



How-to Guide: *TR-8 Inspections Reporting*

In Compliance with
New York City Energy Conservation Code,
1 RCNY 5000-01 Progress Inspections
& 1 RCNY 101-07 Administration

- **GENERAL**
- BUILDING ENVELOPE
- MECHANICAL SYSTEMS
- LIGHTING & ELECTRICAL POWER
- OTHER REQUIREMENTS

NOTE: In this *How-To Guide: TR-8 Inspections Reporting*, selected Energy Code provisions have been generalized, summarized, rephrased, and/or highlighted. This guide is intended: 1) To provide general guidance to report compliance with the NYCECC; 2) Not to replace or represent the entire 2020 NYCECC, 1 RCNY 5000-01 and related regulations of the City of New York and the Department of Buildings; and 3) Not to provide complete solutions for any specific inspection or work type. Comprehensive mandates, applicability, exemptions, exceptions and options can be found in the 2020 NYCECC, 1 RCNY 5000-01 and related regulations or buildings bulletins of the City of New York and the Department of Buildings.

OVERVIEW

WHAT IS TR-8 PROGRESS INSPECTIONS REPORTING ?

1 RCNY §5000-01
1 RCNY §101-07
NYCECC

▪ A Requirement to Verify Compliance with NYCECC as described in 1 RCNY §5000-01

- TR8 Energy Code Progress Inspections are required for each DOB NOW filing as described in 1 RCNY §5000-01.
- Inspections must be conducted by a qualified Inspector employed by an Approved Agency in accordance with 1 RCNY §101-07.
- Reports shall be submitted in a timely manner, during the course of construction, in accordance with the requirements of the Rules of the City of New York, the New York City Energy Conservation Code, and any Department Rules or Buildings Bulletins in effect at the time of Inspection.
- Where sequencing requires multiple visits to inspect construction progress of specific assemblies or systems, the Progress Inspector shall require the Contractor to notify the Inspector prior to covering or concealing any portion of the Work.

▪ Submission Requirements

- Send Reports to: TR8inspections@buildings.nyc.gov as required during construction at the three stages outlined in Buildings Bulletin 2025-xx
- **Drawings should be sent directly from the Special Inspection Agency to the TR8 email**, not via the filing representative or other intermediary. Additional supporting information shall be submitted to the Department for review upon request.
- Each report submitted must include Information Header, Observations & Comments, Supporting Documents, Photographs and Remarks & Remedy to provide complete evidence of inspected conditions.
(Particular attention should be given to systems, assemblies, or testing necessary to meet the Mandatory requirements of NYCECC)
- Each report must verify that all built energy design elements match or exceed the requirements set forth in the DOB approved permit documents in their quality, quantity, size, capacity, efficiency, performance, location, configuration, composition, etc.
- Any deviations from Approved plans, in any respect, shall be reported with a description & photographs of the specific discrepancy and a description & photograph of the alternative construction. (Should the deviation present a gross detriment to the total building performance, the Inspector shall submit the report immediately to alert the Department of the disparity)

HOW SHOULD TR-8 PROGRESS INSPECTIONS REPORTS BE PREPARED ?

Information Header - Formatting and Content

Information Header shall include:

- Inspection Agency name and contact information.
- DOB job number, related DOB job numbers (with suffix)
- Project name, complete building address, and BIN.
- General Contractor contact Information
- Owner contact information.
- Progress Inspectors name and registration number
- Inspection type (including TR8 numbers) with Date & Time of Inspection,
- Applicant of Record contact information.
- Inspection location(s) and Status
- Version of Energy Code & Analysis used to verify compliance.
- Construction Phase at time of inspection
- Weather conditions.

LETTER HEAD OF INSPECTION AGENCY

INCLUDE: PRINCIPAL CONTACT & NYC SIA NUMBER

PROGRESS INSPECTION NUMBER & DESCRIPTION:		DATE/TIME:
DOB JOB NUMBER:	APPLICANT OF RECORD:	
OWNER:	APPLICANT ADDRESS:	
PROJECT ADDRESS:	APPLICANT E-MAIL:	
GENERAL CONTRACTOR:	CODE/ANALYSIS APPLIED:	
CONTRACTOR ADDRESS:	CONSTRUCTION PHASE (STATUS)	
INSPECTOR NAME & ID:	LOCATION OF INSPECTION(S)	
WEATHER:	INSPECTION STATUS:	
DRAWINGS REFERENCED FOR INSPECTION (INCLUDE PAA # IF APPLICABLE)		

Sample Title Page with DOB preferred layout

■ Observations & Comments

Observations & Comments must provide a clear description of all work inspected within the scope indicated on the PW-1 & Approved drawings.

Each observation and comment must include:

- Description of the construction progress (e.g. exterior cladding commenced, interior rough-in complete, mechanical install commenced)
- A list of relevant inspections performed during each site visit with concise description of work in progress at time of inspection.
- Documentation of most recent approved drawings referenced for inspection (note if PAA drawings are included),
- Description of locations including specific exposure(s) & floor(s) where conditions were observed. (referenced to plan & photographs)
- Clearly delineated key plans or elevations indicating specific location of inspection with view direction of each supporting photograph.
- Description of conditions found - Do the conditions comply? What is Required vs. installed? Can work be accepted or remediated?
- Indicate how compliance is verified per REScheck, COMcheck, or Tabular Analysis. Simply comparing installed conditions to construction details does not verify compliance per Analysis. EN drawings must be referenced.

■ Supporting Documentation – (required for unlabeled assembly components)

- **If an assembly component cannot be verified provide additional information as necessary.**

These may include:

- Where insulation cannot be verified by label, provide Installers Certificate or field measured evidence of type and thickness installed. (Manufacturers data sheets may only be submitted as supporting documentation and will not be accepted alone to indicate as-built compliance.)
- Where manufacturers fenestration labels are not present, provide report for each unit type installed in the specific project, certifying fenestration assembly values rated in accordance with NFRC. (Fabrication labels with glass performance only (COG value) will not be accepted.)
(Mathematical conversion (from W/m2K) of non-NFRC rated units will not be accepted)
- To verify Air Barrier continuity, provide infiltration testing reports with sampling rate(s) as required per standard applied.
- Shipping manifests with specifications of type, size, and values typically found on manufacturers labels or equipment stickers.

■ Photographs

- **Photographs must clearly identify the specific project site conditions and assemblies being inspected.**
- **All photos must be date/time stamped, labeled to indicate viewpoint and keyed to plans or alpha-numeric reference description.**

Each report must include:

- An establishing photograph documenting the project street view at exposure #1 on date of inspection.
- Each photo must include all relevant information to clearly describe location, field measured value, or manufacturers labeled value for any assembly or equipment being documented.
- Photographs documenting insulation assemblies must include a standard ruled reference tool showing insulation depth or clear representation of manufacturer's label printed on installed materials.
- Photographs documenting fenestration assemblies must show full frame of unit with legible close-up of label adhered to unit.

■ Remarks & Remedy

- Status of each Inspection: *Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.*
- Recommendations for remedial actions to be completed should include description of non-conformance and recommended action to remedy work prior to moving to next phase of construction.
- Indicate additional information needed from Contractor, Installer, Design Applicant, or Owner.
- Provided Inspection Applicant seal, signature, and attestation on each submittal.

KEY PRINCIPLES

■ Identify the Correct Code Version to Follow

NYCECC, 1RCNY §5000-01
1 RCNY §101-07

- Job applications filed on and after May 12, 2020 must comply with the [2020 NYCECC](#) and [1 RCNY 5000-01](#) (Current Version)
- Job applications filed before May 11, 2020 must comply with the [2016 NYCECC](#) and [1 RCNY 5000-01](#) (Superseded Version)
- Progress Inspectors and Approved Inspection Agencies must comply with the administration set forth in [1 RCNY 101-07](#)

■ Verify all Mandatory Provisions

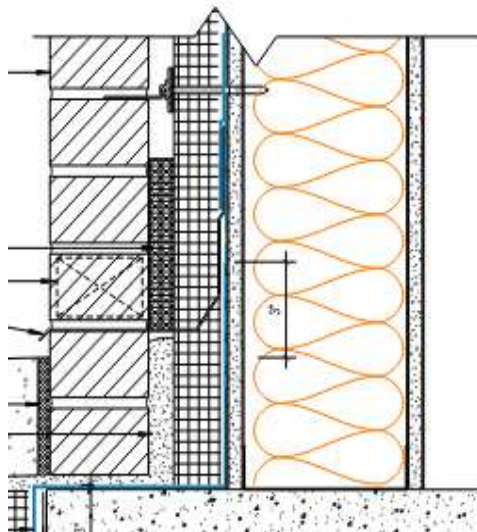
- **Mandatory provisions must be satisfied by all applications**, whereas *Prescriptive* provisions must be satisfied by applications that seek to prove compliance *prescriptively*.
- Applicable Code sections must be carefully inspected and verified according to the job application/project type.
 - For Residential building application, the NYCECC compliance path on PW1–Section 10 must be referenced throughout to verify that all mandatory requirements have been furnished whether indicated on the construction documents or as dictated by the provisions of this code.

■ List of Progress Inspections on EN- Sheet

- All **applicable** progress inspections required for Energy Code compliance must be listed on an EN- labeled sheet in tabular format as shown in 1 RCNY §5000-01(h), and must match those identified on the TR8.
- For each progress Inspection listed on the EN sheet, the Applicant must indicate the specific assembly, equipment or control requiring inspection based on unique design requirements for each building. The EN table specification should describe the location where an inspection should take place along with a description of the inspection procedure & reference to specification or details.

■ Values and Attributes Must Match

- Specifications (in values and attributes) of energy design elements reported in the Progress Inspection Report must be validated through Supporting Documentation. For example, Energy-Code-relevant specifications (e.g., insulation type, R-value, U-factor, luminaire type, luminaire wattage, equipment size, equipment efficiency, etc.) declared in the COMcheck energy analysis, but not identified in the construction documents will *not* be accepted for Energy Code compliance.
- Total numbers reported in Energy Analysis must be validated through Supporting Documentation. For example, the gross values such as exterior wall/fenestration areas, roof/floor areas, luminaire/equipment counts, area-weighted average values, etc. listed in the Tabular energy analysis must be easily identified in the drawings, schedules, and/or diagrams provided in the construction documents.



Inspector shall verify, in all cases, that the proposed materials are the correct type, thickness and value, installed in the specified location as indicated in the manufacturers installation specifications and/or as detailed on the Approved Plans.



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* For the purposes of this guide, the word “document” shall mean to describe, and photograph observed conditions.
Design requirements related to inspections below may be referenced in [How-to Guide: Supporting Documentation](#)

NOTE: In this *How-To Guide: Supporting Documentation*, selected Energy Code provisions have been generalized, summarized, rephrased, and/or highlighted. This guide is intended: 1) To provide general guidance for the job applications seeking compliance with the 2020 NYCECC; 2) Not to replace or represent the entire 2020 NYCECC and related regulations of the City of New York and the Department of Buildings; and 3) Not to provide complete compliance solutions for any particular type of job or work. Comprehensive mandates, applicability, exemptions, exceptions and options will be found in the 2020 NYCECC and related regulations of the City of New York and the Department of Buildings.

PROTECTION OF EXPOSED FOUNDATION INSULATION - IA1 , IIA

<p>■ Inspection / Test Required</p>	
<ul style="list-style-type: none"> - IA1, IIA1 - Protection of exposed foundation insulation: Insulation must be visually inspected to verify proper protection where applied to the exterior of basement or cellar walls, crawl-space walls and/or the perimeter of slab-on-grade floors. - Inspector shall verify covering to prevent the degradation of the insulation's thermal performance. The protective covering shall cover all exposed exterior insulation and extend not less than 6 inches below grade. during foundation work, prior to backfill. 	<p>R303.2.1 C303.2.1 ASHRAE 90.1- 5.8.1, 5.9</p>
<p>■ Observations, Comments & Description</p>	
<ul style="list-style-type: none"> - Verify that material covering exposed insulation is rigid, opaque & weather-resistant and that it extends to a min. 6" below grade. - Description must indicate type, thickness & depth of material with explanation of how material was adhered to wall. - Where insulation remains exposed, Inspector shall document deviation, location, and remedy. 	
<p>■ Photographic Documentation</p>	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photograph of reference detail and photograph(s) of covering material at each exposure, as applicable. - Where insulation remains exposed, Inspector shall document deviation at location and may recommend remedy. <div data-bbox="113 786 621 1198" data-label="Image"> </div> <div data-bbox="663 790 1745 1208" data-label="Image"> </div> <p>Inspector shall verify, in all cases, that the proposed materials are the correct type, thickness and value, installed in the specified location as detailed on the Approved Plans and/or indicated in the manufacturers installation specifications.</p>	
<p>■ Remarks & Remedy</p>	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.</i> - Inspector may provide recommendations and remedial actions to be verified, as applicable 	

INSULATION PLACEMENT & R-VALUES - IA2 , IIA2

<p>■ Inspection Required</p> <ul style="list-style-type: none"> - IA2, IIA2 Insulation placement and R-values: Installed insulation for each component of the conditioned space envelope and at junctions between components, including thermal bridges and heated slab insulation, must be visually inspected to ensure that the R-values are marked, that such R-values conform to the R-values identified in the construction documents and that the insulation is properly installed. Certifications for unmarked insulation must be similarly visually inspected. - Inspector shall verify continuous enclosure at exterior of each exposure prior to completion of cladding, rainscreen or veneer. - Compliance at interior locations shall be verified while walls, ceilings and floors are open, prior to the installation of interior gypsum board or other finishes. 	<p><i>R303, R402. C303.2, C402.1, C402.2, C402.6, C406; ASHRAE-90.1 5.5, 5.6, 5.8, 5.9, 11 or Appendix G, Appendix I</i></p>
<p>■ Observations & Comments</p> <ul style="list-style-type: none"> - Verify that all insulation materials are installed in accordance with (i) the manufacturer's installation instructions, (ii) the specified details in the DOB approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Description must indicate type, thickness & depth of material with explanation of how material was secured. <ul style="list-style-type: none"> ○ For exterior rigid or mineral wool insulation, Inspector shall document that panels are joined without gaps, multiple layers have seams overlapped, as required, and materials are continuous without interruptions or voids, except as specified. ○ For batt insulation, Inspector shall document that insulation has been installed to completely fill each cavity. Photographs shall clearly show the manufacturer's label on facing or, if unfaced, a closeup of the installation showing both the cavity depth and insulation thickness to verify that the cavity is filled completely. ○ For spray foam installations, the inspector shall document the type of insulation installed and verify that the installation was completed to the R-value specified. Where cavities are specified to fill the full depth of framing, the inspector shall document that insulation is finished flush to the face of framing without gaps, voids or separation from sheathing or framing members. ○ In all cases, the Inspector shall use a standard measuring device to indicate the framing conditions and the finished depth of cured insulation. ○ Where insulation cannot be verified by label or measurement, Inspector must provide a site specific, dated Installers Certificate or other evidence to verify the type and thickness installed. (Manufacturers specification sheets shall not be deemed acceptable as the sole means to verify compliance.) ○ Where insulation is not installed as described above, Inspector shall document all deviations by location and may recommend remedy prior to re-inspection where necessary. 	

■ Photographic Documentation

- Verify as-built conditions match specifications in construction drawings. Provide photo for entire façade at each exposure.
- Provide photograph of reference detail and photograph(s) of covering material at each exposure, as applicable.
- Each photograph must be labeled with floor, exposure, and location of observation.
- Where insulation does not have visible label, Inspector shall document thickness with measured close-up photograph.
- Where insulation type is not clearly labeled, Inspector shall provide manufacturers specification to support observations.
- Where insulation is not installed correctly, Inspector shall document deviation at each location and may recommend remedy.



XPS installed without gaps that has clearly visible labeling is acceptable



XPS installed on wall with no label visible requires close up measurement & spec.



All measurements should show ruler or gauge close-up and be clearly visible



Mineral wool on exterior should be secured properly within full cavity of girts



Gauge should be used to verify full depth of rigid insulation measured to substrate



Mineral wool or unfaced batt installed to face of framing requires measurement

■ Photographic Documentation (continued)



Batt should be installed with vapor barrier to face of framing with label clearly visible



Sprayfoam must uniform or trimmed to framing, Provide Certificate to verify install.



Insulation contrary to specification is unacceptable with folds and voids



Exterior rigid insulation with no contact at new building wall is unacceptable



Sprayfoam with gaps, inconsistent depth or cavity not filled evenly is unacceptable



Measuring cavities with unruled devices cannot be verified and must be avoided

■ Remarks & Remedy

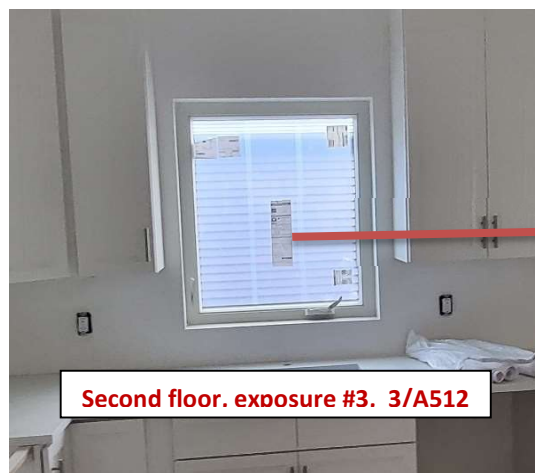
- Remarks and Remedy shall include the disposition of each Inspection: *Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.*
- Inspector may provide recommendations and remedial actions to be verified, as applicable

FENESTRATION & DOOR U-FACTOR AND PRODUCT RATING - IA3 , IIA3

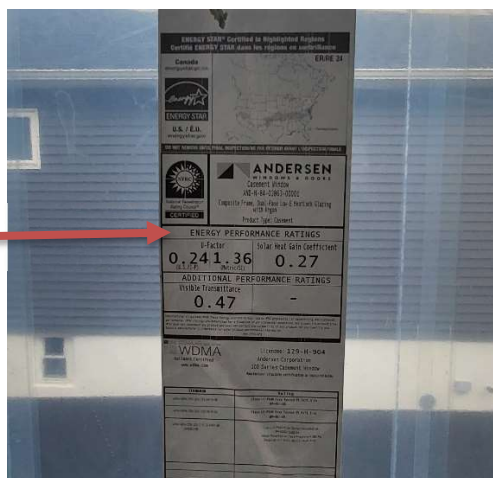
■ Inspection Required	
<ul style="list-style-type: none"> - IA3, IIA3 Fenestration and door U-factor and product ratings: U-factors, SHGC and VT values of installed fenestration must be visually inspected for conformance with the U-factors, SHGC and VT values identified in the construction drawings by verifying the manufacturer's NFRC labels or, where not labeled, using the ratings in ECC Tables C303.1.3(1), (2) and (3). - U-factors of fenestration products such as windows, doors and skylights shall be determined in accordance with NFRC 100 and NFRC 200. (Garage doors may also be tested according to ANSI/DASMA 105.) - Inspector shall verify U-factors, SHGC and VT values of all windows & doors during installation by reference to product labels on manufactured units or certified NFRC reports for unlabeled units. - Compliance shall be verified prior to completion of insulation and/or interior finishes. If NFRC reports are presented, the Inspector may verify values of installed units against a shipping manifest or other delivery documentation for site inspected prior to the completion of the installation. 	<p><i>R303.1, R402 C303.1, C303.1.3, C402.1.4, C402.4, C406; ASHRAE 90.1 – 5.4.2, 5.5, 5.6, 5.8.2, 5.9, 11 or Appendix G, Appendix I , NFRC 100, 200 NFRC 400</i></p>
■ Observations & Comments	
<ul style="list-style-type: none"> - Verify that all fenestration is installed in accordance with (i) the manufacturer's installation instructions, (ii) the specified details in the DOB approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Description must indicate type of unit (operable, fixed, storefront or curtain wall) with explanation of how unit is secured to the wall and sealed to mitigate infiltration at frame. - Where manufacturers fenestration labels are not present, Inspector may provide a current report for each unit type to certify fenestration assembly values rated in accordance with NFRC. Report must be from an accredited, independent laboratory and reference the specific site and conditions observed. <ul style="list-style-type: none"> (Fabrication labels with glass performance only (COG value) will not be accepted.) (Mathematical conversion of metric U-factors (from W/m2K) for non-NFRC rated units will not be accepted.) - Where any unit is not installed as described above, Inspector shall document all deviations by location and may recommend remedy prior to re-inspection where necessary. 	

■ Photographic Documentation

- Verify as-built conditions match specifications in construction drawings.
- Provide full frame photograph of each unit type at each exposure with related close-up of certification label.
- Where fenestration does not have visible label, Inspector shall document unit and cross reference with NFRC report.
- Where unit is not installed correctly, Inspector shall document deviation at each location and may recommend remedy.



All fenestration must be documented at each exposure. A full frame photograph establish the location with marked reference to construction detail



Where label is available, Inspector shall document with close-up photo of label and verify values against the Energy Analysis and window schedule.



Where values cannot be identified by sticker or placard, the Inspector must request a current, site specific copy of the NFRC report to certify installed unit.

■ Remarks & Remedy

- Remarks and Remedy shall include the disposition of each Inspection: *Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.*
- Where all units are found to be compliant, Inspector shall document at least one unit of each type and submit report.
- Where fenestration unit cannot be verified using the methods above, or the installed units do not conform to Approved specification, Inspector shall notify the Applicant or Record and Owner. Applicant of record shall be responsible to submit a Post Approval Amendment to update the Approved drawings to reflect the installed units.
- Where deviations occur, Inspector may provide recommendations and remedial actions to be verified, as applicable.

FENESTRATION AIR LEAKAGE - IA4 , IIA4

■ Inspection Required	
<ul style="list-style-type: none"> - IA4 , IIA4 Fenestration air leakage: Windows, [skylights] and door assemblies, except site-built windows, [skylights] and/or doors, must be visually inspected to verify that installed assemblies are listed and labeled by the manufacturer to the referenced standard. For curtain wall, storefront glazing, commercial entrance doors and revolving doors, the testing reports must be reviewed to verify that the installed assembly complies with the standard cited in the approved plans. Weather seals at loading docks must be visually verified. - Inspector shall verify air leakage rate of all windows & doors during installation by reference to product labels on manufactured units. Where label is not visible, Inspector must request certified NFRC 400 reports for unlabeled units. - Compliance shall be verified prior to completion of interior finishes surrounding unit frames. If NFRC reports are presented, the Inspector may verify values of installed units against a delivery documentation prior to the completion of the installation. 	<p>R402.4.3 C402.5.2, C402.5.6; ASHRAE 90.1 – 5.4.3.2, 5.4.3.3, 5.8.2, 5.9 NFRC 400</p>
■ Observations & Comments	
<ul style="list-style-type: none"> - Verify that all fenestration is installed in accordance with (i) the manufacturer’s installation instructions, (ii) the specified details in the DOB Approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Description must indicate type of unit (operable, fixed, storefront or curtain wall) with explanation of how unit is sealed to mitigate infiltration between wall construction and fenestration frame. - Inspector shall provide a current testing report for each unit type to certify that air leakage values are rated in accordance with NFRC from an accredited, independent laboratory with reference to the specific site and conditions observed 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide full frame photograph of each unit type at each exposure with related close-up of sealing. - Where unit is not sealed correctly, Inspector shall document deviation at each location and may recommend remedy. 	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.</i> - Where all units are found to be compliant, Inspector shall document at least one unit of each type and submit report. - Where fenestration unit cannot be verified using the methods above, or the installed units do not conform to Approved specification, Inspector shall notify the Applicant or Record and Owner. Applicant of record shall be responsible to submit a Post Approval Amendment to update the Approved drawings to reflect the installed units. - Where deviations occur, Inspector may provide recommendations and remedial actions to be verified, as applicable. 	

FENESTRATION AREAS - IA5 , IIA5

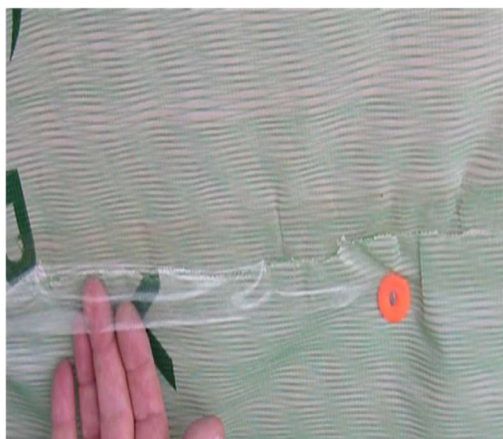
■ Inspection Required	
<ul style="list-style-type: none"> - IA5 , IIA5 Fenestration areas: Dimensions of windows, doors and skylights must be verified by visual inspection. - Inspector shall verify gross area of each window & door during installation by reference to product manufacturer labels or by physical measurement of installed units on-site. - Compliance shall be verified by comparing the total gross area measured on-site at each exposure with the gross areas represented for each façade on the Energy Analysis and Approved plans. 	R402.3 C402.4; ASHRAE 90.1 – 5.4, 5.5.4, 5.6, 5.9,11 or Appendix G
■ Observations & Comments	
<ul style="list-style-type: none"> - Verify that all fenestration is sized per the specified details in the DOB approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Description must indicate type of unit (operable, fixed, storefront or curtain wall) with verification of installed frame size. - Supporting documentation shall include EN analysis indicating the Window /Wall ratio, elevation drawings and/or window schedule showing unit sizes or elevation calculations indicating unit sizes and locations per the DOB Approved Plans. 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide full frame photograph of each building exposure matching drawn elevations. - Where unit size or placement on any exposure does not match, Inspector shall document deviation at each location and notify the Applicant or Record and Owner. Applicant or Record shall be responsible to submit a Post Approval Amendment to update the approved drawings to reflect the location and sizes of installed units. 	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.</i> - Where all units are found to be compliant, Inspector shall document all exposures and submit report. - Where deviations occur, Inspector may provide recommendations and remedial actions to be verified, as applicable. 	

AIR BARRIER - VISUAL INSPECTION - IA6 , IIA6

<p>■ Inspection Required – (to meet Mandatory Requirements)</p>	
<ul style="list-style-type: none"> - IA6 , Air barrier - visual inspection: Openings and penetrations in the building envelope, including site-built fenestration and doors, must be visually inspected to verify that they are properly sealed, in accordance with Table R402.4.1.1 - IIA6, Air barrier - visual inspection: Openings and penetrations in the building envelope, including site-built fenestration and doors, must be visually inspected to verify that a continuous air barrier around the envelope forms an air-tight enclosure. The progress inspector must visually inspect to verify that materials and/or assemblies have been tested and meet the requirements of the respective standards or must observe the testing of the building and/or assemblies and verify that the building and/or assemblies meet the requirements of the standard, in accordance with the standard(s) cited in the approved plans. - Air barrier inspections consist of a multi-step process. During each consecutive visit, Inspector shall document the proper construction and continuity of air infiltration barrier against any leakage during installation. - Examples of exterior envelope components to be inspected include, but are not limited to, house wrap, fluid-based wall or floor coatings, taping or flashing at seams and material junctions, gasketing of mechanical penetrations, fully engaged sill seals, etc. - Upon commencement of interior work, Inspections shall include, but are not limited to, fenestration sealing, pipe and outlet penetrations, rim joists, duct enclosures, attic hatches, sealing between conditioned and unconditioned spaces , sealing around lighting fixtures, etc. 	<p><i>R402.4 C402.5; ASHRAE 90.1 – 5.4.3.1, 5.4.3.5, 5.9</i></p>
<p>■ Observations & Comments</p>	
<ul style="list-style-type: none"> - Document that all envelope components are installed in accordance with (i) the manufacturer's installation instructions, (ii) the specified details in the DOB Approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Description must indicate the type and location of each component inspected with explanation of how the envelope was sealed to mitigate infiltration. Typical components to be reported shall include: - Whole Building Air Infiltration Barrier consisting of a house wrap, liquid applied infiltration compound, self-adhering membrane, or other approved material. Inspector shall describe installation process, how material is secured to substrate, how & where material joints or seams are sealed. Installation shall be free of damage or discontinuity (bubbles, tears, open gaps, unsealed seams, etc.) - Fenestration shall be sealed between frame and walls with non-fibrous material to provide complete seal along length of surround. - Penetrations through building envelope shall be sealed between unit and walls/roof. Ducts, vents, structural elements, cladding sub-structure, etc. must be sealed to resist wind pressure. - Where any component is not installed as required, Inspector shall document all deviations by location and may recommend remedy prior to re-inspection where necessary. 	

■ Photographic Documentation

- Verify as-built conditions match specifications in construction drawings.
- Provide photographs of installed infiltration barrier at each exposure and at each unique material transition
- Provide photographs of the typical fenestration sealing conditions. Documentation must include at least one example of each fenestration unit within each specific wall type (e.g. window in mass wall and door/window unit in framed wall, where applicable).
- Where unit is not installed correctly, Inspector shall document deviation at each location and may recommend remedy.



Infiltration barrier shall be continuous with all seams securely fastened and made weathertight. Loose sealant / tape or seams that do not overlap must be noted.



Document that all surrounds are sealed weathertight. Non-fibrous materials such as spray foam, backer rod & tape may be used. Batt or wool must not be accepted.



All penetrations must be sealed. Ties, brackets or anchors should be documented as weathertight. Gaps or unsealed penetrations must be noted.

■ Remarks & Remedy

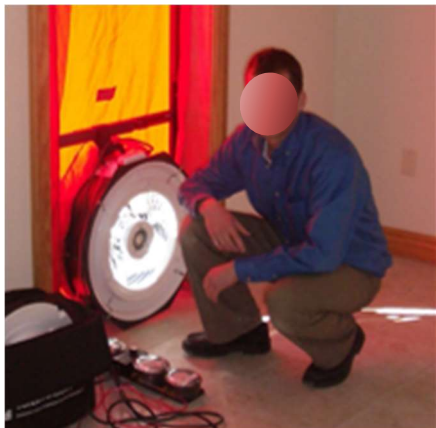
- Remarks and Remedy shall include the disposition of each Inspection: *Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.*
- Where all components are found to be compliant, Inspector shall document at least one unit of each type and submit report.
- Where component cannot be verified using the methods above or work does not conform to approved specification, Inspector shall notify the Applicant or Record and Owner. Applicant of record shall be responsible to submit a Post Approval Amendment to update the Approved drawings to reflect the as-built conditions.
- Where deviations occur, Inspector may provide recommendations and remedial actions to be verified, as applicable.

AIR BARRIER - TESTING - IA7,IIA7

<p>▪ Inspection Required – (to meet Mandatory Requirements)</p> <ul style="list-style-type: none"> - IA7, Air barrier testing: Testing must be performed in accordance with section R402.4.1.2 or R402.4.1.3 and shall be accepted if the building meets the requirements detailed in such section. Test results must be retained in accordance with the provisions of Title 28. Testing must be performed by a third-party independent of the contractor and acceptable to the department. - IIA7 Air barrier testing: Testing must be performed in accordance with section ECC C402.5.1.3.1 or ASHRAE 90.1 section 5.4.3.1.3, and shall be accepted if the building meets the requirements detailed in such section. Test results must be retained in accordance with the provisions of Title 28 of the Administrative Code. Testing must be performed by a third party independent of the contractor and acceptable to the department. , - Air barrier testing may require a multi-step process. Prior to any test, Inspector shall visually inspect and document the proper construction and continuity of air infiltration barrier against any leakage. Where testing is mandatory, the Progress Inspector shall witness the third-party testing in accordance with IA6 or IIA6 quoted above. - Where the testing does not meet the requirements of the code sections cited above or the Approved plans, Inspector shall require remediation and follow-up testing to certify compliance. 	<p><i>R402.4.1 C402.5, C402.5.1.3, C406; ASHRAE 90.1 – 5.4.3.1.3, 5.9, Appendix I</i></p>
<p>▪ Observations & Comments</p> <ul style="list-style-type: none"> - Document that all envelope components are installed in accordance with (i) the manufacturer’s installation instructions, (ii) the specified details in the DOB approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Document testing to indicate: - Description of test(s) conducted must include, in addition to standard header information, the building characteristics, testing boundary (with documentation supporting either enclosure area or volume calculations) , Testing standard applied, performance target, testing method (whole building, compartmentalized or other), test results indicating both pressurized and de-pressurized values with averages clearly highlighted for reference, flow exponent, correlation coefficient, equivalent air leakage and normalized enclosure tightness (ACH at Pa <u>or</u> CFM/SF at Pa) highlighted to demonstrate passing rate (accurately indicated to three decimal places). - Where any test cannot be completed or does not indicate compliance with mandatory requirements, Inspector shall document all deviations and may recommend remedy prior to re-testing where necessary. 	

■ Photographic Documentation

- Verify as-built conditions match specifications in construction drawings.
- Provide photographs of the site-specific testing conditions. Documentation must include verification of test being conducted with examples of blower door unit / metering equipment and sealed building components, where applicable.
- Should test indicate that building does not meet the requirements for air tightness, Inspector shall document deviations at each location and may recommend remedy.



Document testing set up with time stamped photo showing equipment installed on-site. Where applicable, show example of test being conducted.



Document that all surrounds are sealed weathertight or left unaltered as required by testing method applied. Verify with contractor prior to test.



Where test fails to meet requirements, contractor shall test penetrations or openings to determine locations of leakage and Inspector shall document.

■ Remarks & Remedy

- Remarks and Remedy shall include the disposition of the Infiltration testing: *Test conducted - in compliance, Test conducted - remedy required, Additional testing required, etc.*
- Where all building is found to be compliant, Inspector shall document qualifying test and submit report.
- Where compliance cannot be verified using the methods above or work does not conform to approved specification, Inspector shall notify the Applicant or Record and Owner. Applicant or Record shall be responsible to submit updated specifications to reflect the remedies required to as-built conditions. Additional test shall be performed upon completion of remedy.
- Where deviations occur, Inspector may provide recommendations and remedial actions prior to re-testing, as applicable.

AIR BARRIER CONTINUITY PLAN - IIA8

■ Inspection Required – (to meet Mandatory Requirements as determined by Registered Design Professional)

- **IIA 8 - Air Barrier Continuity Plan testing:** Each unique air barrier joint or seam must be tested or inspected for compliance. Documentation includes the method of test performed on each unique air barrier joint or seam and the results of the test. If an air barrier joint or seam has a deficiency, the deficiency must be noted, and retested until it complies with the testing requirements. Test results shall be retained in accordance with the provisions of Title 28 of the Administrative Code.
[Where indicated,] Testing must be performed by a third-party independent of the contractor and acceptable to the Department.
- Air barrier inspection & testing may require a multi-step process completed in accordance with ASTM E779, ASTM E1186, ASTM E2813, ASTM E3158 and/or as detailed in the ABC Plan. Prior to any test, Inspector shall document the proper construction & continuity of the air infiltration barrier against any leakage here testing is mandatory, the Progress Inspector shall witness the third-party testing in accordance with IA6 or IIA6 quoted above.
- Where the testing fails or inspections do not meet the requirements of the ABC Plan detailed on the Approved plans, Inspector shall require remediation and follow-up testing or inspection to certify compliance.

C402.5.1.3;
ASHRAE 90.1 –
5.4.3.1.3, 5.9

VESTIBULES - IIA9

<p>▪ Inspection / Test Required (as applicable)</p>	
<ul style="list-style-type: none"> - IIA9, Vestibules: Required entrance vestibules must be visually inspected for proper operation. - Inspector shall verify proper operation of self-closing devices and sealing of vestibule to meet required thermal performance. 	<p>§402.5.7; ASHRAE 90.1 – 5.4.3.4</p>
<p>▪ Observations, Comments & Description</p>	
<ul style="list-style-type: none"> - Verify that completed vestibule is weather-tight and sealed per design documents. - Verify that closers are properly calibrated to accommodate both positive and negative pressure that may be applied. - Where vestibule does not meet requirements, Inspector shall document deviation at location and may recommend remedy. 	
<p>▪ Photographic Documentation</p>	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photograph of reference detail and photograph(s) of vestibule, as applicable. <div data-bbox="170 711 1056 1161"> </div> <div data-bbox="1150 693 1709 1164"> </div>	
<p>▪ Remarks & Remedy</p>	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.</i> - Inspector may provide recommendations and remedial actions to be verified, as applicable. 	



How-to Guide: *TR-8 Inspections Reporting*

In Compliance with
New York City Energy Conservation Code,
1 RCNY 5000-01 Progress Inspections
& 1 RCNY 101-07 Administration

- GENERAL
- BUILDING ENVELOPE
- **MECHANICAL SYSTEMS**
- LIGHTING & ELECTRICAL POWER
- OTHER REQUIREMENTS

For the purposes of this guide, the word “document” shall mean to describe, and photograph observed conditions.
Design requirements related to inspections below may be referenced in [How-to Guide: Supporting Documentation](#)

NOTE: In this *How-To Guide: Supporting Documentation*, selected Energy Code provisions have been generalized, summarized, rephrased, and/or highlighted. This guide is intended: 1) To provide general guidance for the job applications seeking compliance with the 2020 NYCECC; 2) Not to replace or represent the entire 2020 NYCECC and related regulations of the City of New York and the Department of Buildings; and 3) Not to provide complete compliance solutions for any particular type of job or work. Comprehensive mandates, applicability, exemptions, exceptions and options will be found in the 2020 NYCECC and related regulations of the City of New York and the Department of Buildings

FIREPLACES - IB1, IIB1

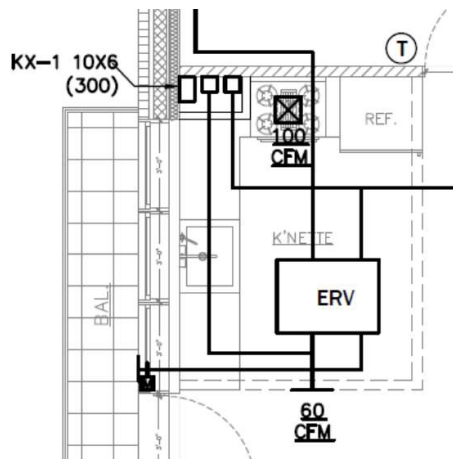
■ Inspection / Test Required	
<ul style="list-style-type: none"> - IB1, IIB1 Fireplaces: Provision of combustion air and tight-fitting fireplace doors must be verified by visual inspection. - Inspector shall verify proper operation of fireplace dampers and combustion air flow to meet required thermal performance. 	R402.4., C402.2.8 BC 2111; MC Chapters 7-9; FGC Chapter 6
■ Observations, Comments & Description	
<ul style="list-style-type: none"> - Verify that completed fireplace is weather-tight and sealed per design documents. - Verify that damper is properly calibrated. Where doors are present, verify tightness and proper sealing. - Where fireplace does not meet requirements, Inspector shall document deviation at location and may recommend remedy. 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photograph of reference detail or manufacturers specifications and photograph of fireplace, as applicable. 	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified</i>, etc. - Inspector may provide recommendations and remedial actions to be verified, as applicable. 	

VENTILATION & AIR DISTRIBUTION SYSTEM - IB2

■ Inspection Required – (to meet Mandatory Requirements)	
<ul style="list-style-type: none"> - IB2 Ventilation and air distribution system: Ventilation system must be verified to comply with ERV/HRV requirements or balanced ventilation system. Whole-house ventilation fan efficacy must be verified by visual inspection. Not less than 20% of installed automatic or gravity dampers, and a minimum of one of each type, must be visually inspected and physically tested for proper operation. - R403.6.2 Balanced ventilation and HRV/ERV systems (Mandatory). In new buildings, every dwelling unit shall be served by a heat recovery ventilator (HRV) or energy recovery ventilator (ERV) installed per manufacturer's instructions. The HRV/ERV must be listed and sized adequately for the specific application, which will include the building's conditioned area, and number of occupants. - Inspector shall verify that all mechanical equipment is installed within thermal enclosure. - Inspector shall verify proper operation of ERV/HRV unit and all related HVAC equipment (as noted below). - Location of equipment and duct work shall be documented while walls, ceilings and floors are open, prior to the installation of interior gypsum board or other finishes. 	<p><i>R403.6,R403.8, C403, C404</i></p>
■ Observations & Comments	
<ul style="list-style-type: none"> - Verify that mechanical system and ERV/HRV is installed in accordance with (i) the manufacturer's installation instructions, (ii) the specified details in the DOB Approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Where whole house ERV/HRV unit is installed in conjunction with non-ducted systems (heat pumps or hydronic radiant systems), Inspector shall provide documentation to meet the standards of an ACCA - HVAC Quality Installation Verification Protocols ANSI/ACCA 9QIvp 2016 , Level 1 evaluation. - Where ERV/HRV unit or balanced ventilation is connected through a ducted HVAC system (whole house AHUs) , Inspector shall provide documentation for the ERV/ HRV unit or a balanced ventilation system to meet the standards of an ACCA - HVAC Quality Installation Verification Protocols ANSI/ACCA 9QIvp 2016 , Level 2 evaluation. - Where ERV/HRV is not installed within the thermal enclosure or does not meet the requirements of evaluations above, Inspector shall document all deviations by location and immediately notify the Applicant of Record, Owner & the Department. 	

■ Photographic Documentation

- Verify as-built conditions match unit type and specifications in construction drawings.
- Provide full frame photograph of each unit at each location with related close-up of efficiency or certification label.
- Where unit does not have visible label, Inspector shall document unit and cross reference with manufacturers certification report.
- Where unit is not installed correctly, Inspector shall document deviation at each location and may recommend remedy.



All drawings should clearly indicate unit type and location with duct type and location. Each plan must show area served with CFM indicated.



Inspector shall document capacity and efficacy of installed unit and verify against values indicated in the Energy Analysis and /or mechanical schedules.



Units shall not be installed outside the thermal envelope. Where condition is observed, Applicant must be notified to recommend remedy

■ Remarks & Remedy

- Remarks and Remedy shall include the disposition of each Inspection: *Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.*
- Inspector may provide recommendations and remedial actions to be verified, as applicable.
- Where proper operation of ERV/HRV unit cannot be verified using the methods above or the installed balanced ventilation does not conform to mandatory code requirements, Inspector shall notify the Applicant of Record, Owner & the Department. The Applicant of Record shall be responsible to direct any required remediation or update drawings with PAA as necessary to meet mandatory requirements of R403.6.
- Where minor deviations occur, Inspector may provide recommendations and remedial actions to be verified, as applicable.

SHUTOFF DAMPERS – IIB2

■ Inspection Required – (to meet Mandatory Requirements)	
<ul style="list-style-type: none"> - IIB2 Shutoff dampers: Dampers for stair and elevator shaft vents and other outdoor air intakes and exhaust openings integral to the building envelope must be visually inspected to verify that such dampers, except where permitted to be gravity dampers, comply with approved construction drawings. Manufacturer’s literature must be reviewed to verify that the product has been tested and found to meet the standard. - Inspector shall document operation of shutoff dampers and related mandatory controls per C403.7.7, where applicable, - Compliance related to sealing and air leakage shall be verified prior to the installation of any interior finishes. 	<p>C402.5.5, C403.7.7; ASHRAE 90.1 – 6.4.3.4</p>
■ Observations & Comments	
<ul style="list-style-type: none"> - Verify that all dampers for mechanical equipment (and stairway/shaft vents, where applicable) are installed in accordance with (i) the manufacturer’s installation instructions, (ii) the specified details in the DOB Approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Description must indicate type of unit (air handler, exhaust/intake vent, stairway/shaft, etc.) with explanation of how unit is controlled and how the envelope penetration is sealed to mitigate infiltration at frame. - Where manufacturers labels are not present, Inspector may test installed unit against specification to certify compliance. - Where any unit is not installed or operating as specified, Inspector shall document all deviations by location and may recommend remedy prior to re-inspection, where necessary. 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Document location and proper installation of units with reference to product labels or certified specification for unlabeled units. - Provide photograph of reference detail or manufacturers specifications and photograph of damper/ controls, as applicable. 	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress,</i> - <i>Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.</i> - Inspector may provide recommendations and remedial actions to be verified, as applicable. 	

HVAC-R EQUIPMENT AND SERVICE WATER HEATING - IB3 , IIB3

<div> <div>▪ Inspection Required</div> </div>	
<ul style="list-style-type: none"> - IB3 HVAC and service water heating equipment: Heating and cooling equipment must be verified by visual inspection for proper sizing. Pool heaters and covers shall be verified by visual inspection. , - IIB3 HVAC-R, commercial kitchen equipment, and service water heating equipment: Equipment sizing, efficiencies, pipe sizing and other performance factors of all major equipment units, as determined by the applicant of record, and no less than 15% of minor equipment units, must be verified by visual inspection and, where necessary, review of manufacturer’s data. Pool heaters and covers must be verified by visual inspection. - Inspector shall verify proper installation, sizing and efficiency of mechanical and service water heating equipment of installed units. - Compliance shall be verified by inspection of manufacturers equipment labels against the Energy Analysis and Approved plans. 	<p><i>R403, C403, C404. C405.10, C406; ASHRAE 90.1 – 6.3, 6.4, 6.5, 6.7, 7.4, 7.5, 7.8. 10.4.6, Appendix I,</i></p>
<div> <div>▪ Observations & Comments</div> </div>	
<ul style="list-style-type: none"> - Verify that all mechanical equipment is installed in accordance with (i) the manufacturer’s installation instructions, (ii) the specified details in the DOB Approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Description must indicate type of unit (heat pump, air, handler, furnace, etc.) with explanation of how unit is controlled and whether unit meets requirements set forth by mandatory requirements or Approved drawings and specifications. Where manufacturers labels are not present, Inspector may test installed unit against specification to certify compliance. - Where any unit is not installed or operating as specified, Inspector shall notify the Applicant of Record, Owner & the Department. The Applicant of Record shall be responsible to direct any required remediation or update drawings with PAA as necessary to meet mandatory requirements. 	

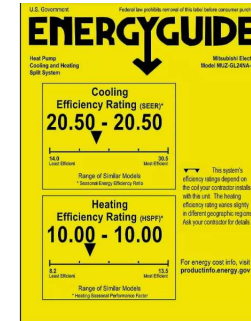
Photographic Documentation

- Verify as-built conditions match specifications in construction drawings.
- Document location and proper installation of units with reference to product labels or certified specification for unlabeled units.
- Provide photograph of reference detail or manufacturers specifications and photograph of damper/ controls, as applicable.

ELECTRICAL(COOL ONLY) SPLIT MIN. A/C UNITS SCHEDULE									
MARK	MANUFACTURER/ MODEL	UNIT	COOLING	EER	ELECTRICAL	MEA #	SERIAL #	LOCATION	REMARK
(+)	MITSUBISHI/ MCY-G09NA	1	1200 CFM	23.1	208-230V, 3ph 60hz	UL LIST	69W01827	EXTEIOR WALL	OUTDOOR CONDENSER UNIT
(+)	MITSUBISHI/ MCY-G09NA	1	1200 CFM	23.1	208-230V, 3ph 60hz	UL LIST	62W02218	EXTEIOR WALL	OUTDOOR CONDENSER UNIT
(+)	MITSUBISHI/ MCY-G09NA	1	1200 CFM	23.1	208-230V, 3ph 60hz	UL LIST	62R04146	2NDFL	INDOOR AIR HANDLER UNIT
(+)	MITSUBISHI/ MCY-G09NA	1	1200 CFM	23.1	208-230V, 3ph 60hz	UL LIST	69W01707	2NDFL	INDOOR AIR HANDLER UNIT
(+)	MITSUBISHI/ MCY-G09NA	1	1200 CFM	23.1	208-230V, 3ph 60hz	UL LIST	6XW04136	2NDFL	INDOOR AIR HANDLER UNIT
(+)	MITSUBISHI/ MCY-G09NA	1	1200 CFM	23.1	208-230V, 3ph 60hz	UL LIST	4ZA04171A	2ND FL	INDOOR AIR HANDLER UNIT

PROPOSED TWO FAMILY HOUSE WITH CELLAR, 1ST, 2ND AND ATTIC TOTAL FOOR AREA NEED AIR FLOW
 FORMULA: (TOTAL SQUARE FOOTAGE OF THE HOME/100) + ((NUMBER OF BEDROOMS+1) X 7.5
 CFM)=(4903.88SF/100)+(6BEDRMS+1)X7.5=49+52.5=101.5 CFM FOR ENTIRE HOUSE(CELLAR, 1ST,2ND AND ATTIC) THEREFORE INSTALL ONE AIR
 KING FRESH AIR MACHINE MODEL#OFAND, 30-130 CFM FRESH AIR MACHINE TO BALANCE AS PER R403.6.2(1) 6 BED ROOMS(WHOLE HOUSE)
 4903SF THE AIR FLOW 105 CFM - PROVIDE 130 CFM OK

R403.6.2(2) INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS
 130 CFM /101.5CFM THE FACTOR WILL BE 1.3 -75%



Inspector shall verify that equipment make/model, quantity, capacity and energy ffficiency match specifications on Approved drawings.

Inspector shall verify installed equipment matches model and efficiency specified in Approved drawings.

Where equipment has been substituted for equal or better, Inspector shall document and refer to Owner and Applicant.

Remarks & Remedy

- Remarks and Remedy shall include the disposition of each Inspection: *Conformance per plans, Work in progress,*
- *Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified,* etc.
- Where all units are found to be compliant, Inspector shall document all equipment and submit report.
- Where deviations occur, Inspector shall notify Applicant of Record, Owner & the Department. The Applicant of Record shall be responsible to direct any required remediation or update drawings with PAA as necessary to meet mandatory requirements.

HVAC-R EQUIPMENT AND SERVICE WATER HEATING SYSTEM CONTROLS - IB4, IIB4

■ Inspection Required – (to meet Mandatory Requirements)	
<ul style="list-style-type: none"> - IB4 ,HVAC and service water heating system controls: System controls must be inspected to verify that each dwelling is provided with at least one individual programmable thermostat..., Controls for supplementary electric resistance heat pumps...., Controls for whole-house mechanical ventilation (balanced ventilation option) shall enable manual override..., Controls for turning off circulating hot water pumps when not in use ..., in accordance with 1-RCNY 5000-01 TABLE I B4 - IIB4, HVAC-R and service water heating system controls: No less than 20% of each type of required controls must be verified by visual inspection and tested for functionality and proper operation. Such controls must include, but are not limited to: Thermostatic <ul style="list-style-type: none"> ▪ Off-hour ▪ Zones ▪ Ventilation System and Fan Controls ▪ Energy recovery systems ▪ Fan systems ... ▪ HVAC control in hotel/motel guest rooms ▪ Air/Water Economizers & controls ▪ Hydronic systems ▪ Heat rejection systems, etc. to verify accordance with 1-RCNY 5000-01 TABLE IIB4 	<p><i>R402.4 C402.5; ASHRAE 90.1 – 5.4.3.1, 5.4.3.5, 5.9</i></p>
■ Observations & Comments	
<ul style="list-style-type: none"> - Document that all controls, power packs and wiring are installed in accordance with (i) the manufacturer's installation instructions, (ii) the specified details in the DOB Approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Description must indicate the type and location of each component inspected with explanation of how the control device is interconnected with the equipment being controlled or spaces being served. 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photographs of installed controls at each location for all major systems. Documentation must include examples of each control type at varied locations as required to meet the specified sampling rate, or at least one example of each unique control specified, where applicable. - Where unit is not installed correctly, Inspector shall document deviation at each location and may recommend remedy. 	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.</i> - Where all components are found to be compliant, Inspector shall document at least one unit of each type and submit report. Where component cannot be verified using the methods above or work does not conform to Approved specification, Inspector shall notify the Applicant or Record and Owner. Applicant or Record shall be responsible to submit a Post Approval Amendment to update the Approved drawings to reflect the as-built conditions. - Where deviations occur, Inspector may provide recommendations and remedial actions to be verified, as applicable 	

HVAC-R AND SERVICE WATER PIPING DESIGN & INSULATION - IB5, IIB5

■ Inspection Required – (to meet Mandatory Requirements)	
<ul style="list-style-type: none"> - IB5, IIB5 HVAC-R and service water piping design and insulation: Installed piping insulation must be visually inspected to verify proper insulation placement and values. Service hot water distribution systems must be inspected to verify the supply of heated water. 	<i>R403, MC1204 C403, C404 MC603.9; ASHRAE 90.1 – 6.3, 6.4.4, 6.8.2, 6.8.3; 7.4.3</i>
■ Observations & Comments	
<ul style="list-style-type: none"> - Document that all piping and insulation is installed in accordance with (i) the manufacturer’s installation instructions, (ii) the specified details in the DOB Approved plans and (iii) the applicable provisions of the New York City Construction Codes. 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photographs of the site-specific conditions. Documentation must include evidence that piping has been insulated as required by Approved documents to the thickness and placement required. - Systems must be inspected to verify temperature and supply of heated water, where applicable. 	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of the Infiltration testing: Test conducted - in compliance, Test conducted – remedy required, Additional testing required, etc. - Where all building is found to be compliant, Inspector shall document qualifying test and submit report. - Where compliance cannot be verified using the methods above or work does not conform to Approved specification, Inspector shall notify the Applicant or Record and Owner. Applicant of record shall be responsible to submit a Post Approval Amendment to update specifications required to reflect the remedies to as-built conditions. - Where deviations occur, Inspector may provide recommendations and remedial actions prior to re-testing, as applicable. 	

DUCT LEAKAGE TESTING, INSULATION & DESIGN – IB6 , IIB6

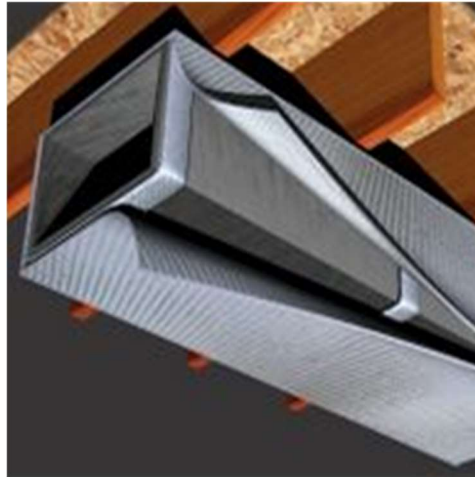
■ Inspection Required – (to meet Mandatory Requirements)	
<ul style="list-style-type: none"> - IB6 Duct leakage testing, insulation and design: All ductwork and air handlers must be inspected to verify that the system is entirely within conditioned space. Ducts must be verified by visual inspection for proper sizing. Ducts, air handlers, filter boxes and building cavities used as ducts shall be visually inspected for proper sealing. - IIB6 Duct leakage testing, insulation and design: For duct systems designed to operate at static pressures in excess of 3 inches w.g. (747 Pa), representative sections, as determined by the progress inspector, totaling at least 25% of the duct area, must be tested to verify that actual air leakage is below allowable amounts. - Installed duct insulation must be visually inspected to verify proper insulation placement and values. Joints, longitudinal and transverse seams and connections in ductwork must be visually inspected for proper sealing. - Manufacturer's literature must be reviewed to verify that the product has been tested and found to meet the standard. - Compliance related to sealing and air leakage shall be verified prior to the installation of interior finishes. 	<p>R403.3, C403; MC603.9 C403.11; ASHRAE 90.1 – 6.4.4.2.2</p>
■ Observations & Comments	
<ul style="list-style-type: none"> - Verify that all ductwork has been installed, sealed and tested in accordance with (i) the manufacturer's installation instructions, (ii) the specified details in the DOB Approved plans and (iii) the applicable provisions of the New York City Construction Codes. - Description must indicate type of duct, unit served and how duct was sealed and tested to mitigate leakage. - Where applicable, leakage must be verified at varied locations required to meet sampling rates specified in Approved documents. - Where leakage testing is not found to be compliant, Inspector may request remedy and verify to certify compliance. - Where any duct does not meet requirements as described above, Inspector shall document all deviations by location and may recommend remedy prior to re-inspection where necessary. 	

■ Photographic Documentation

- Verify as-built conditions match specifications in construction drawings.
- Provide photograph of reference detail or manufacturers specifications and photograph of fireplace, as applicable.



Verify that all ducts are sealed & fully encased with insulation as specified



Verify that ducts are properly sealed & tested to meet requirements as specified



Verify that all piping is insulated, wrapped & visually inspected to meet requirements

■ Remarks & Remedy

- Remarks and Remedy shall include the disposition of each Inspection: *Conformance per plans, Work in progress,*
- *Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.*
- Inspector may provide recommendations and remedial actions to be verified, as applicable.

End of Section



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METERING - IC1, IIC1

■ Inspection / Test Required (to meet Mandatory Requirements)	
<ul style="list-style-type: none"> - IC1 Metering: The presence and operation of individual meters must be verified by visual inspection for all dwelling units. - IIC1 Metering: The presence and operation of all required meters for monitoring total electrical energy usage and/or total fuel use, system energy usage, tenant energy usage, or electrical energy usage in the building, in individual dwelling units, or in tenant spaces must be verified by visual inspection. - Inspector shall verify proper operation of all meters to meet required performance. 	R404.2 C405.5, C405.11, C405.12; ASHRAE 90.1 – 8.4.3, 8.4.5, 8.4.6, 10.4.5
■ Observations, Comments & Description	
<ul style="list-style-type: none"> - Verify that metering, sub-metering and energy monitoring complies per design documents. - Where metering does not meet requirements, Inspector shall document deviation at location and may recommend remedy. 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photograph of reference detail or manufacturers specifications and photograph of fireplace, as applicable. 	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress,</i> - <i>Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.</i> - Inspector may provide recommendations and remedial actions to be verified, as applicable. 	

INTERIOR LIGHTING POWER / LIGHTING IN DWELLING UNITS - IC2, IIC2, IIC3

■ Inspection / Test Required (to meet Mandatory Requirements)	
<ul style="list-style-type: none"> - IC2 Interior lighting power, IIC2 Lighting in dwelling units: Lamps in permanently installed lighting fixtures must be visually inspected to verify compliance with high-efficacy requirements. - IIC3 Interior lighting power: Installed lighting must be verified for compliance with the lighting power allowance by visual inspection of fixtures, lamps, ballasts and transformers. - Inspector shall document installation of high efficacy fixtures and conduct phased inspections of related mandatory controls to meet required performance per Approved documents 	<p>R404.1, C405.1; ASHRAE 90.1 – 9.1.1</p>
■ Observations, Comments & Description	
<ul style="list-style-type: none"> - Verify that installed fixtures or lamps are high efficacy, matching locations & counts in compliance per Approved documents. - Where type, count or efficacy does not match, Inspector shall document deviation at location and may recommend remedy. 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photograph of reference plan or manufacturers specifications and document installed conditions, as applicable <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div data-bbox="210 852 661 1209"> <p>Verify as-built conditions match DOB approved Lighting plans and controls</p> </div> <div data-bbox="829 852 1228 1218"> <p>Verify installed fixtures match layout and locations per DOB approved plans.</p> </div> <div data-bbox="1333 852 1732 1209"> <p>Verify fixture type installed matches specification in lighting schedules.</p> </div> </div>	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.</i> - Inspector may provide recommendations and remedial actions to be verified, as applicable. 	

EXTERIOR LIGHTING POWER - IIC4

■ Inspection / Test Required (to meet Mandatory Requirements)	
<ul style="list-style-type: none"> - IIC4 Exterior lighting power: . Installed lighting must be verified for compliance with source efficacy and/or the lighting power allowance by visual inspection of fixtures, lamps, ballasts and relevant transformers. - Inspector shall document installation of high efficacy fixtures and conduct phased inspections of related mandatory controls to meet required performance per Approved documents 	C405.4; ASHRAE 90.1 -9.4.2; 1RCNY §101-07(c)(3)(v)(C)4,
■ Observations, Comments & Description	
<ul style="list-style-type: none"> - Verify that installed fixtures or lamps are high efficacy, matching locations & counts in compliance per Approved documents. - Where type, count or efficacy does not match, Inspector shall document deviation at location and may recommend remedy. 	
■ Photographic Documentation (See photo recommendations above for Interior lighting)	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photograph of reference plan or manufacturers specifications and document installed conditions, as applicable 	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified</i>, etc. - Inspector may provide recommendations and remedial actions to be verified, as applicable. 	

LIGHTING CONTROLS - IIC5

<p>▪ Inspection / Test Required (to meet Mandatory Requirements)</p> <ul style="list-style-type: none"> - IIC5 Lighting controls: Each type of required lighting controls, including: ▪ occupant sensors ▪ manual interior lighting controls ▪ light-reduction controls ▪ automatic lighting shutoff ▪ daylight zone controls ▪ sleeping unit controls ▪ exterior lighting controls ▪ egress illumination controls must be verified by visual inspection and tested for functionality and proper operation. - Inspector shall conduct phased inspections of all mandatory controls and document per Approved drawings and specifications. 	<p>C405.2, C406; ASHRAE 90.1 – 9.4.1, 9.4.3, 9.7, Appendix I</p>
<p>▪ Observations, Comments & Description</p> <ul style="list-style-type: none"> - Verify that proposed controls are installed, fully functional and matching locations in compliance per Approved documents. - Verify that, for occupant sensors, sensitivity, time delay, auto on or auto off and placement are set to control designated area - Verify that, for daylight sensors, sensitivity, calibration, dimming and placement are set to control designated fixtures within zone. 	
<p>▪ Photographic Documentation</p> <ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photograph of reference plan or manufacturers specifications and document installed conditions, as applicable <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div data-bbox="216 833 583 1185"> <p>Verify as-built conditions match DOB approved Lighting Controls designations</p> </div> <div data-bbox="810 829 1192 1183"> <p>Verify installed controls sensors are located per DOB approved plans.</p> </div> <div data-bbox="1310 826 1694 1175"> <p>Verify installed sensor type matches specification in controls schedules.</p> </div> </div>	
<p>▪ Remarks & Remedy</p> <ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.</i> - Inspector may provide recommendations and remedial actions to be verified, as applicable. 	

ELECTRIC MOTORS AND ELEVATORS - IIC6

■ Inspection / Test Required	
<ul style="list-style-type: none"> - IIC6 Electric motors and elevators: Where required by the construction documents for energy code compliance, motor listing or labels must be visually inspected to verify that they comply with the respective energy requirements in the construction documents. Elevators and escalators must be inspected for compliance with regenerative drive requirements. - Inspector shall verify motor listings and document motor / elevator operations per specifications. 	C403.8, C405.6, C405.7, C405.8, C405.9; ASHRAE 90.1 – 8.4.4, 10.4, 10.8
■ Observations, Comments & Description	
<ul style="list-style-type: none"> - Verify that installed motors are high efficacy, matching BHP and efficiency per Approved documents. - Where type, BHP or efficiency does not match, Inspector shall document deviation at location and may recommend remedy. 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photograph a sample of each motor type and document installed conditions, as applicable. 	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: <i>Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.</i> - Inspector may provide recommendations and remedial actions to be verified, as applicable. 	



How-to Guide: *TR-8 Inspections Reporting*

In Compliance with
New York City Energy Conservation Code,
1 RCNY 5000-01 Progress Inspections
& 1 RCNY 101-07 Administration

- GENERAL
- BUILDING ENVELOPE
- MECHANICAL SYSTEMS
- LIGHTING & ELECTRICAL POWER
- OTHER REQUIREMENTS

For the purposes of this guide, the word “document” shall mean to describe, and photograph observed conditions.
Design requirements related to inspections below may be referenced in [How-to Guide: Supporting Documentation](#)

NOTE: In this *How-To Guide: Supporting Documentation*, selected Energy Code provisions have been generalized, summarized, rephrased, and/or highlighted. This guide is intended: 1) To provide general guidance for the job applications seeking compliance with the 2020 NYCECC; 2) Not to replace or represent the entire 2020 NYCECC and related regulations of the City of New York and the Department of Buildings; and 3) Not to provide complete compliance solutions for any particular type of job or work. Comprehensive mandates, applicability, exemptions, exceptions and options will be found in the 2020 NYCECC and related regulations of the City of New York and the Department of Buildings

MAINTENANCE INFORMATION - ID1, IID1

■ Inspection / Test Required	
<ul style="list-style-type: none"> - IID1, IID1 Maintenance information: Maintenance manuals for equipment and systems requiring preventive maintenance must be reviewed for applicability to installed equipment and systems before such manuals are provided to the owner. Labels required for such equipment or systems must be inspected for accuracy and completeness - Inspector shall verify that all documentation is made available to Owner prior to issuance of Certificate of Occupancy. 	<i>R303.1 C408.1.1, C408.2.5.2, C408.3.2; ASHRAE 90.1 – 4.2, ,6.7,8.7, 9.7. 9.4.3.2.2</i>
■ Observations, Comments & Description	
<ul style="list-style-type: none"> - Verify that equipment labels are intact on referenced equipment and all related documentation is legible. - Product manuals or installers' instructions for preventative maintenance shall be organized and located for delivery to Owner. 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify that equipment labels match final approved specifications and document as necessary. - Where documentation is missing, verify that sufficient substitute documentation is available to Owner. - Provide photograph of reference details or manufacturers specifications, as applicable. 	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc. - Inspector may provide recommendations and remedial actions to be verified, as applicable. 	

PERMANENT CERTIFICATE - ID2

■ Inspection Required (to meet Mandatory Requirements)

- **ID2 Permanent certificate:** The installed permanent certificate must be visually inspected for location, completeness and accuracy.
- Inspector shall document installation of certificate in location specified per Approved documents.
- Inspector shall verify that all compliance values align with values indicated on Approved construction documents.

R401.3,
1RCNY 5000-
01(g)(4),

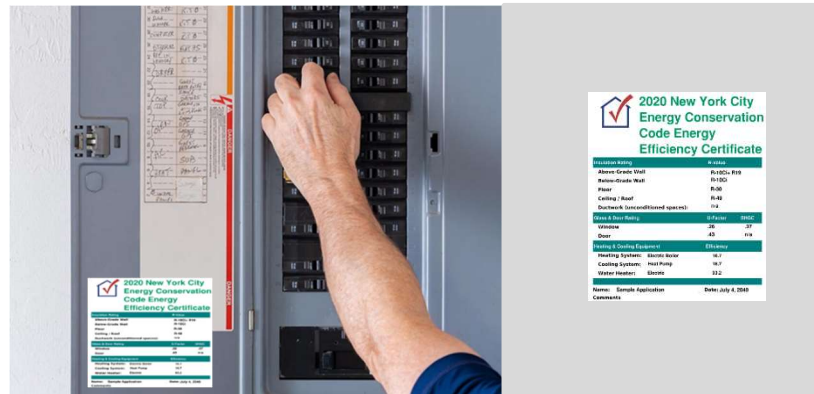
■ Observations, Comments & Description

- Verify correct location and completeness per approved design documents.

■ Photographic Documentation

- Verify as-built conditions match specifications in construction drawings.
- Provide photograph of Certificate in location per approved drawings, as applicable.
- Where Certificate is missing or incorrect, Inspector shall document deviation and may recommend remedy.

 2020 New York City Energy Conservation Code Energy Efficiency Certificate		
Insulation Rating	R-Value	
Above-Grade Wall	R-10Ci+ R19	
Below-Grade Wall	R-10Ci	
Floor	R-30	
Ceiling / Roof	R-49	
Ductwork (unconditioned spaces):	n/a	
Glass & Door Rating	U-Factor	SHGC
Window	.26	.37
Door	.43	n/a
Heating & Cooling Equipment Efficiency		
Heating System:	Electric Boiler	16.7
Cooling System:	Heat Pump	16.7
Water Heater:	Electric	93.2
Name: Sample Application		Date: July 4, 2049
Comments:		



Certificate must indicate all compliant values to match as-built conditions & approved drawings

Certificate may be located on interior of electrical panel or on wall adjacent to heating unit at eye level. Verify accuracy & completeness.

■ Remarks & Remedy

- Remarks and Remedy shall include the disposition of each Inspection: *Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc.*
- Inspector may provide recommendations and remedial actions to be verified, as applicable.

ELECTRIC VEHICLE SERVICE EQUIPMENT - ID3

■ Inspection / Test Required (to meet Mandatory Requirements)	
<ul style="list-style-type: none"> - ID3 Electric vehicle service equipment requirements: Electric vehicle outlet or conduit and electrical service reserved space must be visually inspected to verify compliance. Location must be noted on the permanent certificate. 	R404.3
■ Observations, Comments & Description	
<ul style="list-style-type: none"> - Verify that electric vehicle charger is installed and operable <u>or</u> - Verify that designated panel space is reserved, conduit is provided to service location per plans and junction box is installed for future connection at location in compliance per design documents. 	
■ Photographic Documentation	
<ul style="list-style-type: none"> - Verify as-built conditions match specifications in construction drawings. - Provide photograph of charger or panel space/distribution box., as applicable. - Where unit is not installed correctly, Inspector shall document deviation at each location and may recommend remedy. <div data-bbox="168 803 606 1205" data-label="Image"> </div> <p>If charger is installed, verify operation and document compliance</p> <div data-bbox="718 808 1148 1205" data-label="Image"> </div> <p>Panel capacity must be noted with breaker (blue) or designated space (red) for EVC</p> <div data-bbox="1272 808 1692 1205" data-label="Image"> </div> <p>Junction box must be located per plans with service wire or drag line provided.</p>	
■ Remarks & Remedy	
<ul style="list-style-type: none"> - Remarks and Remedy shall include the disposition of each Inspection: Conformance per plans, Work in progress, Pending re-inspection, Non-compliant built conditions identified, Conflict with drawings identified, etc. 	