(Business Address)
	(Affix)
	Corporate Seal)

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
PURCHASING AND CONTRACT ADMINISTRATION
MONTPELIER VT 05633

GUARANTY BOND

Know All Men By These Presents, that we, as principal, and
.....
..... as surety,
are held and firmly bound unto the State of Vermont, hereinafter called the State, in the penal sum of
..... Dollars
for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and
severally, firmly by these presents.

The condition of this obligation is such, that whereas the principal entered into a certain contract, which contract is by reference made
a part hereof, with the State, dated, 2024, for

Now, therefore, the condition of the above obligation is such, that if the said principal will make good any faults or defects in the
work, arising from improper or defective workmanship or materials, undertaken in said contract and discovered on or before
....., then this obligation shall be null and void; otherwise it shall remain in
full force and effect.

In witness whereof, the above-bounden parties have executed this instrument under their several seals this
..... day of, 2024, the name and corporate seal of each corporate party being hereto
affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

in presence of-

..... (Seal)
(Individual Principal)

..... (Address) (Business Address)

..... (Seal)
(Individual Principal)

..... (Address) (Business Address)

..... (Address) (Business Address)

Attest:

.....
(Corporate Principal)

.....
(Business Address)

..... By (Affix)
Corporate Seal

Attest:

.....
(Corporate Surety)

.....
(Business Address)

..... By (Affix)
Corporate Seal

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
PURCHASING AND CONTRACT ADMINISTRATION DIVISION
MONTPELIER VT 05633

BID BOND

Know All Men By These Presents, that we, as principal, and
..... as surety,
are held and firmly bound unto the State of Vermont, hereinafter called the State, in the penal sum of
..... Dollars
Lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors,
administrators, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such, that whereas the principal has submitted the accompanying bid, dated
....., 2024, for

Now, therefore, if the principal shall not withdraw said bid within the period specified therein after the opening of the same, or, if no
period be specified, within sixty (60) days after said opening, and shall within the period specified therefore, or if no period be specified, within ten
(10) days after the prescribed forms are presented to him for signature, enter into a written contract with the State, in accordance with the bid as
accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such
contract, or in the event of the withdrawal of said bid within the period specified, or the failure to enter into such contract and give such bond
within the time specified, if the principal shall pay the State the difference between the amount specified in said bid and the amount for which the
State may procure the required work and/or supplies, if the later amount be in excess of the former, then the above obligation shall be void and of
no effect, otherwise to remain in full force and virtue.

In witness whereof, the above-bounden parties have executed this instrument under their several seals this
..... day of, 2024, the name and corporate seal of each corporate party being hereto
affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

in presence of-

	(Seal)
	(Individual Principal)
(Address)	(Business Address)
	(Seal)
	(Individual Principal)
(Address)	(Business Address)
(Address)	(Business Address)

Attest:

	(Corporate Principal)
	(Business Address)
	(Affix)
	Corporate Seal)

Attest:

	(Corporate Surety)
	(Business Address)
	(Affix)
	Corporate Seal)

STATE OF VERMONT
AGENCY OF ADMINISTRATION
BUILDINGS AND GENERAL SERVICES
MONTPELIER, VERMONT

CERTIFICATE AS TO CORPORATE PRINCIPAL

I,....., certify that I am
the.....secretary of the Corporation
named as principal in the within bond, that.....
who signed the said bond on behalf of the principals was the.....of said
corporation; that I know his signature, and his signature, and his signature thereto is genuine; and that said bond was
duly signed, sealed, and attested for and in behalf of said corporation by authority of its governing body.

(Corporate)
(Seal

VERMONT PREVAILING WAGE RATE NOTICE*

1. EMPLOYEES OF THE GENERAL CONTRACTOR, OR SUBCONTRACTORS TO THE GENERAL CONTRACTOR ON THIS PROJECT, ARE TO BE PAID NOT LESS THAN VERMONT'S PREVAILING WAGE AND FRINGE BENEFIT RATE SCHEDULE POSTED ABOVE THIS NOTICE.
2. A COMPLETE LIST OF OCCUPATIONS AND ASSOCIATED WAGE RATES ARE AVAILABLE FROM THE VERMONT DEPARTMENT OF LABOR AND ON THE INTERNET AT:
<http://www.vtlmi.info/lmipub.htm>
3. WHEN PROJECTS ARE FUNDED FROM VERMONT CAPITAL CONSTRUCTION ACT FUNDS AND/OR AMERICAN RESCUE PLAN ACT (ARPA) FUNDS, AND FEDERAL FUNDS THAT REQUIRE COMPLIANCE WITH THE DAVIS-BACON ACT, CONTRACTORS ARE REQUIRED TO UTILIZE THE HIGHER OF EITHER THE FEDERAL DAVIS-BACON ACT PREVAILING WAGE RATES OR VERMONT'S PREVAILING WAGE AND FRINGE BENEFIT RATES FOR EACH OCCUPATION.
4. FOR ALL QUESTIONS REGARDING THE FEDERAL DAVIS BACON ACT, CONTACT USDOL AT 603-606-3115 OR 603-606-3137.
5. IF A PREVAILING WAGE RATE IS NOT LISTED FOR A SPECIFIC TRADE UNDER VERMONT'S PREVAILING WAGE RATE, CONTACT THE VERMONT DEPARTMENT OF LABOR TO DISCUSS WHETHER A PREVAILING WAGE RATE IS REQUIRED FOR THE PARTICULAR POSITION OR TRADE.
6. EMPLOYEES MAY REPORT ALLEGED VIOLATIONS OF THESE PROVISIONS BY CONTACTING THE VERMONT DEPARTMENT OF LABOR AT 802-828-4301 OR 802-828-0267. AN EMPLOYEE WHO REPORTS A VIOLATION MAY DO SO WITHOUT RETALIATION OR REPRISAL BY THE EMPLOYER.

THE VERMONT DEPARTMENT OF LABOR WILL INVESTIGATE AND TAKE ENFORCEMENT ACTION TO REMEDY VIOLATIONS OF THE VERMONT PREVAILING WAGE LAW, AS NECESSARY. IN ADDITION, THE DEPARTMENT IS REQUIRED BY LAW TO CONDUCT RANDOM AUDITS OF PREVAILING WAGE RATE COMPLIANCE.

VDOL CONTACT INFORMATION: Commissioner's Office at 802-828-4301 Information on Vermont's Prevailing Wage: <http://www.vtlmi.info/lmipub.htm>

***Note: This document must be posted with Vermont's Prevailing Wage Rate Schedule.**

Vermont's Prevailing Wage Rate must also incorporate the required fringe benefit rate of 42.5% minus any allowed credit based upon benefits provided to an employee.

ATTACHMENT E
GUARANTEED MAXIMUM PRICE AMENDMENT
BETWEEN STATE AND CONTRACTOR

Pursuant to Article 2, Section 2 of the Agreement, dated _____ between *The State of Vermont* and **XXXXX** (*Construction Manager*), for the **XXXX Project** at **XXXX, XXXX**, Vermont (*the Project*), the State and Contractor establish a Guaranteed Maximum Price and Contract Time for the Work as set forth below.

ARTICLE I

GUARANTEED MAXIMUM PRICE

The Contractor's Guaranteed Maximum Price for the Work, including the estimated Cost of the Work as defined in Article 6 and the Contractor's Fee as defined in Article 5 of this agreement, is _____ (write amount out) Dollars (\$ _____).

This Price is for the performance of the Work in accordance with the Contract Documents listed and attached to this Amendment and marked Exhibits A through F, as follows:

Exhibit A Drawings, Specifications, addenda and General, Supplementary and other Conditions of the Contract on which the Guaranteed Maximum Price is based, pages _____ through _____, dated _____

Exhibit B Allowance items, pages _____ through _____, dated _____

Exhibit C Assumptions and clarifications made in preparing the Guaranteed Maximum Price, pages _____ through _____, dated _____

Exhibit D Completion schedule, pages _____ through _____, dated _____

Exhibit E Alternate prices, pages _____ through _____, dated _____

Exhibit F Unit prices, pages _____ through _____, dated _____

ARTICLE II

CONTRACT TIME

The date of Substantial Completion established by this Amendment is:_____.

STATE:
By: _____
Date: _____
ATTEST: _____

CONTRACTOR:
By: _____
Date: _____
ATTEST: _____

Attachment F

Costello Courthouse
Parking Garage Repairs

Burlington, Vermont

Schematic Design

March 22, 2024

Prepared by:

Thornton Tomasetti

14 York Street
Portland, Maine 04101



freeman | french | freeman
81 Maple St
Burlington, VT 05401



40 IDX Drive
South Burlington, VT 05403

**COSTELLO COURTHOUSE
32 CHERRY ST PARKING GARAGE**

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**SECTION 01 3517
RENOVATION REQUIREMENTS**

General requirements for renovation and reconstruction work.

A. Contract Drawing Limitations: The Contract Drawings do not show the precise and complete scope of renovation, reconstruction, rebuilding, patching, and repair since the Contractor solely controls means, methods, and techniques of selective demolition and integration of new and existing construction.

B. Extent of Renovation Work: Renovate, reconstruct, rebuild, patch, and repair existing construction to accommodate all work of the Contract. Without limitation, renovation work is required:

1. At each interface and transition between new work and existing work
2. Where damage including holes result from installation of new work.
3. Where damage including holes result from removal of existing work.
4. For existing construction and surfaces indicated to remain unless noted "No Work Required".

C. Patching:

1. Patching Workers: Assign patching to skilled trades. Examples: employ masons for masonry patching, employ plasterers for plaster work.
2. Patching Acceptance: Create continuous, seamless interface between new work and existing work to minimize "patched" appearance.
3. Patching and Painting: Extend patching, finishing, relishing, repair, and painting to at least the nearest major change of plane to create smooth, continuous, monolithic, and uniform planes with minimal evidence of patching and repair.

D. Site Restoration; soil installation and removal

1. Following construction, restore all existing landscaping, paving, vegetation, etc. to preconstruction conditions OR to conditions indicated on documents in areas where alteration is required. All restoration products should match preconstruction materials and be approved by the Owner. Contact State BGS Project Manager for seed mix information.
2. Reuse soil on site to extent possible.
3. Where possible, provide cover or protection to avoid damage to existing hardscape and landscape areas.
4. No additional payment shall be made for any claim of an increased scope of work due to Contractor's failure to maintain conditions at the time of bidding.

E. Security System:

1. Buildings adjacent to the building are protected by a card access security system. Contractor will be provided with a designated contact for building access as required in order to use building power and water, or may be provided with a temporary access badge.
2. Only authorized individuals may use access badges, and no component of the security system may be disabled at any time. For example, doors may not be propped open and Contractor may not allow "tailgating" or "piggybacking"- e.g. Contractor may not hold open doors for others or allow others to follow them through doors. Each individual entering buildings must do so by individual card swipe, no exceptions.
3. System shall remain operational at all times.
4. Do not modify security system in any way. If portions must be disabled, work shall be coordinated with owner's staff and or vendor/ contractor.

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F. New to Existing Transitions: Provide smooth, continuous, monolithic, and uniform transitions with no obvious evidence of transition, patching, or repair. Where this requirement is impractical and where preapproved by the Architect, provide a straight line, well defined control joint between the new and existing work.

G. Create Uniform Planes: Where new work meets existing work and where existing partitions and other constructions are removed which create one plane from two or more previously separate planes, rebuild, patch, and repair to create smooth, continuous, monolithic, and uniform planes with no obvious evidence of transition, patching, or repair. Eliminate voids and discontinuities.

I. Continuity of Elements: When existing construction such as a partition is removed, elements such as moldings, trims, wall base, and other elements will be discontinuous and may not align. Remove, reinstall, replace, and extend elements to provide continuity at uniform elevation and alignment.

J. Holes in Existing Construction: Patch, repair, rebuild, and rework to eliminate all holes including, without limitation, holes resulting from removal of partitions, pipes, ducts, conduits, equipment, and other work. Make patches and repairs match the material, quality, fire rating, and load capacity of the adjacent existing condition. Frame, reinforce, and support patches and repairs so they cannot fall out or fall through the opening.

K. Environmental Conditions and Existing Conditions: Perform all renovation work in appropriate environmental conditions. This project is primarily exterior work and much of the work can be done in many weather conditions.

1. All products shall be installed under conditions specified in the manufacturer's product information. Contractor assumes full responsibility for any work done outside of manufacturer's specified environmental conditions for the duration of the applicable manufacturer's warranty, including all labor and materials to correct failures.

2. No additional payment will be made for schedule delays or increased scope of work due to weather or other environmental conditions except with prior written approval by the BGS Project Manager.

3. Document and record conditions during each day of work, including temperature, humidity, and precipitation, as well as the work done each day and the products installed. Contractor may be responsible for labor and material to correct product or material failures where there is no documentation of environmental conditions at time of installation.

L. Cleaning Existing Surfaces To Remain Within The Work Limits: Immediately before Owner occupancy, clean existing surfaces to remain.

1. Remove dirt, soil, stains, graffiti, marks, mold, mildew, old wax, and foreign substances.

2. Use means, methods, and techniques which do not cause damage or deterioration.

3. Provide in place cleaning samples of each substrate and soiling condition.

4. Clean to match approved samples.

M. Existing Fire Protection Systems:

1. At no time may Contractor's activities impact the functionality of Fire Protection systems at or adjacent to areas of work.

N. Additional Preconstruction Photographs: Before beginning work, provide a complete and detailed record of existing conditions with emphasis on existing items and surfaces indicated to remain and existing damage and deterioration. Identify each photo with a clear description of the location.

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1. Provide documentation of previously concealed conditions when removing existing stone or other materials in preparation for renovation work. When possible, identifying marks
2. No additional compensation above and beyond the contract sum shall be made for repairs to any items whose condition is not clear in preconstruction photographic documentation.

END OF SECTION 01 3517

**COSTELLO COURTHOUSE
32 CHERRY ST PARKING GARAGE**

**SECTION 01 4000
QUALITY REQUIREMENTS**

- A. Building and Life Safety Codes: The building design shall comply in all aspects with the current Vermont Fire and Building Safety Code, and all applicable codes. The Design/Builder and/or Contractor shall be responsible for verification of all applicable codes, and review of building design with regional Authority Having Jurisdiction to ensure compliance with codes.
- B. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- C. Verify that field measurements are as indicated on shop drawings or as Instructed by the manufacturer.
- D. Comply with manufacturers' instructions, including each step-in sequence. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- E. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- F. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.
- H. Perform Work by persons qualified to produce required and specified quality.
- I. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- J. Products will only be considered a part of the Work when installed in final configuration. Contractor is responsible for proper transport, handling, storage and protection of products intended for the Work.
- K. Provide Owner and Tenant with weekly field documentation reports during construction.
- L. Repair and Protection:
1. On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 2. Protect construction exposed by or for Quality Assurance and Quality Control activities.
 3. Repair and protection are Contractor's responsibility, regardless of assignment of responsibility for Quality Assurance and Quality Control Services.
- M. In case of defect, replace Work or portions of the Work not conforming to specified requirements.

END OF SECTION 01 4000

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**QUALITY
REQUIREMENTS
01 4000 - 1**

**COSTELLO COURTHOUSE
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**SECTION 02 4100
DEMOLITION**

PART 1 GENERAL

1.01 REFERENCE STANDARDS

- A. 29 CFR 1926 - Safety and Health Regulations for Construction; Current Edition.

1.02 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Site Plan: Indicate:
1. Areas for temporary construction and field offices.
- C. Demolition Plan: Submit demolition plan as required by OSHA and local AHJs.
1. Indicate extent of demolition, removal sequencing, bracing and shoring, and location and construction of barricades and fences.
- D. Demolition firm qualifications.
- E. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

1.03 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: Company specializing in the type of work required.

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION

3.01 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
1. Obtain required permits.
 2. Comply with applicable requirements of NFPA 241.
 3. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 4. Provide, erect, and maintain temporary barriers and security devices.
 5. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 6. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
 7. Conduct operations to minimize obstruction of public and private entrances and exits. Do not obstruct required exits at any time. Protect persons using entrances and exits from removal operations.
 8. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon, or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Do not begin removal until built elements to be salvaged or relocated have been removed.
- D. Protect existing structures and other elements to remain in place and not removed.
1. Provide bracing and shoring.
 2. Prevent movement or settlement of adjacent structures.
 3. Stop work immediately if adjacent structures appear to be in danger.
- E. Minimize production of dust due to demolition operations. Do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

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**DEMOLITION
02 4100 - 1**

**COSTELLO COURTHOUSE
32 CHERRY ST PARKING GARAGE**

- F. Hazardous Materials:
 - 1. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCBs, and mercury.
 - 2. Hazardous Materials: Comply with 29 CFR 1926 and state and local regulations.
- G. Perform demolition in a manner that maximizes salvage and recycling of materials.
 - 1. Dismantle existing construction and separate materials.
 - 2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

3.02 EXISTING UTILITIES

- A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

3.03 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
 - 1. Verify construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Remove existing work as indicated and required to accomplish new work.
 - 1. Remove items indicated on drawings.
- C. Services including, but not limited to, HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications: Remove existing systems and equipment as indicated.
 - 1. Maintain existing active systems to remain in operation, and maintain access to equipment and operational components.
 - 2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - 3. Verify that abandoned services serve only abandoned facilities before removal.
 - 4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings. Remove back to source of supply where possible, otherwise cap stub and tag with identification.
- D. Protect existing work to remain.
 - 1. Prevent movement of structure. Provide shoring and bracing as required.
 - 2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.

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**DEMOLITION
02 4100 - 2**

**COSTELLO COURTHOUSE
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4. Patch to match new work.

3.04 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION 02 4100

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**DEMOLITION
02 4100 - 3**

**COSTELLO COURTHOUSE
32 CHERRY ST PARKING GARAGE**

**SECTION 04 0100
MAINTENANCE OF MASONRY**

PART 1 GENERAL

1.01 SCOPE:

- A. Alternate Scope: Clean existing masonry within 4 linear feet of existing work or to nearest building corner, whichever is less, prior to determining material for stone match. Cleaning of existing stone is not required unless alternate for new stone cladding is accepted.
- B. Base and Alternate Scope: Clean all stone within 24" above or laterally from any new or restoration work, and below any new or restoration work down to grade or bottom of wall.

1.02 BASIS OF DESIGN PRODUCTS:

- A. Restoration/ Existing material cleaner (alternate scope only): EK Restoration Cleaner, Prosoco, Inc., prosoco.com
- B. Final Cleaning at completion of restoration (base scope) and new work (alternate scope): Vana Trol, Prosoco, Inc., prosoco.com
- C. Basis of design products are not intended to restrict competition. Alternate products may be proposed by mason based on observations of existing conditions, or as required to meet work results described in "Execution" below.

1.03 REFERENCE STANDARDS

- A. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2016.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate setting details of stone. Detail shoring.
- C. Product Data: Provide data on cleaning compounds.
- D. Samples: Submit four samples of decorative block, face brick, and stone units to illustrate matching color, texture and extremes of color range.
- E. Product data including MSDS.
- F. Comparative data for any products not listed as basis of design, comparing all performance and test report data with basis of design product.
- G. Results of grout and mortar compatibility testing described above.

1.05 QUALITY ASSURANCE

- A. Comply with provisions of TMS 402/602, except where exceeded by requirements of Contract Documents.

1.06 FIELD CONDITIONS

- A. Cold and Hot Weather Requirements: Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

PART 2 PRODUCTS

2.01 CLEANING MATERIALS

- A. Cleaning Agent: Detergent type.
- B. Cleaning Agent: 0.5 lb (227 g) of sodium hydrosulphite mixture to one gallon (3.8 L) of water.
- C. Acid Solution: Clean, stain free, commercial hydrochloric (muriatic) acid, mixed one part to 10 parts of potable water.

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MAINTENANCE OF
MASONRY
04 0100 - 1

**COSTELLO COURTHOUSE
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2.02 MORTAR MATERIALS

PART 3 EXECUTION

3.01 PRELIMIARY

- A. Protect adjacent surfaces from damage.
- B. Wet areas prior to applying cleaning product.
- C. Hand apply with brush in area described above under "scope"
- D. Follow all manufacturer instructions, notify owner or architect if portions of this section differ from manufacturer instructions.
- E. Rinse completely.
- F. Control and contain cleaning solutions and rinse water in compliance with city code officials and manufacturer recommendations.
- G. Work Results: Clean new and existing work within scope area to minimize visual differences between new and existing material and remove all grout and mortar residue from installation of new or reused material. To the extent feasible, clean entire exposed faces of stone and avoid cleaning only a portion of a stone face

3.02 REBUILDING

- A. Cut out damaged and deteriorated masonry with care in a manner to prevent damage to any adjacent remaining materials.

3.03 REPOINTING

- A. Cut out loose or disintegrated mortar in joints to minimum 1/2 inch (6 mm) depth or until sound mortar is reached.
- B. Premoisten joint and apply mortar. Pack tightly in maximum 1/4 inch (6 mm) layers. Form a smooth, compact concave joint to match existing.

3.04 CLEANING NEW MASONRY

- A. Verify mortar is fully set and cured.
- B. Clean surfaces and remove large particles with wood scrapers, brass or nylon wire brushes.

END OF SECTION 04 0100

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MARCH 22, 2024**

**MAINTENANCE OF
MASONRY
04 0100 - 2**

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**SECTION 04 2000
UNIT MASONRY**

PART 1 GENERAL

1.01 SCOPE

- A. A. Base / Alternate Scope: New stone masonry as required to repair existing walls / New stone
- B. masonry for alternate stone cladding of wall at stair infill area as shown on drawings.

1.02 B. BASIS OF DESIGN PRODUCTS:

- A. 1. Blend of Ticonderoga, 1763, and/or Corinthian Granite, Square and Rectangular shapes, full bed stone (approx. 8" depth); Champlain Stone, LLC, Warrensburg, NY, 518-623-2902, www.champlainstone.com/our-stones/
- B. 2. Select material to match existing stone cladding after cleaning existing to remain areas as described above. If alternate for new stone cladding is not selected, cleaning is not required prior to selecting any required new material.

1.03 C. SUBMITTALS:

- A. 1. ±5 sq ft of sample blended stone for confirmation of material match.
- B. 2. Comparative data for any products not listed as basis of design, comparing all performance and
- C. test report data with basis of design product.
- D. 3. Results of grout and mortar compatibility testing described above.

1.04 D. EXECUTION:

- A. 1. Install to approximate the appearance of existing stone
- B. 2. Clean new work areas as described above after allowing adequate time for curing of grout/ mortar.

PART 2 PRODUCTS

END OF SECTION 04 2000

**SD SUBMISSION
MARCH 22, 2024**

**UNIT MASONRY
04 2000 - 1**

**COSTELLO COURTHOUSE
32 CHERRY ST PARKING GARAGE**

**SECTION 05 5000
METAL FABRICATIONS**

PART 1 GENERAL

1.01 SCOPE:

- A. 1. Fabricate and install metal pipe railings. Pipe Material: ASTM A500, Grade B, Schedule 80, 1½" Ø.
- B. Meet dimensional requirements shown on drawings. Rails shall be 34" to 36" above tread nosings or walkway paver surface. Follow slopes of stairs and walkways.
- C. See Structural drawings for connections to foundations and/or footings for pipe railings.
- D. See 09 9000 for painting and coating requirements.

1.02 SUBMITTALS:

- A. Shop Drawings showing all dimensions and relevant field measurements.

1.03 EXECUTION:

- A. Provide legal, code complying assemblies.
- B. Adjust rails for plumb and level before final anchoring.
- C. Do not permit use of rails until fully erected and ready for specified design loads. Section 07 0150.19 Preparation for Re-Roofing

PART 2 PRODUCTS

END OF SECTION 05 5000

**SD SUBMISSION
MARCH 22, 2024**

**METAL FABRICATIONS
05 5000 - 1**

**COSTELLO COURTHOUSE
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**SECTION 07 0150.19
PREPARATION FOR RE-ROOFING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Partial replacement of existing roofing system in preparation for replacement roofing system in designated areas as indicated on drawings.
- B. Removal of existing flashing and counterflashings where shown.
- C. Temporary roofing protection.

1.02 RELATED REQUIREMENTS

- A. Section 07 5300 - Elastomeric Membrane Roofing.
- B. Section _____ - _____: Roof system.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate with affected mechanical and electrical work associated with roof penetrations.
- B. Preinstallation Meeting: Convene one week before starting work of this section.
 - 1. Attendees:
 - a. Architect.
 - b. Contractor.
 - c. Owner.
 - d. Installer.
 - 2. Meeting Agenda: Provide agenda to participants prior to meeting in preparation for discussions on the following:
 - a. Necessary preparatory work.
 - b. Protection before, during, and after roofing system installation.
 - c. Removal of existing roofing system.
 - d. Installation of new roofing system.
 - e. Temporary roofing and daily terminations.
 - f. Transitions and connection to and with other work.
 - g. Inspections and testing of installed systems.
- C. Schedule work to coincide with commencement of installation of new roofing system.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit for each type of material.
- C. Shop Drawings: Indicate size, configuration, and installation details.

1.05 QUALITY ASSURANCE

- A. Materials Removal Company Qualifications: Company specializing in performing work of type specified with at least three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.

1.07 FIELD CONDITIONS

- A. Do not remove existing roofing membrane when weather conditions threaten the integrity of building contents or intended continued occupancy.

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- B. Maintain continuous temporary protection prior to and during installation of new roofing system.
- C. Verify that occupants have been evacuated from building areas when work on structurally impaired roof decking is scheduled to begin.
- D. Owner will occupy building areas directly below re-roofing area.
 - 1. Provide Owner with at least 48 hours written notice of roofing activities that may affect their operations and to allow them to prepare for upcoming activities as necessary.
 - 2. Maintain access of Owner's personnel to corridors, existing walkways, and adjacent buildings.

PART 2 PRODUCTS

2.01 COMPONENTS

- A. See the following sections for additional information on components relating to this work:
 - 1. Partial removal of existing roofing system in preparation for new roofing system in designated areas as indicated on drawings, see Section 07 5300.
 - 2. Recovering of existing roofing system in preparation for entire new roofing system, see Section 07 5563 .

2.02 MATERIALS

- A. Temporary Roofing Protection Materials:
 - 1. Contractor's responsibility to select appropriate materials for temporary protection of roofing areas as determined necessary for this work.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing roof surface has been cleared of materials being removed from existing roofing system and ready for next phase of work as required.

3.02 PREPARATION

- A. Sweep roof surface clean of loose matter.

3.03 MATERIAL REMOVAL

- A. Remove only existing roofing materials that can be replaced with new materials the same day.
- B. Scrape roofing gravel from membrane surface without causing serious damage to membrane felts.
- C. Remove damaged portions of roofing membrane, perimeter base flashings, flashings around roof protrusions, pitch pans and pockets and insulation vents.
- D. Cut and lay flat any membrane blisters.
- E. Remove damaged insulation and fasteners, cant strips, and blocking.
- F. Remove vapor retarder, sheathing paper, and underlay.
- G. Repair existing wood deck surface to provide smooth working surface for new roof system.

3.04 INSTALLATION

- A. Coordinate scope of this work with requirements for installation of new roofing system, see Section 07 5300 for additional requirements.

3.05 PROTECTION

- A. Provide protection of existing roofing system that is not having work performed on it.
- B. Provide temporary protective sheeting over uncovered deck surfaces.
- C. Turn sheeting up and over parapets and curbing. Retain sheeting in position with weights.

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- D. Provide for surface drainage from sheeting to existing drainage facilities.
- E. Do not permit traffic over unprotected or repaired deck surface.
- F. Install recover board over existing membrane.

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**SECTION 07 5556
FLUID-APPLIED PROTECTED MEMBRANE ROOFING**

PART 1 GENERAL

1.01 REFERENCE STANDARDS

- A. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension; 2016 (Reapproved 2021).
- B. ASTM D471 - Standard Test Method for Rubber Property--Effect of Liquids; 2016a (Reapproved 2021).
- C. ASTM D4751 - Standard Test Methods for Determining Apparent Opening Size of a Geotextile; 2021a.
- D. ASTM D624 - Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers; 2000 (Reapproved 2020).
- E. ASTM D813 - Standard Test Method for Rubber Deterioration - Crack Growth; 2007 (Reapproved 2019).
- F. ASTM D1149 - Standard Test Methods for Rubber Deterioration-Cracking in an Ozone Controlled Environment; 2018.
- G. ASTM D1621 - Standard Test Method for Compressive Properties of Rigid Cellular Plastics; 2016 (Reapproved 2023).
- H. ASTM D1777 - Standard Test Method for Thickness of Textile Materials; 1996 (Reapproved 2019).
- I. ASTM D2523/D2523M - Standard Practice for Testing Load-Strain Properties of Roofing Membranes; 2013, with Editorial Revision (2019).
- J. ASTM D4491/D4491M - Standard Test Methods for Water Permeability of Geotextiles by Permittivity; 2022.
- K. ASTM D4716/D4716M - Standard Test Method for Determining the (In-Plane) Flow Rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head; 2022.
- L. ASTM E96/E96M - Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials; 2022.
- M. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings; 2020a.
- N. ASTM E1980 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces; 2011 (Reapproved 2019).
- O. FM (AG) - FM Approval Guide; Current Edition.
- P. FM 4470 - Examination Standard for Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies for Use in Class 1 and Noncombustible Roof Deck Construction; 2022.
- Q. NRCA (RM) - The NRCA Roofing Manual; 2024.
- R. NRCA (WM) - The NRCA Waterproofing Manual; 2021.
- S. UL (DIR) - Online Certifications Directory; Current Edition.
- T. UL 790 - Standard for Standard Test Methods for Fire Tests of Roof Coverings; Current Edition, Including All Revisions.

1.02 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.

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- B. Product Data: Provide membrane materials, base flashing materials, insulation, and _____.
- C. Shop Drawings: Indicate setting plan for insulation, layout of seams, direction of laps, base flashing details.
- D. Manufacturer's Qualification Statement.
- E. Installer's Qualification Statement.
- F. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.03 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified and with not less than three years of documented experience.

1.04 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.

PART 2 PRODUCTS

2.01 REGULATORY REQUIREMENTS

- A. Comply with applicable building codes for fire resistance rating of roofing system.
- B. UL Fire Rated Assembly: Provide products listed and labeled with UL (DIR) and in compliance with Class A fire test rating of roof coverings in compliance with UL 790 or ASTM E108.
- C. FM Roof Assembly: Provide products listed and labeled with FM (AG) having roof assembly construction and roof wind rating of 90 in compliance with FM 4470.

2.02 SYSTEM DESCRIPTION

- A. Protected fluid-applied membrane roofing assembly consisting of fluid-applied membrane, reinforcing fabric, flexible sheet flashing, fluid-applied flashing, adhesives/sealants, separation sheet, insulation, and pavers.

2.03 ROOFING SYSTEM COMPONENTS

- A. Fluid-Applied Rubberized Asphalt Membrane: Elasticized rubberized asphaltic compound, hot-applied and quick setting.
 - 1. Suitable for installation over properly prepared concrete, gypsum board, and plywood substrates.
 - 2. Water Vapor Permeance: 0.0053 perms (0.3 ng/(Pa s sq m)), maximum, measured in accordance with ASTM E96/E96M, Desiccant Method at 100 degrees F (38 degrees C).
- B. Reinforcing Fabric: Spunbonded polyester fabric for use as membrane reinforcing material over cracks, construction joints and changes-in-plane.
 - 1. Elongation: 42 percent (to break), tested in accordance with ASTM D2523/D2523M.
 - 2. Breaking Strength: 25 lbf (111 N), tested in accordance with ASTM D2523/D2523M.
 - 3. Cracking Resistance: Passed at least 100,000 cycles, tested in accordance with ASTM D813.
- C. Protection/Cap Sheet: Rubberized asphalt sheet with fiberglass reinforcement and fire-rated, non-combustible, ceramic granular surface.
 - 1. Application: Embed in fluid-applied roofing membrane while membrane is still hot to provide protection course and serve as finished surface of the roof.
 - 2. Application: Embed in fluid-applied roofing membrane while membrane is still hot to provide protection course and serve as finished surface of the roof.
 - 3. Length: 33.5 feet (10.2 m), minimum.

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4. Length: 33.5 feet (10.2 m), minimum.
 5. Thickness: 160 mil, 0.160 inch (4.1 mm), minimum.
 6. Solar Reflectance Index (SRI): 27 in accordance with ASTM E1980.
- D. Composite Drainage Panel: Three-dimensional, crush-resistant, geonet-type drainage core layer with geotextile filter fabric on front side.
1. Width: 4 ft (1.2 m), minimum.
 2. Length: 50 ft (15.2 m), minimum.
 3. Physical Properties, Drainage Core Layer Material:
 - a. Compressive Strength: 15,000 psf (718 kN/sq m), minimum, when tested in accordance with ASTM D1621.
 - b. Thickness: 0.40 inch (10.16 mm), minimum, in accordance with ASTM D1777.
 - c. Core Flow: 8.5 gal per minute per ft width (106 L/minute/m width), minimum, when tested in accordance with ASTM D4716/D4716M at 3,600 psf (172.4 kPa).
 4. Physical Properties, Filter Fabric Material:
 - a. Fabric Flow: 60 gal per minute per sq ft (2,460 L/minute/sq m), minimum, when tested in accordance with ASTM D4491/D4491M.
 - b. Fabric Apparent Opening Size (AOS): 40 sieve (0.42 mm), minimum, when tested in accordance with ASTM D4751.
- E. Flexible Flashings: Types compatible with membrane and items requiring flashing.
1. Material: Uncured neoprene rubber.
 2. Thickness: 60 mil, 0.060 inch (1.52 mm).
 3. Tensile Strength: 1,400 psi (9.65 MPa), minimum, when tested in accordance with ASTM D412, Die C.
 4. Elongation: 300 percent, minimum, when tested in accordance with ASTM D412, Die C.
 5. Tear Resistance: 125 lb per inch (21.9 kN/m), minimum, when tested in accordance with ASTM D624, Die C.
 6. Water Absorption: 8.5 percent maximum change in mass, when tested for 48 hours at 158 degrees F (70 degrees C) in accordance with ASTM D471.
 7. Ozone Resistance: No cracks at 7X magnification, when tested in accordance with ASTM D1149.
- F. Flashings: Types required for specified system and as indicated on drawings.

2.04 ACCESSORIES

- A. Cant and Tapered Edge Strips: Asphalt impregnated wood fiberboard, preformed to 45 degree angle.
- B. Insulation Perimeter Restraint: Metal edge device configured to restrain insulation boards in position and provide top flashing over ballast to system.

PART 3 EXECUTION

3.01 APPLICATION - MEMBRANE

- A. Apply rubberized asphalt roofing system and primer in accordance with manufacturer's recommendations and NRCA (WM) or NRCA (RM) applicable requirements .
- B. Extend membrane up cant strips and minimum of 8 inches (203 mm) onto vertical surfaces.

3.02 APPLICATION - FLASHINGS AND ACCESSORIES

- A. Apply membrane base flashings to seal membrane to vertical elements.
- B. Seal flashings and flanges of items penetrating or protruding through the membrane.

3.03 INSTALLATION - INSULATION BOARD

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3.04 INSTALLATION - INSULATION WITH CONCRETE BACKERBOARD

- A. Place channel cut face down. Bevel insulation to allow snug fit at cant strips, and cut neatly around protrusions through roof.

3.05 INSTALLATION - PAVERS AND EDGE TREATMENT

- A. Install pavers on pedestals in accordance with manufacturer's instructions.
 - 1. Fully support edges; shim and adjust pavers to provide level surface.
 - 2. Provide approximately 1/8 inch (3.2 mm) space between pavers to permit surface water drainage.
- B. Edge Treatment: Install dividers and edging where indicated.
 - 1. Provide intermittent spacing between dividers to allow water to flow between areas.
 - 2. Extend protection layers up vertical surfaces of dividers and edging to retain overburden.

END OF SECTION 07 5556

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**SECTION 07 5563
VEGETATED PROTECTED MEMBRANE ROOFING**

PART 1 GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 07 1400 - Fluid Applied Waterproofing: Fluid-applied waterproofing for deck below vegetated roof.
- B. Section 32 8423 - Underground Sprinklers.

1.02 REFERENCE STANDARDS

- A. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation; 2023.
- B. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)); 2012 (Reapproved 2021).
- C. ASTM E2397/E2397M - Standard Practice for Determination of Dead Loads and Live Loads Associated with Vegetative (Green) Roof Systems; 2019.
- D. ASTM E2398/E2398M - Standard Test Method for Water Capture and Media Retention of Geocomposite Drain Layers for Vegetative (Green) Roof Systems; 2019.
- E. ASTM E2399/E2399M - Standard Test Method for Maximum Media Density for Dead Load Analysis of Vegetative (Green) Roof Systems; 2019.
- F. CSA A123.24 - Standard Test Method for Wind Resistance of Vegetated Roof Assembly; 2021.
- G. SPRI RP-4 - Wind Design Standard for Ballasted Single-Ply Roofing Systems; 2022.

1.03 SUBMITTALS

- A. Product Data: Provide product data on components of vegetated roof.
- B. Shop Drawings: Indicate size and outline of roof, location and type of materials, and details of accessories and edge treatments.
- C. Preinstallation Field Report: Provide documentation that membrane installation has been approved by manufacturer and has passed specified testing.
- D. Manufacturer's Qualification Statement.
- E. Installer's Qualification Statement.
- F. Maintenance Data: Submit manufacturer recommendations for maintenance of materials and plants.
- G. Warranty Documentation:
 - 1. Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
 - 2. Submit installer's documentation that installation complies with warranty conditions for waterproof membrane.

1.04 MOCK-UPS

- A. Construct mock-up of vegetated protected membrane roofing system, ___ feet (___ m) long by ___ feet (___ m) wide, indicating protective measures provided for roof waterproofing system, e.g., flashings and penetrations, and to display the assembly of components and accessories.
- B. Locate where directed.
- C. Mock-up may remain as part of work.

1.05 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

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- B. Manufacturer Warranty: Provide 2-year manufacturer warranty that includes components other than soil and vegetation. Complete forms in Owner's name and register with manufacturer.
- C. Installer Warranty: Provide 2-year warranty for roofing system components other than soil and vegetation commencing on the Date of Substantial Completion. Complete forms in Owner's name and register with installer.
- D. Extended Correction Period: Correct defective work within 2-year period commencing on Date of Substantial Completion.

PART 2 PRODUCTS

2.01 VEGETATED ROOF ASSEMBLY

- A. Fluid-Applied Roof Waterproofing System: See Section 07 1400.
- B. Vegetated Roofing Assembly: Intensive, more than 6 inches (Intensive, more than 152 mm) of growing media and vegetated roofing layers installed over roof waterproofing system with additional insulation over root barrier for protected membrane roof layout.
 - 1. Structural Design Load: Provide vegetated roof assembly with superimposed dead load not greater than load as indicated on drawings; base calculations on the saturated weight of vegetated roof assembly components and maximum media density at saturation of growing media following test method ASTM E2397/E2397M.
 - 2. Water Retention Capacity: Provide vegetated roof assembly with a water retention capacity of at least ___ gal/cu ft (___ L/cu m) of water, value includes combined water retention capacities of growing media and drainage layers; growing media water retention is calculated using a difference between dry and saturated weight by following test method ASTM E2399/E2399M; drainage panel water retention capacity is calculated using test method ASTM E2398/E2398M.
 - 3. Wind Resistance: Provide vegetated roof assembly that complies with dynamic wind uplift and wind flow resistance requirements of test method CSA A123.24 and/or SPRI RP-4.
 - 4. Vegetated Roof Layers, In Order from Bottom Up:
 - a. Root barrier.
 - b. Rigid board insulation, for protected membrane.
 - c. Drainboard.
 - d. Protection fabric/water retention mat.
 - e. Filter fabric.
 - f. Edging: Provide perforated metal edging at exposed edges of vegetated roof system, roof penetrations, and roof drain locations as indicated on drawings.
 - 5. Number and type of vegetated roof layer materials may be reduced provided equivalent protection and functionality is achieved and is approved by vegetated roofing system manufacturer for desired system.
- C. Root Barrier: 0.015 inch (0.38 mm) minimum thickness membrane made from two layers of polyethylene laminated to a reinforced multifilament grid.
- D. Rigid Board Insulation for Protected Membrane: Extruded polystyrene (XPS) board insulation.
- E. Drainboard: 7/16 inch (11.1 mm) minimum thickness, 9,000 psf (431 kPa) minimum compressive strength, molded-polystyrene board with woven filter fabric with minimum flow capacity of 21 gpm/ft (261 Lpm/m) per unit.
- F. Protection Fabric/Water Retention Mat: 0.150 inch (3.81 mm) minimum thickness, and 16 oz/sq ft (0.49 kg/sq m) minimum weight, non-woven polypropylene.
- G. Filter Fabric: Highly permeable, nonwoven fabric, at least ___ mil, ___ inch (___ mm) thick, that filters against particle erosion.

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- H. Edging: Perforated aluminum sheet with manufacturer's standard thickness and mill finish; used to retain growing media and plant material as required at locations indicated for vegetated roof assembly.

2.02 INSULATION

- A. Extruded Polystyrene (XPS) Board Insulation: Comply with ASTM C578, with natural skin surfaces.
 - 1. Board Size: 48 by 96 inch (1220 by 2440 mm).
 - 2. Board Thickness: 1-1/2 inches (38 mm).
 - 3. Tapered Board: Slope as indicated; minimum thickness 1/2 inch (13 mm); fabricate of fewest layers possible.
 - 4. Board Edges: Shiplap.
 - 5. Type and Compressive Resistance: Type X, 15 psi (104 kPa), minimum.

2.03 FIELD-INSTALLED SOIL/GROWING MEDIA

- A. Provide manufacturer's standard growing media mix capable of supporting vigorous growth of vegetation indicated.
- B. Growing Media: Comply with ASTM E2399/E2399M.
- C. Organic Matter: Provide content as required to meet plant requirements.

2.04 IRRIGATION SYSTEM

- A. Irrigation System: Provide multi-stream and multi-trajectory high-efficiency rotary nozzle type sprinkler system, that provides matched precipitation rate of approximately 0.4 inch/hr (10.2 mm/hr) across any arc or radius to match soil intake rates and prevent runoff. See Section 32 8423 for additional information.

2.05 ACCESSORIES

- A. Drain Inspection Box: Formed from aluminum sheet with lockable lid, bottom flange, and perforated at the drainage course level.
 - 1. Metal Thickness: 60 mil, 0.060 inch (1.52 mm), nominal.
 - 2. Size: 15 by 15 inches (381 by 381 mm), nominal.
 - 3. Height: 6 inches (152 mm), nominal.
- B. Edge Treatment: Provide dividers and edge elements to separate vegetated portion of roof from other areas as indicated on drawings.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that roofing membrane work is complete.
- B. Verify that surface of roofing membrane is ready to accept vegetated roofing components.
- C. Verify that roof slope of vegetated roofing substrate is at least 2 percent.
- D. Inspections and Testing Prior to Installation of Vegetated Roof Components:
 - 1. Verify that installed roof waterproofing system has been inspected by manufacturer's representative.
 - 2. Verify that installed roof waterproofing system has been tested by controlled flooding, electronic testing or other leak detection method approved by manufacturer.
 - 3. Provide documentation that roof waterproofing system installation has been approved by manufacturer and passed specified testing.

3.02 INSTALLATION, GENERAL

- A. Dry surfaces thoroughly before vegetated roofing work begins.

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- B. Protect roof waterproofing system as necessary to prevent damage during installation of vegetated roofing system.
- C. Provide temporary ballast in partially completed sections of vegetated roofing system to protect overburden from wind effects during installation; ensure ballast has no sharp edges, protrusions, chemical contaminants, or other compositions that could damage roof waterproofing system.

3.03 INSTALLATION - ROOT BARRIER

- A. Root barrier.
- B. Loose-lay root barrier directly over waterproofing.
- C. Overlap edges taped with manufacturer's recommended seam tape 1 foot (304 mm) or as recommended by manufacturer.
- D. Overlap edges taped with manufacturer's recommended seam tape 1 foot (304 mm) or as recommended by manufacturer.
- E. Turn root barrier up each vertically roofed, waterproofed or flashed surfaces.
- F. Inspect completed root barrier, and repair any holes or tears by lapping each hole or tear with 6 inches (152 mm), minimum, of new undamaged material and sealing with manufacturer-approved tape.

3.04 INSTALLATION - DRAINBOARDS

- A. Horizontal Surfaces: Install drainboards in accordance with manufacturer's recommendations.
- B. Vertical Surfaces: Fasten to substrate in accordance with manufacturer's recommendations.
- C. Penetrations: Cut drainboard to fit tightly around penetrations.
- D. Inspect completed drainboard installation, and repair holes and tears by lapping each hole or tear at least 6 inches (152 mm) with new, undamaged filter fabric and sealing with manufacturer-approved tape.

3.05 INSTALLATION - INSULATION

- A. Handle insulation carefully, and avoid damaging or rupturing facer or finished surface.
- B. Install insulation with staggered end joints.
- C. Abut edges tightly together, with gap of 1/4 inch (6.3 mm) or less.
- D. Inspect completed insulation installation; cut out broken corners or other damaged areas of insulation, and replace with undamaged insulation custom cut to fit damaged or broken area removed.

3.06 INSTALLATION - PROTECTION FABRIC/WATER RETENTION MAT

- A. Loose-lay protection fabric/water retention mat, draw tight without folds or wrinkles, and overlap edges 3 inches (76 mm).
- B. Inspect completed protection fabric/water retention mat installation; repair holes or tears by lapping each hole or tear at least 6 inches (152 mm) with new, undamaged material and sealing with tape approved by manufacturer.

3.07 INSTALLATION - IRRIGATION SYSTEM

- A. Irrigation System: See Section 32 8423 for additional information.

3.08 INSTALLATION - PAVERS AND EDGE TREATMENT

- A. Edge Treatment: Install dividers and edging where indicated.

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1. Provide intermittent spacing between dividers in accordance with manufacturer's installation instructions to ensure drainage is not inhibited.
2. Extend protection layers up vertical surfaces of dividers and edging to retain overburden.

3.09 INSTALLATION - SOIL/GROWING MEDIA

- A. Carefully place soil/growing media to avoid damaging or displacing other materials and accessories.
- B. Placement, Depth Greater than 8 inches (203 mm):
 1. Place soil/growing media in lifts of 6 inches (152 mm) or less, except final lift.
 2. Compact each lift as described below.
 3. Place final lift of 6 inches (152 mm) or less and 1 inch (25.4 mm) greater than proposed finish grade prior to compaction.
 4. Compact final lift until top of soil is within 1 inch (25 mm) of proposed finish grade.
- C. Placement, Soil Depth Less than 8 inches (203 mm):
 1. Place soil/growing media in single lift of 8 inches (203 mm) or less and to 1 inch (25.4 mm) greater than proposed finish grade.
 2. Compact lift until top of soil is within 1 inch (25.4 mm) of proposed finish grade
- D. Compaction:
 1. Use landscape rollers or handheld mechanical compactors.
 2. Compact soil/growing media to between 50 and 60 percent compaction as measured by ASTM D1557.
- E. Install and maintain erosion control devices as recommended by manufacturer until plant installation is complete.

3.10 FIELD QUALITY CONTROL

- A. Have completed garden roof inspected by manufacturer's field representative.

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**SECTION 08 3100
ACCESS DOORS AND PANELS**

PART 1 GENERAL

1.01 REFERENCE STANDARDS

- A. ITS (DIR) - Directory of Listed Products; Current Edition.
- B. UL (FRD) - Fire Resistance Directory; Current Edition.

1.02 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide sizes, types, finishes, hardware, scheduled locations, and details of adjoining work.
- C. Shop Drawings: Indicate exact position of each access door and/or panel unit.
- D. Samples: Submit two access units, ___ by ___ inches (___ by ___ mm) in size indicating frame configuration.
- E. Manufacturer's qualification statement.
- F. Installer's qualification statement.

PART 2 PRODUCTS

2.01 ACCESS DOORS AND PANELS ASSEMBLIES

- A. Wall-Mounted Units with Return Air Grille:
 - 1. Size: 12 by 12 inches (305 by 305 mm).
- B. Ceiling-Mounted Units with Return Air Grille:
 - 1. Location: As indicated on drawings.
 - 2. Panel Material: Aluminum extrusion with gypsum board inlay.
 - 3. Size - Lay-In Grid Ceilings: To match module of ceiling grid.
 - 4. Size - Other Ceilings: 12 by 12 inches (305 by 305 mm).
 - 5. Door/Panel: Hinged, standard duty, with tool-operated spring or cam lock and no handle.
- C. Fire-Rated Ceiling-Mounted Units:
 - 1. Location: As indicated on drawings.
 - 2. Ceiling Fire-Rating: As indicated on drawings.
 - 3. Size: 12 by 12 inches (305 by 305 mm).
 - 4. Door/Panel: Hinged, standard duty, with tool-operated spring or cam lock and no handle.

2.02 WALL- AND CEILING-MOUNTED ACCESS UNITS

- A. Wall- and Ceiling-Mounted Units: Factory-fabricated door and frame, fully assembled units with corner joints welded, filled and ground flush; square and without rack or warp; coordinate requirements with type of installation assembly being used for each unit.
 - 1. Style: As indicated on drawings.
 - 2. Style: Exposed frame with door surface flush with frame surface.
 - a. Gypsum Board Mounting Criteria: Use drywall bead type frame.
 - 3. Door Style: Single thickness with rolled or turned in edges.
 - 4. Heavy-Duty Frames: 14-gauge, 0.0747-inch (1.89 mm) minimum thickness.
 - 5. Heavy-Duty Single Steel Sheet Door Panels: 14-gauge, 0.0747-inch (1.89 mm) minimum thickness.
 - 6. Units in Fire-Rated Assemblies: Fire rating as required by applicable code for fire-rated assembly that access doors are being installed.
 - a. Provide products listed by ITS (DIR) or UL (FRD) as suitable for purpose indicated.

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- b. Provide certificate of compliance from authorities having jurisdiction indicating approval of fire rated doors.
- 7. Steel Finish: Primed.
- 8. Stainless Steel Finish: No.4 brushed finish.
- 9. Door/Panel Size: As indicated on the drawings.
- 10. Hardware:
 - a. Hardware for Fire-Rated Units: As required for listing.
 - b. Hinges for Non-Fire-Rated Units: Concealed, constant force closure spring type.

2.03 WALL- AND CEILING-MOUNTED ACCESS UNITS WITH RETURN AIR GRILLES

- A. Description: Return air grille with full service access. Louvers to be fitted into a frameless door that is flush with drywall surface. Return air grille can be integrated with manufacturer's suggested access panel or installed directly in drywall surface.
 - 1. Gypsum Board Inlay Access Panels: Provide rectangular and square access panel with recessed and gasketed aluminum perimeter frame that acts as finishing edge and having concealed mechanical touch-latch with safety cable and free-pivoting hinge.
 - a. Rectangular Panel Frame Size: 24 by 36 inches (610 by 914 mm) set within 1/2-inch (12 mm) thick gypsum board.
 - b. Square Panel Frame Size: 24 by 24 inches (610 by 610 mm) set within 1/2-inch (12 mm) thick gypsum board.
 - c. Panel Frame: 1-inch (25 mm) margin with concealed countersunk screw mounting.
 - 2. Return Air Grilles: Linear bar grille fitted with flush and concealed perimeter frame.
 - a. Type: Fixed grilles with 1/4-inch (6 mm) thick by 5/8-inch (16 mm) deep bars at 1/2 inch (12 mm) on center providing 48 percent free space opening.
 - b. Dimensions: 12 by 12 inches (305 by 305 mm) set within 1/2-inch (12 mm) thick gypsum board.
 - c. Fabrication: Aluminum with factory powder coated finish.
 - d. Frame: 1-inch (25 mm) margin with concealed countersunk screw mounting.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install units in accordance with manufacturer's instructions.
- B. Install frames plumb and level in openings, and secure units rigidly in place.
- C. Position units to provide convenient access to concealed equipment when necessary.

END OF SECTION 08 3100

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**SECTION 08 3613
SECTIONAL DOORS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Overhead sectional doors, electrically operated.
- B. Operating hardware and supports.
- C. Electrical controls.

1.02 REFERENCE STANDARDS

- A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials; Current Edition.
- B. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test; 2015 (Reaffirmed 2020).
- C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.
- D. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021a.
- E. ASTM C1172 - Standard Specification for Laminated Architectural Flat Glass; 2019.
- F. ASTM E283/E283M - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 2019.
- G. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2014 (Reapproved 2021).
- H. DASMA 102 - American National Standard Specifications for Sectional Doors; 2018.
- I. ITS (DIR) - Directory of Listed Products; Current Edition.
- J. NEMA ICS 2 - Industrial Control and Systems Controllers, Contactors and Overload Relays Rated 600 Volts; 2008 (Reaffirmed 2020).
- K. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2020.
- L. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- M. UL (DIR) - Online Certifications Directory; Current Edition.
- N. UL 325 - Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems; Current Edition, Including All Revisions.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
- C. Product Data: Show component construction, anchorage method, and hardware.
- D. Samples: Two panel finish samples, ___ by ___ inch (___ by ___ mm) in size, illustrating color and finish.
- E. Specimen warranty.

1.04 WARRANTY

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- A. Extended Correction Period: Correct defective work within a 2-year period commencing on Date of Substantial Completion.
- B. Manufacturer Warranty: Provide 5-year manufacturer warranty for electric operating equipment. Complete forms in Owner's name and register with manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Sectional Doors:
 - 1. bp Glass Garage Doors & Entry Systems: www.glassgaragedoors.com/#sle.
 - 2. Overhead Door Corporation; Model 521 - Aluminum Glass Door : www.overhaddoor.com/#sle.
 - 3. Raynor Garage Doors: www.raynor.com/#sle.

2.02 PERFORMANCE REQUIREMENTS

- A. Performance: Withstand positive and negative wind loads equal to 1.5 times design wind loads specified by local code without damage or permanent set, when tested in accordance with ASTM E330/E330M, using 10 second duration of maximum load.
- B. Air Leakage Rate: Less than 0.40 cfm/sq ft (2.0 L/sec/sq m) when tested in accordance with ASTM E283/E283M at test pressure difference of 1.57 psf (75 Pa).
- C. Thermal Transmittance: U-factor (U-factor) of 0.31 Btu/hr sq ft degrees F (1.76 W/sq m K), maximum, in accordance with DASMA 102.

2.03 ALUMINUM DOORS

- A. Type ASD-1 - Doors: Flush aluminum, insulated; high lift operating style with track and hardware; complying with DASMA 102, Commercial application.
 - 1. Door Nominal Thickness: 2 inches (50 mm) thick.
 - 2. Glazed Lites: Full panel width, four row; set in place with resilient glazing channel.
 - 3. Electric Operation: Electric control station.

2.04 COMPONENTS

- A. Track: Galvanized steel angles, 0.094 inch (2.4 mm) minimum thickness; 2-5/16 x 4 inch (59 x 102 mm) size, continuous one piece per side; galvanized steel mounting brackets 1/4 inch (6 mm) thick.
- B. Hinge and Roller Assemblies: Heavy duty hinges and adjustable roller holders of galvanized steel; floating hardened steel bearing rollers, located at top and bottom of each panel, each side.
- C. Lift Mechanism: Torsion spring on cross head shaft, with braided galvanized steel lifting cables.
- D. Sill Weatherstripping: Resilient hollow rubber strip, one piece; fitted to bottom of door panel, full length contact.
- E. Jamb Weatherstripping: Roll formed steel section full height of jamb, fitted with resilient weatherstripping, placed in moderate contact with door panels.
- F. Head Weatherstripping: EPDM rubber seal, one piece full length.
- G. Panel Joint Weatherstripping: Neoprene foam seal, one piece full length.
- H. Lock: Inside center mounted, adjustable keeper, spring activated latch bar with feature to retain in locked or retracted position; interior and exterior handle.
- I. Lock Cylinders: Keyed alike.

2.05 MATERIALS

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- A. Sheet Steel: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G60/Z180 coating, plain surface.
- B. Aluminum Sheet: ASTM B209/B209M, 5005 alloy, H14 temper, plain surface.
- C. Aluminum Extrusions: ASTM B221 (ASTM B221M), 6063 alloy, T6 temper.
- D. Laminated Safety Glass: ASTM C1172 with at least 0.030 inch (0.762 mm) thick polyvinyl butyral (PVB) interlayer, and in compliance with safety criteria 16 CFR 1201 Categories 1 and 2, and ANSI Z97.1.
- E. Insulation: Foamed-in-place polyurethane, bonded to facing.
- F. Metal Primer Paint: Zinc molybdate type.

2.06 ELECTRIC OPERATION

- A. Operator, Controls, Actuators, and Safeties: Comply with UL 325; provide products listed by ITS (DIR), UL (DIR), or testing agency acceptable to authorities having jurisdiction.
 - 1. Provide interlock switches on motor operated units.
 - 2. Provide tamperproof operation cycle counter.
- B. Electric Operators:
 - 1. Mounting: Side mounted on cross head shaft.
 - 2. Motor Enclosure:
 - 3. Motor Rating: 1/3 hp (250 W); continuous duty.
 - 4. Motor Voltage: 120 volts, single phase, 60 Hz.
 - 5. Motor Controller: NEMA ICS 2, full voltage, reversing magnetic motor starter.
 - 6. Controller Enclosure: NEMA 250, Type 1.
 - 7. Opening Speed: 12 inches per second (300 mm/s).
 - 8. Brake: Adjustable friction clutch type, activated by motor controller.
 - 9. Manual override in case of power failure.
 - 10. See Section 26 0583 for electrical connections.
- C. Wiring Terminations: Provide terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated; enclose terminal lugs in terminal box sized to comply with NFPA 70.
- D. Control Station: Provide standard three button (Open-Close-Stop) momentary-contact control device for each operator complying with UL 325.
 - 1. 24 volt circuit.
 - 2. Surface mounted, at interior door jamb.
 - 3. Entrapment Protection Devices: Provide sensing devices and safety mechanisms complying with UL 325.
 - a. Primary Device: Provide electric sensing edge, wireless sensing, NEMA 1 photo eye sensors, or NEMA 4X photo eye sensors as required with momentary-contact control device.
- E. Safety Edge: Located at bottom of sectional door panel, full width; electro-mechanical sensitized type, wired to stop and reverse door direction upon striking object; hollow neoprene covered to provide weatherstrip seal.
- F. Safety Edge: Located at bottom of sectional door panel, full width; electro-mechanical sensitized type, wired to stop and reverse door direction upon striking object; hollow neoprene covered to provide weatherstrip seal.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install door unit assembly in accordance with manufacturer's instructions.
- B. Anchor assembly to wall construction and building framing without distortion or stress.

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- C. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- D. Fit and align door assembly including hardware.
- E. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.

END OF SECTION 08 3613

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**SECTION 09 2116
GYPSUM BOARD ASSEMBLIES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Performance criteria for gypsum board assemblies.
- B. Metal stud wall framing.
- C. Metal channel ceiling framing.
- D. Resilient sound isolation clips.
- E. Acoustic insulation.
- F. Gypsum sheathing.
- G. Cementitious backing board.
- H. Gypsum wallboard.
- I. Joint treatment and accessories.
- J. Plenum space sound control.
- K. Acoustic (sound-dampening) wall and ceiling board.
- L. Noise barriers in gypsum board assemblies.
- M. Fire Safety Signs
- N. Acoustic sealants in contact with gypsum board assemblies.
- O. Acoustic pads for electrical boxes with gypsum board partitions scheduled.
- P. Acoustic hangers for gypsum board ceiling assemblies.
- Q. Access doors within gypsum board assemblies.

1.02 RELATED REQUIREMENTS

- A. Division 01 General Requirements
- B. Division 05 Cold Formed Metal Framing
- C. Section 06 1600 Sheathing; gypsum sheathing
- D. Section 07 8400 Firestopping
- E. Division 08 Openings
- F. Section 09 9000 Painting and Coating
- G. Division 21 Fire Suppression
- H. Division 22 Plumbing
- I. Division 23 Heating, Ventilation and Air Conditioning
- J. Division 26 Electrical
- K. Division 27 Communications

1.03 REFERENCE STANDARDS

- A. AISI S201 - North American Standard for Cold-Formed Steel Framing - Product Data; 2017.
- B. AISI S220 - North American Standard for Cold-Formed Steel Nonstructural Framing; 2020.
- C. AISI S240 - North American Standard for Cold-Formed Steel Structural Framing; 2015, with Errata (2020).

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- D. ANSI A108.11 - American National Standard Specifications for Interior Installation of Cementitious Backer Units; 2018.
- E. ASTM A1003/A1003M - Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic-Coated for Cold-Formed Framing Members; 2015.
- F. ASTM C1007 - Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories; 2020.
- G. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2017 (Reapproved 2022).
- H. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 2020.
- I. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; 2023.
- J. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness; 2022.
- K. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2022.
- L. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base; 2019.
- M. ASTM C1280 - Standard Specification for Application of Exterior Gypsum Panel Products for Use as Sheathing; 2018 (Reapproved 2023).
- N. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2017.
- O. ASTM C1629/C1629M - Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels; 2023.
- P. ASTM C1658/C1658M - Standard Specification for Glass Mat Gypsum Panels; 2019, with Editorial Revision (2020).
- Q. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber; 2021.
- R. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 2023.
- S. ASTM E413 - Classification for Rating Sound Insulation; 2022.
- T. GA-216 - Application and Finishing of Gypsum Panel Products; 2021.
- U. GA-600 - Fire Resistance and Sound Control Design Manual; 2021.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate the installation of gypsum board assemblies with size, location, and installation of service utilities.
- B. Sequencing: Install service utilities in an orderly and expeditious manner.

1.05 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data:
 - 1. Provide data on metal framing, gypsum board, accessories, and joint finishing system.
 - 2. Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.
- C. Shop Drawings: Indicate special details associated with fireproofing and acoustic seals.

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- D. Manufacturer's Framing Tables marked to show size, gage, spacing, load, deflection.
- E. Samples: Submit two samples of predecorated gypsum board, 12 by 12 inches (300 by 300 mm) in size, indicating finish color and texture.
- F. Steel Framing Industry Association (SFIA) Certification:
 - 1. Submit documentation that metal studs and connectors used on project meet or exceed requirements of International Building Code.
 - 2. Submit current documentation of contractor and fabricator accreditation. Keep copies of each on-site during and after installation, and present upon request.
- G. Evaluation Service Reports: Show compliance of grid suspension systems with specified requirements.
- H. Access Door Location Plans showing access door type and size.

1.06 QUALITY ASSURANCE

- A. Designer Qualifications: Perform design under direct supervision of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.
- B. SFIA Code Compliance Certification Program: www.CFSteel.org/#sle: Use metal studs and connectors certified for compliance with International Building Code.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. See Section 01 7419 - Construction Waste Management and Disposal for packaging waste requirements.
- B. Store gypsum products and accessories indoors and keep above freezing. Elevate boards above floor, on nonwicking supports, in accordance with manufacturer's recommendations.
- C. Store metal products to prevent corrosion.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

- A. Provide completed assemblies complying with ASTM C840 and GA-216.
 - 1. See PART 3 for finishing requirements.
- B. Interior Partitions, Indicated as Acoustic: Provide completed assemblies with the following characteristics:
 - 1. Acoustic Attenuation: STC of 45-49 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.
- C. Shaft Walls at HVAC Shafts: Provide completed assemblies with the following characteristics:
 - 1. Air Pressure Within Shaft: Sustained loads of 5 lbf/sq ft (0.24 kPa) with maximum mid-span deflection of L/240.
 - 2. Acoustic Attenuation: STC of 35-39 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.
- D. Grid Suspension Systems: Provide grid suspension systems in accordance with ASTM C840 and GA-216.
- E. Fire-Resistance-Rated Assemblies: Provide completed assemblies with the following characteristics:
 - 1. Fire-Resistance-Rated Walls: UL as listed on drawings, if not listed, contractor is to select compliant UL assembly and submit to architect. .

2.02 METAL FRAMING MATERIALS

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- A. Standards: ASTM C645, ASTM A1003, and Steel Stud Manufacturers Association [SSMA] "Product Technical Guide".
- B. Steel Yield Stress: ≥ 33 ksi.
- C. Steel Recycled Content: ≥ 30 percent.
- D. Framing Corrosion Resistance: ASTM C645, G40 galvanized, except G90 in wet areas, garage, loading dock, and other locations shown.
- E. Framing Shapes and Sizes: As shown. Do not change sizes and shapes shown.
- F. Framing Gages: As shown or, if not shown, then ≥ 18 mils ≥ 25 gage, except ≥ 30 mils ≥ 20 gage when:
 - 1. UL Design Number requires 20 gage.
 - 2. Acoustic rated partition requires 20 gage.
 - 3. Framing supports high performance gypsum board.
 - 4. Framing supports door assembly.
- G. Framing Deflection: Framing Gages specified are minimum. Comply with manufacturer's load tables. Provide heavier gage framing to meet Framing Deflection requirements.
 - 1. Deflection Limit: As shown or, if not shown, then $L/360$ [L is the span].
 - 2. Deflection Limit Based On: Non composite, framing only without gypsum board.
 - 3. Deflection Load: As shown or, if not shown, then 5 pounds per square foot.
- H. Partition Deflection Head - Non Proprietary: As shown or, if not shown, single deep leg track with bridging.
 - 1. Design Gap [Vertical Deflection Allowance]: As shown or, if not shown, 0.75 inch.
 - 2. Deflection Track: As shown or, if not shown, 2.5 inches, ≥ 30 mils [≥ 20 gage].
- I. Bridging: SSMA 150U50-54 attached with 54 mils thick, 1.5 x 1.5 inches clip angles.
- J. Furring Channel - Walls: As shown or, if not shown, SSMA 087F125-30.
- K. Furring Channel - Ceiling: As shown or, if not shown, SSMA 150F125-43.
- L. Furring Channel - Resilient Basis of Design: Clark Dietrich "RC Deluxe Resilient Channel RCSD"
- M. Cold Rolled Channel: As shown or, if not shown, SSMA 150U50-54.
 - 1. Factory Finish: Painted, except hot dip galvanized for wet and high humidity locations.
- N. Shaft Wall Framing: As shown or, if not shown, then USG "C-H Stud".
 - 1. Gage, Thickness: ≥ 18 mils.
 - 2. Deflection Limit: As shown or, if not shown, then $L/120$ [L is the span].
 - 3. Lateral Load: As shown or, if not shown, ≥ 10 psf.
 - 4. Runner Basis of Design: ≥ 23 mils, "J Runner", USG Corporation.
 - 5. Aluminum "Burn Away Clips": Required as shown and to match UL Design Number Assembly.
- O. Interior Ceiling and Soffit Framing Basis of Design: Chicago Metallic "Drywall Grid System" or Armstrong World Industries, Inc. "Flat Drywall Grid System" and "Quik Stix Soffits System".
 - 1. Main Beam Classification: ASTM C635 "Heavy Duty".
 - 2. Material: G40 hot dip galvanized steel, except G90 for wet and humid areas [$\geq 50\%$ RH].
- P. Trapeze Framing For Ceiling Obstructions: Armstrong World Industries, Inc. "Technical Guide Drywall Grid Systems, Hanging and Framing Flat Ceilings".
 - 1. Span Under 4 Feet: 1.5 inches, 16 gage, cold rolled steel channel.
 - 2. Span 4 Feet To 12 Feet: 6.0 inches, 20 gage, cold rolled steel joist with bridging mid span.

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3. Span 4 Feet To 16 Feet: 1.625 inches, 16 gage, "P 2000" Unistrut.
 4. Trapeze Supports: ≥ 0.375 inch diameter steel rods.
 5. Finish: Manufacturer's standard paint, except G90 galvanized when supporting G90 framing materials.
- Q. Ceiling Hanger Wire: ASTM A641, 70 ksi, prestretched, Class 1 galvanized, 9 gage [0.148 inch diameter].
- R. Ceiling Hanger Wire To Building Structure Anchors: Illinois Tool Works, Inc. "Red Head Dynabolt TW-1614". Confirm loads and load capacities.
- S. Material and Product Requirements Criteria: AISI S201.
- T. Steel Sheet: ASTM A1003/A1003M, subject to the ductility limitations indicated in AISI S220 or equivalent.
1. Structural Grade: As required to meet design criteria.
- U. Nonstructural Framing System Components: AISI S220; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf (L/120 at 240 Pa).
1. Studs: C-shaped with knurled or embossed faces.
 2. Runners: U shaped, sized to match studs.
 3. Ceiling Channels: C-shaped.
- V. Shaft Wall Studs and Accessories: AISI S220; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 and specified performance requirements.

2.03 BOARD MATERIALS

- A. Standard Performance Basis of Design: USG "Sheetrock Brand Ecosmart Panels" and "Sheetrock Brand Ecosmart Panels Firecode X".
- B. High Performance Basis of Design: USG "Sheetrock Brand Ecosmart Panels, Mold-Tough, Firecode X".
- C. Shaft Liner Basis of Design: USG "Sheetrock Brand Glass Mat Liner Panels Mold Tough".
- D. Tile Backer Basis of Design: USG "Durock Brand Cement Board With Edgeguard".
- E. Impact Resistant Wallboard / Ceilingboard:
1. Application: High-traffic areas indicated.
 2. Surface Abrasion: Level 3, minimum, when tested in accordance with ASTM C1629/C1629M.
 3. Indentation: Level 1, minimum, when tested in accordance with ASTM C1629/C1629M.
 4. Soft Body Impact: Level 3, minimum, when tested in accordance with ASTM C1629/C1629M.
 5. Hard Body Impact: Level 2, minimum, when tested in accordance with ASTM C1629/C1629M.
 6. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
 7. Glass Mat-Faced Type: Gypsum wallboard, as defined in ASTM C1658/C1658M.
 8. Type: Fire-resistance-rated Type X, UL or WH listed.
 9. Thickness: 5/8 inch (16 mm).
 10. Edges: Tapered.
- F. Exterior Soffit Board: Exterior gypsum soffit board as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
1. Application: Ceilings and soffits in protected exterior areas, unless otherwise indicated.
 2. At Assemblies Indicated with Fire-Resistance Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X.

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3. Types: Regular and Type X, in locations indicated.
4. Type X Thickness: 5/8 inch (16 mm).
5. Type C Thickness: 5/8 inch (16 mm).
6. Regular Type Thickness: 1/2 inch (13 mm).
7. Edges: Tapered.

2.04 GYPSUM BOARD ACCESSORIES

- A. Standard: ASTM C475 Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
- B. Acoustic Insulation: Basis Of Design: Owens Corning "Thermafiber SAFB FF, Formaldehyde Free"
 1. Thickness: As shown or, if not shown, then ≥ 3 inches.
 2. Density: 2.5 pounds per cubic foot.
- C. ACOUSTIC SEALANT BASIS OF DESIGN: Tremco "Tremflex 834"
- D. Typical Joint Compound: Ready mixed, all purpose, vinyl compound.
 1. GreenGuard Indoor Air Quality Certification: Required.
- E. Chemical Setting Joint Compound: Required when recommended by gypsum board manufacturer.
- F. Adhesive for Laminating Multiple Layers and for Back Blocking: Joint compound.
- G. ACOUSTIC PLENUM BOARD:
 1. Basis Of Design: Rockwool "Rockfon Plenum Barrier Board 7900"
- H. ACOUSTIC PADS FOR ELECTRICAL BOXES:
 1. Basis Of Design: Kinetics Noise Control, Inc. "IsoBacker".
- I. ACOUSTIC HANGERS FOR GYPSUM BOARD CEILING ASSEMBLIES:
 1. Basis Of Design: Kinetics Noise Control, Inc. "ICW" for concrete and "ICW" for wood.
 2. Spring Selection And Model Number: Comply with Manufacturer's "Capacity Range" table for dead loads. Maintain 0.50 to 1.00 spring deflection.

2.05 ACCESS DOORS SCHEDULE:

- A. A. Gypsum Board Walls and Ceilings - Not Fire Rated: Acudor Products, Inc. "DW-5015"
- B. B. Gypsum Board Walls and Ceilings - Fire Rated: Acudor Products, Inc. "FB-5060"
- C. C. Tile Wall Finish, Not Fire Rated: Acudor Products, Inc. "UF-5000-SS Stainless Steel".
- D. Scope of Work: Required for every valve, control, and item needing routine access.
- E. Sizes: As shown or, if not shown, then standard sizes appropriate for the intended use:
 1. Hand and Arm Reach In Only: $\geq 12 \times 12$ inches.
 2. Upper Body Reach In: $\geq 20 \times 20$ inches.
 3. Body Pass Through: $\geq 30 \times 30$ inches.
- F. Locks: Lock all access doors and panels.
 1. Keying: Accommodate keyed cylinder furnished and installed by The University of Vermont.

2.06 BACKING PLATES, BLOCKING, SHEET BLOCKING FOR GYPSUM BOARD ASSEMBLIES:

- A. Backing Plate: As shown or, if not shown, ≥ 30 mils [≥ 20 gage], G40 galvanized steel, ≥ 4 inches high, \geq four studs span.
- B. Plywood Sheet Blocking, Backboards, Mounting Panels:
 1. Standard: Product Standard 1, Structural Plywood.

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2. Classification: Structural, Exposure 1.
3. Thickness: As shown or, if not shown, then 15/32 inch.
4. Fire Treatment: Hoover Treated Wood Products, Inc. "Pyro-Guard". Provide UL mark on each piece.
5. Moisture Content After Treatment: ≤ 15 percent. Provide certification on each piece.
6. Forest Stewardship Certification: Required.
7. Fasteners: Hot dip galvanized complying with ICC ES Evaluation Report. Do not use electro-galvanized or mechanically deposited zinc coated.

2.07 FIRE SAFETY SIGNS:

- A. Building Code: Comply with IBC 2018, 703.7
- B. Basis of Design: Fire Wall Signs, Inc.

2.08 ACOUSTIC:

- A. Acoustic Insulation: ASTM C665; preformed mineral-fiber, friction fit type, unfaced; thickness ___ inch (___ mm).
- B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
- C. Finishing Accessories: ASTM C1047, extruded aluminum alloy (6063 T5) or galvanized steel sheet ASTM A924/A924M G90, unless noted otherwise.
 1. Types: As detailed or required for finished appearance.
- D. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.

2.09 FASTENERS:

- A. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inches (0.84 mm) in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion-resistant.
- B. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch (0.84 to 2.84 mm) in Thickness: ASTM C954; steel drill screws, corrosion-resistant.
- C. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.
- D. Corrosion Resistance of Fasteners at Interior of Exterior Single Wythe Masonry Wall Assemblies:
 1. Provide ASTM B117 ≥ 1,000 hours with ≤ 2 percent red rust.
 - a. Do not provide clear zinc, yellow zinc, gray phosphate, black phosphate, electrocoating, electroplate, or 410 stainless steel.
- E. Framing To Concrete: Hilti "X-C 22 TH Powder Actuated Nail", galvanized steel.

PART 3 EXECUTION

3.01 BASIC INSTALLATION:

- A. Comply with Section 01 7300 Basic Installation Requirements.
- B. Fire Rated Assemblies: Provide fire ratings shown.
 1. Match UL design assemblies.
 2. Provide continuous sealed, airtight, fire rated assemblies.
 3. Continue fire rated partitions vertically from structural deck to structural deck.
 4. Continue fire rated partitions horizontally from fire rated assembly to fire rated assembly or to exterior walls.

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5. Continue fire rated partitions through non fire rated partitions.
6. Continue higher performance fire rated partition through lower performance fire rated partition.
7. Maintain the assembly fire rating at each control joint, recessed item, and discontinuity.
8. Comply with Gypsum Association GA-234 Control Joints for Fire-Resistance Rated Systems.

C. Partition Types: As shown.

3.02 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.03 SHAFT WALL INSTALLATION

- A. Shaft Wall Framing: Install in accordance with manufacturer's installation instructions.
 1. Fasten runners to structure with short leg to finished side, using appropriate power-driven fasteners at not more than 24 inches (600 mm) on center.
 2. Install studs at spacing required to meet performance requirements.
- B. Shaft Wall Liner: Cut panels to accurate dimensions and install sequentially between special friction studs.
 1. On walls over sixteen feet high, screw-attach studs to runners top and bottom.
 2. Seal perimeter of shaft wall and penetrations with acoustical sealant.

3.04 FRAMING INSTALLATION

- A. Standards: ASTM C754, Steel Stud Manufacturers Association [SSMA] "Cold Formed Steel Details", and USG "Gypsum Construction Handbook".
- B. Metal Framing: Install in accordance with ASTM C1007/AISI S220 and manufacturer's instructions.
- C. Suspended Ceilings and Soffits: Space framing and furring members as indicated.
 1. Where Level, level ceiling system to a tolerance of 1/1200.
 2. Laterally brace entire suspension system.
 3. Ceiling Framing: As shown or, if not shown, then provide cold rolled channels spaced \leq 48 inches on center and perpendicular furring channels spaced \leq 24 inches on center.
 4. Manufactured Interior Ceiling and Soffit Framing Installation: Comply with manufacturer's instructions and recommendations.
 5. Ceiling Heights: As shown or, if not shown, then maximum height which does not conflict with construction above the ceiling.
 6. Trapeze Framing For Ceiling Obstructions: Trapeze frame around ducts and all obstructions to direct hung ceiling framing.
 7. Ceiling Hangers: Attach hangers only to building structure.
 - a. Anchor each hanger to support the maximum hanger capacity.
 - b. Space hangers \leq 4 feet on center and \leq 8 inches from ends.
 8. Additional Requirements for Acoustic Hangers:
 - a. Provide \geq 0.25 inch exposure of threaded rod above hanger spring cap.
 - b. Locations and Spacing: Comply with Manufacturer's "Capacity Range" table for dead loads.
- D. Interior Soffits and Bulkheads: Provide vertical framing. Do not use gypsum board in tension as a hanger or structural member.
 1. Brace soffit assemblies to resist 5 pounds per square foot lateral load with \leq L/360 deflection.
- E. Studs: Space studs at 16 inches on center (at 406 mm on center).

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1. Extend partition framing to structure where indicated and to ceiling in other locations.
 2. Stud Lengths: Provide longest manufactured lengths. Do not splice studs.
 3. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
 4. Deflection: Meet specified deflection requirements
- F. Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.
- G. Standard Wall Furring: Install at concrete walls scheduled to receive gypsum board, not more than 4 inches (100 mm) from floor and ceiling lines and abutting walls. Secure in place on alternate channel flanges at maximum 24 inches (600 mm) on center.
1. Orientation: Horizontal.
 2. Spacing: As indicated.
- H. Acoustic Furring: Install resilient channels at maximum 24 inches (600 mm) on center. Locate joints over framing members.
- I. Resilient Sound Isolation Clips: Install resilient sound isolation clips, and where applicable, associated furring sections and channels, in accordance with clip manufacturer's written instructions.
- J. Furring for Fire-Resistance Ratings: Install as required for fire-resistance ratings indicated and to GA-600 requirements.
- K. Partition Height: As shown or, if not shown, then extend to structural deck above.
1. Partial Height Wall Framing: Engineer partition to cantilever from floor and to support loads shown or, if not shown, then guard rail loads.
 2. Partition Head Parallel To Structural Metal Deck: Provide 2 inches wide, 14 gage, 12 inches long straps at ≤ 24 inches on center. Attach straps to metal deck with ≥ 4 fasteners each strap.
 3. Partition Head Deflection: Isolate framing from building deflection as shown or, if not shown, then Steel Stud Manufacturers Association [SSMA] "Cold Formed Steel Details, Double Deflection Track".
- L. Horizontal Bridging:
1. Provide bridging 12 inches below top of partition deflection head and for partitions without continuous gypsum board on both faces.
 2. Horizontal Bridging Installation: As shown or, if not shown, then Steel Stud Manufacturers Association [SSMA] "Cold Formed Steel Details, Bridging Cold Rolled Channel With Clip Angle".

3.05 ACOUSTIC ACCESSORIES INSTALLATION

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
1. Locations: As shown or, if not shown, then continuous in all partitions.
 2. Install continuously without gaps.
 3. Hold in place with tight, friction fit. Do not over compress. Do not use adhesives.
 4. Conceal from view in the completed work.
 5. Isolate from plenums and air movement spaces.
 6. Interior Door and Window Frames: Fill concealed interior of frame with acoustic insulation.
- B. Acoustic Sealant: Install in accordance with manufacturer's instructions.
1. Acoustic Sealant Standard: ASTM C919 Standard Practice for Use of Sealants in Acoustical Applications.

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2. Performance Requirement: Provide STC shown or, if not shown, then the STC published in Gypsum Association GA-600 for each partition type used.
 3. Fire Rated Assemblies: Comply with code and Section 07 8400 Firestopping if provided.
 4. Non Fire Rated Assemblies: Provide continuous concealed Acoustic Sealants at entire perimeter of both faces of partitions:
 - a. Between gypsum boards and subfloors.
 - b. Between gypsum boards and overhead structural decks.
 - c. Between gypsum boards and adjacent walls.
 - d. Between gypsum boards and all penetrations including interior door and window frames, electrical boxes, and control joints.
 5. Visible Acoustic Sealants: Match approved In Place Samples.
 - a. Provide temporary masking tape to protect adjacent surfaces from sealant spillage. Remove tape after completion.
 - b. Provide straight line sealant edges and terminations.
 - c. Install and tool sealant neatly, accurately, and uniformly.
 - d. Tool visible face of sealant slightly recessed from adjacent surfaces and finishes, and spring elected. Maintain 0.50 to 1.00 spring deflection.
 6. Hanger Wires: Provide \geq three turns for each twisted wire connection. Hanger system connections shall not disengage by vertical lifting.
- C. ELECTRICAL BOX ACOUSTIC PADS: Provide acoustic pads to fully cover and encapsulate back and sides of electrical boxes.
1. Locations: All back-to-back electrical boxes that are \leq 24 inches apart in all gypsum board Partition Types.

3.06 BACKING PLATES, BLOCKING, SHEET BLOCKING INSTALLATION:

- A. Scope of Work: All backing plates, blocking, and sheet blocking is not shown. Provide backing plates or blocking for all partition mounted items including, without limitation, counter top supports, railings, door stops, Owner furnished items, Owner installed items.
- B. General Installation Requirements:
 1. Provide appropriate backing or blocking for each condition and loads.
 2. Support \geq 2 times actual loads.
 3. Conceal backing and blocking in the completed installation.
 4. Backing and blocking shall not "read through" gypsum board or other finish materials.
 5. Backing and blocking shall not interfere with other work.
- C. Backing Plate: Comply with USG "Gypsum Construction Handbook, Fixture Attachment Load Data".
- D. Sheet Blocking: Provide \geq 4 x 4 feet panels for all partition surface mounted building services located in closets and mechanical or electrical rooms. Install sheet blocking behind gypsum board, unless shown surface mounted over gypsum board.

3.07 BOARD INSTALLATION

- A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
 1. Gypsum Association GA-216 Application and Finishing of Gypsum Panel Products
 2. Gypsum Association GA-220 Gypsum Board Winter Related Installation Recommendations
 3. Gypsum Association GA-225 Repair of Fire-Rated Gypsum Board Systems
 4. Gypsum Association GA-231 Assessing Water Damage To Gypsum Board
 5. Gypsum Association GA-234 Control Joints for Fire-Resistance Rated Systems

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6. Gypsum Association GA-238 Guidelines for Prevention of Mold Growth on Gypsum Board
 7. Gypsum Association GA-618 Building and Inspecting Smoke Barriers
- B. Gypsum Board Installation Basic Requirements:
1. Install ceilings prior to walls.
 2. Locate joints as far from center of walls and ceilings as possible.
 3. Install board face side out.
 4. Install board joints and edges over framing members.
 5. Stagger vertical joints on opposite sides of walls and in multiple layer work.
 6. Do not butt dissimilar board edges.
 7. Do not locate a tapered board edge at a framed opening or at wall base.
 8. Provide one piece boards around penetrations, except where control joints are provided.
 9. Continuously cover and protect framing, vapor retarders, and interior insulation.
 10. Maintain continuity of fire rated assemblies at recessed items and penetrations.
 11. Provide additional gypsum board layers behind and around items recessed into partitions.
 12. Maintain acoustical performance of assemblies at recessed items and penetrations.
- C. Fasteners: Counter sink fastener heads flush without damaging board paper face.
1. Non Fire Rated Assemblies: Space fasteners 12 inches on center at edges and within field.
 2. Edge Fasteners: Locate fasteners 0.375 inch from panel edges.
- D. Fire-Resistance-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.
- E. Exterior Sheathing: Comply with ASTM C1280. Install sheathing vertically, with edges butted tight and ends occurring over firm bearing.
- F. Exterior Soffits: Install exterior soffit board perpendicular to framing, with staggered end joints over framing members or other solid backing.
- G. Cementitious Backing Board: Install over steel framing members and plywood substrate where indicated, in accordance with ANSI A108.11 and manufacturer's instructions.
- H. Installation on Metal Framing: Use screws for attachment of gypsum board except face layer of nonrated double-layer assemblies, which may be installed by means of adhesive lamination.

3.08 INSTALLATION OF TRIM AND ACCESSORIES

- A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
1. Not more than 30 feet (10 meters) apart on walls and ceilings over 50 feet (16 meters) long.
- B. Beads, Trim, and Reinforcing Tape:
1. Install beads and trims plumb, level, and accurately aligned.
 2. Provide continuous beads and trims. Minimize seams.
 3. Provide accurately fitted, hair line tight seams in running work.
 4. Provide accurately fitted, hair line tight mitered joints at intersections.
 5. Fill seams with paintable acrylic sealant.
 6. Provide continuous corner bead at outside, convex corners and changes of plane.
 7. Provide continuous reinforcing tape at inside, concave corners and changes of plane.
 8. Provide additional reinforcing tape at corners of penetrations to help reduce stress cracks.
 9. Provide continuous trim for all visible board edges, reveals, and sealant joints.
- C. Corner Beads: Install at external corners, using longest practical lengths.
- D. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

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- E. Moisture Guard Trim: Install on bottom edge of gypsum board according to manufacturer's instructions and in locations indicated on drawings.

3.09 JOINT TREATMENT

- A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, embed and finish with setting type joint compound.
- B. Finish gypsum board in accordance with levels defined in ASTM C840, and Gypsum Association GA-214 as follows:
 - 1. Level 5: Walls and ceilings to receive semi-gloss or gloss paint finish and other areas specifically indicated.
 - 2. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
 - 3. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
 - 4. Level 1: Fire-resistance-rated wall areas above finished ceilings, whether or not accessible in the completed construction.
- C. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
 - 1. Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).
- D. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.
- E. Fill and finish joints and corners of cementitious backing board as recommended by manufacturer.
- F. Extent of Finish:
 - 1. Finish behind movable furnishings, equipment, casework-cabinets.
 - 2. Finish to base of partitions behind wall base.

3.10 CONTROL JOINTS:

- A. Control Joint Locations: Obtain Architect's approval of each control joint location before installation. Control joints are required as shown and additionally:
 - 1. To isolate gypsum assemblies from structural elements.
 - 2. At changes of framing type, framing direction, substrate construction, deflection tracks, deflection heads.
 - 3. Over control joints in substrates.
 - 4. In continuous walls and soffits at ≤ 30 feet on center.
 - 5. At ≤ 50 feet on center in ceilings.
 - 6. To separate wings of L, T, and U shaped ceiling areas.
- B. Control Joint Construction:
 - 1. Ensure framing is discontinuous and does not run through control joints.
 - 2. Ensure framing is installed on both sides of control joints.
 - 3. Attach control joint trims with fasteners spaced 6 inches on center in each flange.
 - 4. Interrupt all gypsum board layers at control joints.
- C. Control Joints In Fire Rated Assemblies:
 - 1. Comply with Gypsum Association GA-234 Control Joints for Fire-Resistance Rated Systems.
 - 2. Provide multiple layers of 0.625 inch thick Type X gypsum board back blocking.
 - 3. Do not allow back blocking or attachment to obstruct control joint movement.

3.11 PARTITIONS INTERSECTING EXTERIOR WALLS:

- A. Do not interrupt thermal insulation.

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3.12 ACCESS DOORS INSTALLATION:

- A. Comply with approved Access Door Location Plans.
- B. Coordinate framing and related work.
- C. Install plumb and level.
- D. Anchor securely.
- E. Install faces and frame corners in true plane with adjacent surfaces.
- F. Adjust doors for optimum operation.
- G. Ensure operation does not damage, tear, wear, or crack adjacent finishes.

3.13 FIRE SAFETY SIGNS INSTALLATION:

- A. Building Code: Comply with Vermont Building Code or, if acceptable to Authorities Having Jurisdiction, IBC 2018, 703.7.
- B. . Locate signs at locations easily visible to maintenance workers only.
- C. Permanently install signs. Clean substrates for “peel and stick” signs. Roll and burnish after installation to promote excellent bond.
- D. Install signs level.

3.14 PROTECTION

- A. Protect installed gypsum board assemblies from subsequent construction operations.

END OF SECTION 09 2116

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**SECTION 09 9113
EXTERIOR PAINTING**

PART 1 GENERAL

1.01 SCOPE:

- A. New Steel Pipe Railings, Guard Rails, Mounting Plates, embedded anchors, and related accessories.

1.02 SUBMITTALS:

- A. Product information sheets for proposed paint system.

1.03 BASIS OF DESIGN:

- A. Pipe Railings: Duncan Galvanizing ColorGalv- 20. Color: Black
- B. <http://www.duncangalvanizing.com/colorgalv>

1.04 EXECUTION:

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including preparation and testing of substrates, moisture in substrates, and humidity and temperature limitations. Do not paint exterior surfaces when weather forecasting indicates conditions outside of manufacturer limitations will occur within the stated cure time.
- C. Provide a description of surface preparation and application methods in Painting and Coating submittal.
- D. For galvanized items, minimize field joints. Use coating manufacturer approved materials and installers for finish repair at field joints and for repair of any scratches or finish damage.
- E. Provide fillers and sealers as required to make surface smooth, flat and even.
- F. Follow any manufacturer requirements necessary for maintenance of finish warranties:
 - 1. Duncan Color-Galv-20: 20 year warranty against rust and 20 year warranty for gloss and color.
 - 2. Ensure warranty is established and furnish owner with all documentation required for maintenance of warranties for above stated durations.

1.05 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
- D. Do Not Paint or Finish the Following Items:
 - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
 - 5. Marble, granite, slate, and other natural stones.
 - 6. Floors, unless specifically indicated.
 - 7. Brick, glass unit masonry, architectural concrete, cast stone, integrally colored plaster and stucco.
 - 8. Glass.

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9. Concealed pipes, ducts, and conduits.

1.06 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials; 2020.
- C. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.
- D. SCAQMD 1113 - Architectural Coatings; 1977, with Amendment (2016).

1.07 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
 - 2. MPI product number (e.g. MPI #47).
 - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
- C. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
 - 1. Where sheen is specified, submit samples in only that sheen.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Provide paints and finishes used in any individual system from the same manufacturer; no exceptions.
- B. Provide paints and finishes from the same manufacturer to the greatest extent possible.

2.02 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Ready-mixed, unless required to be a field-catalyzed paint.
 - 1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 2. Supply each paint material in quantity required to complete entire project's work from a single production run.
 - 3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is described explicitly in manufacturer's product instructions.
- B. Volatile Organic Compound (VOC) Content:
 - 1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
 - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
 - b. SCAQMD 1113 Rule.
 - c. Architectural coatings VOC limits of the State in which the Project is located.
 - 2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
- C. Colors: As indicated in Color Schedule.

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2.03 PAINT SYSTEMS - EXTERIOR

- A. Paint E-OP - Exterior Surfaces to be Painted, Unless Otherwise Indicated: Including concrete, concrete masonry units, brick, fiber cement siding, primed wood, and primed metal.
 - 1. Two top coats and one coat primer.
 - 2. Top Coat(s): Exterior Latex; MPI #10, 11, 15, 119, or 214.
 - 3. Top Coat(s): Exterior Light Industrial Coating, Water Based; MPI #161, 163, or 164.
 - 4. Top Coat(s): Exterior Alkyd Enamel; MPI #94 or 96.
 - 5. Top Coat(s): Water Repellent, Solid or Semi-Transparent.
 - 6. Top Coat Sheen:
 - a. Flat: MPI gloss level 1; use this sheen for overhead surfaces.
 - b. Eggshell: MPI gloss level 3; use this sheen at all locations UNO.
 - c. Gloss: MPI gloss level 6; use this sheen at all locations.
 - 7. Primer: As recommended by top coat manufacturer for specific substrate.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 - 1. Fiber Cement Siding: 12 percent.
 - 2. Masonry, Concrete, and Concrete Masonry Units: 12 percent.
 - 3. Exterior Wood: 15 percent, measured in accordance with ASTM D4442.

3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- F. Concrete:
- G. Masonry:
- H. Fiber Cement Siding: Remove dirt, dust and other foreign matter with a stiff fiber brush. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.
- I. Exterior Wood Surfaces to Receive Opaque Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior calking compound after prime coat has been applied. Back prime concealed surfaces before installation.

3.03 APPLICATION

- A. Exterior Wood to Receive Opaque Finish: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.

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- B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance.
- E. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- F. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 COLOR SCHEDULE

END OF SECTION 09 9113

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**SECTION 09 9600
HIGH-PERFORMANCE COATINGS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. High performance coatings.
- B. Surface preparation.

1.02 REFERENCE STANDARDS

- A. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide complete list of all products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
 - 2. MPI product number (e.g. MPI #47).
 - 3. Cross-reference to specified coating system(s) product is to be used in; include description of each system.
- C. Samples: Submit two samples 8 by 8 inch (203 by 203 mm) in size illustrating colors available for selection.
- D. Manufacturer's Certificate: Certify that high-performance coatings comply with VOC limits specified.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. Extra Coating Materials: 1 gallon (4 liters) of each type and color.
 - 2. Label each container with manufacturer's name, product number, color number, and room names and numbers where used.

1.04 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Warranty: Include coverage for bond to substrate.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Provide high performance coating products from the same manufacturer to the greatest extent possible.
- B. High-Performance Coatings:
 - 1. Sika Corporation; Sikagard Hygiene Urethane Wall System: www.sikafloorusa.com/#sle.
 - 2. Sherwin-Williams Company; _____: www.protective.sherwin-williams.com/industries/#sle.
 - 3. Substitutions: Section 01 6000 - Product Requirements.

2.02 HIGH-PERFORMANCE COATINGS

- A. Provide coating systems that meet the following minimum performance criteria, unless more stringent criteria are specified:

2.03 TOP COAT MATERIALS

**SD SUBMISSION
MARCH 22, 2024**

**HIGH-PERFORMANCE
COATINGS
09 9600 - 1**

**COSTELLO COURTHOUSE
32 CHERRY ST PARKING GARAGE**

- A. Coatings - General: Provide complete multi-coat systems formulated and recommended by manufacturer for the applications indicated, in the thicknesses indicated; number of coats specified does not include primer or filler coat.
- B. Parking line striping paint: Premium waterborne acrylic alkyd striping paint
 - 1. Basis of Design; Sherwin Williams PRO-PARK Waterborne Traffic Marking Paint.

2.04 ACCESSORY MATERIALS

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of coated surfaces.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Do not begin application of coatings until substrates have been properly prepared.
- C. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 - 1. Concrete Floors and Traffic Surfaces: 8 percent.

3.02 PREPARATION

- A. Clean surfaces of loose foreign matter.
- B. Remove substances that would bleed through finished coatings. If unremovable, seal surface with shellac.
- C. Remove finish hardware, fixture covers, and accessories and store.

3.03 PRIMING

- A. Apply primer to all surfaces, unless specifically not required by coating manufacturer. Apply in accordance with coating manufacturer's instructions.

3.04 COATING APPLICATION

- A. Apply coatings in accordance with manufacturer's written instructions, to thicknesses specified and recommendations in MPI - Architectural Painting and Specification Manual.
- B. Apply in uniform thickness coats, without runs, drips, pinholes, brush marks, or variations in color, texture, or finish. Finish edges, crevices, corners, and other changes in dimension with full coating thickness.

END OF SECTION 09 9600

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MARCH 22, 2024**

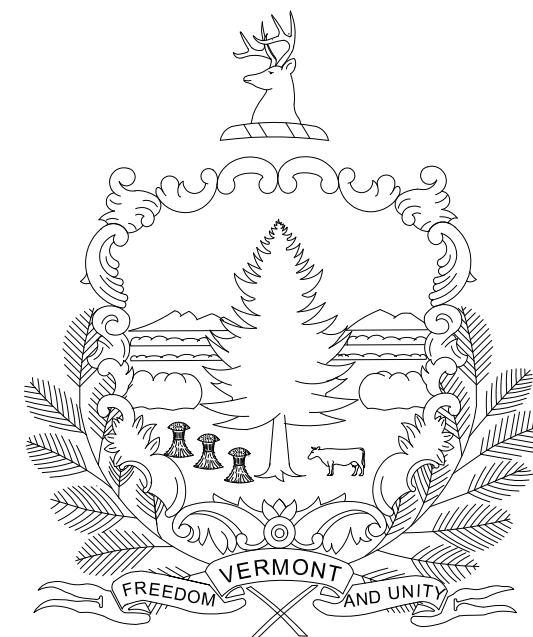
**HIGH-PERFORMANCE
COATINGS
09 9600 - 2**

State of Vermont
Department of Buildings & General Services

PARKING GARAGE REPAIRS

COSTELLO COURTHOUSE
Burlington, Vermont

AGENCY OF ADMINISTRATION
DEPT. OF BUILDINGS & GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE
MONTPELIER, VT 05633-5801
JENNIFER FITCH, COMMISSIONER



AGENCY OF HUMAN SERVICES
280 STATE DRIVE
WATERBURY, VT 05671
MIKE SMITH, SECRETARY

PHIL SCOTT
GOVERNOR

STRUCTURAL ENGINEER:

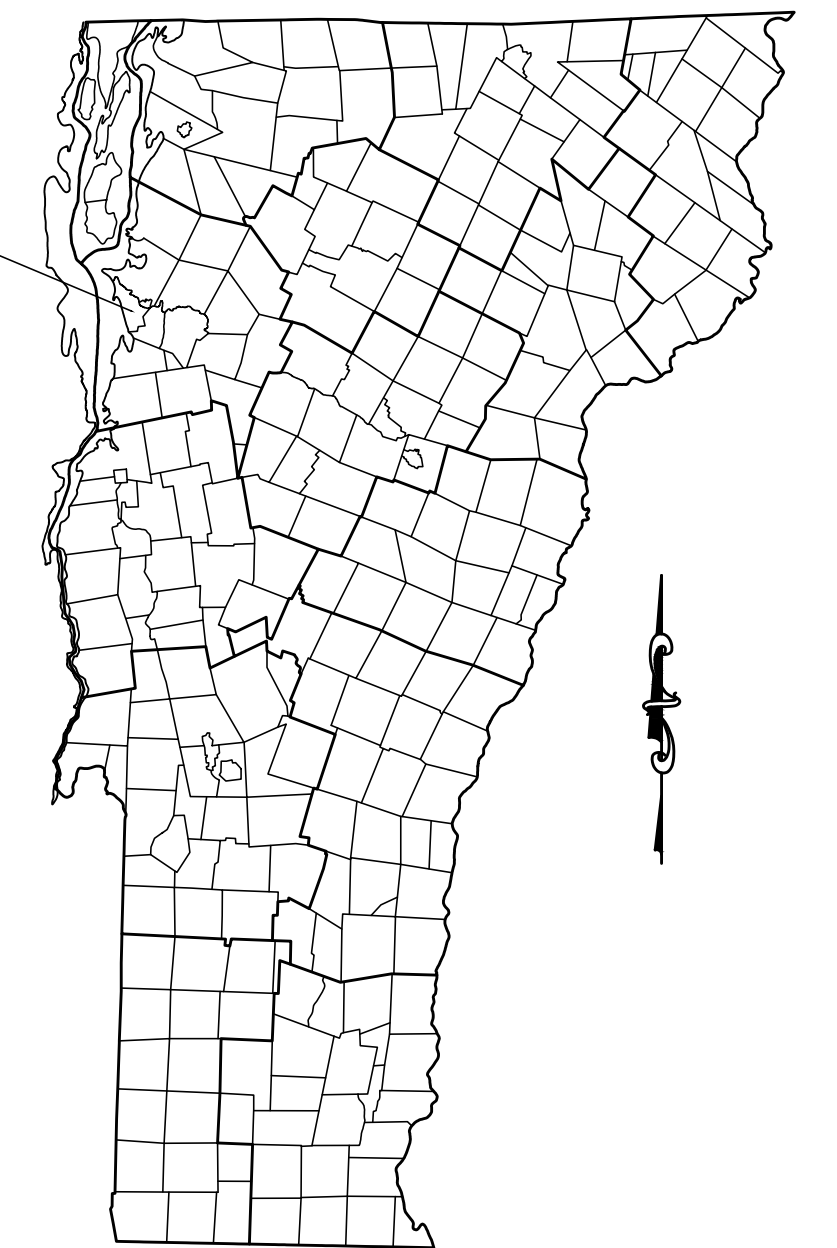
Thornton Tomasetti
Thornton Tomasetti, Inc.
14 York Street, Suite 201
Portland, ME 04101
T:207.245.6060 F:207.245.6061

ARCHITECT:



SCHEMATIC DESIGN
MARCH 22, 2024

PROJECT LOCATION
COSTELLO COURTHOUSE
32 CHERRY STREET
BURLINGTON VT 05401



STATE OF VERMONT
N.T.S.

M.E.P./FP.:

Thornton Tomasetti
Thornton Tomasetti, Inc.
120 Broadway
New York, NY 10271
T:917.661.7800 F:917.661.7801

LANDSCAPE ARCHITECT:



SET # _____
DO NOT COPY

GENERAL NOTES:

- 1. THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE THE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO THE GENERAL NOTES. INCONSISTENCIES BETWEEN THE DRAWINGS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
2. BUILDING CODE: INTERNATIONAL BUILDING CODE, 2015 EDITION INTERNATIONAL EXISTING BUILDING CODE, 2015 EDITION
A. CLASSIFICATION OF WORK: REPAIR
B. REPAIRS SHALL COMPLY WITH CHAPTER 6 OF 2015 IBC.
C. STRUCTURAL: NEW STRUCTURAL MEMBERS AND CONNECTIONS USED FOR REPAIR OR REHABILITATION SHALL COMPLY WITH THE DETAILING PROVISION OF THE 2015 INTERNATIONAL BUILDING CODE (IBC).
3. DESIGN FLOOR LIVE LOADS:
A. ORIGINAL DESIGN LOADS (1989 BOCA CODE): GARAGES-PASSENGER VEHICLE UNIFORM/CONCENTRATED 40 PSF/3,000 LBS
G. DESIGN FLOOR LIVE LOADS (2015 IBC): GARAGES-PASSENGER VEHICLE UNIFORM/CONCENTRATED 40 PSF/3,000 LBS
H. CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL EQUIPMENT AND STORED MATERIAL DOES NOT EXCEED EXISTING BUILDING DESIGN LOADS ON THE ORIGINAL UNSHORED STRUCTURE.
4. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
5. THE REPAIRS TO THIS STRUCTURE HAVE BEEN DESIGNED TO RE-ESTABLISH THE STRUCTURAL INTEGRITY OF THE STRUCTURE AFTER THE REPAIRS ARE COMPLETE. SHORING AND SEQUENCE PLANS/DETAILS ARE PROVIDED FOR REFERENCE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING THE RESTORATION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, TEMPORARY PARTITIONS, VEHICLE AND PEDESTRIAN PROTECTION, GUYS OR TIE DOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF PROJECT.
6. SECTIONS AND DETAILS SHOWN SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AS DETERMINED BY THE STRUCTURAL ENGINEER.
7. THE CONTRACTOR SHALL SUBMIT COMPLETE SUBMITTALS (AS NOTED IN THE SPECIFICATIONS) FOR ALL PARTS OF THE WORK INCLUDING DESCRIPTIONS OF SHORING, SEQUENCING AND CONSTRUCTION METHODS AND SEQUENCING, WHERE APPLICABLE. NO PERFORMANCE OF THE WORK INCLUDING, BUT NOT LIMITED TO, DEMOLITION OF EXISTING STRUCTURE OR FABRICATION OR ERECTION OF NEW STRUCTURAL ELEMENTS, SHALL COMMENCE WITHOUT REVIEW OF THE SHOP DRAWINGS BY THE STRUCTURAL ENGINEER.
8. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
9. EFFECTIVE JUNE 23, 2016 THE OCCUPATION SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS IMPLEMENTED A NEW RULE ON THE OCCUPATIONAL EXPOSURE TO RESPIRABLE CRYSTALLINE SILICA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR THE EXPOSURE OF ITS EMPLOYEES. SUBCONTRACTORS, SITE VISITORS AND BUILDING OCCUPANTS AND ENSURE CONFORMANCE WITH THE RULES.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO VEHICLES, PROPERTY AND PUBLIC CAUSED BY THEIR WORK.
11. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, LICENSES AND GOVERNMENT FEES AS REQUIRED. THE CONTRACTOR SHALL COMPLY WITH CODES, ORDINANCES, RULES, REGULATIONS, ORDERS AND OTHER LEGAL REQUIREMENTS OF THE PUBLIC AUTHORITY, WHICH BEAR ON THE PERFORMANCE OF THE WORK.
12. DURING FULL OR PARTIAL OUTAGES OF LIFE SAFETY SYSTEMS PROVIDE FIRE WATCH OR TEMPORARY LIFE SAFETY SYSTEM ACCEPTABLE TO FIRE MARSHALL. PROVIDE LIFE SAFETY SYSTEM COVERAGE FOR ENTIRE GARAGE AREA. REFERENCE FIRE PROTECTION DRAWINGS FOR FURTHER RESTRICTIONS AND LIMITATIONS IN REGARDS TO OUTAGES TO LIFE SAFETY SYSTEMS. COMPLY WITH ANY OTHER DIRECTIVES OF FIRE MARSHALL AND AHJ.
13. THE EXISTING OFFICE BUILDING SHALL REMAIN IN OPERATION FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CONTROLS AND PROTECTIONS NECESSARY TO ALLOW FOR CONTINUOUS OFFICE BUILDING OPERATIONS INCLUDING BUT NOT LIMITED TO PUBLIC ACCESS, EMERGENCY EGRESS, ELEVATOR OPERATIONS THROUGH BUILDING ABOVE, DUST AND NOISE CONTROLS, ETC.
14. CONTRACTOR SHALL PROVIDE AND MAINTAIN REQUIRED DUST BARRIERS, BARRICADES, PROTECTION AND WARNING LIGHTS IN GOOD WORKING CONDITION UNTIL COMPLETION OF WORK REQUIRING SUCH PROTECTION AND THEN REMOVE THE SAME. ALL SIGNS, BARRIERS, AND BARRICADES SHALL COMPLY WITH FEDERAL STATE AND LOCAL LAWS AND REGULATIONS. ODORS TRAVELING INTO THE OCCUPIED BUILDING ABOVE WILL NOT BE ACCEPTED. CONTRACTOR TO PROPERLY EXHAUST ALL MATERIALS OR WORK ITEMS THAT MAY CAUSE ODORS.
15. CONTRACTOR SHALL MAINTAIN PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIAL AND RUBBISH. PRECAUTIONS SHOULD BE TAKEN TO MINIMIZE DUST FROM ENTERING THE BUILDING ABOVE. ALL DUST AND DEBRIS CREATED BY THE WORK WITHIN THE BUILDING SHALL BE REMOVED AND THE WORK AREAS CLEANED.
16. CONTRACTOR TO COLLECT, TREAT AND DISPOSE OF DEMOLITION WASTEWATER AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS. CONTRACTOR TO SUBMIT A WATER MANAGEMENT PLAN TO ENGINEER IDENTIFYING CONTROL MEASURES PROPOSED. ALL APPROVED CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE START OF ACTIVITIES GENERATING DEMOLITION WASTEWATER.
17. ONE LEVEL OF THE GARAGE WILL BE AVAILABLE TO THE CONTRACTOR SEVEN DAYS A WEEK. THE GARAGE WILL BE CLOSED TO OFFICE WORKERS. CONTRACTOR IS ALLOWED TO WORK MONDAY THROUGH FRIDAY XXXAM TO XXXPM AND SATURDAY/SUNDAY NORMAL BUSINESS HOURS. WORK OUTSIDE OF THESE HOURS MUST BE COORDINATED WITH THE STATE. CONTRACTOR IS REQUIRED TO OBEY ALL CITY OF BURLINGTON NOISE ORDINANCES.
18. ALL WORK PERFORMED REQUIRES CLOSE COORDINATION WITH THE STATE AND THEIR REPRESENTATIVE.

CONCRETE NOTES:

- 1. CONCRETE WORK SHALL CONFORM TO THE ACI "MANUAL OF CONCRETE PRACTICE," INCLUDING BUT NOT LIMITED TO ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE."
2. CONCRETE SHALL BE READY-MIXED CONCRETE, PROPORTIONED, MIXED, AND PLACED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN ACI 318.
3. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI. ADDITIONAL CONCRETE MIX PERFORMANCE DATA INCLUDING AIR CONTENT, WATER-CEMENT RATIO, AGGREGATE SIZE, SLUMP, ETC. HAS BEEN INCLUDED IN THE PROJECT SPECIFICATIONS. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. ADJUSTMENT TO CONCRETE MIXES: MIX ADJUSTMENTS MAY BE REQUESTED BY THE CONTRACTOR, WHEN CHARACTERISTICS OF THE MATERIALS, JOB CONDITIONS, WEATHER OR OTHER CIRCUMSTANCES WARRANT, AT NO ADDITIONAL COST TO THE OWNER AS ACCEPTED BY THE ENGINEER. LABORATORY TEST DATA FOR THE REVISED MIX DESIGN AND STRENGTH DATA MUST BE SUBMITTED AND ACCEPTED BY THE ENGINEER BEFORE INCORPORATING INTO THE WORK. REFERENCE SPECIFICATIONS FOR SUBSTITUTION PROCEDURES.

NOTES:

- A. WATER MAY BE ADDED AT THE PROJECT ONLY IF THE MAXIMUM SPECIFIED WATER-CEMENT RATIO AND SLUMP ARE NOT EXCEEDED. CONTRACTOR SHALL HAVE BATCH TICKET INDICATING WATER AND CEMENT MIXED IN THE PLANT, AND SHALL RECORD THE WATER ADDED AS EVIDENCE THAT THE WATER-CEMENT RATIO HAS NOT BEEN EXCEEDED.
B. ADDITIONAL DOSES OF SUPER PLASTICIZER SHOULD BE USED WHEN DELAYS OCCUR AND REQUIRED SLUMP HAS NOT BEEN MAINTAINED. A MAXIMUM OF TWO ADDITIONAL DOSAGES ARE PERMITTED PER ACI 212.3R RECOMMENDATIONS.
5. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND OR SURFACES.
6. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH ACI 315.
7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND SHALL BE PROVIDED IN FLAT SHEETS. LAP TWO SQUARES AT ALL JOINTS AND TIE AT 3'-0" ON CENTER.
8. FIBER REINFORCEMENT SHALL BE TYPE II SYNTHETIC VIRGIN HOMOPOLYMER POLYPROPYLENE FIBERS CONFORMING TO ASTM C1116.
9. MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
A. SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH, 3"
B. DRIVING SURFACES EXPOSED TO WEATHER AND ROAD SALTS: #5 BARS AND SMALLER, 1 1/2" #6 THROUGH #11 BARS, 2" C. SURFACES NOT IN CONTACT WITH EARTH OR EXPOSED TO WEATHER: WALLS, SLABS, AND JOISTS #11 AND SMALLER, 1" BEAMS, GIRDERS, AND COLUMNS; ALL REINFORCEMENT, 1 1/2"
10. REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT NECESSARY SPLICES OR HOOKED BARS AT DISCONTINUOUS ENDS. SEE SCHEDULE ON SHEET S2-104 FOR REQUIRED REBAR LAP SPICE LENGTHS.
11. WELDING OF REINFORCEMENT IS NOT PERMITTED, UNLESS SPECIFICALLY INDICATED.
12. CONSTRUCTION AND CONTRACTION JOINTS SHOWN ON DRAWINGS ARE MANDATORY. OMISSIONS, ADDITIONS, OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMITTAL OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER. WHERE JOINTS ARE NOT SHOWN, OR WHEN ALTERNATE LOCATIONS ARE PROPOSED, DRAWINGS SHOWING LOCATION OF CONSTRUCTION AND CONTRACTION JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN APPROVED BY STRUCTURAL ENGINEER. VERTICAL CONSTRUCTION JOINTS AND STOPS IN CONCRETE BEAMS/GRADE BEAMS SHALL BE MADE AT MIDSPAN OR AT POINTS OF MINIMUM SHEAR, UNLESS NOTED OTHERWISE.
13. ANCHOR RODS FOR STRUCTURAL STEEL ATTACHMENTS SHALL BE HEADED RODS CONFORMING TO ASTM F1554, GRADE 36 KSI WELDABLE STEEL, UNLESS NOTED OTHERWISE ON DRAWINGS.
14. ALL GROUT BENEATH BASE PLATES & BEARING PLATES SHALL BE 5000-PSI (MIN) NON-SHRINK GROUT.
15. SLAB THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION, SUBGRADE FLUCTUATIONS, AND TO OBTAIN THE SPECIFIED SLAB ELEVATION.
16. FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS, PROVIDE SUPPLEMENTAL REINFORCING AROUND OPENING AS SHOWN IN THE TYPICAL DETAILS.
17. INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO THE SCHEDULED CONCRETE PLACEMENT. NOTIFY THE STRUCTURAL ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO THE COMPLETION OF THE INSTALLATION OF REINFORCEMENT.
18. ALL ITEMS TO BE EMBEDDED INTO CONCRETE SHALL BE INSTALLED PRIOR TO PLACEMENT OF CONCRETE. PROVIDE ADDITIONAL REINFORCEMENT AND/OR TEMPLATES AS REQUIRED TO ENSURE THE CORRECT POSITIONS OF EMBEDMENTS. "WET SETTING" OF EMBEDMENTS INTO CONCRETE IS STRICTLY PROHIBITED. EMBEDMENTS INCLUDE, BUT NOT BY LIMITATION, REINFORCEMENT, REINFORCING DOWELS, EMBEDDED PLATES, ANCHOR RODS, ANCHOR INSERTS, SLEEVES, LOAD TRANSFER PLATES, DIAMOND DOWELS, AND SHELF BULK HEADS.

CONCRETE REPAIR NOTES:

- CONCRETE REMOVAL:
1. REFERENCES: ICRI 03750, 03732, ACI 546R CURRENT EDITION.
2. AT EACH REPAIR AREA, REMOVE SMALL AREA OF CONCRETE TO CONFIRM DEPTH OF REINFORCEMENT PRIOR TO CUTTING.
3. SAW CUT PERIMETER OF REPAIR AREA TO A DEPTH OF 1/2". DO NOT CUT REINFORCEMENT OR PRESTRESSED TENDON.
4. REMOVE ALL DETERIORATED, DELAMINATED AND UNSOUND CONCRETE. CONCRETE SHALL BE REMOVED BY A METHOD THAT LIMITS THE DAMAGE TO SURROUNDING SOUND CONCRETE TOPPING, EXISTING STEEL TRUSS REIN AND WITH MINIMAL DAMAGE TO EXISTING PRECAST/PRESTRESSED PLANKS.
5. MATERIAL REMOVAL SHALL CONTINUE UNTIL AGGREGATE PARTICLES ARE BEING BROKEN RATHER THAN BEING REMOVED FROM THE CEMENT MATRIX.
6. USE OF MECHANICAL IMPACT CHIPPING HAMMERS SHALL BE LIMITED TO 30lb WITH A 15lb RECOMMENDED. IF DEMOLITION INVOLVES HIGH PRESSURE WATER BLAST OR HYDRO DEMOLITION CONTINUALLY CHECK AND ADJUST DEPTH OF CONCRETE REMOVAL. ALL NECESSARY PRECAUTIONS MUST BE TAKEN TO AVOID MICRO CRACKING (BRUISING) OF THE SURFACE OF THE PRECAST/PRESTRESSED PLANKS.
7. REMOVE LOOSE, DETERIORATED, AND BOND INHIBITING MATERIALS FROM SURFACE. PREPARATION WORK SHALL BE DONE BY HIGH PRESSURE WATER BLAST, SHOT BLAST, OR OTHER APPROPRIATE MECHANICAL MEANS TO OBTAIN AN EXPOSED AGGREGATE SURFACE WITH A MINIMUM SURFACE PROFILE OF 1/4" AMPLITUDE AT ALL REMOVE TOPPING. PROVIDE MINIMUM SURFACE PROFILE OF ±1/8" AT ALL OTHER REPAIR AREAS.
8. EXCAVATE 3/4" AROUND ALL REINFORCEMENT.
9. ALL EXISTING REINFORCEMENT AND STEEL TRUSS REINFORCEMENT EMBEDDED WITHIN CONCRETE IS TO BE SALVAGED TO THE GREATEST EXTENT POSSIBLE.
INSPECTION:
1. INSPECT ALL CONCRETE SURFACES PRIOR TO APPLICATION OF PRIMER/ADHESIVES TO INSURE PROPER PREPARATION AND SURFACE DRYING.
2. CONFORM TO SPECIFICATIONS AND ALL THE MANUFACTURERS PREPARATION INSTRUCTIONS.
3. ESTIMATE SECTION LOSS OF DETERIORATED REINFORCEMENT. IF SECTION LOSS EXCEEDS 25%, NOTIFY ENGINEER PRIOR TO PROCEEDING WITH REPAIR.
4. NOTIFY ENGINEER OF ANY DAMAGED PRESTRESSING TENDON PRIOR TO REPAIRS.

PREPARATION:

- 1. STEEL REINFORCEMENT SHOULD BE THOROUGHLY PREPARED BY MECHANICAL CLEANING TO REMOVE ALL TRACES OF RUST. THE STEEL SHOULD BE HIGH-PRESSURE WASHED WITH CLEAN WATER AFTER MECHANICAL CLEANING.
2. REMAINING EXISTING REINF AND STEEL TRUSS REINF SHALL BE PRIMED.
3. PRIOR TO PROCEEDING WITH REPAIR, INSPECT ALL CONCRETE SURFACES. INSTALLATION OF REPAIR MATERIAL INDICATES ACCEPTANCE OF ALL SUBSTRATE CONDITIONS.
4. APPLY POLYMER ADHESIVE/BONDING AGENT TO ALL CONCRETE SURFACES OR COAT ALL CONCRETE SURFACES WITH A CEMENT SLURRY PRIOR TO PLACING REPAIR MATERIAL. NOT APPLICABLE TO TOPPING SLAB REPLACEMENT.
5. INSTALL NEW REINFORCEMENT IF REQUIRED AND TIE TO EXISTING. PROVIDE CHAIRS AS REQUIRED TO MAINTAIN PROPER PLACEMENT.
6. SATURATE SURFACE WITH CLEAN WATER. SUBSTRATE SHOULD BE SATURATE SURFACE DRY (SSD) WITH NO STANDING WATER DURING APPLICATION.
7. PLACEMENT: ALL CIP REPAIR MATERIAL MUST BE TESTED AS PER THE SPECIFICATIONS.
8. ALL JOINTS SHALL BE HAND TOOLED.

CONCRETE CURING:

- 1. WET CURE FOR A MINIMUM OF 3 DAYS (72 HOURS). REFERENCE THE SPECIFICATION FOR FURTHER CURING INFORMATION.

STRUCTURAL STEEL NOTES:

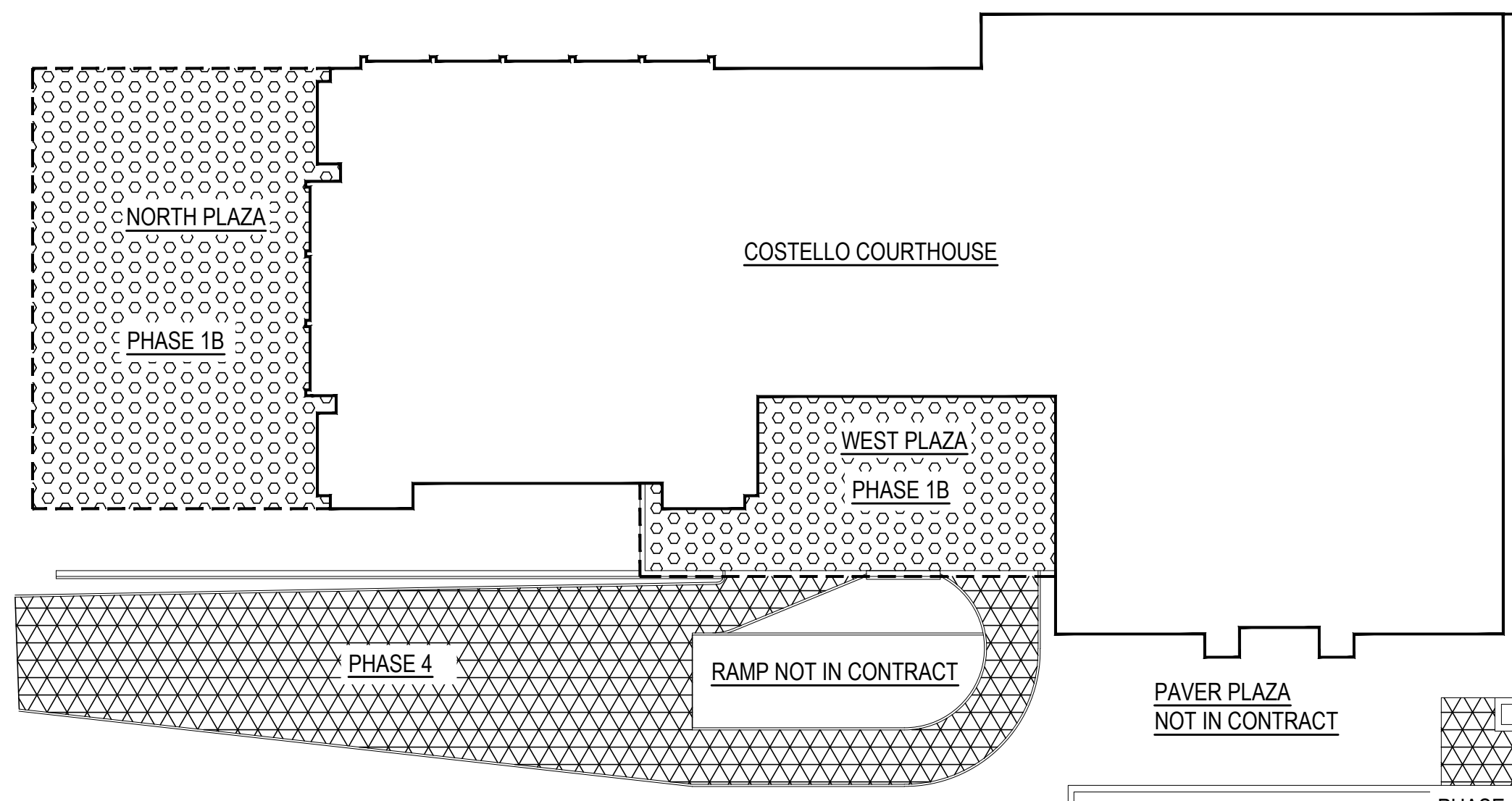
- 1. STRUCTURAL STEEL DESIGN, DETAIL, FABRICATION, AND ERECTION SHALL CONFORM TO ANSIAISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND TO ANSIAISC303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."
2. STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE:
A. STEEL PLATES, SHAPES, AND BARS: ASTM A36
B. WIDE-FLANGE SECTIONS: ASTM A992
C. HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A500 GR. C
D. PIPES: ASTM A53 GR. B
3. BOLTED CONNECTIONS SHALL USE 3/4" ASTM F3125, GRADE A325, HIGH STRENGTH BOLTS (U.N.O.), EXCEPT WHERE SLIP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY (SC) ON THE DRAWINGS OR AS REQUIRED BY CONNECTION DESIGN.
4. ALL WELDING SHALL CONFORM TO AWS D1.1. ELECTRODES SHALL CONFORM TO AWS A5.1 E70XX SERIES (U.N.O.) WITH PROPER ROD TO PRODUCE OPTIMUM WELD (LOW HYDROGEN).
5. SEE CONCRETE NOTES AND DRAWINGS FOR ANCHOR BOLT INFORMATION.
6. PROVIDE ALL MISCELLANEOUS ANGLES, PLATES, ANCHOR BOLTS, ETC. SHOWN ON ARCHITECTURAL DRAWINGS. COORDINATE WITH MISCELLANEOUS METAL FABRICATOR TO ENSURE COMPLETE COVERAGE OF ALL ITEMS.

ABBREVIATIONS:

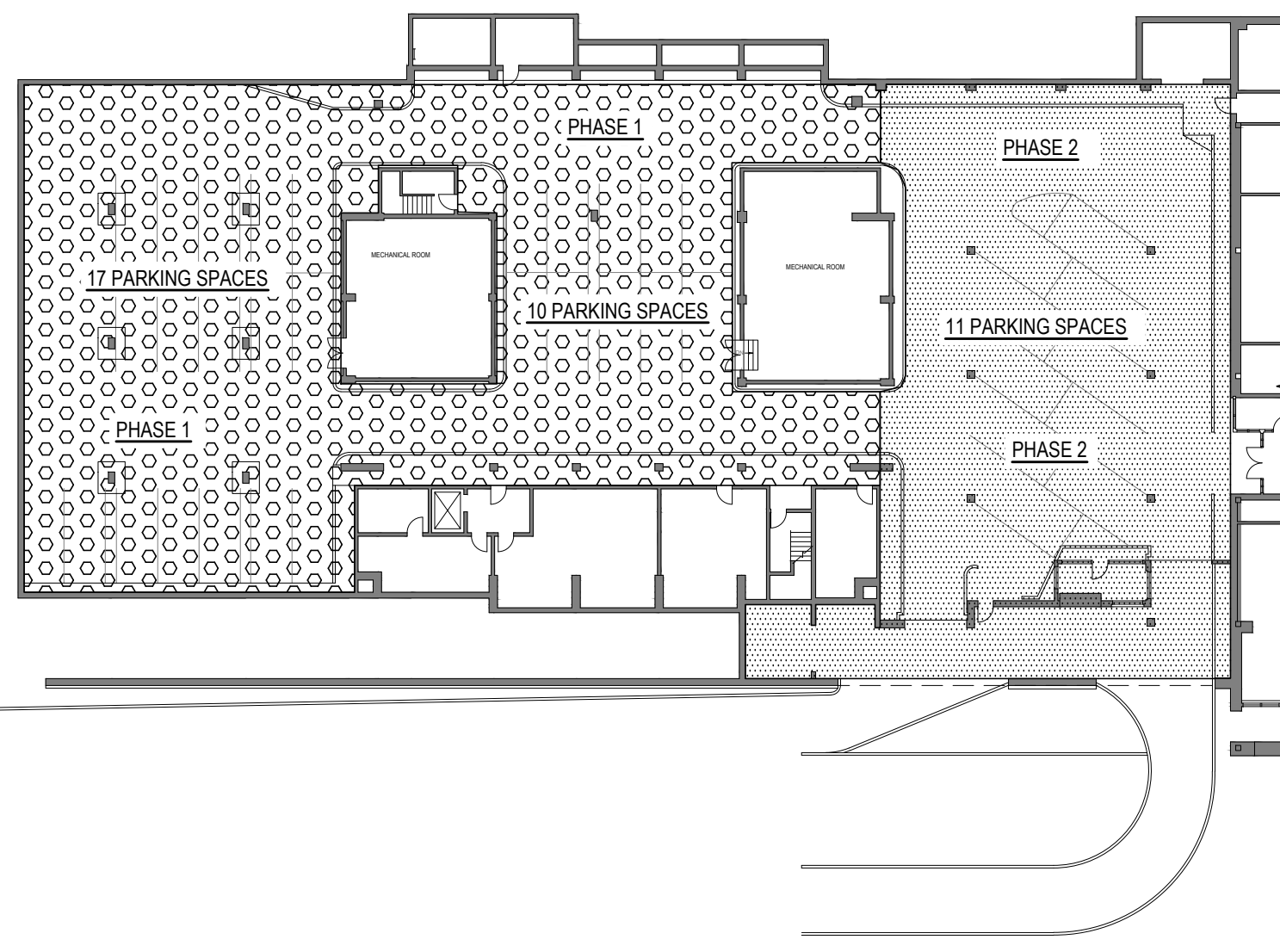
Table with 2 columns: Abbreviation and Full Name. Includes terms like ANCHOR BOLT, ABOVE, AMERICAN CONCRETE INSTITUTE, ADDITIONAL ARCHITECTURAL EXPOSED STRUCT STEEL, ABOVE FINISH FLOOR, ALTERNATE, ALUMINUM, APPROXIMATE, ANCHOR ROD, ARCHITECT OR ARCHITECTURAL, BALANCE, BUILDING BLOCKING, BEAM, BOTTOM OFF/BY OTHERS, BOTTOM, BASE PLATE, BEARING, BOTH SIDES, BASEMENT BETWEEN, CENTER TO CENTER, CAST IN PLACE, CONTRACTION/CONST. JOINT, CENTER LINE, CEILING, CLEAR, CONCRETE MASONRY UNIT, COLUMN, CONCRETE CONNECTION, CONNECTION, CONTINUOUS COORDINATE CENTER(ED), PENNY, DEFORMED BAR ANCHOR, DOUBLE DIA OR Ø, DIAGONAL, DIMENSION, DEAD LOAD, DOWEL, DI(T)S, DWL(S), EACH, EACH END, EACH FACE, EXPANSION JOINT, ELEVATION, ELECTRICAL EMBEDMENT, ENGINEER, EDGE OF DECK, ENGINEER OF RECORD, EDGE OF SLAB, EQUAL, EQUALLY SPACED, EQUIPMENT, EACH SIDE, EACH WAY, EACH WAY BOTTOM, EACH WAY TOP, EXISTING, EXP ANCHOR, EXT, FLOOR DRAIN, FOUNDATION, FINISH FLOOR, FAR FACE, FLANGE, FLOOR, FINISH FLOOR ELEVATION, FACE OF, FRAMING, FAR SIDE, FOOT OR FEET, FOOTING, GAUGE, GALVANIZED, GENERAL CONTRACTOR, GRADE OR GRIND, HOLD/DOWN, HOT DIPPED GALVANIZED, HORIZONTAL, HIGH POINT, HEATING VENTILATION & COOLING, INSIDE DIAMETER, ALTERNATE, INSIDE FACE, INCH, INSULATION, INTERIOR, JOIST, JOINT, KIPS (1K=1000LBS), POUND(S), LONG, LIVE LOAD, LONG LEGS BACK TO BACK, LONG LEG HORIZ, LONG LEG VERT, LOCATIONS OR LOCATE, LONGITUDINAL, LONG WAY BOTTOM, LONG WAY TOP, MANUFACTURER, MASONRY MATERIAL, MAXIMUM, MECHANICAL, MECHANICAL/ELECTRICAL/PLUMBING, MINIMUM, MISCELLANEOUS, MASONRY OPENING, METAL, NORTH, NOT IN CONTRACT, NUMBER, NOMINAL, NEAR SIDE, NOT TO SCALE, ON CENTER, OUTSIDE DIAMETER, OUTSIDE FACE, OPPOSITE HAND, OPENING, OVERSIZE, PENETRATION, PERFORATED PLATE(S), PLACES, POUNDS PER LINEAR FOOT, POUNDS PER SQUARE FOOT, POUNDS PER SQUARE INCH, PRELIMINARY, POST TENSIONED, POLYVINYL CHLORIDE, PAVEMENT, QUANTITY, RADIUS, ROOF DRAIN, REFERENCE, REINFORCE(ING)/(MENT), REQUIRED, REQUIREMENT(S), SCHEDULE, SECTION, SQUARE FOOT, SIMILAR, SHORT LEGS BACK TO BACK, SHORT LEG HORIZONTAL, SHORT LEG VERTICAL, SLAB ON GRADE, SPACE(S), SPECIFICATIONS, STAINLESS STEEL, STANDARD, STEEL, STRUCTURAL, SHORT WAY BOTTOM, SHORT WAY TOP, SHORT SIDE VERTICAL, SYMMETRICAL.

PROPOSED PROJECT PHASES

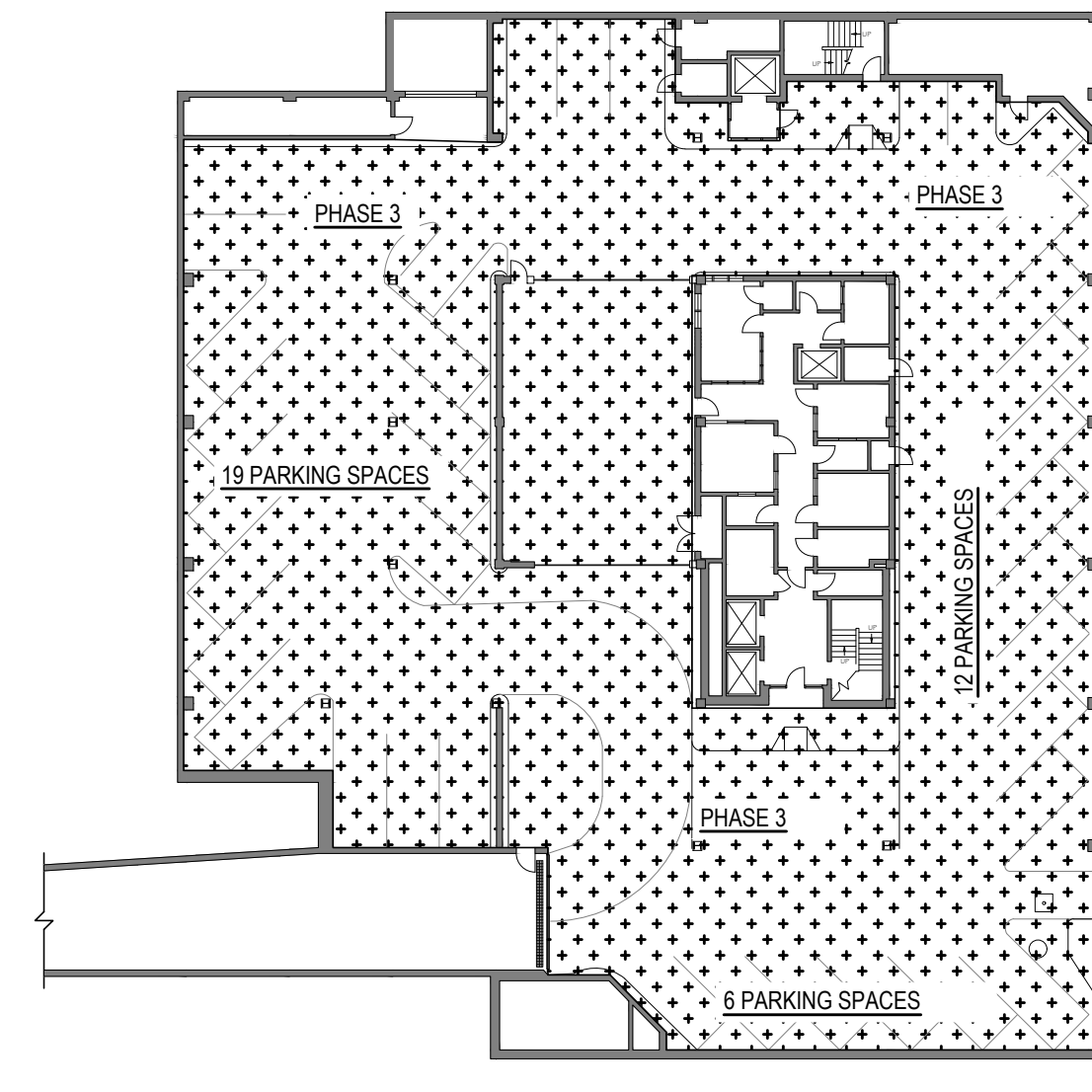
- Phase 1 - NORTH UPPER LEVEL STRUCTURAL, ELECTRICAL, PLUMBING & ARCHITECTURAL REPAIRS
Phase 1B - NORTH & WEST PLAZA LAGS SHORTLY BEHIND THE START OF PHASE 1
Phase 2 - SOUTH UPPER LEVEL STRUCTURAL, ELECTRICAL, PLUMBING & ARCHITECTURAL REPAIRS
Phase 3 - LOWER LEVEL STRUCTURAL, ARCHITECTURAL & MEP/FP REPAIRS.
Phase 4 - ENTRY/EXIT ASPHALT PAVEMENT REPLACEMENT
Phase 4 - SOUTHWEST STAIR REPLACEMENT



PLAZA PLAN

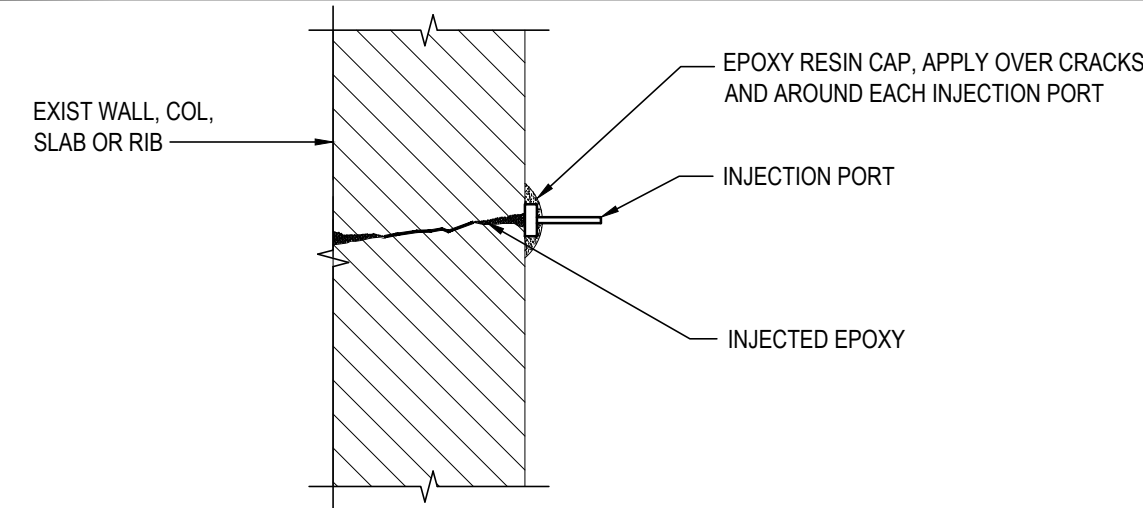


UPPER LEVEL PLAN TOTAL PARKING SPACES: 38



LOWER LEVEL PLAN TOTAL PARKING SPACES: 37

Thornton Tomasetti logo and contact info. Project: #23227.00, Costello Courthouse Parking Garage Repairs, Burlington, VT. Scale: AS NOTED. Date: 3/22/24. Sheet: S-001. Includes a table for submittals.



TYPICAL EPOXY CRACK INJECTION

N.T.S.

PREPARATION:

- CLEAN THE AREA SURROUNDING THE CRACK OF ALL DETERIORATED CONCRETE, EFFLORESCENCE, OIL, GREASE AND OTHER CONTAMINANTS DETRIMENTAL TO THE ADHESION OF THE SURFACE SEALING EPOXY COMPOUND.
- CLEAN THE INTERIOR OF THE CRACK WITH AIR UNDER SUFFICIENT PRESSURE TO REMOVE LOOSE MATERIALS ENTRAPPED WITHIN THE CRACK.
- DRILL INJECTION PORT HOLES USING DRILL WITH VACUUM ATTACHMENT TO REMOVE DUST AND DEBRIS GENERATED BY DRILLING.
- DETERMINE PORT SPACING BASED ON THE SIZE AND DEPTH OF THE CRACK AND MANUFACTURER'S RECOMMENDATIONS. GENERALLY, SPACE INJECTION PORTS 4-8 INCHES. SPACING SHALL ALLOW TRAVEL OF EPOXY RESIN BETWEEN PORTS AND FILL CRACKS TO THE MAXIMUM.
- DRILL HOLES TO A MINIMUM DEPTH OF 5/8", EXERCISING CARE IN ALIGNING THE HOLE ALONG THE PLANE OF THE CRACK.
- INSERT PORTS APPROXIMATELY 1/2" ALLOWING FOR SMALL RESERVOIR BELOW THE INJECTION PORT.
- SEAL CRACK SURFACE AND INJECTION PORTS WITH EPOXY PER MANUFACTURER'S RECOMMENDATIONS. PLACE A MINIMUM EPOXY CAP OF 1" WIDE BY 1/4" THICK. ALLOW EPOXY RESIN CAP SUFFICIENT TIME TO CURE BEFORE INJECTING.

PRODUCTS:

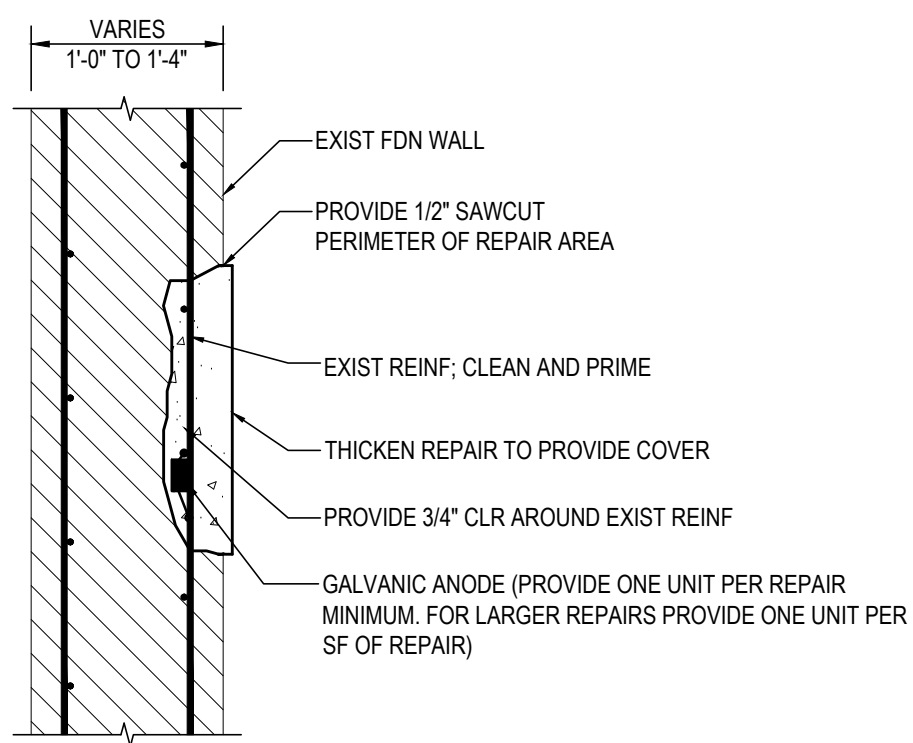
- EPOXY CRACK INJECTION: SIKADUR 35 HI-MOD LV
- EPOXY RESIN CAP: SIKADUR 31-HI MOD GEL
- INJECTION PORTS: PER MANUFACTURER

EPOXY INJECTION:

- INJECT EPOXY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- BEGIN AT ENTRY PORT OF LOWEST ELEVATION AND CONTINUE UNTIL UNCONTAMINATED EPOXY FLOWS OUT OF THE ADJACENT PORT. START INJECTION PROCESS AT THE WIDEST PART OF THE CRACK AND CONTINUE UNTIL THERE IS EPOXY RESIN AT THE ADJACENT PORT.
- INJECTION PRESSURE SHALL BE KEPT AS LOW AS PRACTICAL AND SHALL GENERALLY BE BETWEEN 20 AND 30 PSI PLUS ANY HYDROSTATIC HEAD. INJECT EPOXY WITH IN EACH PORT WITH STEADY PRESSURE TO ACHIEVE MAXIMUM PENETRATION.
- ENSURE THE CONNECTION BETWEEN THE PORT AND MIX HEAD OF THE INJECTION NOZZLE IS SUFFICIENTLY TIGHT TO PREVENT EPOXY FROM RUNNING OUT ON THE CONCRETE SURFACE.
- AFTER INJECTION AT A GIVEN PORT IS COMPLETE, THE PORT SHALL BE PLUGGED AND INJECTION STARTED AT NEXT ADJACENT PORT.

CLEANING:

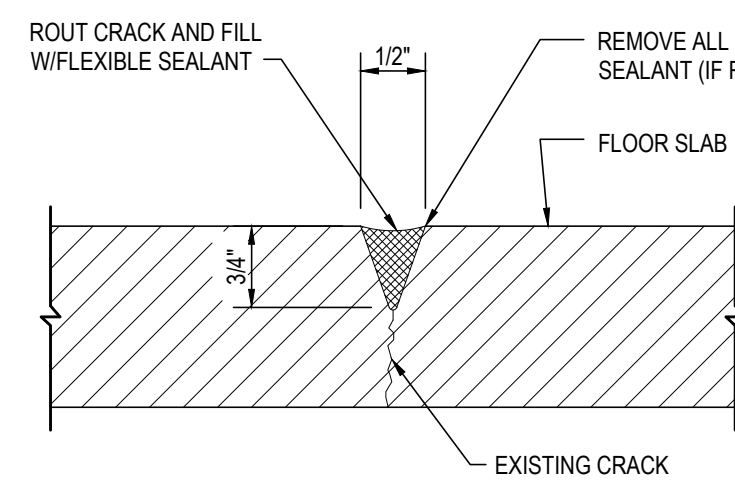
- CLEAN CONCRETE SURFACE AREAS OF EXCESS EPOXY MATERIAL AND INJECTION PORTS AFTER COMPLETING EPOXY INJECTION WORK.
- CLEAN IN A MANNER THAT WILL NOT DAMAGE CONCRETE BY LIGHT SAND BLASTING OR GRINDING.
- CLEAN EXCESS MATERIAL SO THAT NO EPOXY MATERIAL OR INJECTION PORTS EXTEND BEYOND THE PLANE SURFACE OF THE CONCRETE.



- NOTES:**
- AVERAGE REPAIR DEPTH IS 4".
 - NOTIFY ENGINEER IF REPAIR EXCEEDS 6" DEPTH.
 - NOTIFY ENGINEER IF REPAIR EXCEEDS 10 SF IN AREA. REPAIRS OVER 10 SF MAY REQUIRE THE REPAIR TO BE PHASED.

TYPICAL WALL PARTIAL DEPTH REPAIR

N.T.S.



TYPICAL CRACK REPAIR DETAIL

N.T.S.

PREPARATION:

- CENTER ROUTED GROOVE ON CRACK.
- REMOVE ALL LOOSE AND DETERIORATED MATERIAL.
- ALL JOINT-WALL SURFACES MUST BE CLEAN, SOUND, AND FROST FREE. JOINT WALLS MUST BE FREE OF OILS, GREASE, CURING COMPOUND RESIDUES, AND ANY OTHER FOREIGN MATTER THAT MIGHT PREVENT BOND. THIS SHOULD BE ACCOMPLISHED BY BLAST CLEANING OR EQUIVALENT MECHANICAL MEANS.
- CONFORM TO ALL MANUFACTURER'S PREPARATION REQUIREMENTS.
- JOINT PREPARATION SHALL BE CONFIRMED BY SEALANT INSTALLER. INSTALLATION OF SEALANT SHALL IMPLY PROPER JOINT PREPARATION.

CRACK SEALANT INSTALLATION:

- INSTALLATION SHALL CONFORM TO MANUFACTURER'S REQUIREMENTS.
- INSTALL SEALANT EVENLY AND RECESS 1/16" BELOW SURFACE. DO NOT OVERFILL JOINT.

GALVANIC ANODE DETAIL

N.T.S.

PRODUCT:

EMBEDDED GALVANIC ANODES SHALL CONSIST OF A MINIMUM OF 100 GRAMS OF ZINC IN COMPLIANCE WITH ASTM B6 SPECIAL HIGH GRADE CAST AROUND A PAIR OF STEEL. THE WIRES IN COMPLIANCE WITH BRIGHT ANNEALED ASTMA A82 AND ENCASED IN A HIGHLY ALKALINE CEMENTITIOUS SHELL WITH A PH OF 14 OR GREATER. THE CEMENTITIOUS SHELL SHALL CONTAIN NO ADDED SULFATE NOR SHALL IT CONTAIN CHLORIDE, BROMIDE OR OTHER CONSTITUENTS THAT ARE CORROSIVE TO REINFORCING STEEL. ANODE UNITS SHALL BE SUPPLIED WITH INTEGRAL UNSPLICED WIRES WITH LOOP TIES FOR DIRECTLY TYING TO THE REINFORCING STEEL.

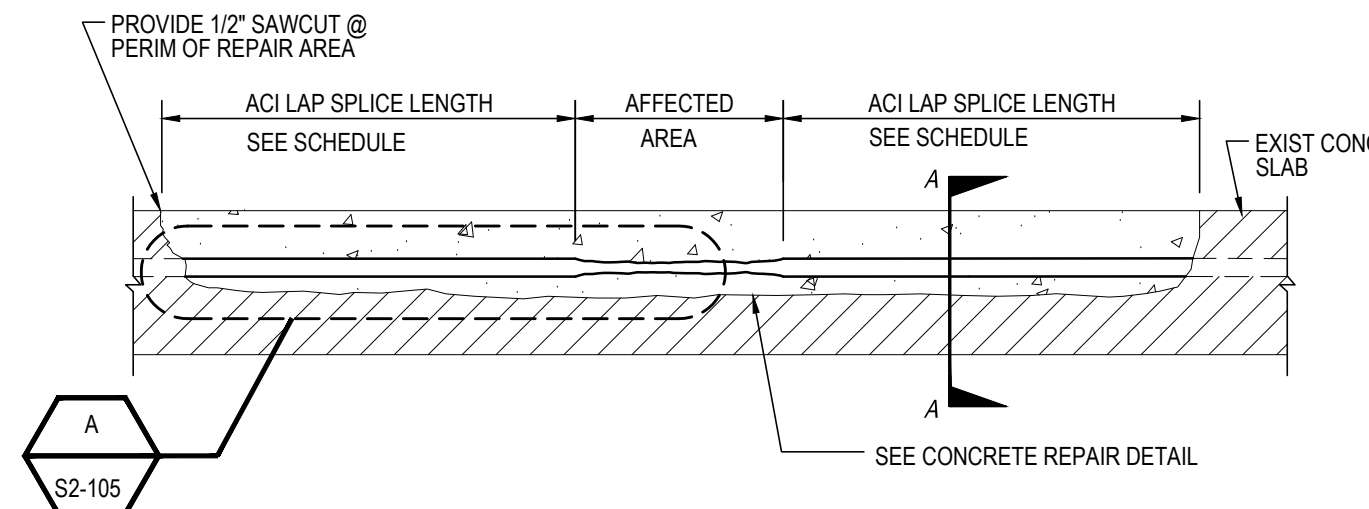
GALVANIC ANODE INSTALLATION:

- INSTALL ANODES AND REPAIR MATERIAL IMMEDIATELY FOLLOWING PREPARATION AND CLEANING OF THE STEEL REINFORCEMENT.
- GALVANIC ANODES SHALL BE INSTALLED ALONG THE PERIMETER OF THE REPAIR OR INTERFACE AT A SPACING AS SPECIFIED ON THE DRAWINGS. ANODE SPACING WILL VARY WITH CHANGES IN THE REINFORCING STEEL DENSITY, THE LEVEL OF CHLORIDE IN THE STRUCTURE AND THE CORROSIVITY OF THE LOCAL ENVIRONMENT, ETC.
- PROVIDE SUFFICIENT CLEARANCE BETWEEN ANODES AND SUBSTRATE TO ALLOW REPAIR MATERIAL TO ENCASE ANODE.
- SECURE THE GALVANIC ANODES AS CLOSE AS POSSIBLE TO THE REPAIR EDGE USING THE ANODE TIE WIRES. THE TIE WIRES SHALL BE WRAPPED AROUND THE CLEANED REINFORCING STEEL AND TWISTED TIGHT TO ALLOW LITTLE OR NO FREE MOVEMENT.

ELECTRICAL CONTINUITY:

- CONFIRM ELECTRICAL CONNECTION BETWEEN ANODE TIE WIRE AND REINFORCING STEEL BY MEASURING DC RESISTANCE (OHM.Ω) OR POTENTIAL (MV) WITH A MULTI-METER.
- ELECTRICAL CONNECTION IS ACCEPTABLE IF THE DC RESISTANCE MEASURED WITH MULTI-METER IS LESS THAN 1 Ω OR THE DC POTENTIAL IS LESS THAN 1 MV.
- CONFIRM ELECTRICAL CONTINUITY OF THE EXPOSED REINFORCING STEEL WITHIN THE REPAIR AREA. IF NECESSARY, ELECTRICAL CONTINUITY SHALL BE ESTABLISHED WITH STEEL TIE WIRE.
- ELECTRICAL CONTINUITY BETWEEN TEST AREAS IS ACCEPTABLE IF THE DC RESISTANCE MEASURED WITH MULTI-METER IS LESS THAN 1 Ω OR THE POTENTIAL IS LESS THAN 1 MV.

CONFORM TO ALL MANUFACTURERS RECOMMENDATIONS FOR PREPARATION INSTALLATION AND TESTING.



TYPICAL REINFORCEMENT REPAIR DETAIL AT EXISTING REINFORCEMENT TO REMAIN

N.T.S.

PREPARATION:

- SEE TYPICAL CONCRETE REPAIR FOR REMOVAL/REPLACEMENT OF CONCRETE.

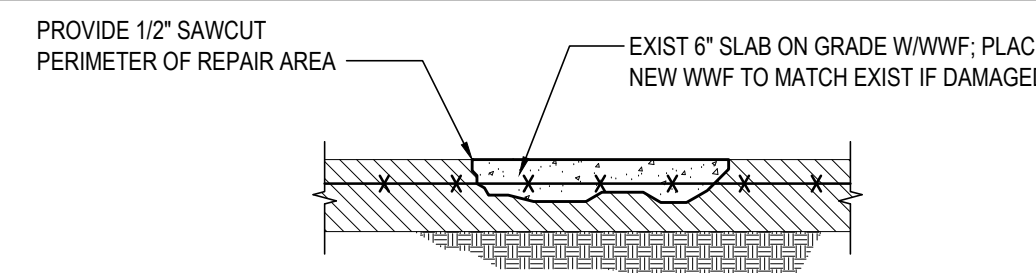
INSPECTION:

- IF REINFORCEMENT HAS LOST MORE THAN 25% OF ITS CROSS SECTIONAL AREA, NOTIFY STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH PATCH.

REPAIR:

- LAP BARS AS NOTED ABOVE.
- SEE TYPICAL CONCRETE REPAIR.

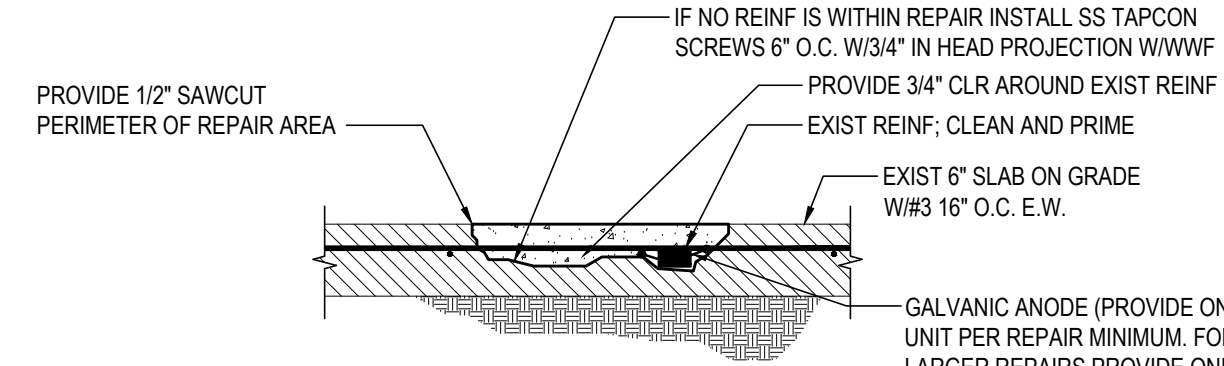
BAR SIZE	LAP LENGTH	
	3,000 - 4,000 PSI	5,000 PSI
#3	30"	24"
#4	36"	32"
#5	48"	42"
#6	56"	48"
#7	81"	72"
#8	93"	80"



UPPER LEVEL SLAB ON GRADE REPAIR

3/4"=1'-0"

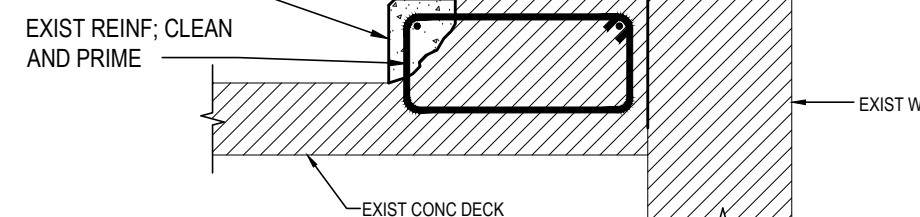
- NOTES:**
- AVERAGE REPAIR DEPTH IS 3".
 - NOTIFY ENGINEER IF REPAIR EXCEEDS 6" DEPTH.



LOWER LEVEL SLAB ON GRADE REPAIR

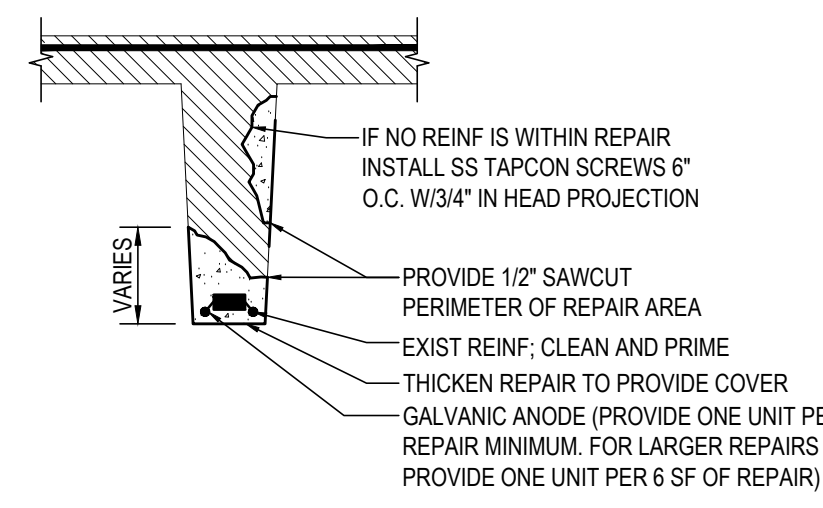
3/4"=1'-0"

- NOTES:**
- AVERAGE REPAIR DEPTH IS 3".
 - NOTIFY ENGINEER IF REPAIR EXCEEDS 6" DEPTH.



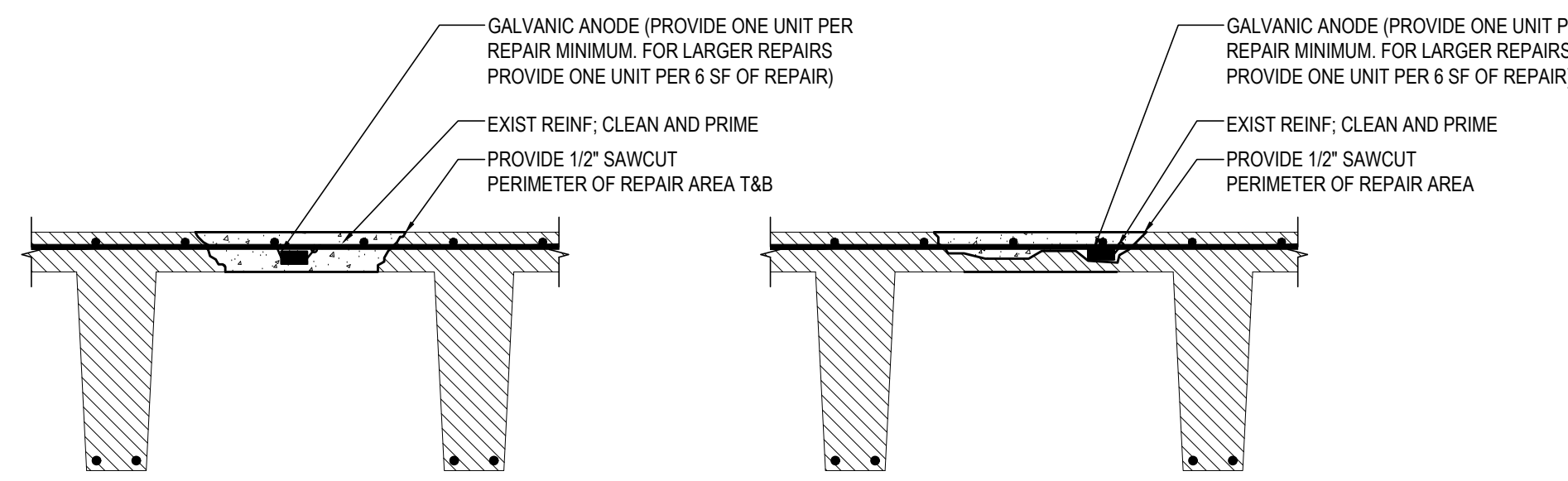
CURB EDGE REPAIR DETAIL

N.T.S.



PLAZA LEVEL CONCRETE RIB REPAIR

3/4"=1'-0"

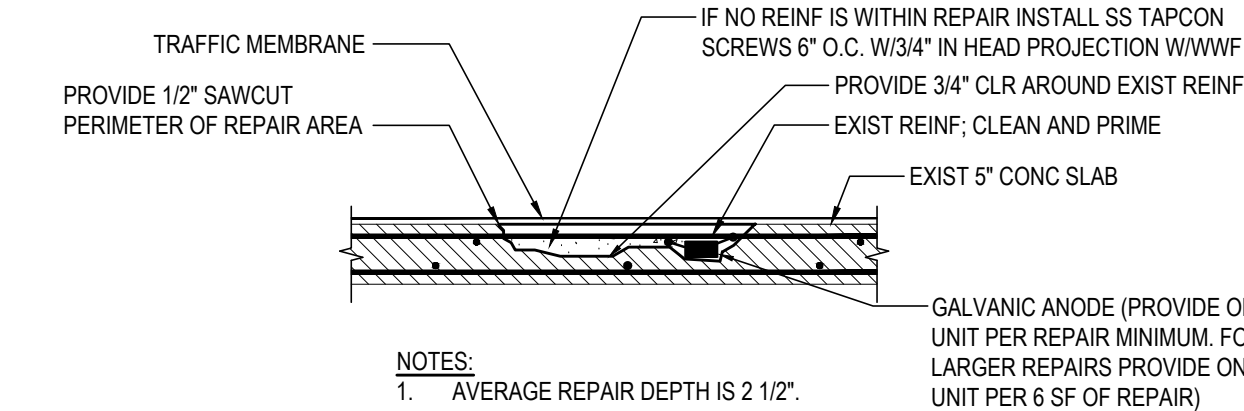


PLAZA LEVEL FULL DEPTH DECK REPAIR

3/4"=1'-0"

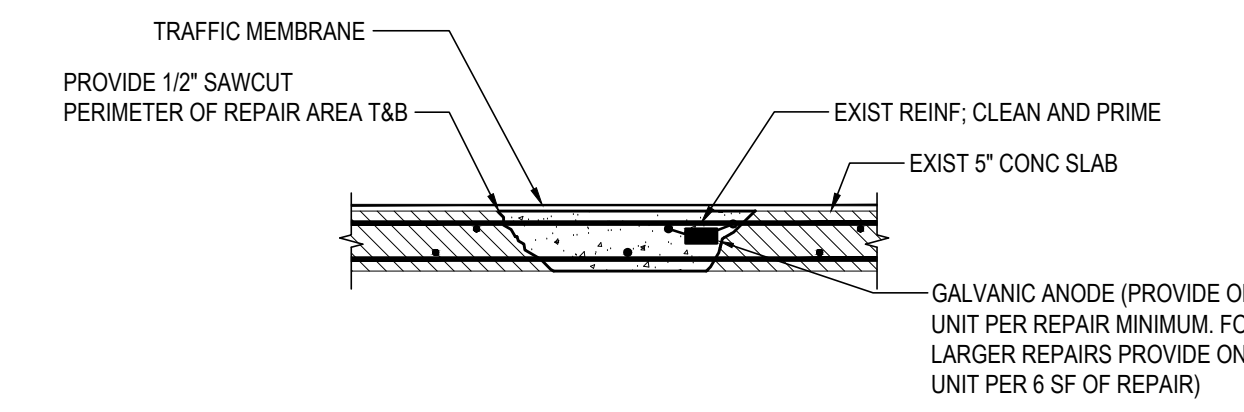
PLAZA LEVEL PARTIAL DEPTH DECK REPAIR

3/4"=1'-0"



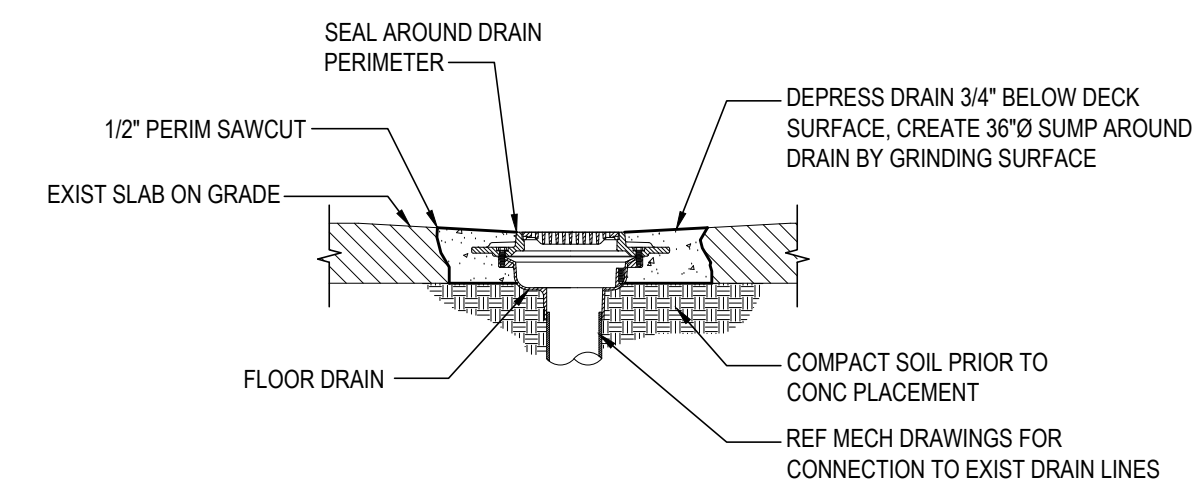
UPPER LEVEL PARTIAL DEPTH REPAIR

3/4"=1'-0"



UPPER LEVEL FULL DEPTH REPAIR

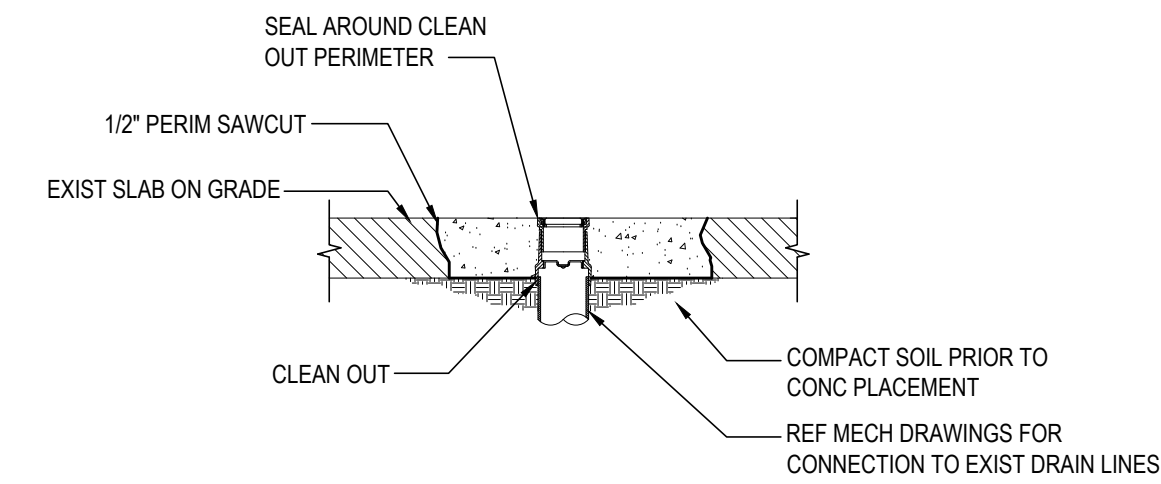
3/4"=1'-0"



FLOOR DRAIN DETAIL AT SLAB-ON-GRADE

N.T.S.

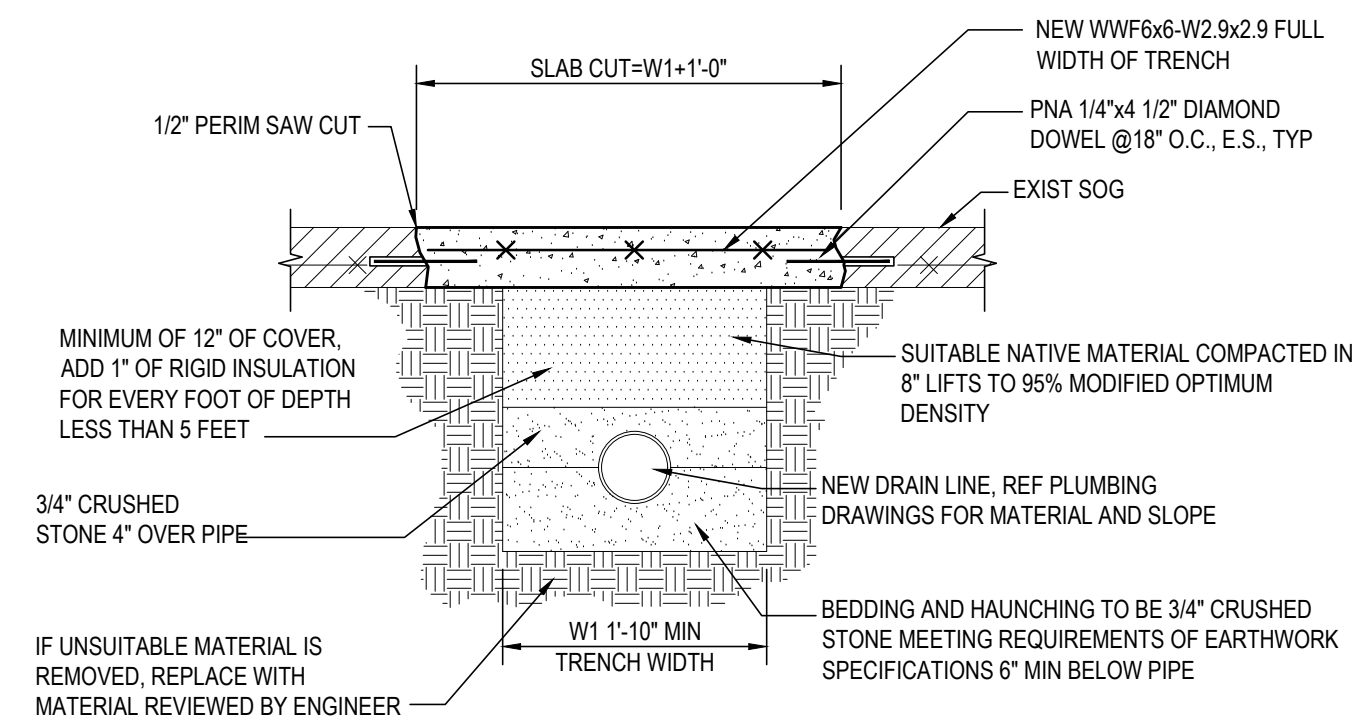
- NOTES:**
- PROVIDE NEW ZURN Z534 WITH SEDIMENT BUCKET OR ENGINEER APPROVED EQUIVALENT.
 - DO NOT DAMAGE EXISTING REINFORCEMENT IN SLAB-ON-GRADE.
 - COORDINATE FINAL DRAIN LOCATIONS WITH ENGINEER.
 - REFERENCE M.E.P. FOR ADDITIONAL DRAIN AND LEADER INFORMATION.



CLEAN OUT DETAIL AT SLAB-ON-GRADE

N.T.S.

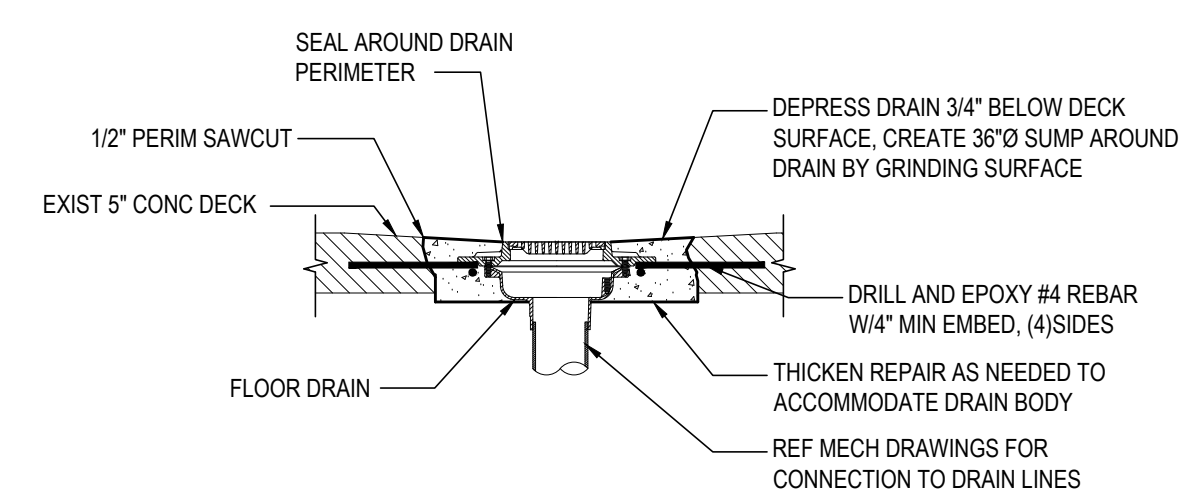
- NOTES:**
- DO NOT DAMAGE EXISTING REINFORCEMENT IN SLAB-ON-GRADE.
 - REFERENCE M.E.P. FOR ADDITIONAL DRAIN AND LEADER INFORMATION.



DRAIN LINE REPLACEMENT DETAIL AT SLAB-ON-GRADE

N.T.S.

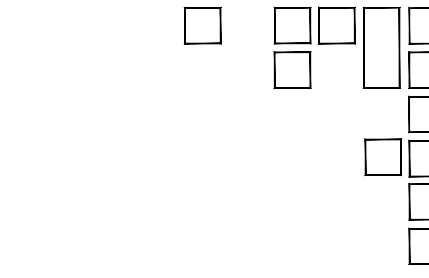
- NOTES:**
- REFERENCE PLUMBING DRAWINGS FOR ADDITIONAL LEADER AND DRAIN LINE INFORMATION.
 - RIGID EXTRUDED POLYSTYRENE INSULATION SHALL CONFORM TO ASTM C578, 100 PSI. OVERLAP ALL SEAMS. INSTALL FULL WIDTH OF TRENCH.



FLOOR DRAIN DETAIL AT ELEVATED SLAB

N.T.S.

- NOTES:**
- PROVIDE NEW ZURN Z534 WITH SEDIMENT BUCKET OR ENGINEER APPROVED EQUIVALENT.
 - DO NOT DAMAGE EXISTING REINFORCEMENT WITHIN SLAB.
 - COORDINATE FINAL DRAIN LOCATIONS WITH ENGINEER.
 - REFERENCE M.E.P. FOR ADDITIONAL DRAIN AND LEADER INFORMATION.



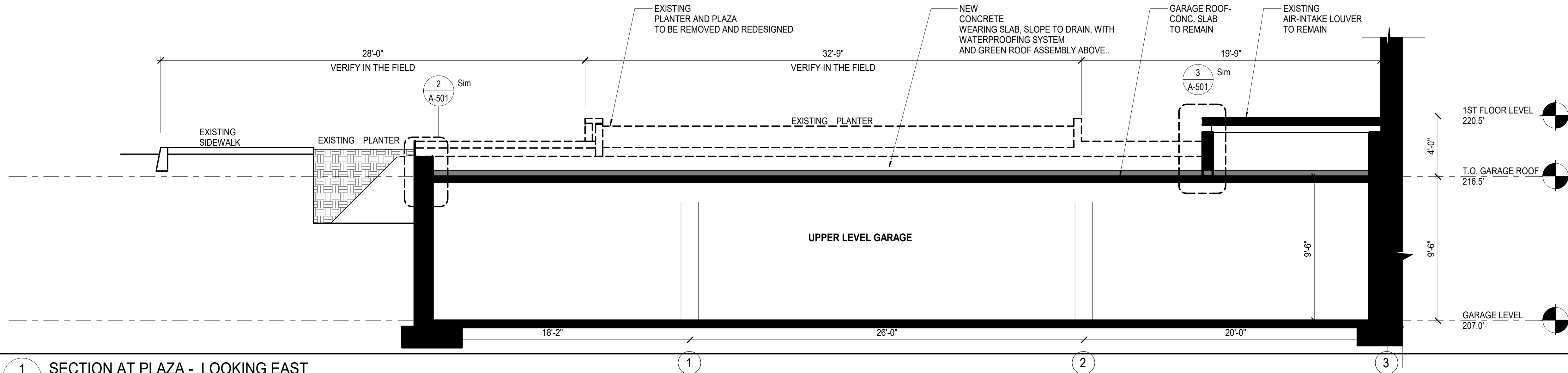


GENERAL NOTES / LEGEND

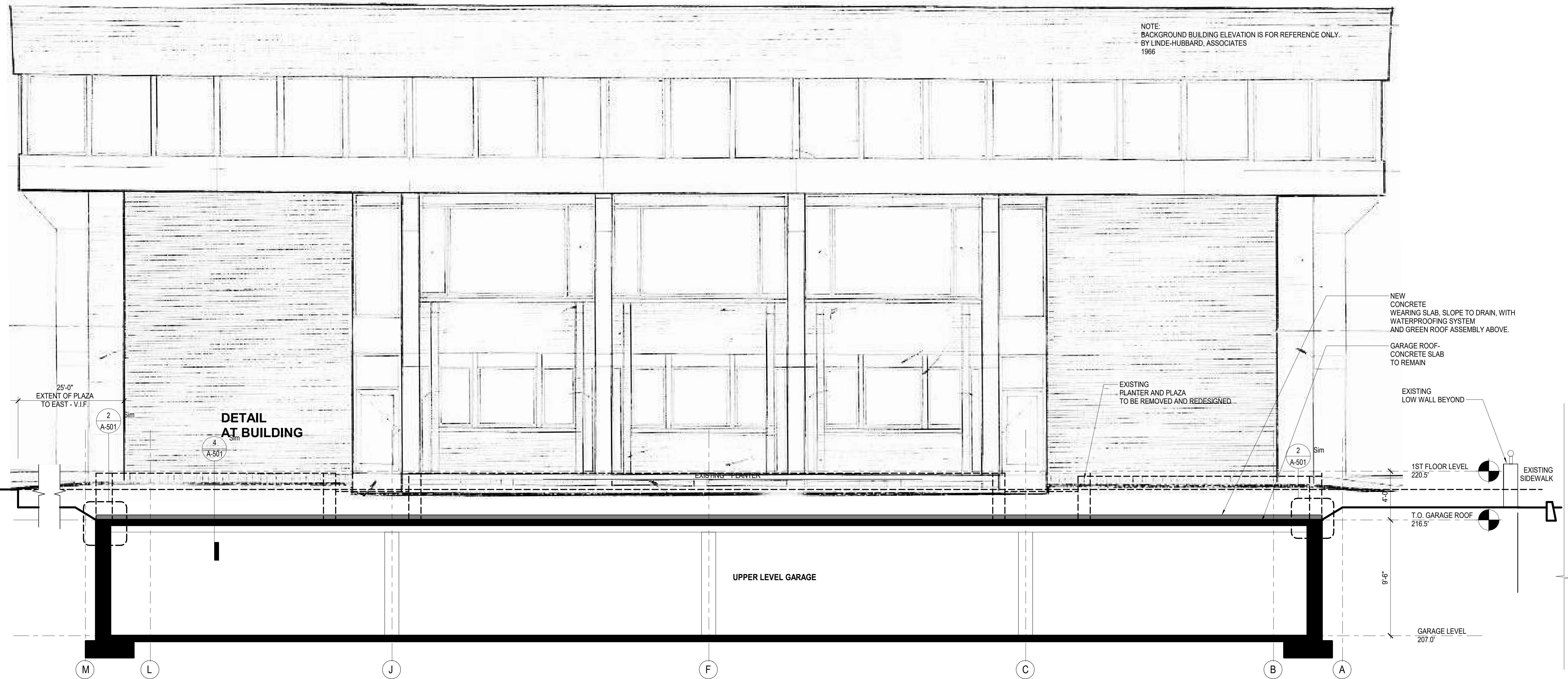
ALSO SEE SYMBOL LEGEND ON COVER SHEET.

1. **DIMENSIONS:** EXTERIOR DIMENSIONS ARE TO NOMINAL CORNER OF MASONRY UNLESS NOTED OTHERWISE.
2. PLANS ARE TO BE VIEWED IN CONJUNCTION WITH STRUCTURAL, MEP/FP, LANDSCAPE AND ALL OTHER TRADES, AS APPROPRIATE. DISCREPANCIES ARE TO BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR RESOLUTION BEFORE COMMENCING WORK.
3. ALL NON-ARCHITECTURAL INFORMATION SHOWN HERE IS FOR REFERENCE ONLY.
4. ALL VERTICAL AND HORIZONTAL PENETRATIONS THROUGH RATED ASSEMBLIES ARE TO BE SEALED WITH UL-LISTED FIRESAFING AND/OR SEALANT ASSEMBLIES TO MAINTAIN RATING.

- █ EXISTING CONSTRUCTION TO REMAIN
- INDICATES CROSS SLOPE AT 1.5% DOWNWARD IN DIRECTION OF ARROW. DO NOT EXCEED 2% SLOPE.



1 SECTION AT PLAZA - LOOKING EAST
A-300 SCALE: 1/4" = 1'-0"



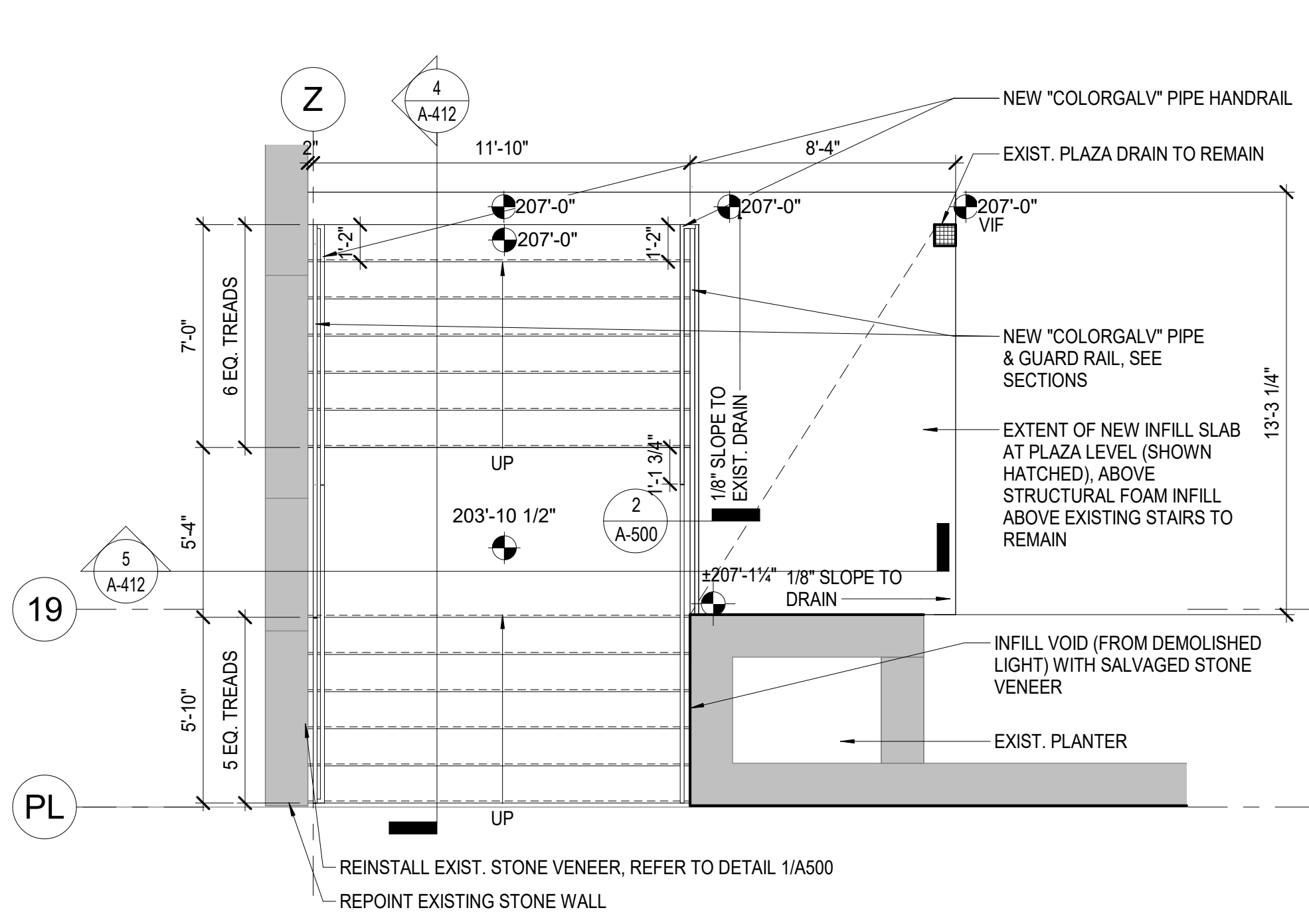
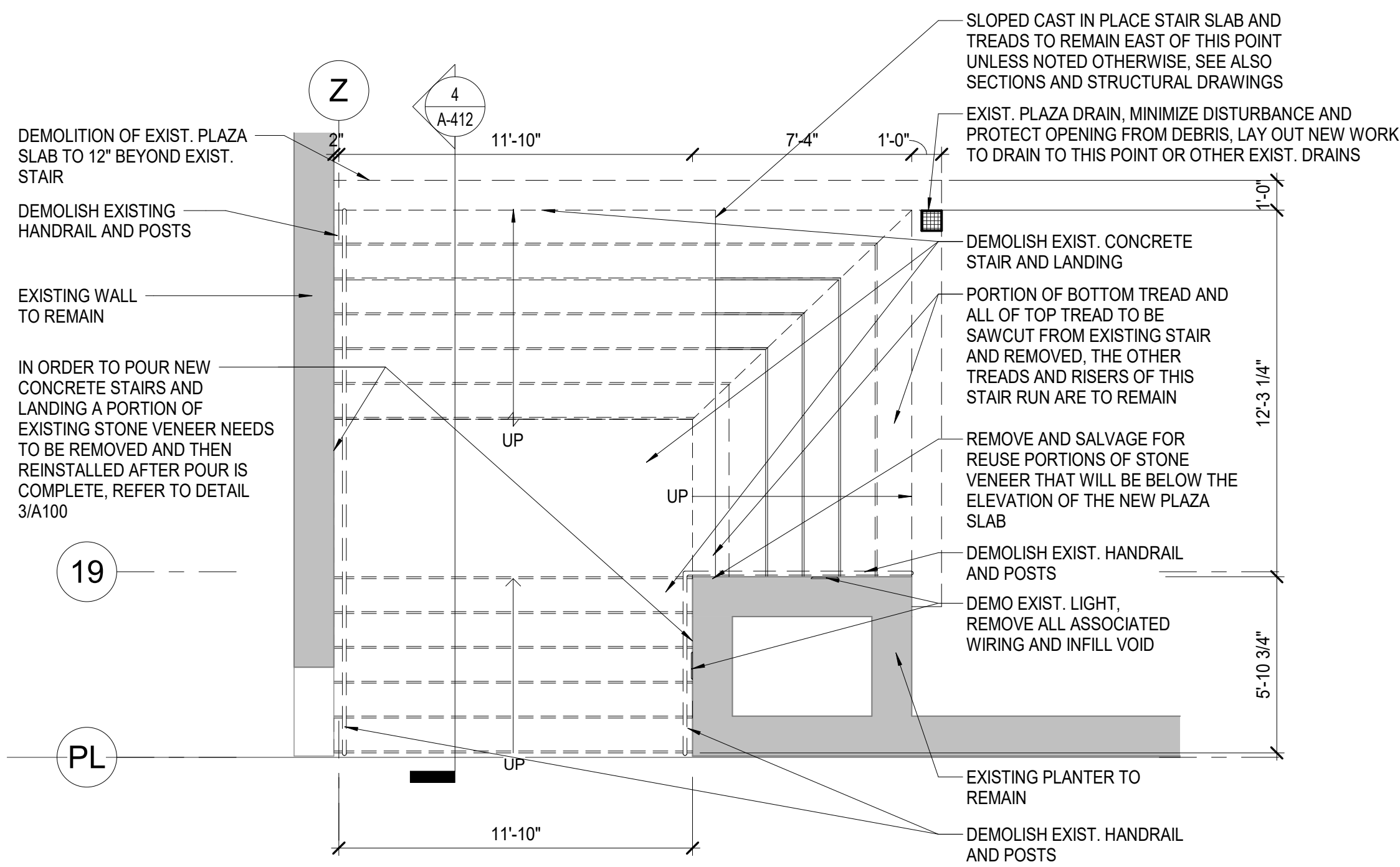
2 SECTION AT PLAZA - LOOKING SOUTH
A-300 SCALE: 1/4" = 1'-0"

NOTE:
BACKGROUND BUILDING ELEVATION IS FOR REFERENCE ONLY.
BY LINDE-HUBBARD, ASSOCIATES
1966

NO.	REVISION	DATE
1	SCHEMATIC DESIGN SUBMISSION	02/20/24

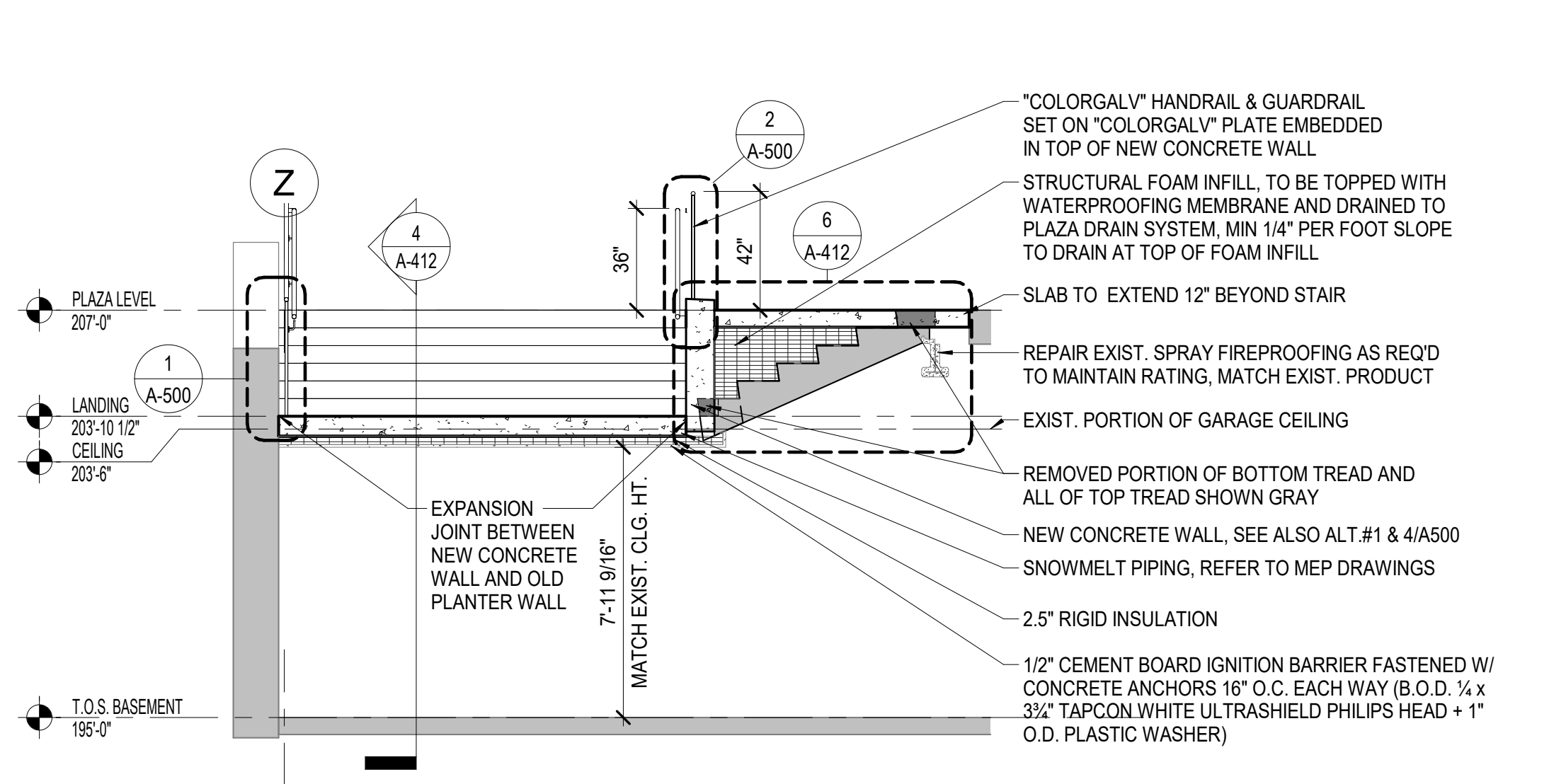
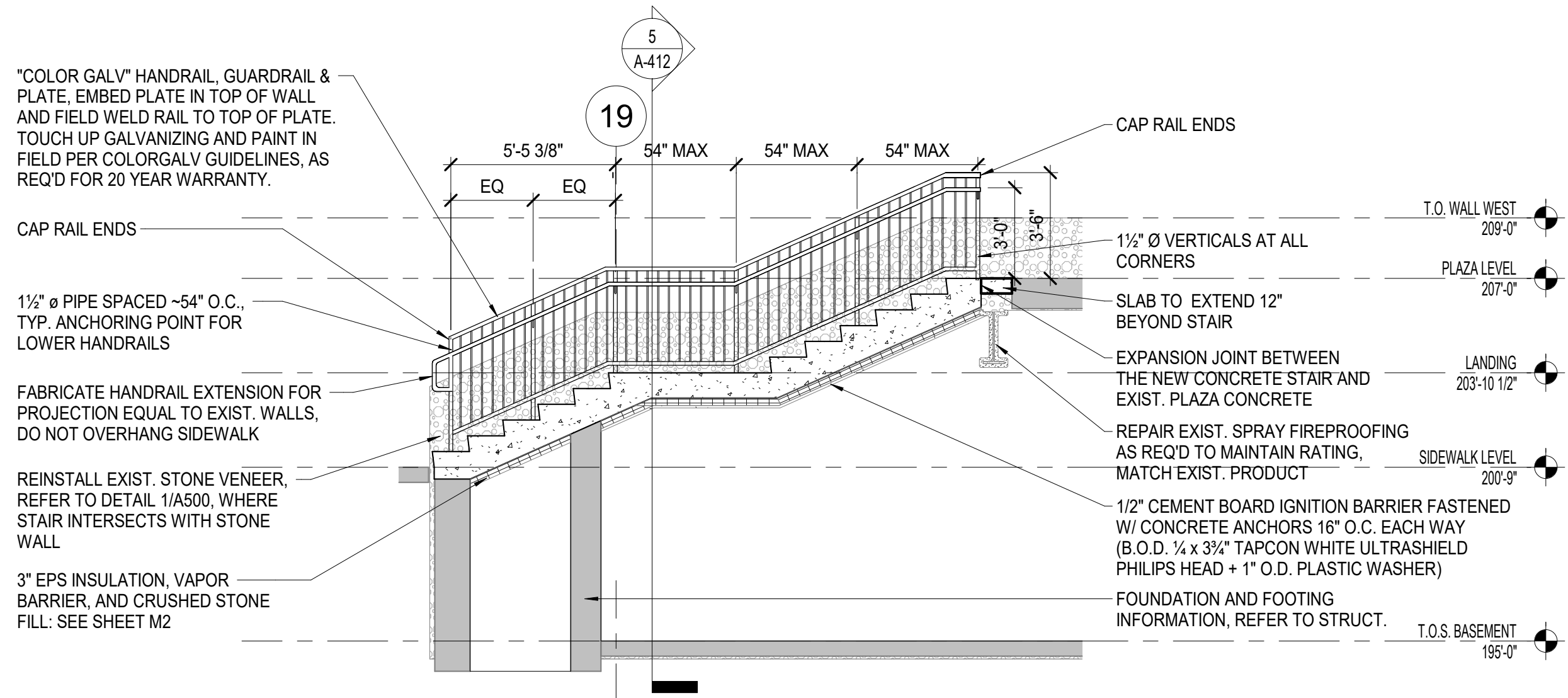
COSTELLO COURTHOUSE
PARKING GARAGE REPAIRS
BURLINGTON, VT

SITE SECTIONS @ PLAZA



1 DEMOLITION PLAN
A-412 SCALE: 1/4" = 1'-0"

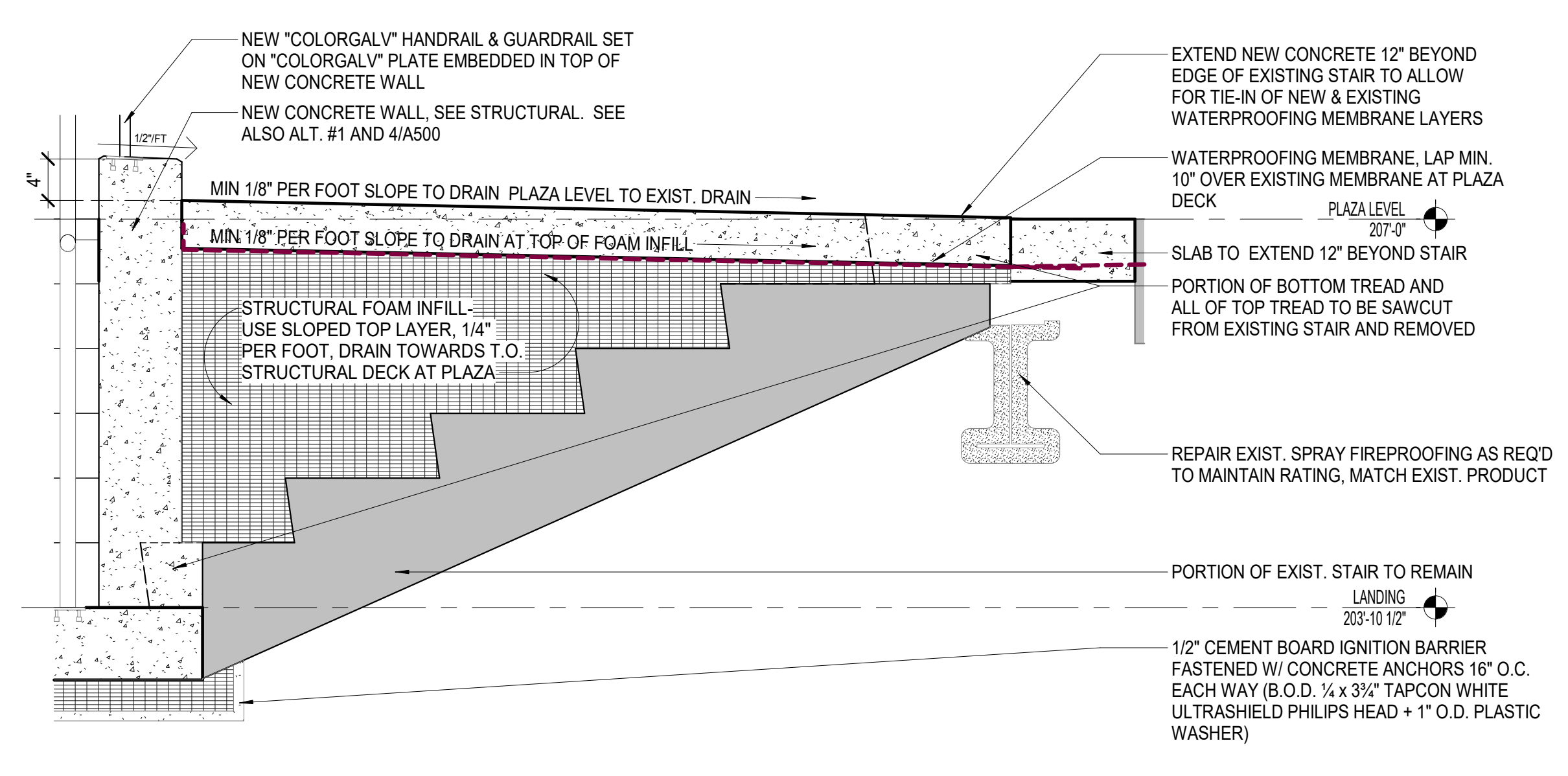
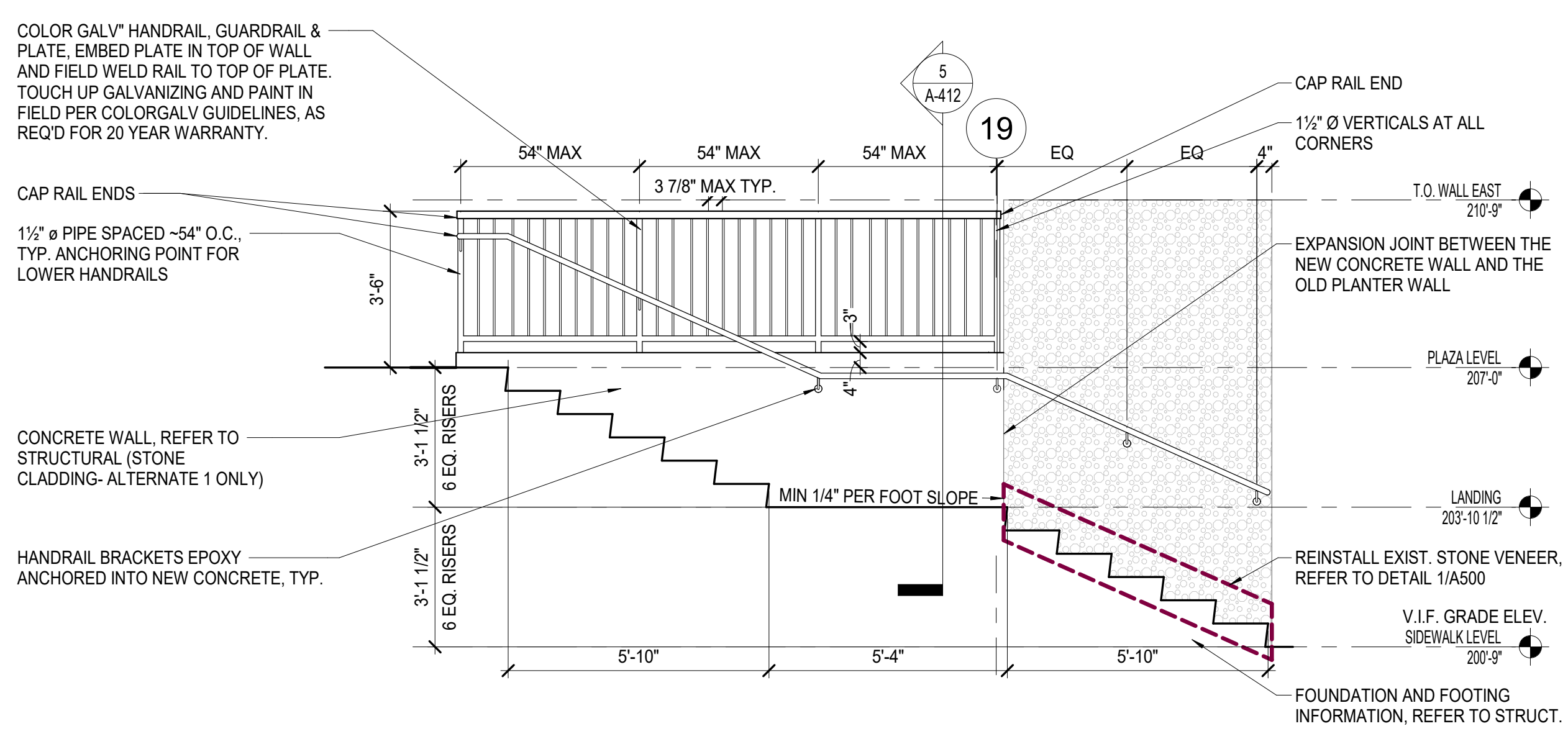
2 ARCHITECTURAL PLAN
A-412 SCALE: 1/4" = 1'-0"



4 NORTH / SOUTH SECTION LOOKING WEST
A-412 SCALE: 1/4" = 1'-0"

5 EAST / WEST SECTION LOOKING NORTH BASE SCOPE SHOWN, SEE ALSO ALTERNATE 1 FOR STONE CLADDING ON WALL BETWEEN NEW & INFILLED STAIRS
A-412 SCALE: 1/4" = 1'-0"

GENERAL NOTES / LEGEND



- SO SEE SYMBOL LEGEND ON COVER SHEET.
- DIMENSIONS:** EXTERIOR DIMENSIONS ARE TO NOMINAL CORNER OF MASONRY UNLESS NOTED OTHERWISE.
 - PLANS ARE TO BE VIEWED IN CONJUNCTION WITH STRUCTURAL, MEP/FP, LANDSCAPE AND ALL OTHER TRADES, AS APPROPRIATE. DISCREPANCIES ARE TO BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR RESOLUTION BEFORE COMMENCING WORK.
 - ALL NON-ARCHITECTURAL INFORMATION SHOWN HERE IS FOR REFERENCE ONLY.
 - ALL VERTICAL AND HORIZONTAL PENETRATIONS THROUGH RATED ASSEMBLIES ARE TO BE SEALED WITH UL-LISTED FIRESTOPPING AND/OR SEALANT ASSEMBLIES TO MAINTAIN RATING.

- EXISTING CONSTRUCTION TO REMAIN
- INDICATES CROSS SLOPE AT 1.5%, DOWNWARD IN DIRECTION OF ARROW. DO NOT EXCEED 2% SLOPE.

7 ELEVATION AT EAST RAILING
A-412 SCALE: 3/8" = 1'-0"

6 DETAIL SECTION AT GUARD / HANDRAIL AT INFILLED PLAZA
A-412 SCALE: 1" = 1'-0"



NO.	DATE	REVISION
1		
2		
3		
4		
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6		
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8		
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COSTELLO COURTHOUSE PARKING GARAGE REPAIRS
BURLINGTON, VT

STAIR PLANS AND SECTIONS



SURROUNDING SOIL SHOULD NOT EXCEED 80% COMPACTION, DRAINAGE WILL BE REQUIRED IF COMPACTED SOILS ARE PRESENT

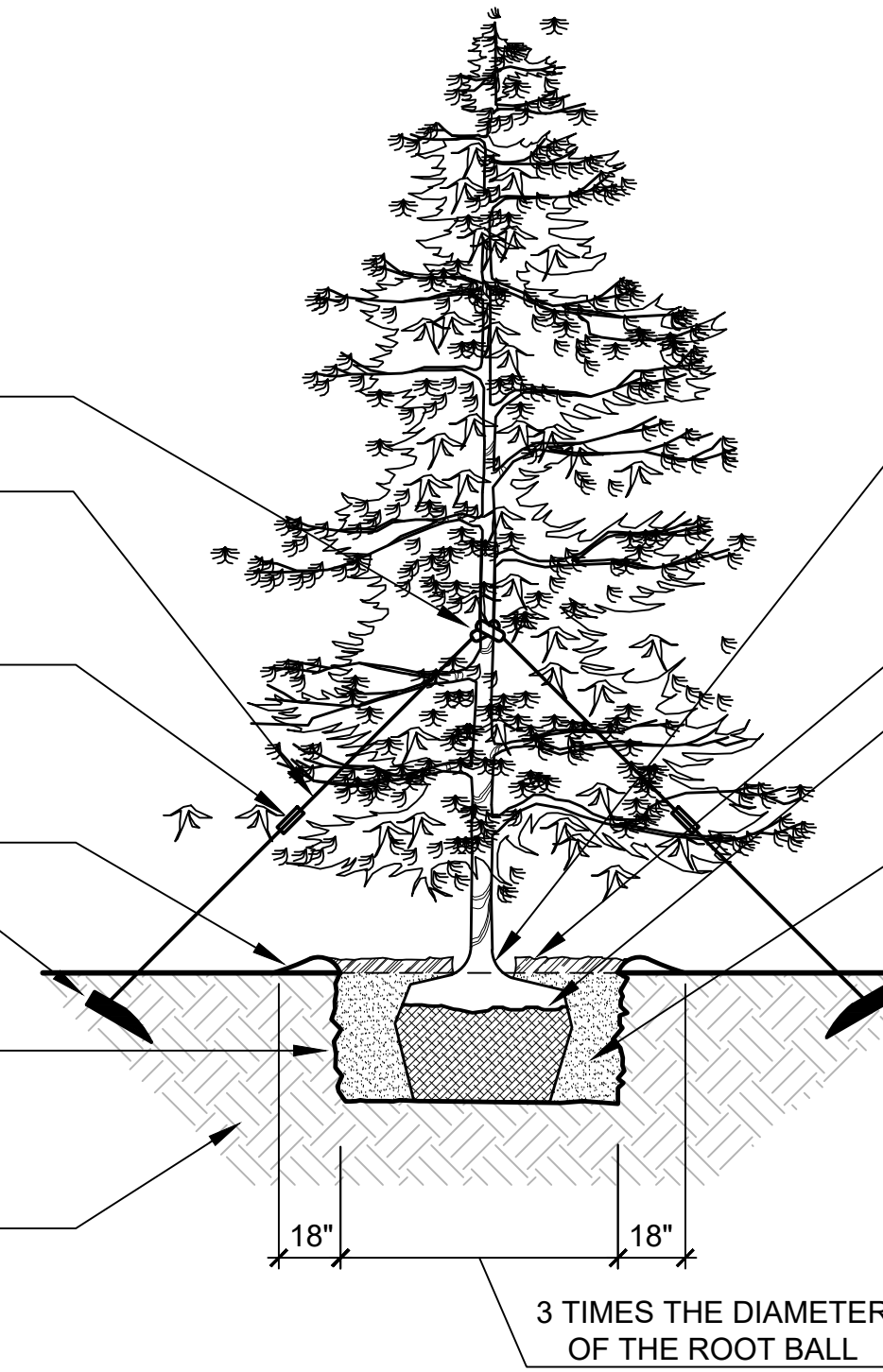
12" X 1 1/2" NYLON/COTTON WEAVE TIES WITH 3/4" GROMMETS
 1/8" X 7 X 7 STEEL CABLE FASTENED W/ (2) ZINC PLATED CABLE CLAMPS. COVER GUYS W/3" OF 3/8" DIA. SLIP PLASTIC TUBING.

TURNBUCKLE, EYE & EYE, ZINC PLATED, 10 5/8" OPEN LENGTH, 3/8" THREAD DIA. INSTALL W/ TURNBUCKLE IN OPEN POSITION.

TEMPORARY WATERING BASIN
 (3) DUCKBILL TYPE ANCHORS

BREAK APART EDGE OF EXCAVATION W/ SHOVEL AND BLEND PLANT MIX W/ EXISTING SOIL TO PROVIDE TRANSITION TO UNDISTURBED GRADE.

UNDISTURBED GRADE: ESCAVATE ONLY TO SPECIFIED PLANTING DEPTH TO ENSURE STABLE BASE



NOTES:
 1. EXAMINE ENTIRE TREE AND REMOVE ALL NURSERY TAGS, ROPE, STRING, OR SURVEYORS TAPE TO PREVENT FUTURE GIRDLING.
 2. WIDTH OF TREE PIT SHALL BE 3 TIMES THE DIAMETER OF THE ROOT BALL, UNLESS TREE IS BEING PLANTED IN CONTINUOUS LANDSCAPE BEDS / PITS.

TOP OF ROOTBALL TO BE PLACED AT SAME LEVEL THAT IT WAS GROWN IN NURSERY
 • SLIGHT ROOT FLARE SHOULD BE EVIDENT

2" BARK MULCH

REMOVE TOP HALF OF WIRE CAGE CUT AND REMOVE BURLAP FROM ROOTBALL

BACKFILL MIX FOR TREE PLANTING BEDS, REFER TO SPECIFICATIONS 02916 SOIL PREPARATION

FINISH GRADE

3 TIMES THE DIAMETER OF THE ROOT BALL

REFER TO NOTE #2

D EVERGREEN PLANTING
 SCALE 1/4" = 1'-0"

p-vertree.dwg

NOTE: EXAMINE ENTIRE TREE AND REMOVE ALL NURSERY TAGS, ROPE, STRING, OR SURVEYORS TAPE TO PREVENT FUTURE GIRDLING.

SURROUNDING SOIL SHOULD NOT EXCEED 80% COMPACTION, DRAINAGE WILL BE REQUIRED IF COMPACTED SOILS ARE PRESENT

NYLON STRAP WITH 3/4" GROMMETS, REFER TO SPECIFICATIONS

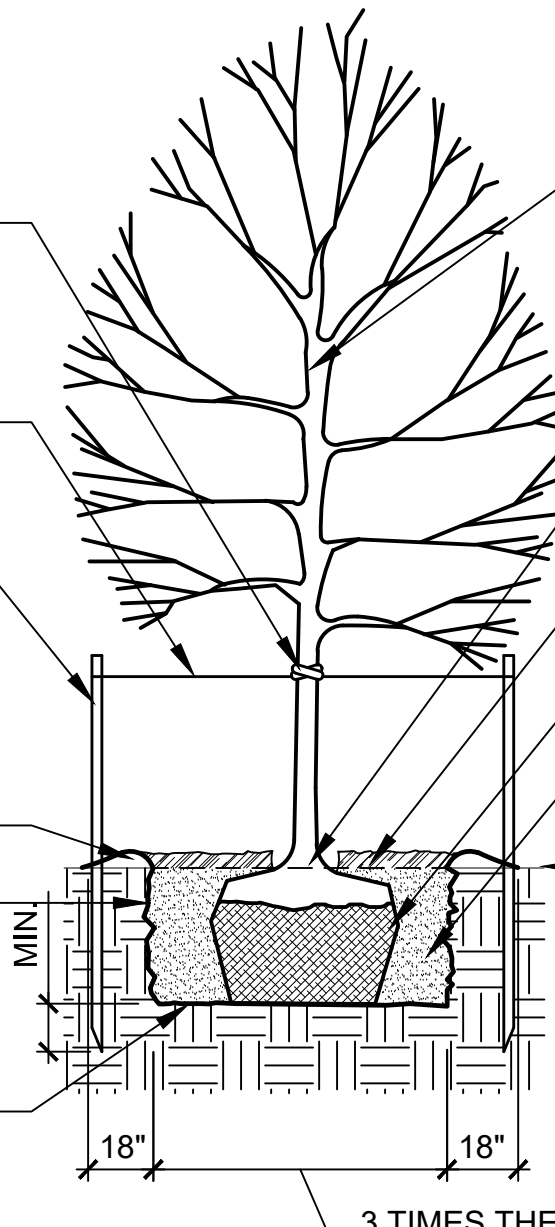
FASTEN WIRE BELOW POINT OF MAJOR BRANCHING OR TO MAJOR OUTSIDE TRUNK.

2 1/2" HARDWOOD STAKES. ALIGN STAKES PARALLEL W/ ROAD/ WALKS OR PARALLEL W/ DIRECTION OF PREVAILING WIND, REFER TO TREE STAKING DETAIL

TEMPORARY WATERING BASIN

BREAK APART EDGE OF EXCAVATION W/ SHOVEL AND BLEND PLANT MIX W/ EXISTING SOIL TO PROVIDE TRANSITION TO UNDISTURBED GRADE

UNDISTURBED GRADE EXCAVATE ONLY TO SPECIFIED PLANTING DEPTH TO ENSURE STABLE BASE



DECIDUOUS TREE

TOP OF ROOTBALL, ROOT FLARE SHOULD BE EVIDENT. IF ROOT FLARE IS NOT EVIDENT, THEN SCRAPE OFF THE TOP LAYER OF SOIL BUILD UP ON TOP OF ROOTBALL FROM NURSERY.

2" HEMLOCK BARK MULCH

REMOVE TOP HALF OF WIRE CAGE CUT AND REMOVE BURLAP FROM ROOTBALL

BACKFILL MIX FOR TREE PLANTING BEDS, REFER TO SOIL PREPARATION SPECIFICATION

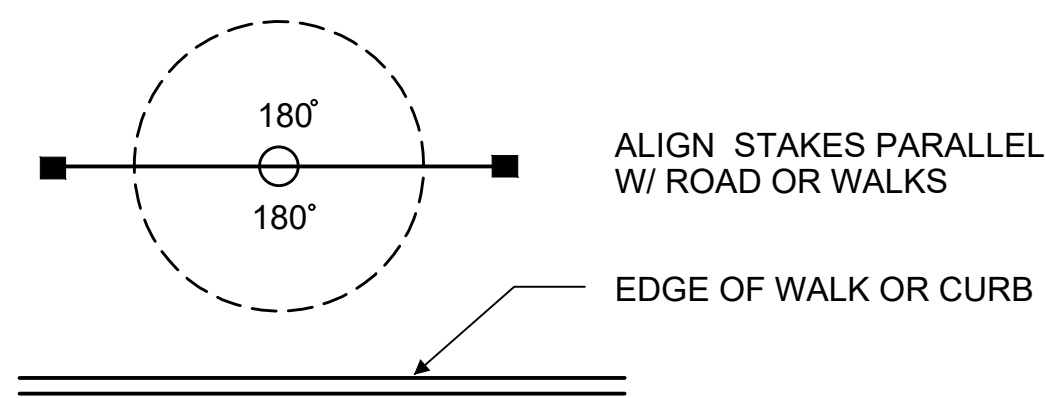
FINISH GRADE

NOTE:
 1. ALL TREE PLANTING BEDS ARE TO BE CONTINUOUS, COMPLETELY DUG OUT AND BACKFILLED WITH THE PROPER PLANTING BED BACKFILL MATERIAL, REFER TO SOIL PREPARATION SPECIFICATION.

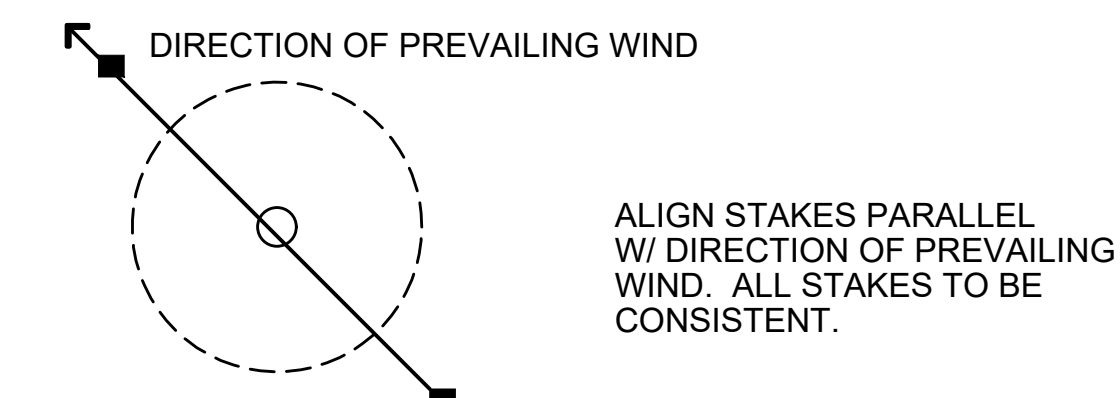
3 TIMES THE DIAMETER OF THE ROOT BALL

A TREE PLANTING
 SCALE 1/4" = 1'-0"

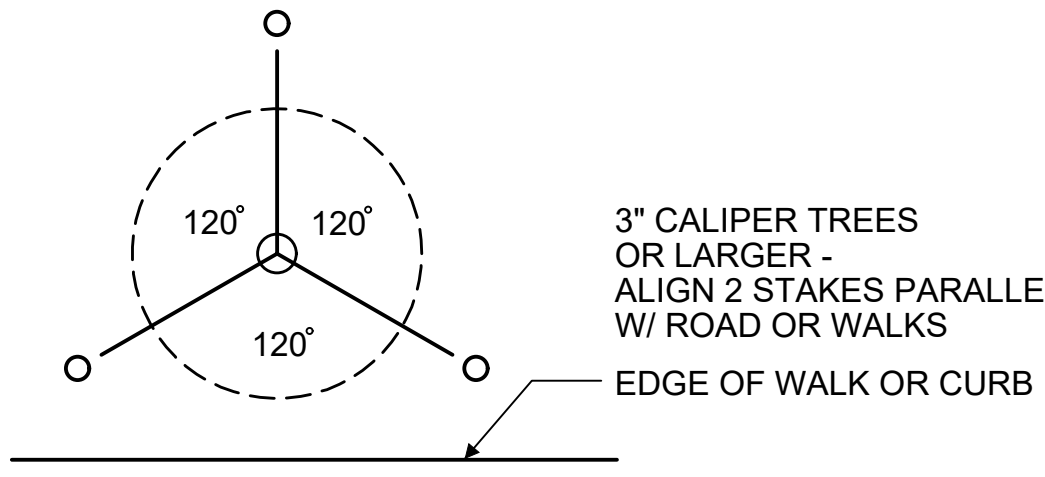
p-decidtree.dwg



A. TREE STAKING ALONG ROAD OR WALKS



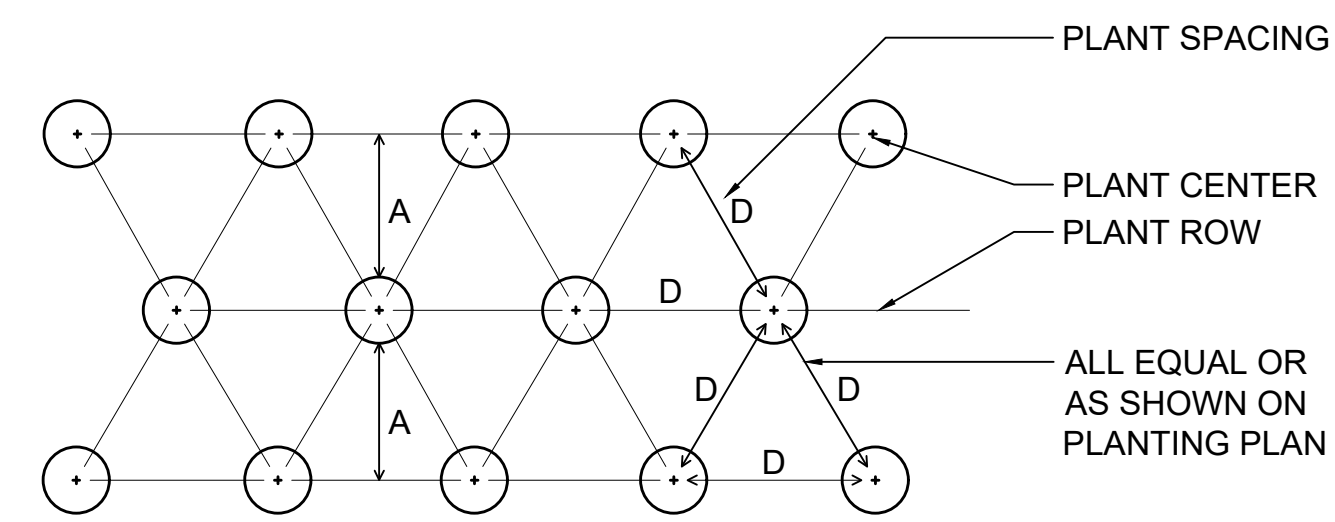
B. TREE STAKING IN OPEN SPACES



C. TREE GUYING

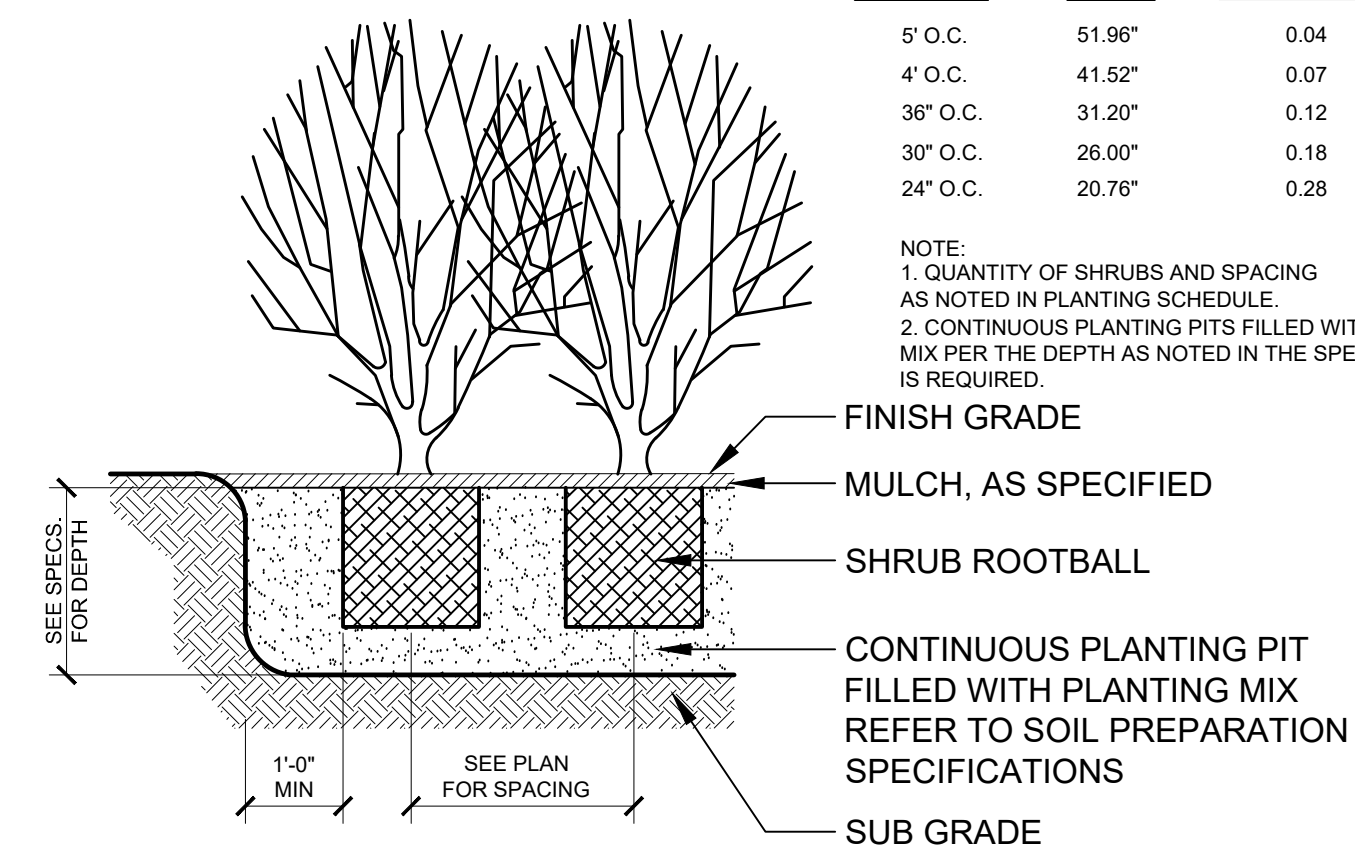
E TREE STAKING LAYOUT
 NO SCALE

p-stake.dwg

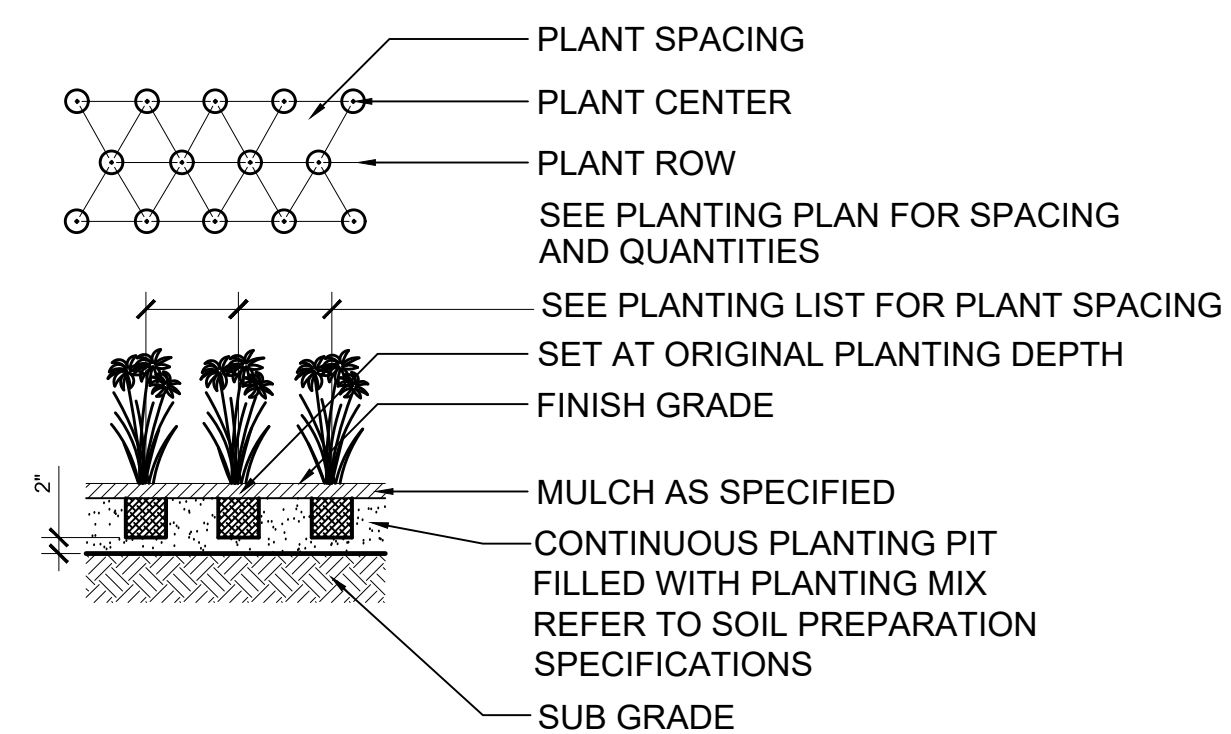


SPACING "D"	ROW "A"	NUMBER OF PLANTS/SQ. FT.
5' O.C.	51.96"	0.04
4' O.C.	41.52"	0.07
36" O.C.	31.20"	0.12
30" O.C.	26.00"	0.18
24" O.C.	20.76"	0.28

NOTE:
 1. QUANTITY OF SHRUBS AND SPACING AS NOTED IN PLANTING SCHEDULE.
 2. CONTINUOUS PLANTING PITS FILLED WITH PLANTING MIX PER THE DEPTH AS NOTED IN THE SPECIFICATIONS IS REQUIRED.



C SHRUB PLANTING
 SCALE: 1/2" = 1'-0"



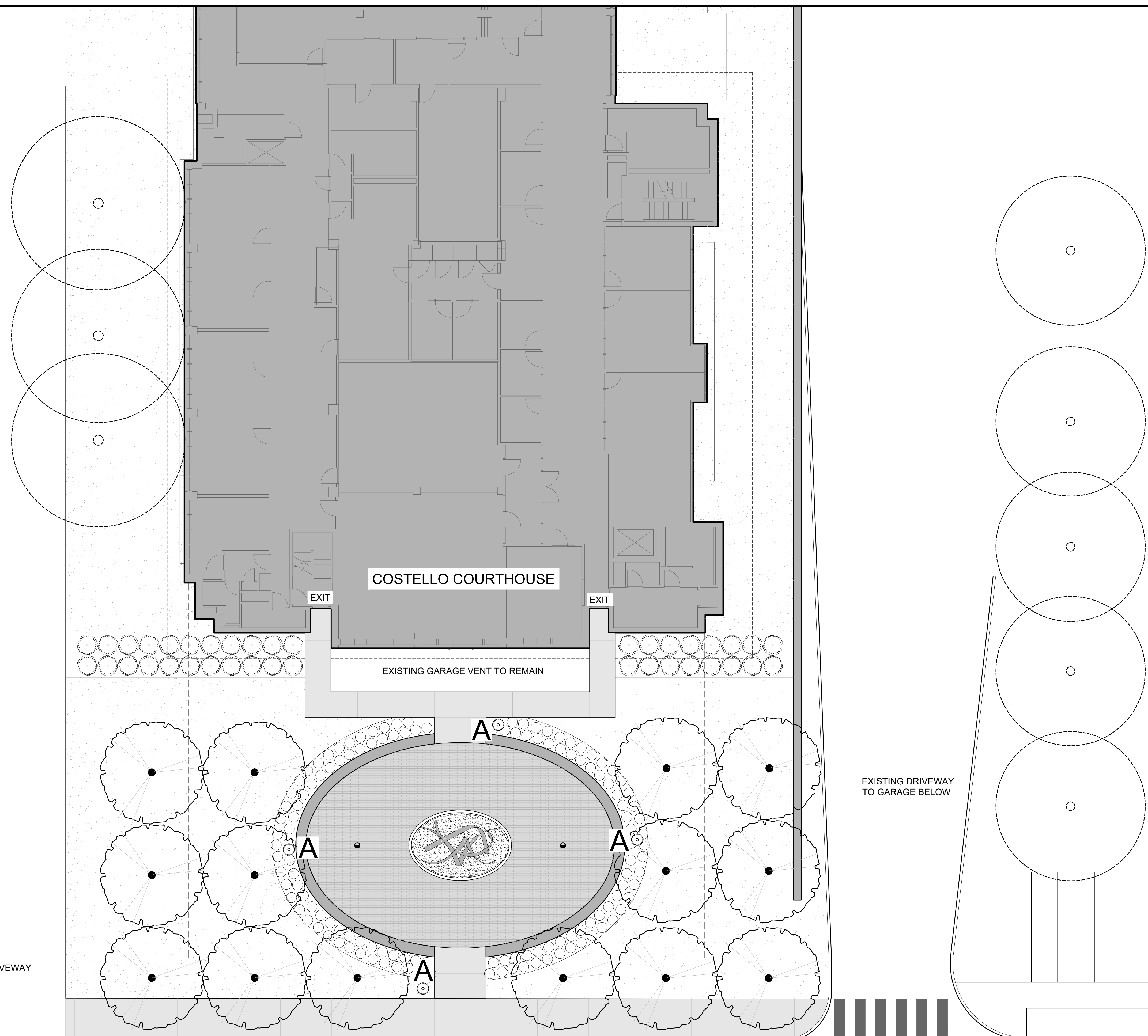
B PERENNIAL PLANTING
 SCALE: 1/2" = 1'-0"

NO.	REV.	DATE	BY	CHKD.

COSTELLO COURTHOUSE
 PARKING GARAGE REPAIRS
 BURLINGTON, VT

TITLE
**PLANTING
 DETAILS**

PROJECT
 P2327.00
 SCALE
 AS NOTED
 DRAWN BY
 MKW
 DATE
 22-Mar-2024
 SHEET NUMBER
LA-2.01



COSTELLO COURTHOUSE

EXIT

EXIT

EXISTING GARAGE VENT TO REMAIN

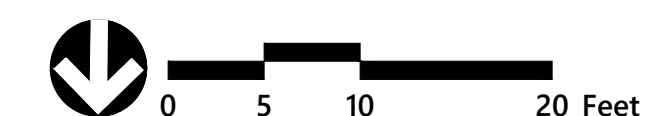
EXISTING DRIVEWAY
TO GARAGE BELOW

EXISTING DRIVEWAY
TO REMAIN

PEARL STREET

LIGHT FIXTURE AND POLE SPECIFICATIONS

Fixture A
 Manufacturer: Selux
 Fixture: Saturn Cutoff LED
 Optics: Type III
 Mounting: Single
 Light Engine: 39W/4442lm
 Color Temperature: 2700K
 Finish: Black
 Pole Height: 14'



NO.	DATE	REVISION

COSTELLO COURTHOUSE
 PARKING GARAGE REPAIRS
 BURLINGTON, VT

LANDSCAPE
 LIGHTING PLAN

PROJECT:
 P23237-00
 SCALE:
 AS NOTED
 DRAWN BY:
 MKW
 DATE:
 22-Mar-2024

SHEET NUMBER
LA-4.00

GENERAL NOTES

1. THE PLUMBING INSTALLATION SHALL COMPLY WITH THE VERMONT PLUMBING CODE AND ALL AUTHORITIES HAVING JURISDICTION.
2. THE CONTRACTOR SHALL COORDINATE PLUMBING WORK WITH ALL OTHER TRADES AND VERIFY DIMENSION AND CONDITIONS AT THE SITE PRIOR TO BEGINNING WORK. NO ADDITIONAL COSTS WILL BE ACCEPTED IF ATTRIBUTED TO FAILURE TO COORDINATE OR VERIFY.
3. ALL PLUMBING LINES SHOWN ARE DIAGRAMMATIC AND NOT INTENDED TO SHOW EXACT LOCATIONS. THE CONTRACTOR SHALL INSTALL PIPING SYSTEM TO MINIMIZE LENGTH OF RUNS AND AVOID INTERFERENCES.
4. ALL STORM PIPING TO BE RUN AT A SLOPE OF 1/4" PER FOOT (MINIMUM) UP TO 3" PIPE, AND 1/8" PER FOOT (MINIMUM) FOR LARGER DIAMETER PIPES UNLESS OTHERWISE NOTED.
5. THE CONTRACTOR SHALL SEAL SLEEVES INSTALLED IN FIRE-RATED WALLS, CEILINGS AND FLOORS WITH FIRE-PROOF MATERIAL EQUAL TO THE RATING OF THE RESPECTIVE WALLS, CEILINGS AND FLOORS.
6. INSTALL PIPING AS STRAIGHT AND DIRECT AS POSSIBLE FORMING RIGHT ANGLE OR PARALLEL LINES WITH BUILDING WALLS. NEATLY SPACED, RISERS PLUMB AND TRUE, AND AVOID INTERFERENCE WITH OTHER CONSTRUCTION.
7. CLEANOUTS SHALL BE PROVIDED ON ALL PLUMBING DRAINAGE PIPING AT CHANGES OF DIRECTION GREATER THAN 45° AND EVERY 50 FEET FOR PIPING UP TO 4" DIAMETER, AND 100 FEET FOR PIPING 5" AND LARGER.
8. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL SHOP DRAWINGS INDICATING LOCATIONS OF PLUMBING EQUIPMENT AND ROUTING OF ALL PIPING, ASSOCIATED HANGERS AND SUPPORTS, FLOOR, WALL, AND CEILING PENETRATIONS. WORK SHALL NOT PROCEED WITHOUT APPROVED SHOP DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO STRICTLY ADHERE TO THESE DRAWINGS DURING THE ENTIRE CONSTRUCTION DURATION. IF, FOR ANY REASON, THE LOCATION OF ANY PLUMBING SYSTEM COMPONENTS, AND/OR ROUTING OF ANY PIPES NEEDS TO BE CHANGED, THE CONTRACTOR SHALL REVISE SHOP DRAWINGS, AND RESUBMIT FOR APPROVAL. THE SHOP DRAWINGS SHALL BE COORDINATED WITH ARCHITECTURAL EXPOSED STRUCTURAL STEEL.
9. SUBMIT DIMENSIONED PLANS AND ELEVATIONS FOR APPROVALS. THE SUBMISSION SHALL INCLUDE COORDINATED CEILING PLANS INDICATING LOCATIONS OF LIGHT FIXTURES AND SPRINKLER HEADS.
10. THE PLUMBING CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND JOB CONDITIONS AND SHALL REPORT TO ENGINEER ANY DISCREPANCIES OR OMISSIONS THAT WOULD INTERFERE WITH SATISFACTORY COMPLETION OF THE WORK.
11. DRAWINGS ARE NOT TO BE SCALED.
12. CONTRACTOR SHALL COMPLY WITH ALL REGULATORY AGENCIES AND CODE REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS AND APPROVALS OF ALL TRADES.
13. UNLESS SPECIFICALLY STATED OTHERWISE, CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, APPURTENANCES, EQUIPMENT AND SERVICES TO COMPLETE ALL WORK AS INDICATED ON DRAWINGS AND/OR SPECIFIED ON NOTES.
14. UNLESS SPECIFICALLY STATED OTHERWISE, CONTRACTOR SHALL FOLLOW MANUFACTURER'S DIRECTIONS, INSTRUCTIONS AND RECOMMENDATIONS FOR ALL MATERIALS AND PROCESSES USED IN THIS CONTRACT.
15. UPON COMPLETION OF THE WORK, CONTRACTOR SHALL COMPLETELY CLEAN THE CONSTRUCTION AREA SUITABLE FOR THE OWNER'S USE, INCLUDING REMOVAL OF ALL LABELS (AFTER ARCHITECT'S INSPECTION), CLEANING OF ALL THE EQUIPMENT, CONSTRUCTION WORK, WINDOWS AND OTHER WORK, NEW AND OLD, IN THAT CONSTRUCTION AREA.
16. CONTRACTOR SHALL GUARANTEE ALL WORK PERFORMED UNDER THIS CONTRACT FOR ONE YEAR, STARTING FROM DATE OF FINAL COMPLETION OF ALL WORK.
17. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIAL, EQUIPMENT, ETC., AND PERFORM ALL OPERATIONS FOR THE WORK DELINEATED IN THE CONTRACT DRAWINGS FOR THE INSTALLATION OF A COMPLETE PLUMBING SYSTEM. THE ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH THE STATE AND LOCAL PLUMBING CODE AND AUTHORITIES HAVING JURISDICTION.
18. THE PLUMBING CONTRACTOR SHALL BE A LICENSED, AUTHORIZED INSTALLER OF PLUMBING SYSTEMS AND SHALL HAVE HAD A MINIMUM OF FIVE YEARS EXPERIENCE IN THE INSTALLATION OF LOCAL PLUMBING SYSTEMS.
19. THE PLUMBING CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS TO EXISTING PIPING TO SUIT NEW PLUMBING FIXTURES AND EQUIPMENT.
20. UPON REVIEW OF PLUMBING DRAWINGS AND SPECIFICATIONS PRIOR TO SUBMITTING HIS PROPOSAL, THE PLUMBING CONTRACTOR SHALL INFORM ARCHITECT AND/OR ENGINEER OF ANY DISCREPANCIES OR REQUEST CLARIFICATION IN WRITING. IF NECESSARY, CONCERNING THE INTENT OF THE PLANS AND SPECIFICATIONS TO PROVIDE A COMPLETE PLUMBING INSTALLATION. LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT OR MATERIALS SHOULD SUCH PROCEDURE NOT BE FOLLOWED.
21. THE PLUMBING CONTRACTOR SHALL INCLUDE IN HIS BID ANY MODIFICATION REQUIRED TO ALL PLUMBING PIPING AND ACCESSORIES FOR RELOCATION, REPLACEMENT OR REMOVALS OF ANY FIXTURES OR EQUIPMENT.
22. THE SCHEDULING OF THE PLUMBING WORK SHALL BE COORDINATED WITH BUILDING MANAGEMENT, WITH OTHER CONTRACTORS AND WITH THE CLIENT.

23. NECESSARY SHUTDOWNS OF BASE BUILDING PLUMBING SYSTEMS MUST BE COORDINATED WITH BUILDING MANAGEMENT. THE CONTRACTOR MUST GIVE BUILDING MANAGEMENT 48 HOURS NOTICE PRIOR TO SHUT-- DOWN OF PLUMBING SYSTEMS.
24. ALL PIPING SHALL RUN CONCEALED WITHIN PARTITIONS OR SUSPENDED CEILINGS WHERE THEY OCCUR OR AS NOTED.
25. EXISTING ABANDONED PIPING WITHIN PARTITIONS TO BE DEMOLISHED OR EXPOSED SHALL BE REMOVED BACK TO ACTIVE MAINS OR REROUTED AS REQUIRED.
26. SNAKE ALL STORM LINES FOR A DISTANCE OF 100' MINIMUM OR FURTHEST LENGTH POSSIBLE AND REPORT ANY BLOCKAGE.
27. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING, ROUGH PATCHING, FLASHING AND REPAIRING CONDITIONS AFFECTED BY NEW CONSTRUCTION. ALL FLOORS PENETRATIONS SHALL BE DONE BY CORE DRILLING. NO JACK HAMMERS ARE PERMITTED.
28. WORK SHALL INCLUDE ALL PLUMBING WORK FURNISHED AND INSTALLED AS INDICATED ON THE PLANS AND SPECIFICATIONS.
29. THE PLUMBING SYSTEM SHALL BE INSPECTED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL BUILDING CODE. THE PLUMBING CONTRACTOR SHALL ARRANGE FOR INSPECTION AND TESTS OF ANY AND ALL PARTS OF THE WORK AS REQUIRED BY AUTHORITIES HAVING JURISDICTION AND PAY ALL CHARGES FOR SAME.
30. ALL WORK MUST BE PERFORMED BY COMPANIES EXCLUSIVELY EMPLOYING EMPLOYEES REPRESENTED BY UNIONS BELONGING TO THE NYC BUILDING TRADES COUNCIL OF THE AFL-CIO.

BIDDER'S STATEMENT

CONTRACTOR MUST CONFIRM IN BID THAT THEY ARE COMPLYING WITH SPECIFICATIONS AND ANY CHANGES NEED TO BE STATED AND DESCRIBED. PROVIDE DEDUCT ALTERNATE PRICING FOR MAJOR VARIATIONS IN BID.

PLUMBING GENERAL DEMOLITION NOTES

1. THE CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL EXISTING PLUMBING WORK WHICH INTERFERES WITH THE NEW ARCHITECTURAL LAYOUTS. ALL SYSTEMS WHICH ARE NO LONGER REQUIRED TO FUNCTION SHALL BE REMOVED BACK TO ACTIVE LINES.
2. THE CONTRACTOR SHALL PERFORM DEMOLITION AND REMOVAL WORK WITH MINIMUM INTERFERENCE WITH FUNCTIONING PLUMBING SYSTEMS. ALL AFFECTED SYSTEMS SHALL BE RECONNECTED AND RESTORED.
3. DEMOLITION AND REMOVAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER. THE CONTRACTOR SHALL PATCH, REPAIR OR OTHERWISE RESTORE ANY DAMAGED INTERIOR OR EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION.
4. THE CONTRACTOR SHALL REMOVE ALL PIPING SUPPORTS, ETC. FROM PARTITIONS THAT ARE TO BE REMOVED. WHERE THE REMOVAL OF THESE ITEMS DISRUPTS EXISTING PIPING THAT IS TO REMAIN, THE CONTRACTOR SHALL INSTALL AND PROVIDE BYPASS CONNECTIONS NECESSARY.
5. ALL PIPING WHICH BECOMES EXPOSED DURING THE ALTERATION WORK SHALL BE REMOVED AND REROUTED CONCEALED BEHIND FINISHED SURFACES.
6. PORTIONS OF MAINS TO BE REMOVED OR ABANDONED AS A RESULT OF DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ACTIVE, SHALL BE CUT AT CONVENIENT LOCATIONS, REROUTED AND RECONNECTED.
7. THE CONTRACTOR SHALL NOTIFY BUILDING MANAGEMENT AT THE APPROPRIATE TIME OF THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT REQUIREMENTS.
8. ALL EXISTING MATERIAL AND EQUIPMENT REQUIRED TO BE TURNED OVER TO THE OWNER SHALL BE PLACED IN A MUTUALLY ACCEPTABLE LOCATION. ALL MATERIALS AND EQUIPMENT REMOVED AS A RESULT OF DEMOLITION SHALL BE TAKEN FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND ENVIRONMENTAL REGULATIONS.
9. ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVER TIME, IF REQUIRED, TO ASSURE THAT SYSTEMS WILL BE SHUT DOWN ONLY DURING THE TIME ACTUALLY REQUIRED TO MAKE THE NECESSARY CONNECTIONS TO THE EXISTING SYSTEMS.
10. THE SHUTDOWN OF EXISTING BUILDING PLUMBING SERVICES SHALL BE COORDINATED WITH BUILDING MANAGEMENT.
11. ALL PIPING TO BE REMOVED SHALL BE PROPERLY PLUGGED OR CAPPED SO UPON COMPLETION OF ALL NEW WORK, ALL ABANDONED PIPING SHALL BE CONCEALED IN FINISHED AREAS.
12. NO DEAD ENDS SHALL BE LEFT ON ANY PIPING UPON COMPLETION OF THE PROJECT.
13. EXISTING EXPOSED PIPING NOT TO BE REUSED AND NOT SPECIFICALLY NOTED OR SHOWN ON DRAWINGS TO BE ABANDONED SHALL BE COMPLETELY REMOVED.
14. UNDER NO CIRCUMSTANCES SHALL THIS CONTRACTOR OR HIS WORKMEN BE PERMITTED TO USE ANY PART OF THE BUILDING AS A SHOP, EXCEPT PARTS DESIGNATED BY BUILDING MANAGEMENT FOR SUCH PURPOSE.
15. ANY AND ALL REQUIRED DEMOLITION WORK TO BE PERFORMED ABOVE EXISTING SUSPENDED CEILINGS AND FURRED OUT WALLS SHALL BE DONE AT THE TIME WHEN THE EXISTING CEILINGS AND FURRED OUT WALLS ARE REMOVED BY THE GENERAL CONTRACTOR.

PLUMBING DRAWING LIST

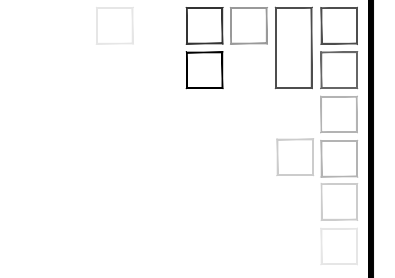
1. P-001.00	PLUMBING NOTES, SYMBOLS & ABBREVIATIONS
2. P-100.00	PLUMBING CONSTRUCTION PLAN, DETAILS & RISER DIAGRAM

PLUMBING ABBREVIATIONS

AD	AREA DRAIN
Ⓢ	CENTER LINE
CO	CLEAN OUT
DWG	DRAWING
FD	FLOOR DRAIN
NTS	NOT TO SCALE
PD	PLANTER DRAIN
SPEC	SPECIFICATIONS

PLUMBING SYMBOL LIST

-----	DRAINAGE PIPING
□ AD	AREA DRAIN WITH REMOVABLE GRATE



NO.	DATE	DESCRIPTION

**COSTELLO COURTHOUSE
PARKING GARAGE REPAIRS**
BURLINGTON, VT

GENERAL NOTES

ELECTRICAL SYMBOLS LIST

ABBREVIATIONS

GENERAL NOTES (CONTINUED)

LIGHTING FIXTURE SCHEDULE

Thornton Tomasetti, Inc.
Thornton Tomasetti, Inc.
14 York Street, Suite 201
Portland, ME 04101
T:207.245.6060 F:207.245.6061

Table with 2 columns: Symbol and Description. Includes symbols for new/existing equipment, lighting fixtures, exit signs, emergency lighting, panelboards, duplex receptacles, switches, junction boxes, heaters, card readers, CO2 detectors, and security cameras.

Table with 2 columns: Abbreviation and Description. Lists electrical symbols such as A (amps), AC (alternating current), AF (amp fuse), AFCI (arc fault interrupt), AFF (above finished floor), ARCH (architectural), AS (amp switch), AUTO (automatic), BLDG (building), C (conduit), CAB (cabinet), CAT (catalogue), CKT (circuit), CLG (ceiling), COL (column), CONV (convenience), DC (direct current), DN (down), DP (distribution panel), DWG (drawing), EC (empty conduit), ELEV (elevator), EM (on emergency circuit), ER (existing to be removed), ERR (existing to be removed and replaced), E/EXIST (existing to remain), F@ (fused at), FA (fire alarm), FL (floor), FT (feet), G (ground), GFI (ground fault interrupt), HP (horsepower), HT (height), HTG (heating), HVAC (heating ventilating and air conditioning), IG (isolated ground), JB (junction box), KVA (kilovolt amperes), KW (kilowatt), LP (lighting panel), LTG (lighting), M (main).

GENERAL NOTES

- 1. ALL MATERIAL SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL CODE REQUIREMENTS. THE INSTALLATION AND DESIGN SHALL COMPLY WITH THE FOLLOWING: VERMONT FIRE AND BUILDING SAFETY CODE, 2015 EDITION, VERMONT ELECTRICAL SAFETY RULES, 2020 EDITION, NFPA 70-2020 (NEC), THE AMERICAN WITH DISABILITIES ACT (ADA), ALL OTHER APPLICABLE LOCAL CODES.
2. THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE THE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO THE GENERAL NOTES. INCONSISTENCIES BETWEEN THE DRAWINGS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
3. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
4. ELECTRICAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS.
5. THE CONTRACTOR SHALL SUBMIT COMPLETE SUBMITTALS (AS NOTED IN THE SPECIFICATIONS) FOR ALL PARTS OF THE WORK INCLUDING DESCRIPTION OF CONSTRUCTION METHODS AND SEQUENCING, WHERE APPLICABLE. NO PERFORMANCE OF THE WORK SHALL COMMENCE WITHOUT REVIEW OF THE ASSOCIATED SHOP DRAWINGS BY THE ELECTRICAL ENGINEER.
6. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO VEHICLES, PROPERTY AND PUBLIC CAUSED BY THEIR WORK.
8. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, LICENSES AND GOVERNMENT FEES AS REQUIRED. THE CONTRACTOR SHALL COMPLY WITH CODES, ORDINANCES, RULES, REGULATIONS, ORDERS AND OTHER LEGAL REQUIREMENTS OF THE PUBLIC AUTHORITY, WHICH BEAR ON THE PERFORMANCE OF THE WORK.
9. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO VISIT AND INSPECT SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS ASSOCIATED WITH, BUT NOT LIMITED TO THE FOLLOWING:
A. EXISTING BUILDING ELECTRICAL DISTRIBUTION SYSTEM AS IT APPLIES TO THE WORK TO BE PERFORMED.
11. CONTRACTOR'S INSPECTION SHALL BE CONDUCTED PRIOR TO FINAL BID, AND ANY ADDITIONAL WORK REQUIRED DUE TO FAILURE TO VISIT SITE OR INADEQUATE INSPECTION SHALL NOT BE CONSIDERED FOR COMPENSATION.
12. ALL WORK IS TO BE COORDINATED WITH FACILITIES MANAGEMENT. CONTRACTOR IS TO NOTIFY FACILITIES MANAGEMENT PRIOR TO PERFORMING ANY WORK AFFECTING OTHER SERVICES. SUCH WORK SHALL BE PERFORMED ON AN OVERTIME BASIS UNLESS OTHERWISE APPROVED BY THE FACILITIES MANAGEMENT.

- 13. ELECTRICAL CONTRACTOR SHALL VERIFY ELECTRICAL AND GROUNDING REQUIREMENTS OF ALL NEW AND EXISTING EQUIPMENT TO BE USED. ALL SPECIAL PURPOSE RECEPTACLES INDICATED ON PLAN SHALL BE VERIFIED WITH EQUIPMENT MANUFACTURER TO INSURE PROPER WIRING.
14. CIRCUIT NUMBERS ARE FOR GUIDANCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE TO BALANCE PHASES. REFER TO PANEL SCHEDULES FOR BRANCH CIRCUIT REQUIREMENTS.
15. ALL BRANCH CIRCUITS SHALL BE MINIMUM 2#10 + 1#12G IN 3/4" CONDUIT. CIRCUIT SIZES OTHER THAN 2#10 + 1#12G IN 3/4" ARE INDICATED ON PLAN. ALL CIRCUITS AND FEEDERS SHALL HAVE A FULL SIZE INSULATED GREEN GROUND CONDUCTOR AND BE CONNECTED TO GROUND BUS IN RESPECTIVE PANEL.
17. CONTRACTOR TO DE-RATE CONDUCTORS IN ACCORDANCE WITH THE NEC WHEN INSTALLING MORE THAN THREE (3) CIRCUITS IN A 3/4" HOMERUN AND OTHERWISE REQUIRED.
18. ALL POWER AND LOW VOLTAGE CABLE SHALL BE ROUTED IN CONDUIT.
19. ALL HORIZONTAL CONDUIT SHALL BE PVC SCHEDULE 40, U.O.N. ALL VERTICAL CONDUIT SHALL BE PVC SCHEDULE 80, U.O.N. CONDUIT SHALL BE SECURED AT 36" MAXIMUM WITH 316 STAINLESS STEEL HARDWARE.
20. ALL HOLES IN SLABS OR RATED WALLS INCLUDING EXISTING AND NEW ELECTRICAL SERVICE ROOMS SHALL BE SEALED WITH APPROVED FIRE RATED MATERIALS.
21. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND PROVIDING THE ACTUAL NUMBER OF CONDUCTORS REQUIRED FOR ALL BRANCH CIRCUIT WIRING TO SERVE THE INTENDED FUNCTION.
22. ALL DEVICE PLATE FINISHES/ COLORS SHALL BE BRUSHED STAINLESS STEEL.
23. MOUNT ALL WALL SWITCHES, DIMMERS, ETC., AT 40" A.F.F. TO CENTER LINE OF DEVICES. RECEPTACLES SHALL BE MOUNTED AT 15" A.F.F. U.O.N. RECEPTACLES IN ELECTRICAL OR MECHANICAL ROOMS SHALL BE MOUNTED AT 4" A.F.F. AND SHALL BE GFCI TYPE.
24. SECURE ALL SUPPORTS TO BUILDING STRUCTURE UTILIZING TOGGLE BOLTS (HOLLOW MASONRY), EXPANSION SHIELDS OR INSERTS (CONCRETE AND BRICK), MACHINE SCREWS (METAL), BEAM CLAMPS (FRAMEWORK), WOOD SCREWS (WOOD) OR PAN THRU STRAPS (METAL DECK). NAILS, RAWL PLUGS AND WOOD PLUGS ARE NOT PERMITTED, WHERE REQUIRED BY STRUCTURE, PROVIDE THRU BOLTS AND FISH PLATES. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS.
25. PASS RACEWAYS OVER WATER, STEAM OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 3 INCHES OF STEAM OR HOT WATER PIPES OR APPLIANCES (EXCEPT PIPE CROSSINGS WHERE RACEWAY SHALL BE AT LEAST 1 INCH FROM PIPE COVERS).
26. LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS. RACEWAYS OVER 10 FT LONG IN WHICH WIRING IS NOT INSTALLED: FURNISH FISH WIRE.
27. SET BOXES SQUARE AND TRUE WITH BUILDING FINISH. ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRONS.
28. COVERS OF JUNCTION AND PULLBOXES SHALL BE READILY ACCESSIBLE.
29. PROVIDE PULLBOXES WHERE INDICATED, WHERE REQUIRED BY CODE AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE. COORDINATE PULLBOX LOCATIONS WITH OTHER TRADES.
30. EMPTY RACEWAY RUNS: PROVIDE PULLBOXES EVERY 100FT AND AS INDICATED. COORDINATE LOCATIONS WITH OTHER TRADES.
31. PROVIDE EXPANSION JOINTS WHERE CONDUIT CROSSES BUILDING EXPANSION JOINTS INCLUDING AT STAIRWELL AND RAMP. REFER TO S-SERIES DRAWINGS FOR EXPANSION JOINT INFORMATION AND FIELD VERIFY.
32. THIS CONTRACTOR IS TO NOTIFY ENGINEER/ARCHITECT OF ANY CONTRADICTIONS FOUND ON THE DESIGN DOCUMENTS AND BASE THE BID ON THE MORE EXPENSIVE CONDITION.
33. TWO COPIES OF A REPRODUCIBLE AS-BUILT MARKED-UP DRAWING, SHOWING CONDUIT RUNS AND CIRCUITING MUST BE GIVEN TO ENGINEER AND FACILITIES MANAGEMENT AT THE COMPLETION OF THE JOB.
34. UPDATED COMPLETE TYPEWRITTEN PANEL DIRECTORIES SHALL BE PROVIDED AT EACH MODIFIED PANEL AT THE COMPLETION OF THE JOB DENOTING NEW LOADS AS WELL AS EXISTING LOADS AS PER EXISTING DIRECTORIES WHERE AVAILABLE. A PHYSICAL DIRECTORY COPY SHALL BE PERMANENTLY PROVIDED AT EACH PANEL AND AN ELECTRONIC COPY ALL PANEL DIRECTORIES SHALL BE SUBMITTED TO THE ENGINEER/OWNER AS PART OF THE CLOSEOUT DOCUMENTS.
35. DISCONNECT LOAD AND LINE END OF CONDUCTORS FEEDING EXISTING EQUIPMENT TO BE RELOCATED OR REMOVED.
36. ALL RACEWAYS WHICH BECOME EXPOSED BEYOND FINISHED SURFACES BECAUSE OF THE ALTERATION WORK SHALL BE REMOVED AND RE-ROUTED BEHIND THE FINISHED SURFACES.
37. CUT BACK FLUSH TO FLOOR, OR BEHIND WALLS AND CEILINGS AND PLUG BOTH ENDS OF CONCEALED CONDUITS MADE OBSOLETE BY THIS ALTERATION. REMOVE EXPOSED CONDUITS, OUTLET BOXES AND HANGERS MAKE OBSOLETE BY ALTERATION UNLESS DESIGNATED TO REMAIN. ALL ABANDONED UNUSED WIRE SHALL BE REMOVED.
38. DISPOSE OF REMOVE RACEWAY, WIRE, PANELS, ETC., AS DIRECTED BY FACILITIES MANAGEMENT.
39. THE CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL EXISTING ELECTRICAL WORK WHICH INTERFERES WITH THE NEW STRUCTURAL AND ELECTRICAL LAYOUTS. ALL WORK WHICH IS NO LONGER REQUIRED TO FUNCTION SHALL BE DE-ENERGIZED AND DISCONNECTED AT THE SOURCE OF POWER SUPPLY.
40. ANY EXISTING WORK DAMAGED AS A RESULT OF PERFORMING THE WORK OF THIS CONTRACT SHALL BE REPAIRED OR REPLACED AS REQUIRED. MATERIAL AND FINISH TO MATCH EXISTING TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
41. CONNECT NEW WORK TO EXISTING WORK IN A NEAT AND ACCEPTABLE MANNER.
42. ALL ELECTRICAL WORK IN ADJOINING AREAS WHICH IS REQUIRED TO FUNCTION BUT IS AFFECTED BY THIS WORK SHALL BE RECONNECTED AND RESTORED TO ITS PRESENT FUNCTION AS PART OF THE ELECTRICAL SYSTEM OF THE BUILDING(S).

Table with 4 columns: TYPE, SYMBOL, DESCRIPTION, VOLTAGE. Contains entries for Type A (2' X 2' PANEL, LED TYPE, GASKETED, MAKE: COOPER, MODEL: FSP-22 OR APPROVED EQUAL, 120V), Type B (TBD, 120V), and EXIT (LED EXIT SIGN, <5 WATTS PER FACE, INTEGRAL EMERGENCY BATTERY BACKUP, 90MIN OPERATION, WEATHERPROOF, RED LETTERS, MAKE: HUBBELL/PROGRESS, MODEL: PEWLE, 120V).

LIGHTING FIXTURE SCHEDULE NOTES:
1. THE CITY OF AUGUSTA WILL PROCURE EIGHT (8) 'TYPE A' LIGHTING FIXTURES WHICH WILL BE PROVIDED TO THE CONTRACTOR TO INSTALL. THE CONTRACTOR PROVIDE ALL OF THE REMAINING 'TYPE A' FIXTURES ASSOCIATED WITH THIS RENOVATION.

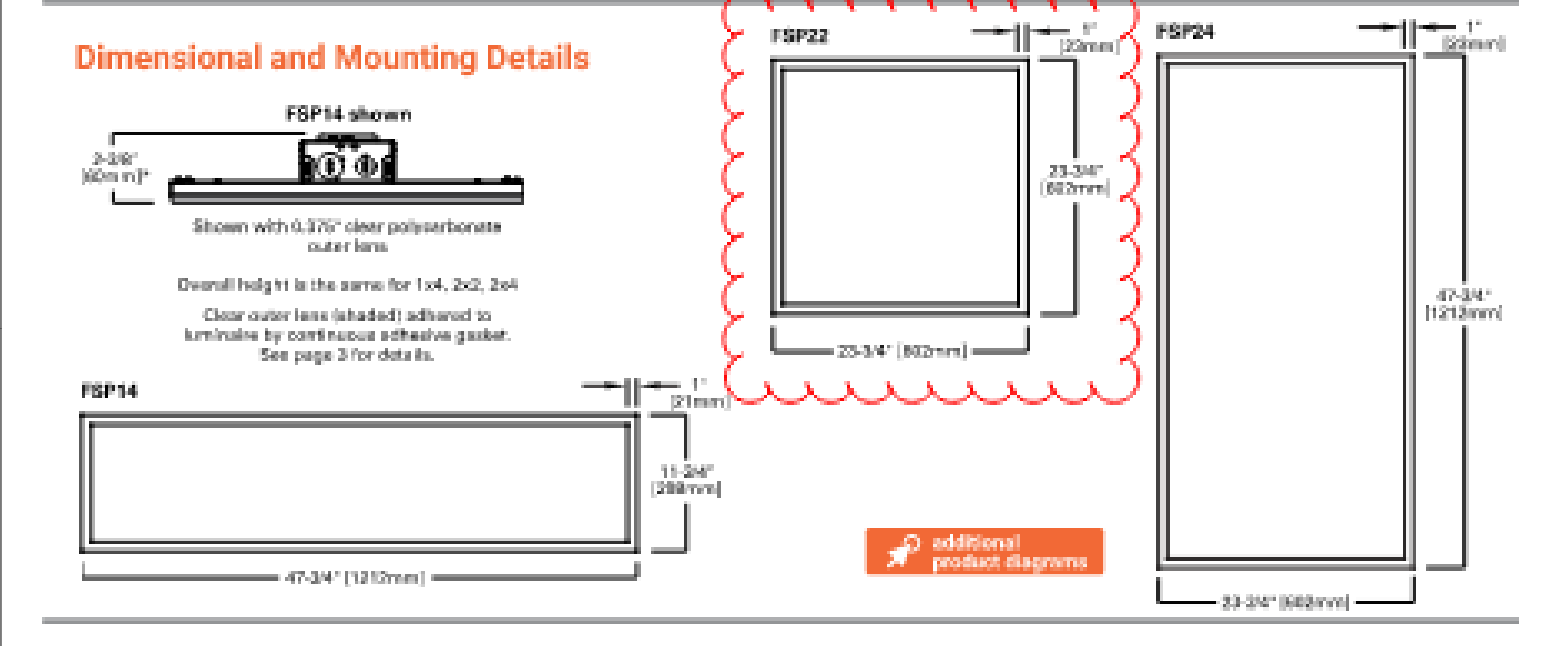
TYPE A LIGHTING FIXTURE



Fail-Safe FSP product information including ArcMED logo, product description (Fail-Safe Sealed Panel Clear Outer Lens Healthcare/High Abuse/Behavioral Health), typical applications, and product certification logos (NSF, ISO 5, IK10, TSTI).

Interactive Menu with links for Order Information, Photometric Data, Performance, and Product Warranty.

- Top Product Features: Fully luminous luminaire for use in high abuse, medical, wet location, and sterile applications; NSF listed for use in food service/food processing applications; Less than 2-1/2" deep for use in shallow plenums; Clear polycarbonate outer lens for use in behavioral health applications; Wet location standard / IP65 and IP66 available for water and dust ingress protection; ISO 5-9 certified; Rated up to 50 C ambient applications, standard; IK10 with polycarbonate lens; 10-Day Quick Spec available.

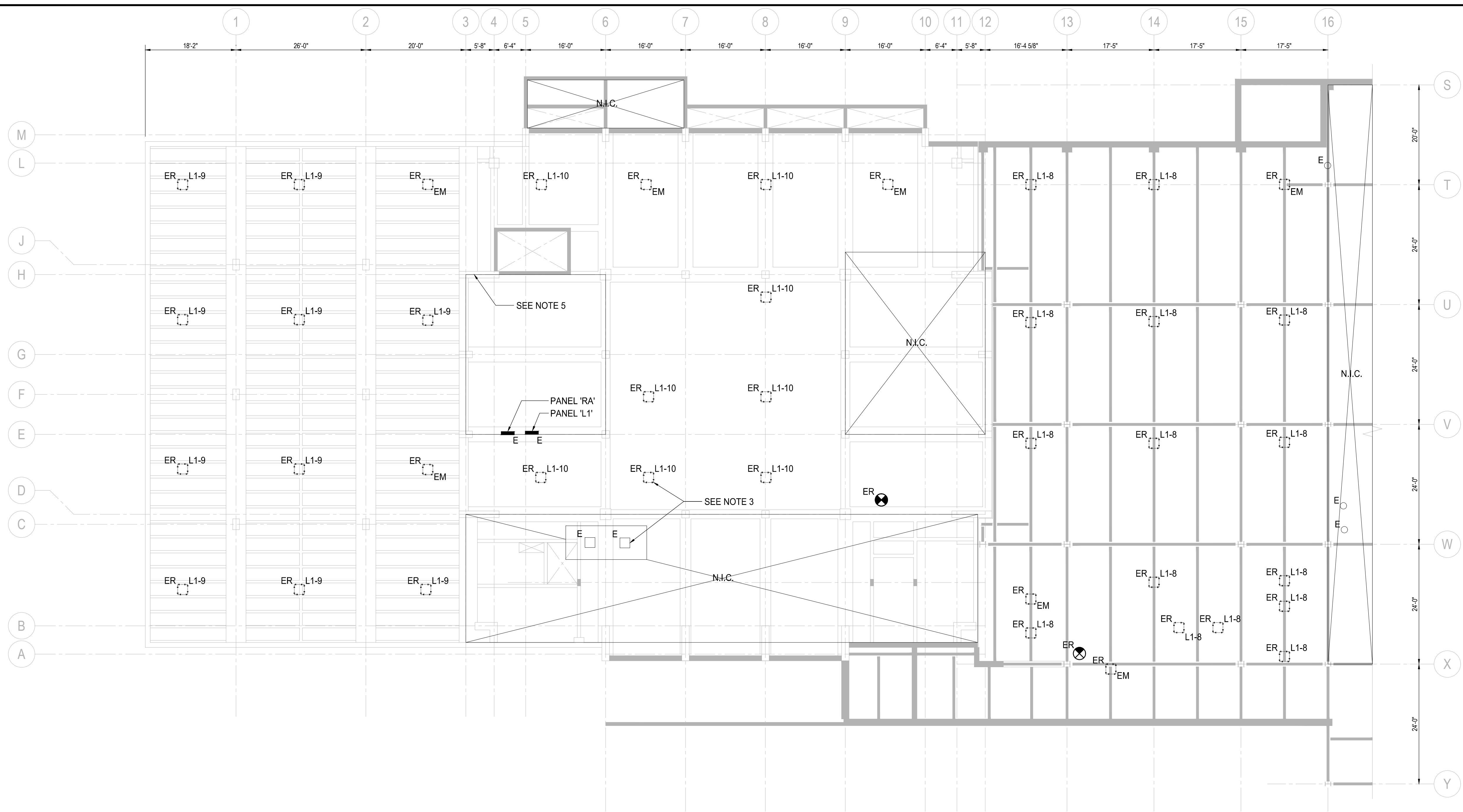


COOPER Lighting logo and product code P05102402N pag.

Table with 2 columns: No. and Description. A grid for recording fixture details.

COSTELLO COURTHOUSE PARKING GARAGE REPAIRS BURLINGTON VT

GENERAL NOTES section and PROJECT INFORMATION including project name (P2327-00), date (07/20/2024), and sheet number (E-001).



*UPPER LEVEL REFLECTED
 CEILING PLAN*
 3/32"=1'-0"

GENERAL NOTES

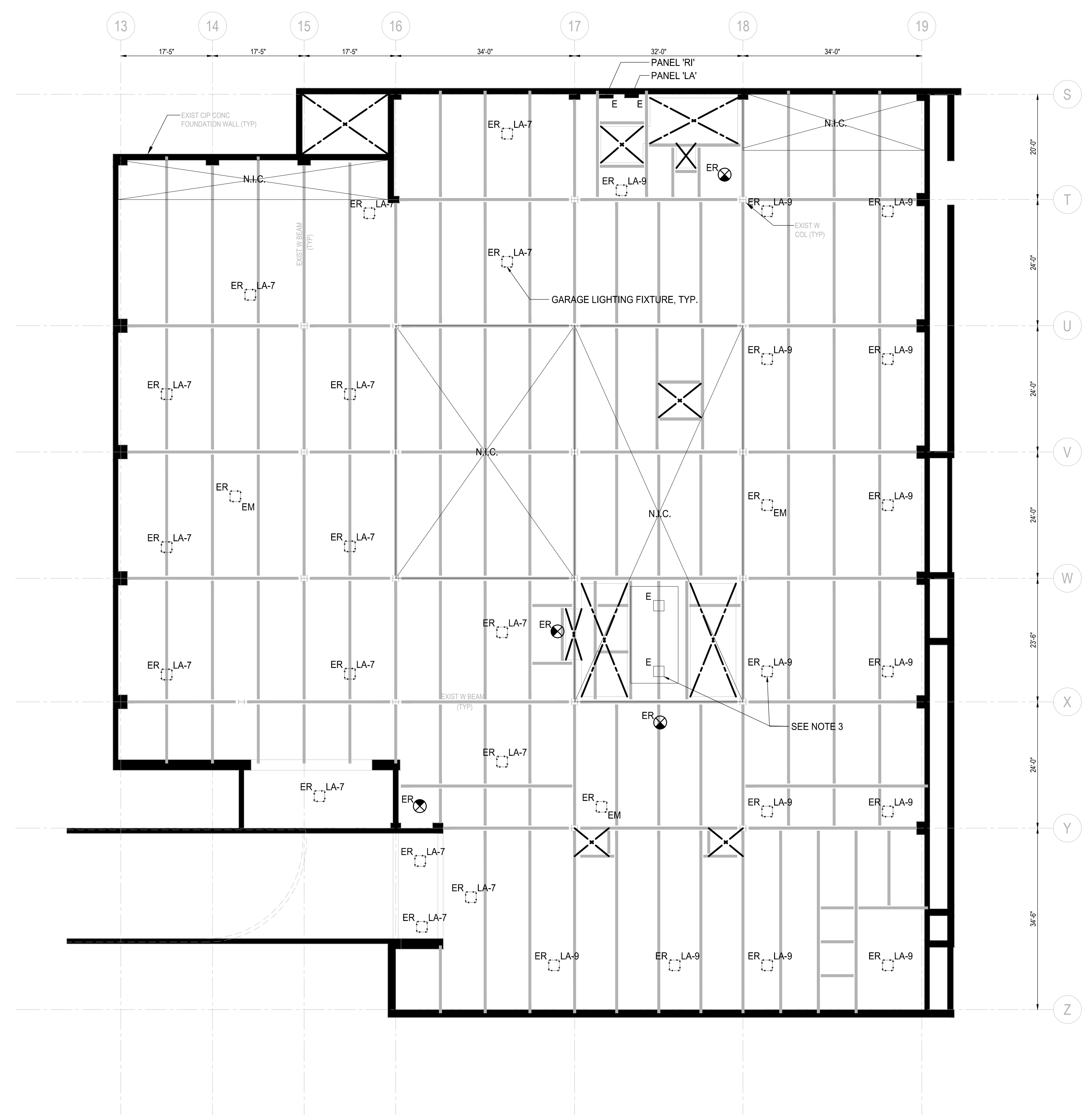
1. DISCONNECT AND REMOVE LIGHTING FIXTURES, ASSOCIATED BRANCH CIRCUIT (2#12+1#12 IN 3/4" C) AND ASSOCIATED JUNCTION BOXES BACK TO SOURCE PANEL. EMERGENCY 'EM' FIXTURES AND EXIT FIXTURES ARE BOTH PROVIDED WITH A DEDICATED CIRCUIT.
2. CONDUIT/BRANCH CIRCUITS SHOWN ARE DIAGRAMMATIC ONLY, FIELD VERIFY EXACT SCOPE.
3. DISCONNECT EXISTING FIXTURES TO REMAIN LOCATED WITHIN VESTIBULE WHICH ARE SERVED FROM GARAGE LIGHTING CIRCUIT AND RE-FEED FROM ADJACENT VESTIBULE AREA LIGHTING CIRCUIT.
4. ALL CIRCUITS WHICH SERVE LOADS LOCATED OUTSIDE OF THE GARAGE WHICH PASS THROUGH THE GARAGE SHALL BE EXISTING TO REMAIN AND SHALL BE PROTECTED THROUGHOUT CONSTRUCTION. ALL EXISTING GARAGE CARBON DIOXIDE SENSORS, FIRE ALARM, TELE/DATA, SECURITY AND ACCESS CONTROL DEVICES AND ASSOCIATED CONDUIT AND CABLE SHALL BE EXISTING TO REMAIN AND SHALL BE PROTECTED THROUGHOUT CONSTRUCTION.
5. LIGHTING IN AREA DENOTED SHALL BE EXISTING TO REMAIN.

NO.	DATE	DESCRIPTION

**COSTELLO COURTHOUSE
 PARKING GARAGE REPAIRS
 BURLINGTON VT**

**DEMOLITION
 UPPER LEVEL
 REFLECTED
 CEILING PLAN**

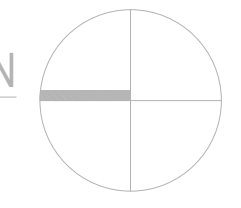
PROJECT: P23237-00
 SHEET: AS NOTED
 DRAWN BY: JFB
 DATE: 26-Jan-06
 SHEET NUMBER: **ED-100**



GENERAL NOTES

1. DISCONNECT AND REMOVE LIGHTING FIXTURES, ASSOCIATED BRANCH CIRCUIT (2#12+1#12 IN 3/4"C) AND ASSOCIATED JUNCTION BOXES BACK TO SOURCE PANEL. EMERGENCY 'EM' FIXTURES AND EXIT FIXTURES ARE BOTH PROVIDED WITH A DEDICATED CIRCUIT.
2. CONDUIT/BRANCH CIRCUITS SHOWN ARE DIAGRAMMATIC ONLY, FIELD VERIFY EXACT SCOPE.
3. DISCONNECT EXISTING FIXTURES TO REMAIN LOCATED WITHIN VESTIBULE WHICH ARE SERVED FROM GARAGE LIGHTING CIRCUIT AND RE-FEED FROM ADJACENT VESTIBULE AREA LIGHTING CIRCUIT.
4. ALL CIRCUITS WHICH SERVE LOADS LOCATED OUTSIDE OF THE GARAGE WHICH PASS THROUGH THE GARAGE SHALL BE EXISTING TO REMAIN AND SHALL BE PROTECTED THROUGHOUT CONSTRUCTION. ALL EXISTING GARAGE FIRE ALARM, TELE/DATA, SECURITY AND ACCESS CONTROL DEVICES AND ASSOCIATED CONDUIT AND CABLE SHALL BE EXISTING TO REMAIN AND SHALL BE PROTECTED THROUGHOUT CONSTRUCTION.

LOWER LEVEL REFLECTED CEILING PLAN
 3/32"=1'-0"

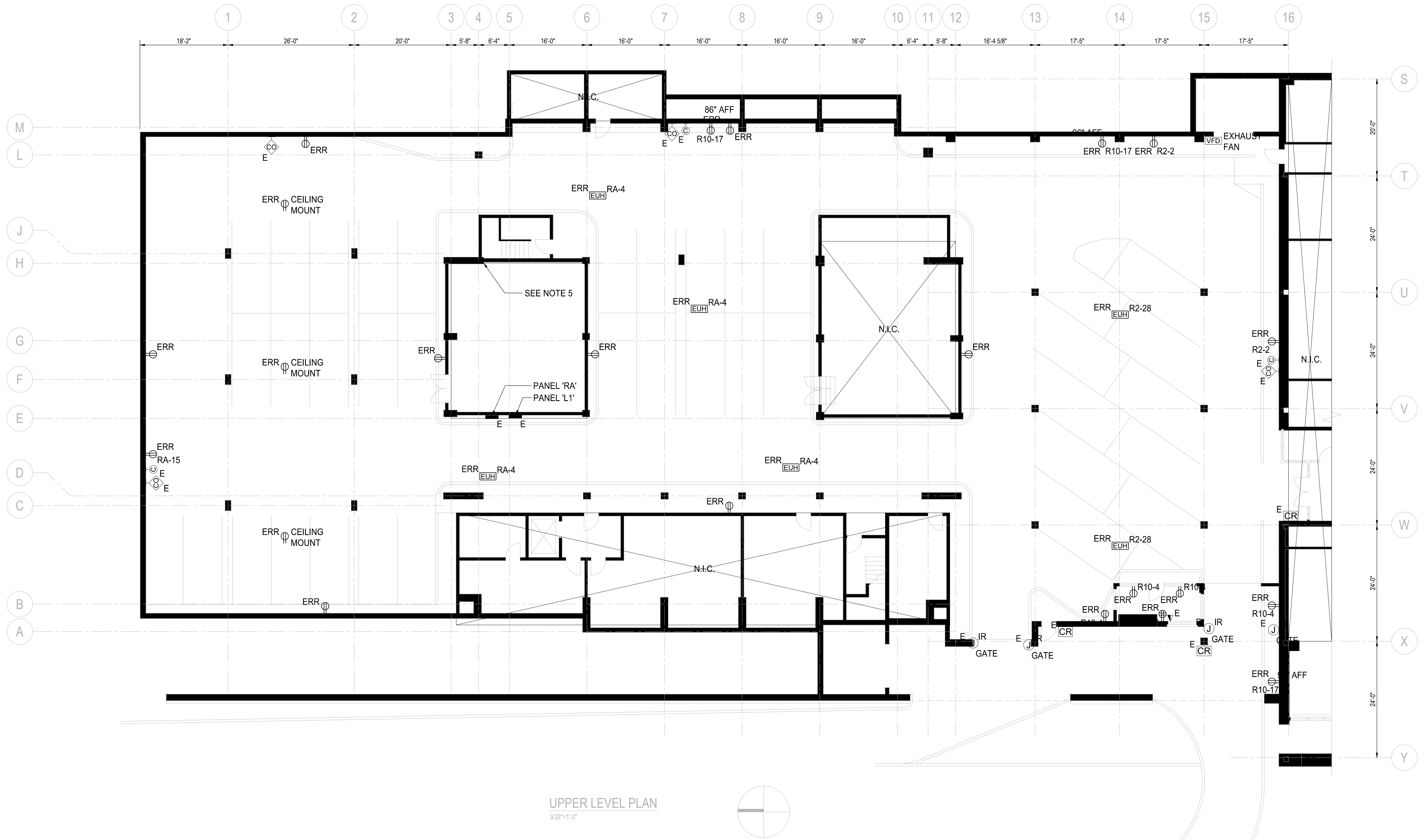


NO.	REVISION	DATE

COSTELLO COURTHOUSE
 PARKING GARAGE REPAIRS
 BURLINGTON, VT

THIS
DEMOLITION
LOWER LEVEL
REFLECTED
CEILING PLAN

PROJECT:
 P23237-00
 SHEET:
ED-101
 DRAWN BY:
 JFD
 DATE:
 28-Jan-06
 SHEET NUMBER



UPPER LEVEL PLAN
 3/32"=1'-0"

GENERAL NOTES

1. DISCONNECT AND REMOVE RECEPTACLES, ASSOCIATED BRANCH CIRCUIT (2#12+1#12 IN 3/4\"C) AND ASSOCIATED JUNCTION BOXES BACK TO SOURCE PANEL. PROVIDE RECEPTACLES AND ASSOCIATED BRANCH CIRCUITS DENOTED.
2. CONDUIT/BRANCH CIRCUITS SHOWN ARE DIAGRAMMATIC ONLY, FIELD VERIFY EXACT SCOPE.
3. NOTE NOT USED.
4. ALL CIRCUITS WHICH SERVE LOADS LOCATED OUTSIDE OF THE GARAGE WHICH PASS THROUGH THE GARAGE SHALL BE EXISTING TO REMAIN AND SHALL BE PROTECTED THROUGHOUT CONSTRUCTION. ALL EXISTING GARAGE CARBON DIOXIDE SENSORS, FIRE ALARM, TELE/DATA, SECURITY AND ACCESS CONTROL DEVICES AND ASSOCIATED CONDUIT AND CABLE SHALL BE EXISTING TO REMAIN AND SHALL BE PROTECTED THROUGHOUT CONSTRUCTION.
5. EQUIPMENT IN AREA DENOTED SHALL BE EXISTING TO REMAIN.

NO.	DATE	DESCRIPTION

**COSTELLO COURTHOUSE
 PARKING GARAGE REPAIRS
 BURLINGTON, VT**

TITLE: UPPER LEVEL PLAN	SHEET NUMBER: E-100
PROJECT: P23237-00 DRAWN BY: JFD DATE: 28-Jan-06	SHEET NUMBER: E-100

SPRINKLER NOTES

REFERENCES: VERMONT DEPARTMENT OF PUBLIC SAFETY
 NFPA-13

1. THE INSTALLATION COMPONENTS, SPACING, LOCATION, CLEARANCES, POSITION AND TYPE OF SYSTEMS SHALL CONFORM TO NFPA REQUIREMENTS.
2. ONLY NFPA APPROVED MATERIALS WILL BE USED.
3. SPRINKLERS WILL BE PROTECTED AGAINST FREEZING AND INJURY.
4. INSPECTION AND TESTS OF SPRINKLER SYSTEM SHALL BE CONDUCTED AS SPECIFIED IN NFPA REQUIREMENTS
5. PIPING SPECIFICATIONS, SYSTEM TEST PIPES, PROTECTION AGAINST CORROSION, DAMAGE, FITTINGS, VALVES, HANGERS, SPRINKLERS, GUARDS AND SHIELDS SHALL BE IN ACCORDANCE WITH NFPA REQUIREMENTS.
6. STOCK OF EXTRA SPRINKLERS WILL BE FURNISHED AS PER NFPA REQUIREMENTS.
7. SPRINKLER ALARMS IN ACCORDANCE WITH NFPA REQUIREMENTS
8. SPACING, LOCATION AND POSITION OF SPRINKLERS WILL BE IN ACCORDANCE WITH NFPA REQUIREMENTS.
9. ALL BLIND SPACES EXCEEDING 6 IN. IN WIDTH OR DEPTH WHICH CONTAIN COMBUSTIBLE MATERIALS WILL BE SPRINKLERED.
10. ALL PIPING PASSING THROUGH RATED CONSTRUCTION WILL COMPLY WITH BUILDING CODE.
11. THERE IS NO PILED HIGH STORAGE.
12. DISTANCE OF SPRINKLERS FROM HEAT SOURCES SHALL BE IN ACCORDANCE WITH NFPA REQUIREMENTS.
13. ALL VALVES SHALL BE IDENTIFIED AS REQUIRED BY NFPA.
14. DRAINAGE TO CONFORM TO NFPA REQUIREMENTS.
15. A ONE PIECE REDUCING FITTING OF GOOD DESIGN SHALL BE USED WHEREVER A CHANGE IS MADE IN THE SIZE OF PIPE.
16. ALL VALVES ON CONNECTIONS TO WATER SUPPLIES AND IN SUPPLY TO SPRINKLERS SHALL BE APPROVED OS&Y OR APPROVED INDICATOR TYPE.
17. DRAIN VALVES AND TEST VALVES SHALL BE APPROVED TYPE.
18. HANGERS SHALL BE OF A TYPE APPROVED FOR USE WITH THE PIPE OR TUBE INVOLVED. SPRINKLER PIPING SHALL BE SUPPORTED BY WROUGHT IRON U-TYPE OR APPROVED ADJUSTABLE HANGERS.
19. SPRINKLERS SHALL BE OF APPROVED TYPE AS PER NFPA REQUIREMENTS.
20. TEMPERATURE RATING SHALL COMPLY WITH NFPA REQUIREMENTS.
21. PROVIDE 18" MINIMUM CLEAR TO BELOW SPRINKLER DEFLECTOR.
22. SPACING AND LOCATION OF SPRINKLERS SHALL COMPLY WITH NFPA REQUIREMENTS.
23. SPRINKLER SYSTEM SHALL COMPLY WITH NFPA 13.
24. SOURCES OF WATER SUPPLY FOR SPRINKLER SYSTEMS AS PER NFPA REQUIREMENTS.
25. PIPE SCHEDULES SHALL BE IN ACCORDANCE WITH NFPA REQUIREMENTS.
26. HYDRAULICALLY DESIGNED SPRINKLER SYSTEMS SHALL BE IN ACCORDANCE WITH NFPA REQUIREMENTS.
27. MINIMUM BRANCH PIPE SIZE TO BE ONE INCH (1").

GENERAL SPRINKLER NOTES

1. EACH BIDDER SHALL VISIT THE SITE AND BECOME INFORMED AS TO THE CONDITION OF THE PREMISES AND THE EXTENT AND CHARACTER OF WORK REQUIRED. NO ADDITIONAL COMPENSATION WILL BE APPROVED DUE TO FIELD CONDITIONS.
2. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF AREA TO BE PROVIDED WITH SPRINKLER PROTECTION AND LOCATE EXISTING DUCT WORK WITHIN AREA THAT REQUIRE ADDITIONAL SPRINKLER PROTECTION BELOW DUCTS DUE TO INTERFERENCE OF NORMAL SPRAY PATTERN OF SPRINKLER HEADS LOCATED AT UNDERSIDE OF FLOOR SLAB ABOVE.
3. SPRINKLER INSTALLATIONS SHALL BE COMPLETE WITH ALL FITTINGS, PIPES, BRANCHES, TESTS, DRAINS AT LOW POINTS IN SYSTEM AND HANGERS.
4. ALL PIPING AND EQUIPMENT SHALL BE SUBSTANTIALLY SUPPORTED FROM THE BUILDING STRUCTURE. HANGERS AND SUPPORTS SHALL BE SPECIFICALLY APPROVED FOR USE IN SPRINKLER SYSTEM.
 - a. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OF HANGER RODS IN REQUIRED LOCATIONS, PROVIDE ADDITIONAL STEEL FRAMING AS REQUIRED AND APPROVED.
 - b. NO SPRINKLER PIPING SHALL BE HUNG FROM THE PIPING OF OTHER TRADES OR DUCTWORK. HANGERS SHALL BE OF HEAVY CONSTRUCTION, SUITABLE FOR THE SIZE OF PIPE TO BE SUPPORTED.
5. ALL AREAS OF THE BUILDING SHALL BE SPRINKLERED.
6. ALL FIRE PROTECTION WORK SHALL MEET NEW YORK CITY BUILDING CODE, NFPA REQUIREMENTS, FIRE MARSHALL AND ALL AUTHORITIES HAVING JURISDICTION.
7. SPRINKLER SYSTEM MUST BE HYDRAULICALLY CALCULATED SYSTEM BASED ON THE FOLLOWING:

OFFICE AREAS, CORRIDORS AND LOBBY

HAZARD: LIGHT
 MAX AREA PER SPRINKLER: 225 SQ. FT.
 DESIGN DENSITY: 0.10 GPM / SQ. FT.
 DESIGN AREA: 1,500 SQ. FT.

STORAGE ROOMS AND MECHANICAL ROOMS

HAZARD: ORDINARY GROUP 1
 MAX AREA PER SPRINKLER: 130 SQ. FT.
 DESIGN DENSITY: 0.15 GPM / SQ. FT.
 DESIGN AREA: 1,500 SQ. FT.

8. COORDINATE ALL FIRE PROTECTION WORK WITH ARCHITECTURAL REFLECTED CEILING PLANS AND OTHER TRADES.
9. ALL NEW DROP NIPPLES SHALL BE 1" UNLESS OTHERWISE NOTED.
10. NEW SPRINKLER PIPING TO BE INSTALLED SHALL BE A MINIMUM OF 1-INCH.
11. SPRINKLER CONTRACTOR SHALL SUBMIT HIS SHOP DRAWINGS AND HYDRAULIC CALCULATIONS TO THE ENGINEER OR ARCHITECT FOR APPROVAL PRIOR TO PERFORMING THE WORK.
12. SPRINKLER CONTRACTOR SHALL OBTAIN SPRINKLER PERMIT, FILE THE SHOP DRAWING WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PAY ALL NECESSARY FILING FEES.
13. SPRINKLER CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS AND HYDRAULIC CALCULATIONS TO THE ENGINEER OR ARCHITECT PRIOR TO CLOSE-OUT.
14. SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION OF HYDRAULIC CALCULATIONS OF THE SPRINKLER SYSTEM BASED ON THE AS-BUILT CONDITIONS. SPRINKLER CONTRACTOR IS ALSO RESPONSIBLE TO HAVE HIS PROFESSIONAL ENGINEER SIGN AND SEAL THE HYDRAULIC CALCULATIONS AND SPRINKLER INSTALLATION DRAWINGS AND TO SUBMIT TO THE DEPARTMENT OF BUILDING (DOB) FOR PERMIT, FINAL APPROVAL AND SIGN OFF.
15. OWNER SHALL NOTIFY FDNY OF SPRINKLER SYSTEM DISCONNECTION BY SUBMITTING A LETTER OF NOTIFICATION.
16. FIRE STANDPIPE / SPRINKLER SYSTEM TO COMPLY WITH NYC BB 2017-009.

FIRE NOTIFICATION

FIRE CODE COMPLIANCE. IF THE ALTERATION WORK INVOLVES TAKING THE SPRINKLER SYSTEM OUT OF SERVICE, INCLUDING ANY REMOVAL OF THE SPRINKLER SYSTEM, THE CONTRACTOR MUST COMPLY WITH THE FIRE CODE OUT-OF-SERVICE REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION.

DESCRIPTION OF SPRINKLER WORK

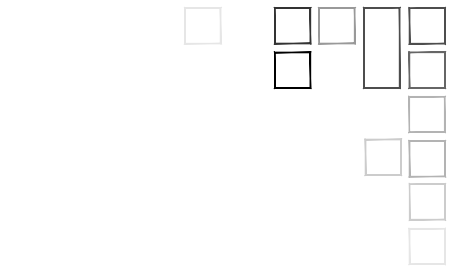
THE WORK DESCRIBED HERE SHALL BE INTERPRETED AS WORK TO BE PERFORMED BY THE SPRINKLER CONTRACTOR TO A DRY PIPE GARAGE SPRINKLER SYSTEM. THE WORK SHALL INCLUDE, AS INDICATED ON THE DRAWINGS, REPLACEMENT OF EXISTING PIPING AND SPRINKLER HEADS. THE WORK ALSO INCLUDES TEMPORARY SHUTDOWN OF THE EXISTING GARAGE SPRINKLER SYSTEM.

PAINTING REQUIREMENTS FOR SPRINKLER AND STANDPIPE SYSTEMS AND SYSTEM COMPONENTS

	PAINTING	REQUIRED?
SYSTEM PIPING	RISER (NFPA 13-02 §3.5.8; NFPA 14-03 §3.3.22)	YES
	CROSS CONNECTION (NFPA 14-03 §7.5)	YES
	STANDPIPE FEED MAIN (NFPA 14-03 §3.3.7)	YES
	BRANCH LINE (NFPA 13-02 §3.5.1)	NO
	CROSS MAIN (NFPA 13-02 §3.5.2)	NO
VALVE HANDLES	SPRINKLER FEED MAIN (NFPA 13-02 §3.5.3)	NO
	RISER CONTROL VALVE HANDLE (NFPA 14-03 §4.5.1, §6.2.2)	YES
	SECTION CONTROL VALVE HANDLE (NFPA 14-03 §4.5.1, §6.2.2)	YES
	GATE VALVE HANDLE (NFPA 14-03 §6.2.2, 6.2.3)	YES
	FLOOR CONTROL VALVE HANDLE (NFPA 13-02 §8.15.1.1.1.7)	YES
	VALVE HANDLE SERVING GRAVITY TANK (NFPA 13-02 §8.15.1.1.5)	YES
	HOSE VALVE HANDLE (NFPA 14-03 §3.3.12)	NO
	PRESSURE CONTROL VALVE HANDLE (NFPA 14-03 §3.3.15)	NO
PRESSURE-REDUCING VALVE HANDLE (NFPA 14-03 §3.3.16)	NO	
TEST VALVE HANDLE (NFPA 13-02 §6.7.3)	NO	
DRAIN VALVE HANDLE (NFPA 13-02 §6.7.3; NFPA 14-03 §7.12.2.1)	NO	

FIRE PROTECTION DRAWING LIST

FP-001.00	FIRE PROTECTION COVER PAGE
FP-101.00	FIRE PROTECTION CELLAR FLOOR PLAN



**COSTELLO COURTHOUSE
 PARKING GARAGE REPAIRS
 BURLINGTON, VT**

GENERAL NOTES

PROJECT:
 P33237.00
 SCALE:
 AS NOTED
 DRAWN BY:
 CD
 DATE:
 28-Jan-06

SHEET NUMBER:
FP-001

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