

## **Boston Properties**

### **RULES FOR CONSTRUCTION PROJECTS IN OPERATIONAL BUILDINGS**

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The following requirements have been developed to ensure that modifications or improvements to the building and/or building systems and equipment are completed to Boston Properties' (BXP) building standards. BXP may, at its discretion, elect to impose additional regulations in order to maintain a level of safety, code compliance and consistency within industry standards.

The review of plans and/or specifications by Boston Properties and its insurers, consultants and/or other representatives, does not imply that reviewed materials comply with applicable laws, ordinances, codes, standards or regulations. Additionally, Boston Properties' review and/or approval does not imply that any work is to be performed at Boston Properties' expense.

Boston Properties has the explicit right to remove from the project any person who does not comply with these rules after 24-hour notice.

#### **I. GENERAL**

- A. No work will be performed until Boston Properties has received two (2) hard copy sets of drawings and specifications and has given written approval. Boston Properties to receive one (1) hard copy final "for construction" set of documents including all Boston Properties and permit comments, which must be clearly identified, dated and clouded. A complete set shall also be kept on site.
- B. Architectural and Engineering firm must clearly depict future adjacent spaces as code compliant in plan, when constructing new demising walls. Contractor may not build, or demolish conditions that would otherwise leave adjacent Tenant spaces non-code compliant.
- C. At completion of the work, the Contractor shall furnish to Boston Properties one hard copy and one electronic copy of all "**As-Built Drawings**". As-Built Drawings shall reflect all modifications made to the Construction Documents and shall be comprised of all applicable drawings. For Tenant projects, it is the responsibility of the Tenant to track all close out document requirements listed in the lease and ensure that their Consultants and Contractors submit them to Boston Properties at completion of work.

Architect and Engineer of record shall provide electronic copy on a flash drive and emailed to Boston Properties' designated construction manager and to [DC-Drawings@bostonproperties.com](mailto:DC-Drawings@bostonproperties.com). Electronic copy is defined as a full set of both .pdf and AutoCAD (.dwg) drawings, saved down to AutoCAD Version 2011, all X-Reference files bound, and raster images included. USB drive and email subject line should clearly reference the project name and address. Files should be named using the **United States National CAD Standard** followed by a short description and the date on

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the final drawings. (<https://www.archtoolbox.com/representation/graphic-symbols/condocsheetorder.html>)

- D. All modifications to the building or to the building systems and equipment must comply with state, federal and local codes and ordinances.
- E. All modifications, relocations or additions to the fire life safety within the building, in relation to a construction project, will require the tenant to obtain a building permit, pass final inspections, and obtain a certificate of occupancy, from the jurisdiction having governing authority, prior to any occupancy of the space.
- F. For phased construction projects where the demolition occurs as the initial phase and prior to the commencement of the main construction portion, the tenant is required to insure that all fire life safety systems are in full code compliance, as dictated by the jurisdiction having governing authority. This includes but is not limited to, the sprinkler heads being turned upright until the main construction commences. The Landlord, at its discretion, has the right to review and direct fire life safety protocol prior to implementation.
- G. The Contractor and its subcontractors shall comply with all applicable federal, state or local laws, regulations, ordinances, rules or codes relating to employment or conditions of employment of its employees, including, without limitation, laws or regulations concerning workers' compensation, social security, unemployment insurance, classification of employees, hours of labor, wages, working conditions, safety regulations and work practices. The Contractor and its subcontractors confirm that their employees are licensed and qualified under all applicable federal, state and local requirements.
- H. The Contractor shall comply with all applicable provisions of the Occupational Safety and Health Act, 29 U.S.C. Section 651 et seq., as amended, all applicable standards and regulations promulgated thereunder, and applicable responsibilities under OSHA's Multi-Employer Citation Policy (CPL 02-00-124).
- I. Prior to the work commencing, a building permit must be obtained and displayed and an electronic copy is to be provided to Boston Properties.
- J. Prior to the work commencing, a construction kick-off meeting must be held with Boston Properties, the Project Manager, the Superintendent, the Tenant Representative and the Contractor. Boston Properties is to be notified and invited to all weekly construction progress meetings, which must include the entire Project Team. The Contractor must provide Boston Properties with a list of all GC personnel and subcontractors working in the

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- building inclusive of emergency telephone numbers prior to commencing work.
- K. The Contractor must provide an on-site project superintendent at all times during ongoing construction when subcontractors are working on site. This superintendent must be knowledgeable of the project's scope of work and have on-site reference materials including "for construction" plans, specifications and MSDS information on all materials used in the performance of the work. If more than one Contractor is working in the building, at the same time, then it is the responsibility of the Contractors to coordinate schedule, and building shared uses, accordingly.
  - L. Prior to the work commencing, all blinds must be raised and bagged. All window sills and other base building components must be adequately protected and the protection must be maintained. Workers must not stand on windowsills or other building components. Prior to mobilization GC shall survey work area(s) and public areas along with all existing blinds and provide identify deficient items on floor plan or on list provided to Property Management.
  - M. The Contractor shall repair all existing public area finishes disturbed by the work or damaged by the Contractor's or subcontractor's personnel.
  - N. Any work that requires access to adjacent Tenant's space must first be coordinated through Boston Properties. Any additional costs of security or building engineering services required due to Contractor's work or during the performance of the Contractor's work shall be charged to the Tenant.
  - O. All workers must be dressed appropriately when working in an occupied building and in compliance with OSHA standards which includes appropriate PPE. No shorts are permitted.
  - P. Boston Properties shall approve manufacturer of lockset and key cores for compatibility with building master keying system.
  - Q. All carts must be furnished with pneumatic tires and rubber bumpers.
  - R. Smoking is not allowed in and around any occupied building.
  - S. Radios/Speakers/Music is prohibited on site.
  - T. Dumping of construction debris into building drains, mop sinks, trash dumpsters, etc. is strictly prohibited. If this does occur, the Contractor shall be charged 200% of the cost of clearing any drain, including administrative time, where evidence of this is found.

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- U. Base building restrooms within the construction area will not be available for use by the Contractor unless Boston Properties indicates otherwise. Alternative restroom options may be determined by Boston Properties personnel. If Contractor is permitted to use the restrooms, Contractor shall be responsible for any damage, cleaning and stocking during construction. All other base building restrooms are for Tenant use only and are not to be used by construction personnel.
- V. Use of the building stairwells for moving construction materials and construction personnel shall be limited to the stairwell designated by Boston Properties.
- W. There is to be no communication between the building Tenants, their guests and the Contractor's/subcontractor's personnel.
- X. No work will be performed during building operating hours that will disturb or inconvenience any existing Tenants in the building. Examples of noisy work include, but are not limited to:
  - 1. Core drilling and anything that causes building vibration (i.e. dropping heavy materials, chipping concrete, etc.)
  - 2. Shooting track
  - 3. Noxious odors
  - 4. Threading pipe
  - 5. Hammer drilling or impact gun usage
  - 6. Cutting metal ductwork
  - 7. Pulling BX or rigid conduit through metal.

Boston Properties must pre-approve any work that could be deemed to disturb or inconvenience any existing Tenants in the building.

- Y. The Contractor shall immediately report any and all accidents to Boston Properties in writing after first notifying Boston Properties' Construction Manager and Property Management by telephone.
- Z. Any roof related work must be performed by a roofing Contractor authorized to do so by the roof manufacturer or by Boston Properties (see attached building specific rider for details).
- AA. All requests for assistance by building personnel, for example, but not limited to, freight & loading dock reservations, access to other tenant spaces, drain down of sprinkler, call out of fire alarm, hot work permits and inspections must be scheduled a minimum of 48 hours in advance. Depending on current staffing and ability to meet off hours requests this advance notice is subject to change and at the discretion of BXP's specific property team. A separate process handles requests for power shut down

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(de-energizing of floors/building) and the specific building will set the notice guidelines due to current tenant requirements and needs. If a project requires a shut down, then the tenant A/E team is to note such requirement on the plans when they are submitted for review. All Contractors are encouraged to discuss shut down requirements for projects at the initial kick off meeting to ensure they receive the required notification timelines from the building personnel. The responsibility is on the Contractor to incorporate these scheduling activities into their schedule and the management of their project.

**II. INSURANCE**

**CONTRACTOR'S LIABILITY INSURANCE:**

- A. The contractor shall purchase from and maintain until final completion with a company or companies lawfully authorized to do business in the jurisdiction in which the project is located such insurance as will protect contractor from claims set forth below which may arise out of or result from contractor's operations under the contract and for which contractor may be legally liable, whether such operations be by contractor or by a subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:
1. Claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
  2. Claims for damages because of bodily injury, occupational sickness or disease, or death of contractor's employees;
  3. Claims for damages because of bodily injury, occupational sickness or disease, or death of any person other than contractor's employees;
  4. Claims for damages insured by usual personal injury liability coverage;
  5. Claims for damages, other than to the work itself, because of injury to or destruction of tangible property, including explosion, collapse and damage to utilities and loss of use resulting there from;
  6. Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; and

7. Claims for bodily injury or property damage arising out of completed operations.

B. The insurance required shall, at a minimum, include the following insurance coverages:

1. Workers' compensation insurance providing statutory benefits for all persons employed in connection with the construction at the site, regardless of whether such coverage or insurance is mandatory or merely elective under applicable law, with limits of liability and coverage as required by applicable law, or participation in a monopolistic state workers' compensation fund; and Employer's Liability Insurance, or in a monopolistic state Stop Gap Liability Insurance, in an amount not less than \$1,000,000 each accident/\$1,000,000 each employee/\$1,000,000 annual policy limit, including occupational disease coverage with a limit of \$1,000,000 per person subject to an aggregate limit of \$1,000,000 per annum. Workers' Compensation and Employer's Liability Insurance shall be kept in force for at least one year after final completion.

2. Commercial General Liability Insurance, on an "occurrence" basis, insuring against liability for bodily injury and death, for property damage, and for advertising and personal injury, in an amount not less than \$1,000,000 per occurrence and \$2,000,000 annual aggregate for bodily injury, death, and property damage, and \$1,000,000 per occurrence and \$2,000,000 annual aggregate for advertising and personal injury. This insurance shall be on a form at least as broad as Insurance Services Office ("ISO") Commercial General Liability Coverage "occurrence" form CG 00 01 10 01 or another ISO Comprehensive General Liability "occurrence" form providing equivalent coverage approved in writing by owner. This insurance shall include operations-premises liability, contractor's protective liability on the operations of contractor and all Subcontractors and sub subcontractors; products and completed operations; broad form contractual liability coverage including coverage for the indemnity obligations of the contractor under the indemnity provisions of this contract and the contract documents; or for work performed by subcontractors, or for explosion, collapse, underground operations, foundation work, damage to utilities, or loss of use resulting therefrom; if applicable, liability arising out of elevators and escalators; pollution coverage for losses arising out of a hostile fire; and an endorsement amending the aggregate limits to apply on a per location or per project basis. Such coverages and limits are to be maintained continuously after final completion for a period equal to

the applicable statute of repose for the jurisdiction in which the project is located.

3. Automobile Liability Insurance for all owned, non-owned, leased, rented, borrowed, and/or hired vehicles (Symbol 1) insuring against liability for bodily injury and death and property damage in an amount not less than One Million Dollars (\$1,000,000) combined single limit per occurrence, issued on a form at least as broad as ISO Business Auto Coverage form CA 00 01 07 97 or other form approved in writing by owner.

4. Excess/Umbrella Liability Insurance of not less than \$10,000,000 annual aggregate, to be excess over the Employer's Liability, Commercial General Liability, and Automobile Liability Insurance described above. The policy must include an "Aggregate Per Project" endorsement. Such coverages and limits are to be maintained continuously after final completion for a period equal to the applicable statute of repose for the jurisdiction in which the project is located.

5. Contractor's Pollution Liability Insurance, on an occurrence form, with limits of not less than \$2,000,000 per occurrence and in the annual aggregate. Contractor's Pollution Liability Insurance shall include third party claims for bodily injury, property damage and clean-up costs for pollution conditions (including without limitation for mold, fungi, and bacterial matter) arising from Contractor's or any Subcontractor's acts or omissions, negligence or willful misconduct. Contractor agrees to maintain coverage for losses or claims arising from "completed operations" for a minimum of ten (10) years following the Final Completion of the Project. Contractor's Pollution Liability Insurance shall be primary for pollution conditions arising as a result of the performance of the Project.

- C. All policies of insurance to be provided by contractor in accordance with this Article II shall be (1) issued by financially responsible companies licensed to issue such insurance in all applicable states and that have an A.M. Best rating of "A-" or better and a financial size category of VIII or larger and otherwise satisfactory to each of the Additional Insured Parties designated herein; and (2) in form and substance satisfactory to the owner and each party designated herein as an Additional Insured Party.
- D. All policies of insurance to be provided by contractor in accordance with the contract and shall also insure the interests of the owner, any indemnities and their respective constituent members and partners, each of whom shall be named as additional insureds under such policies. Such

insurance shall provide that the additional insureds shall be covered for their costs of defense of any insured claim outside the limits of coverage provided.

- E. Prior to date of commencement, contractor shall submit to the owner certificates of insurance and policies in form and substance acceptable to owner evidencing existence of the insurance coverages required under the contract. Each certificate of insurance shall contain a provision that the coverages provided under the respective policies will not be canceled, materially changed or allowed to expire until at least 30 days' prior written notice has been given to owner. If any of the insurance coverages are to remain in effect after final payment is made to contractor, additional certificate(s) of insurance evidencing continuation of such coverage shall be submitted to owner, together with the contractor's final Application for Payment, and a further certificate of insurance shall be delivered to the owner, from time to time, after final payment to evidence the existence of all coverages that are to continue in effect following final payment. Not less than fifteen (15) days prior to the expiration date of each policy furnished to owner in accordance herewith, contractor shall deliver to owner a certificate of insurance evidencing the renewal of the applicable policy. In addition to the certificates of insurance, copies of the insurance policies shall be delivered to owner within ten (10) days following the commencement of the Work.
- F. The indemnitees and such other parties designated by owner (each, an "**Additional Insured Party**") shall each be named as an additional named insured or an additional insured with respect to the commercial general liability insurance, the automobile liability insurance and the excess/umbrella liability insurance required to be provided and maintained in accordance with the contract.
- G. The commercial general liability insurance, automobile liability insurance and excess/umbrella liability insurance policies shall be endorsed to (i) provide that the coverage provided thereunder shall be primary and non-contributory (and any liability insurance of each Additional Insured Party shall be secondary and non-contributory); and (ii) waive any right of subrogation against each Additional Insured Party.
- H. Contractor is responsible for requiring that each subcontractor and supplier maintain during its subcontract insurance of the type and in the amounts normally required by the contractor, given the subcontractor's or supplier's size and its scope of work, including but not limited to commercial general liability and worker's compensation and for obtaining certificates of insurance evidencing the insurance and naming the owner and the Additional Insureds set forth in the building specific rider.

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- I. Intentionally omitted.
- J. If contractor fails to purchase and maintain or require to be purchased and maintained, any insurance required under the contract, owner may, but shall not be obligated to, upon five (5) days' written notice to contractor, purchase such insurance on behalf of contractor and shall be reimbursed by contractor upon demand for all amounts paid by owner in connection therewith. In no event shall any failure of owner to receive or demand evidence of such coverage prior to contractor commencing the Work be construed as a waiver by owner of contractor's obligations hereunder. Contractor hereby agrees to indemnify, defend and hold owner and each Additional Insured Party harmless from any loss, cost or expense that such parties may incur as a result of contractor failing to purchase and maintain the insurance required hereunder. Compliance by contractor with the insurance requirements contained in the contract shall not relieve contractor of liability under any indemnity or other provision set forth in the contract or limit contractor's liability under the contract.

#### **CLAIMS:**

- A. Contractor shall promptly investigate and make a full written report to Boston Properties and to Boston Properties' insurance carriers as to all alleged accidents and/or alleged claims for damage or destruction of the building and the estimated cost of repair and shall perform all necessary recordkeeping related to same. At the request of Boston Properties, contractor shall cooperate with Boston Properties and its insurance carrier(s) in procuring all reports required by the insurance carrier(s) and shall do nothing to jeopardize the rights of Boston Properties and any other party insured under said policies. Contractor and Boston Properties shall each notify the other (and, at Boston Properties' request, contractor shall notify Boston Properties' insurance carriers) of any casualty or of any claim made against the other or both jointly and severally on account of personal injury or property damage, and shall cooperate fully with any insurance carrier in connection with any such claim, which cooperation shall include, without limitation, attendance at meetings and court proceedings and the like; provided, however that, by so cooperating, contractor shall not settle any losses, complete loss reports, adjust losses or endorse loss drafts without the prior written approval of Boston Properties.
- B. Contractor shall notify Boston Properties promptly upon the discovery of any defect with respect to the work, without relieving contractor of the responsibility for addressing such defect as a part of its services, as provided elsewhere in the Contract.

- C. Contractor shall provide such information to Boston Properties and Boston Properties' insurance carriers and shall attend such meetings as shall be necessary from time to time to ensure that the insurance carried hereunder appropriately addresses issues pertaining to and conditions at the building, including, without limitation, exposure information, loss control and protection of the building and current replacement cost figures.
- D. Boston Properties in good faith shall have the right to adjust and settle a loss with insurers unless the Boston Properties' lender exercises its right to join Boston Properties in the adjustment and settlement of any jointly by Boston Properties and its lender.

### **III. STRUCTURAL**

#### **A. GENERAL**

1. Design Load on office floor levels is 100 psf, include 20 psf for partitions. Any uniform live load exceeding the design load shall be reviewed and approved by the base building structural engineer.

#### **B. CORE DRILLING**

1. Prior to core drilling or cutting, all slabs with any power-driven penetrations greater than ½" depth, must be x-rayed.

2. A plan of all core drills identified and numbered with photos of the scans, dimensions to scans from building columns and or perimeter wall, must be provided to Boston Properties and Boston Properties' base building Structural Engineer. Boston Properties' base building Structural Engineer must review and approve x-rays, scans and associated plan(s) in writing. Prior to commencing the work, such approval shall be provided to Boston Properties' Construction Manager. Structural Engineer review costs must be borne by Tenant, as a project cost.

3. If obstructions are detected, the core drill locations must be moved as required by the base building structural engineer.

#### **C. POST-TENSION REQUIREMENTS**

1. For Buildings that are post-tensioned concrete construction, all slabs must be x-rayed. Scheduling of all x-ray scans, must be coordinated with

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Boston Properties' Building Team a minimum of 72 hours in advance. Provide x-ray technician's horizontal and vertical spread to Boston Properties when making schedule requests. All scans must be performed after hours, as directed by Boston Properties.

2. Concentration of punching shear stresses, reinforcement and post-tensioned cables are heavier around columns. All coring shall be kept away from the column as much as possible. Coring is not permitted in the beams or column drop pads. Locations of all coring shall be approved and backed per tests as indicated. Any coring shall clear post-tensioned cables as directed by base building structural engineer.

3. Duct supports, conduit attachments, ceiling hangers, etc. should all be supported by power-actuated fasteners with maximum slab penetration of 5/8". Hilti HDI-P drop-in anchors with 3/4". These hanger locations should also be coordinated with the formwork paint marketing to avoid the indicated location of the tendons on the underside of the slab.

4. When ceiling, deck or slab is to be painted/sprayed, all post-tensioned markings are to be taped; taping to be inspected and approved by the property management team prior to commencement of slab painting.

**IV. LIFE SAFETY**

**A. GENERAL**

1. Contractor shall perform the work in full compliance with NFPA 241 which prescribes the minimum safeguards for construction, alteration and demolition operations necessary to provide reasonable safety to life and property from fire.

**B. SPRINKLER**

1. Contractor shall furnish Boston Properties with sprinkler submittal inclusive of shop drawings, product data and calculations (if applicable) prepared by subcontractor and ready for submittal to the Fire Marshall. Based on project size, the Contractor is to adhere to the following:

- a. Spaces **under** 5,000 SF. Once approved by the Fire Marshall, the Contractor shall furnish Boston Properties one set of the approved sprinkler shop drawings. Provide Boston Properties with electronic copies of sprinkler submittal inclusive of shop drawings and product data for Boston Properties' review and approval prior to any sprinkler work scheduled (e.g. drain downs, relocation of head, etc.).
- b. For first generation spaces or renovation of spaces **larger** than

5,000 SF, GC is to provide Boston Properties with two (2) hard copies of the following:

- i. Full-size sprinkler plans
- ii. Sprinkler calculations
- iii. Cut sheets highlighting the selected sprinkler heads, pipe, hangers, fasteners and all fittings.
- iv. All components of the sprinkler system to be UL listed and FM approved.

Boston Properties' Risk Management shall review and approve the aforementioned items prior to any sprinkler work scheduled (e.g. drain downs, relocation of head, etc.). Boston Properties' Risk Management review may take up to ten (10) business days to review and comment. GC should incorporate review time in Schedule.

2. The entire sprinkler system should be designed and installed in accordance with NFPA Pamphlet No. 13, 231 and 231C latest issues. If demolition is not immediately followed by a build out, Tenant and/or Contractor must turn up sprinkler heads as directed by Boston Properties and in accordance with all applicable jurisdictional regulations and code requirements.

3. Contractor is to adhere to the following when designing the sprinkler system:

Note #1: If concealed type sprinkler heads are to be utilized in office areas, the system is to be designed as an Ordinary Hazard Group 1 System. If hybrid pendant installation exists (i.e. concealed, recessed, semi-recessed, etc. in one design), then Ordinary Hazard Group 1 System design always governs.

Note #2: For light hazard designed systems, as designated by the Boston Properties, the hydraulically most remote design area shall not be allowed a 40% reduction. The minimum design area shall be 1,500 square feet.

Note #3: Partial Renovation of Space where majority of heads are not relocated:

(a) Since there is not a quick pendant sprinkler head with FM approval, BXP will allow use of a UL Listed, quick response head, when it also carries an FM Approval standard response (i.e. V3802 sprinkler head).

(b) It must be confirmed in writing from the General Contractor to BXP that the existing heads with the same physical space are also existing quick response

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heads and the sprinkler system can support an ordinary hazard group 1 design. If the existing heads are standard response, then the heads must be UL Listed/FM Approved.

Note #4: Complete Renovation of Space where majority of heads are affected or relocated:

(a) Standard response head that is UL Listed/FM approved is required.

Note #5: Sprinkler work will not commence until Boston Properties has received a copy of the sprinkler permit and Boston Properties has approved the sprinkler shop drawings and product data (as well as calculations when necessary) as indicated above.

4. All buildings are to be fully protected by automatic sprinkler systems in accordance with Boston Properties' standards and specifications.
5. All sprinkler systems and equipment are to be designed and installed in accordance with the current standards of the National Fire Protection Association.
6. All equipment, devices, materials, hangers, etc., used in the life safety system installation must be UL Listed and FM Approved.
7. Connections to the base building sprinkler system/standpipe riser shall be provided with a control valve and water flow alarm device. Sprinkler system control valves shall be UL Listed and FM Approved, clockwise closing, indicating valves with supervisory switches.
8. Enclosed, as Attachment "A", is a copy of the "Guidelines for Managing Construction Project Fire Protection Impairments".

**C. FIRE ALARM**

1. Contractor will not disconnect, tamper with, delete, obstruct, relocate, or expand any life safety equipment, except as indicated on drawings approved by Boston Properties. Contractor shall not interfere with or delay any other Contractors' (or Boston Properties') inspections which are scheduled prior to the Contractor's inspections or testing.
2. The Contractor must take necessary precautions to prevent accidental fire alarms. Contractor will be charged for all emergency response costs and penalty fees imposed by any authority having jurisdiction over the building for any accidental fire alarms caused by their activities. In the event

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of an increased likelihood of an accidental fire alarm by the Contractor's activities, such as demolition, sprinkler work or hot work, the Contractor must take steps needed to prevent accidental alarms, including but not limited to, monitoring the fire alarm panel for accidental alarms.

3. Any unit or device temporarily incapacitated will be red-tagged "Out of Service" and Boston Properties will be alerted prior to the temporary outage. See attached "Guidelines for Managing Construction Project Fire Protection Impairment".

4. The base building fire alarm system shall monitor all Tenant installed special fire extinguisher/alarm detection systems. The connections to the base building fire alarm system will be at the Tenant's expense.

5. All Tenant installed fire alarm initiation and notification devices that connect with the base building fire alarm system shall match the base building system and be approved by Boston Properties.

6. All connections to the building's existing fire alarm system are to be made only by the subcontractor specified by Boston Properties.

7. Contractor shall perform a ring-down of the affected area, as well as a pre check of the functionality of all fire alarm devices. A report outlining any deficiencies must be submitted to Boston Properties prior to commencement of work. Absent such report, any deficiencies found after commencement of work will be the responsibility of the Tenant and Contractor to correct.

8. All fire alarm testing will be scheduled at least 72 hours in advance with Boston Properties and must occur after normal business hours if the building is occupied.

9. Combustible and hazardous materials are not allowed to be stored in the building without prior written approval of Boston Properties. Material safety data sheets on all materials to be stored in the building must be kept on site and a copy submitted to Boston Properties.

10. Dust protection of smoke detectors must be installed and removed each day (if operational). Dust protection is required during construction to avoid false fire alarms and damaging of detector system. Filter media must be installed over all return air paths to any equipment rooms prior to demolition. The media must be maintained during construction and removed at substantial completion.

11. All corrective work to the fire alarm system due to the Contractor's work shall be charged to the Contractor.

12. Final tie-in of fire alarm work into the base building fire alarm system is to be made by the base building fire alarm Contractor.

**V. MECHANICAL, ELECTRICAL, PLUMBING AND VOICE/DATA/LOW VOLTAGE CABLING**

**A. GENERAL**

1. Before any new electrical or mechanical equipment is installed in the building; the Contractor must submit a copy of the manufacturer's data sheets along with complete shop drawings and submittal to Boston Properties for approval.

2. Any installation or modification to building HVAC or electrical systems must be first submitted for review by Boston Properties. This includes base building systems as well as supplemental units and/or exhaust systems. The mechanical and electrical plans must be prepared by a licensed engineer and must show size and location of all supply and return grilles. We may require that Boston Properties' MEP engineer review the MEP drawings. In that event, the Tenant will pay for the cost of this review. We will notify the Tenant prior to engaging Boston Properties' engineer.

3. As required by code and Boston Properties regulations, all telecommunications, data, access control, security, fire alarm, HVAC control, electrical lighting, electrical power, cable and other systems' wiring and piping which is not to be reused by Tenant and is not a part of other Tenants' or base building systems, including but not limited to: conduit, BX/MC cable, "plenum cable" (low voltage electric, telephone, data wiring), plumbing and/or mechanical piping shall be removed from the Risers (as defined in the lease to include ceiling plenums, telephone, mechanical, utility and electrical closets and risers) and shall be removed back to the originating terminal block, panel board, wet stack or source as determined by Boston Properties.

The installation of Tenant equipment (except emergency lighting per code) on the base building emergency power supply systems is not permitted.

4. Boston Properties' Building Engineering Team shall complete a baseline multi-point inspection of the Mechanical Equipment within the Tenant Space prior to (or immediately following) ceiling demolition by the General Contractor. It is the responsibility of the General Contractor to provide 48-hour written notice to Boston Properties identifying when the ceiling demolition will be complete. Prior to commencement of construction, it is the responsibility of the General Contractor to document any mechanical

equipment deficiencies and provide an associated report for Boston Properties' review. Failure to provide such report prior to commencement of construction will require any corrections be the responsibility of the General Contractor, in order for Boston Properties to be able to approve the final design and performance of system.

**B. MECHANICAL**

1. Contractors modifying, or relocating ductwork, air grilles, VAV boxes, etc. must balance the air and water systems as necessary. All air balancing is to be done in the presence of Boston Properties. Two (2) copies of all balance shall be submitted to Boston Properties for review and approval.

2. All Test Adjust Balance contractors must be either NEBB or AABC. The following standard NEBB and AABC terminal unit data must be accounted for within the report:

- a. Manufacturer
- b. Terminal Type
- c. Terminal Model Number
- d. Terminal Size
- e. Identification/Designation
- f. Location (Typically an acceptable mechanical print mark up)
- g. DDC Address
- h. Fan Design CFM
- i. Fan Actual CFM
- j. Maximum Primary Air Design CFM
- k. Maximum Primary Air Actual CFM
- l. Minimum Primary Air Design CFM
- m. Minimum Primary Air Actual CFM
- n. DDC Maximum/Minimum CFM
- o. Fan Speed (High, medium, low, variable, etc.) \*
- p. DDC Flow Correction/Calibration Factors\*\*
- q. For terminals with electric heat, the following shall also be provided:
  - i. Provide design and actual KW
  - ii. Voltage
  - iii. Amperage
  - iv. Entering and Leaving temperature readings from terminal

\*Note: Item o. Fan Speed – Log fan control voltage (from speed controller) for PSC motors, log control DCV to ECM motors.

\*\*Note: Item q. DDC Flow Correction/Calibration Factors – Verify factor via manufacturer's published inlet velocity ring DP vs. CFM graphs. Provide reference graph with report.

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To reduce the possibility that a balance report is rejected, we suggest the Test Adjust Balance Contractor submit a sample report in advance of its work for Boston Properties' approval.

3. Exhaust fans discharging air directly into the ceiling plenum are for room-generated heat transfer applications only. Air cooled condensers and fans used for toilet, smoking, or chemical fumes' exhaust shall not be permitted to be discharged into the ceiling plenum.

4. Tenant-installed supplemental units and equipment are required to have an electric and/or plumbing sub meter. Absent such sub meter, Tenant may incur a flat rate electricity and/or plumbing charge which is to be paid by the Tenant based on anticipated consumption. Contractor to be responsible for low voltage connections from sub meter to building metering network.

5. All base building mechanical equipment shall be properly protected with pre-filters, dust covers etc. prior to start of work. Protection shall be removed and equipment wiped down at completion.

6. Energy management and building control work is to be performed by the base building controls Contractor (see attached building specific rider for details).

7. Tenant installed equipment that supplements existing base building equipment such as VAV boxes, fire alarm devices, control work; etc. shall be identical to the existing base building equipment to facilitate warranty and maintenance operations.

8. All concealed equipment shall be located with necessary accessibility for maintenance and repair.

9. Tenant shall engage MEP engineer to perform inspection of above ceiling conditions, prior to the Contractor's scheduled ceiling close-in inspection. MEP engineer to provide field report of such inspection findings to Boston Properties, prior to ceiling close-in completion.

10. Contractor shall contact Boston Properties 48 hours in advance for Boston Properties wall and ceiling close-in inspections. All Boston Properties and MEP Engineer Ceiling Inspection reports to be corrected by Contractor prior to ceiling close-in completion.

**C. ELECTRICAL**

1. Receptacles shall not be installed with building envelope.

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2. All circuit breaker panels must be clearly and accurately identified with typed labels and directories.
3. All wiring run outside of Tenant-demised area and in core rooms (i.e. below slab, electrical room, mechanical room or where exposed) shall be in rigid conduit.

**D. PLUMBING**

1. Any domestic or condenser water connections made to the building's piping system, must include a high quality isolation valve, (brass bodied gate or ball-type) and adequate system drain valves. If the system piping is of a different material a dielectric union must be installed. All valves and equipment must be easily accessible; access doors are required in drywall or other fixed construction.
2. Compression fittings (e.g. propress, shark bite, etc.) are not permitted at any plumbing connection.
3. All new piping points of connection to existing domestic or condenser water must match the base building system connection methods, fitting types, and pressures. Saddle taps are not permitted. Refer to Hot Work Permit Section from Property Management Team prior to commencement of work.
4. Contractor shall provide leak detection system and automatic shut off system to stop flow of domestic cold and hot water to associated plumbing equipment (e.g. sinks, water heater, ice maker, dishwasher, shower, etc.). Request specifications from Boston Properties for building-specific leak detection requirements and sequence of operation.

**E. VOICE/DATA/LOW VOLTAGE CABLING**

1. All wiring/cabling run outside of Tenant-demised area and in core rooms (i.e. below slab, electrical room, mechanical room or where exposed) shall be in rigid conduit.

**VI. PARKING – LOADING DOCK**

- A. Contractors, subcontractors and their personnel will not use the loading dock area for daytime parking. Boston Properties may permit at its discretion parking at the loading dock. Unauthorized vehicles will be ticketed and towed.
- B. Use of the loading dock for deliveries/trash removal must be scheduled through Boston Properties a minimum of 48 hours in advance.

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- C. Material that does not fit into the service elevator must be delivered through a window opening. The Contractor will be required to properly remove and replace the glass and adequately protect the window framing. Contractor must use base building glass Contractor and request prior approval and scheduling from Boston Properties.

**VII. UTILITIES**

- A. Utilities (i.e. electric, gas, water, telephone, cable) must not be disconnected or interrupted. A minimum of 48-hour notice and written permission from Boston Properties must be provided and attained, respectively.
- B. In unoccupied Tenant space under construction or control by the Contractor, the Contractor shall turn off all lights, except emergency lighting, at the end of each workday. In the event the Contractor fails to turn off the non-emergency lighting at the end of each work day, the Contractor will be invoiced for the excess electric consumption at the rate of \$0.01 per square foot, per day.

**VIII. SECURITY**

- A. The Contractor will be responsible for controlling any keys or access cards furnished by Boston Properties and will return them to Boston Properties at the completion of project. There will be a charge to the Contractor for lost or unreturned access fobs/key cards.
- B. At the completion of the work day, the Contractor will be responsible for locking all base building areas that were made available by Boston Properties.
- C. ID Badges: If requested, Contractors may be required to wear identification badges.

**IX. ELEVATORS**

**A. PASSENGER ELEVATOR**

1. Passenger elevators will not be used to move construction material or construction personnel. During full floor construction, Contractor must protect all passenger elevator openings, jambs, call lanterns, call buttons, sills, etc. Lack of protection of the elevator may result in back charges (e.g. service calls, shaft or machine room cleaning, etc.). Contractor to coordinate with Boston Properties for locking off of passenger elevator access to the floor for the duration of construction.

**B. SERVICE ELEVATOR**

1. The service elevator can be used to move construction personnel at any time during the day, provided the elevator doors are not held open. The service elevator cannot be used to move construction materials, furniture, furnishing or equipment into the building during building operating hours unless approved in writing by Boston Properties. All other usage must be scheduled with Boston Properties with at least 48 hours notice. Contractor shall protect the service elevator's walls with homasote and plywood. In some instances, corex and masonite may be permitted at Boston Properties' discretion. Any costs to repair damage to the elevators including dust or dirt in machine rooms or shaft or costs for service calls resulting from the Contractor's operations will be charged to the Contractor.

**X. CLEANING**

- A. The Contractor will remove all trash and debris daily or as often as necessary to maintain cleanliness in the building(s). The building trash compactors or containers are not to be used for construction debris.
- B. Walk-off mats or other protection must be provided at door entrances where work is being performed.
- C. Carpeting shall be protected by masonite or corex as necessary to maintain cleanliness and to protect carpets from damage.
- D. Tile, Terrazzo, Stone and wood floors shall be protected from damage as necessary.
- E. Contractor will furnish a vacuum(s) with a supply of clean bags and an operator to facilitate ongoing clean- up.
- F. Trash removal will be scheduled and coordinated with Boston Properties.
- G. Contractors must remove all food cartons and related debris from the work area on a daily basis.
- H. Driveway and street cleaning by Contractor will be required when Contractor's work has created mud or debris.

**ATTACHMENT A**

**GUIDELINES FOR MANAGING CONSTRUCTION PROJECT FIRE PROTECTION  
IMPAIRMENTS**

**I. IMPAIRMENTS**

Impairments to the building sprinkler and fire alarm systems are typically required when renovations involve changes to these systems. The following impairment procedures must be adhered to whenever impairments to the sprinkler or fire alarm systems are required or encountered.

Contractors requiring an impairment shall follow these steps:

1. Request a Red Impairment Tag from Boston Properties' Impairment Coordinator and be prepared to fulfill the responsibilities assigned to the Contractor.
2. Assist the Impairment Coordinator in completing the Pre-Impairment Checklist part of the Red Impairment Tag (Part A).
3. The "hard copy" of the Red Impairment Tag is placed on the impaired equipment.
4. Upon completion of work and/or to release the impairment the Contractor shall return the Red Impairment Tag "hard copy" to the Impairment Coordinator.
5. The Contractor and Impairment Coordinator place both parts of the tag together and complete the system restoration checklist (Part B) including signing off that the restoration is complete.

Enclosed as Attachment A-1 is a copy of the Impairment Tag. Important points are as follows:

- A Red Tag Permit is required for any impairment of the sprinkler / fire alarm systems.
- Each permit will be valid for one shift.
- Plan all work to minimize the duration of the system(s) impairment.
- The actual impairment of the system(s) should not take place until all personnel, material and equipment are at the work location.
- If possible, isolate only the work zone for impairment. System(s) must be restored at the end of the work shift.
- Impairments to large areas or that would affect primary life safety system(s) should be scheduled for times when the building or area is unoccupied. Fire watch tours of the

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impaired area shall be established and if applicable, personnel should be provided at closed valves or fire pumps to quickly restore the system if a fire occurs.

- Hot work or other hazardous-type operations shall not be conducted in an area where the fire protection or life safety system(s) are impaired.
- If any hot work or hazardous operations are necessary as part of the impairment, fire watches must be established.

## **II. HOT WORK**

A Hot Work Permit is required for any temporary operation producing open flame or sparks. This includes brazing, cutting, grinding, soldering, pipe thawing, torch applied roofing and welding.

Contractors requiring a hot work permit shall follow these steps:

1. Request a Yellow Hot Work Permit from Boston Properties' Impairment Coordinator and be prepared to fulfill the responsibilities assigned to the Contractor.
2. Assist the Impairment Coordinator in completing Part A of the Yellow Hot Work Permit.
3. The "hard copy" of the Yellow Hot Work Permit is placed at the work location.
4. Upon completion of the hot work, the Contractor shall complete Part B of the Yellow Hot Work Permit and return the "hard copy" to the Impairment Coordinator.
5. The Contractor and Impairment Coordinator place both parts of the tag together and sign off/close the Yellow Hot Work Permit.

Enclosed as Attachment A-2 is a copy of the Hot Work Permit. Important points are as follows:

- If there is a practical and safer way to do the job without hot work and that is approved in advance by Boston Properties, that method should be used.
- No hot work is permitted without authorization from Boston Properties' representative serving as, the fire safety supervisor / impairment coordinator, in the form of a signed hot work permit. This permit will be valid for a maximum of one eight-hour shift. After this time, another permit must be obtained from

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- and signed by the fire safety supervisor / impairment coordinator, before any additional hot work can continue.
- Specific firefighting equipment and protection material will be required at the hot work site before work starts. Contractor shall provide all equipment and protection required to ensure fire safe operations or otherwise specified by Boston Properties.
  - No hot work is permitted without a designated fire watch present. The Contractor is responsible to provide necessary personnel to conduct a fire watch for four (4) hours after the hot work has been completed. The subcontractor completing the work will monitor the work the 1<sup>st</sup> hour with the Contractor monitoring the last 3 hours. The four (4) hour fire watch overrides the timeframe indicated on the sample hot work permit. The Contractor will notify Boston Properties upon completion of the hot work and that the four (4) hour fire watch has commenced. If unsafe conditions are observed, the hot work operation will be stopped until the hazard is neutralized or eliminated. Additionally, the fire safety supervisor / impairment coordinator must be notified immediately of all unsafe or hazardous conditions.
  - The Contractor will verify that all equipment associated with the hot work is in proper working order. An inspection of the equipment may be conducted by the fire safety supervisor / impairment coordinator before the hot work permit is issued. Any unsafe equipment must be removed from the property and replaced prior to starting hot work.
  - All Contractor-owned equipment or materials stored in the facility overnight must be properly secured in an area designated by the fire safety supervisor / impairment coordinator.
  - A sprinkler impairment and hot work in the same zone at the same time will not be allowed.

**Attachment A-2**



**Impairment Tag**

**CONTROL NUMBER** Revision 01/02

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Property: \_\_\_\_\_ Area: \_\_\_\_\_

System(s): \_\_\_\_\_ Equip I.D. #: \_\_\_\_\_ Date: \_\_\_\_\_

All items in Part A should be completed prior to any fire protection or life safety system impairment, with the exception of impairments conducted as part of a documented routine test procedure where the system(s) can be immediately restored by standby personnel. Part B should be completed as part of the restoration procedure.

**PART A: PRE-IMPAIRMENT**

	Yes	No	N/A
1. Boston Properties' Impairment Guidelines have been reviewed?			
2. Was this impairment planned?			
3. Scope of impairment has been reviewed with property management?			
4. Work will be performed continuously until protection is restored?			
5. The following notifications have been made:			
Impairment Database			
Fire Department			
Fire Alarm Monitoring Company			
Security			
Tenants			
6. Hazardous operations have been terminated (Hot Work)?			
7. Additional fire extinguishers/charged hose lines have been located in impairment work area?			
8. Security rounds have been modified to include impairment area/increased rounds?			
9. Impairment tags have been completed and placed on impaired systems?			

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Impairment Coordinator

**PART B: SYSTEM RESTORATION**

	Yes	No	N/A
1. All systems have been restored?			
2. Work area has been inspected and found to be satisfactory?			
3. Operational test of system has been completed with satisfactory results?			
4. All parties notified in Part A, Section 4, have been notified that system(s) are restored?			
5. Tags and status boards have been cleared?			
6. Any fire equipment displaced has been returned to original location?			

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Impairment Coordinator

**RETAINED BY IMPAIRMENT COORDINATOR** Page 1 of 2

(second page of tag is identical and is placed on impaired equipment)

**RULES FOR CONSTRUCTION PROJECTS IN OPERATING BUILDINGS**

**Boston Properties Hot Work Permit**

<b>CONTROL NUMBER</b> _____	<b>Revision 01/02</b>		
<p>All items in part A should be completed prior to the start of any hot work operations. Part B should be completed as part of the restoration procedure at completion of the hot work operation</p>			
<b>Building:</b> _____	<b>Date:</b> _____		
<b>Location:</b> _____			
<b>Description of work:</b> _____			
<b>Work Approved to be done from:</b> _____ <b>to:</b> _____			
<b>PART A</b>			
	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1. Boston Properties' Hot Work Guidelines have been reviewed?			
2. Has smoke detection system in area been arranged to prevent unnecessary alarms as a result of hot work?			
3. Scope of work has been reviewed with Property Manager, Hot Work Coordinator, Impairment Coordinator and Chief Engineer?			
4. Sprinkler systems in service?			
5. Equipment to be used in hot work is in good condition?			
6. Flammable/combustible liquids and explosive atmosphere removed/eliminated?			
7. Combustible finishes/furnishings removed or covered with fire resistant material?			
8. Combustibles on opposite side of wall moved away?			
9. Wall and floor openings covered, protective curtains in place?			
10. Air transfer equipment arranged to prevent products of combustion from getting into occupied areas?			
11. Ventilation acceptable for hot work area?			
12. Fire watch in place with portable communications device and portable fire extinguishers.			
13. Emergency reporting instructions have been provided to fire watch?			
14. Hot Work Coordinator has reviewed and approved start of work?			
<b>Fire Watch:</b> _____		<b>Date:</b> _____	
<b>Hot Work Coordinator:</b> _____		<b>Date:</b> _____	
<b>PART B: SYSTEM RESTORATION</b>			
	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1. Area has been inspected by fire watch at completion of work? Record time of inspection: _____			
2. Continuous fire watch of area has been maintained for 60 minutes after work was completed? Record time: _____			
3. Periodic inspection of area has been conducted for four hours after work was completed? Record final time: _____			
4. All fire protection and building systems restored to normal operation?			
5. Property Manager, Hot Work Coordinator, Impairment Coordinator and Chief Building Engineer notified of completion?			
<b>Fire Watch:</b> _____		<b>Date:</b> _____	
<b>Hot Work Coordinator:</b> _____		<b>Date:</b> _____	
RETAINED BY THE HOT WORK COORDINATOR      Page 1 of 2      Rev. 3/02			

(second page of tag is identical and placed at site of hot work)