

# THE PORT AUTHORITY OF NY & NJ

## Quality Assurance Division Design Standards Unit – Commonly Missed Items

### CHECKLIST

General (2015 TCRM, Section 2 General Requirements & Section 3 Codes, Regulations & Standards)

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| <input type="checkbox"/> | A. | <p><b>List all applicable:</b></p> <ol style="list-style-type: none"> <li>1. Codes</li> <li>2. Special Inspections</li> <li>3. ADA compliance note</li> <li>4. Key Plan</li> </ol> <p>*Revision Clouds (as applicable)</p> |
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Architectural (2015 TCRM, Section 5 Architectural)

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| <input type="checkbox"/> | A. | <p><b>Life Safety:</b></p> <ol style="list-style-type: none"> <li>1. Exit</li> <li>2. Exit Access</li> <li>3. Exit Discharge</li> <li>4. Egress Door Hardware</li> </ol> <p>New Jersey:2015 International Building Code, NJ, Chapter 10<br/> <i>New Jersey:New Jersey Uniform Construction Code (5:23), Subchapter 6</i></p> <p>New York City:2014 New York City Building Code, Chapter 10<br/> <i>New York City:1968 New York City Building Code, Subchapter 6</i></p> <p>New York State:2015 International Building Code, Chapter 10</p> |
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| <input type="checkbox"/> | B. | <p><b>Provide Test Reports for Interior Finishes</b></p> <p>New Jersey:2015 International Building Code, NJ, Chapter 8<br/> <i>New Jersey:New Jersey Uniform Construction Code (5:23), Subchapter 6.8 refers you back to 2015 IBC, NJ, Chapter 8</i></p> <p>New York City:2014 New York City Building Code, Chapter 8<br/> <i>New York City:1968 New York City Building Code, Section 27-351</i></p> <p>New York State:2015 International Building Code, Chapter 8</p> |
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| <input type="checkbox"/> | C. | <p><b>Storage of Hazardous Materials shall comply with:</b></p> <p>New Jersey: 2015 International Building Code, NJ, Chapters 3 &amp; 4<br/> <i>New Jersey:New Jersey Uniform Construction Code (5:23), Subchapter 6.31 refers you back to 2015 IBC, NJ, Chapter 4</i></p> <p>New York City: 2014 New York City Building Code, Chapters 3 &amp; 4<br/> <i>New York City:1968 New York City Building Code, Section 27-243</i></p> <p>New York State:2015 International Building Code, Chapters 3 &amp; 4</p> |
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Structural (2015 TCRM, Section 6 Structural)

2015 TCRM, Section 6, III requires calculations for a list of items including new structural work. This is to allow verification that the design is in compliance with Sections 1604 and 1605 of the three governing building codes, 2014 New York City Building Code, 2015 International Building Code, New Jersey Edition and 2015 International Building Code, NYSBC. Below are commonly missed areas where structural calculations are missed, design calculations shall include but not be limited to:

<input type="checkbox"/>	A.	<b>New Structural work</b>
<input type="checkbox"/>	B.	<b>Added loads from new construction on existing structure and foundation</b>
<input type="checkbox"/>	C.	<b>Added equipment weighing in excess of 1,000 lbs</b>
<input type="checkbox"/>	D.	<b>Seismic bracing for sprinkler piping systems is a requirement of NFPA 13</b>  NOTE: that ASCE 7-10, Section, 13.6.8.2 states that there are no exceptions for fire protection sprinkler piping systems with respect to the NFPA 13 requirements (for seismic bracing).
<input type="checkbox"/>	E.	<b>Seismic bracing for sprinkler piping in excess of 2 ½ inch diameter</b>

*Geotechnical (2015 TCRM, Section 7 Geotechnical)*

<input type="checkbox"/>	A.	<b>2015 TCRM, Section 7, IV requires drawings and calculations for a list of items including pile work</b>
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*Mechanical (2015 TCRM, Section 10 Mechanical)*

<input type="checkbox"/>	A.	<b>Provide sufficient ventilation air</b>  New Jersey: 2015 International Mechanical Code, Section 401.2 New York City: 2014 New York City Mechanical Code, Section 401.2 New York State: 2015 International Mechanical Code, Section 401.2
<input type="checkbox"/>	B.	<b>Location of intake and discharge louvers</b>  New Jersey: 2015 International Mechanical Code, Section 501.3.1 New York City: 2014 New York City Mechanical Code, Section 501.2.1 New York State: 2015 International Mechanical Code, Section 501.3.1
<input type="checkbox"/>	C.	<b>Show combustion air for gas appliance if not using a direct vent type of heater</b>  NOTE: For cooking, provide specifications for all hoods, exhaust fans, make up air unit, exhaust ducts and exhaust duct wrap

*Electrical (2015 TCRM, Section 9 Electrical)*

<input type="checkbox"/>	A.	<b>New York City: Verify that exit signs are approved for use in New York City</b>  New York City: 2014 New York City Building Code, Section 1011.
<input type="checkbox"/>	B.	<b>Design plan shall show all devices, one-line diagram and panel schedule for new electrical loads and shall include</b>

		<p>New Jersey: 2014 NEC, Section 215  New York City: 2011 NYC Electrical Code, Section 215</p>
<input type="checkbox"/>	C.	<p><b>Verify that existing service has adequate capacity to add new loads</b></p> <p>New Jersey: 2014 NEC, Section 215  New York City: 2011 NYC Electrical Code, Section 215</p>
<p>Fire Alarm (2015 TCRM, Section 12 Fire Protection)</p>		
<input type="checkbox"/>	A.	<p><b>Candela ratings</b></p> <p>2015 Tenant Construction Review Manual (TCRM), Section 12.III.C  New Jersey:2015 International Building Code, NJ, Section 907.1.2(3)  New York City:2014 New York City Building Code, Section 907.1.1(3)</p>
<input type="checkbox"/>	B.	<p><b>Sequences of operations – for all TAAs</b></p> <p>New Jersey:2015 International Building Code, NJ, Section 907.1.2(3)  New York City:2014 New York City Building Code, Section 907.1.1</p>
<input type="checkbox"/>	C.	<p><b>Show all devices (existing and new) – 20 devices? Show 20 devices on the diagram</b></p> <p>New Jersey: NFPA 72-2013, Section 14.4.2  New York City: NFPA 72-2010, Section 14.4.2</p> <p>NOTE:</p> <ul style="list-style-type: none"> <li>• Spell it all out, this is the basis of the fire alarm test (Dampers, Doors, Location of Devices)</li> <li>• Delineating the space as a whole and how it ties into the building</li> <li>• Verify if the base buildings fire alarm system requires your space to perform a function during an event</li> </ul>
<p>Fire Protection (2015 TCRM, Section 12 Fire Protection)</p>		
<input type="checkbox"/>	A.	<p><b>Schedule 40 piping shall be used for all sprinkler systems</b></p> <p>2015 Tenant Construction Review Manual (TCRM), Section 12.II.C</p>
<input type="checkbox"/>	B.	<p><b>New Buildings – Fire Protection Drawings / Calculations</b></p> <p>2015 Tenant Construction Review Manual (TCRM), Section 12.III</p>
<input type="checkbox"/>	C.	<p><b>Existing Buildings – Hydraulic calculations are required for:</b></p> <p><b><i>Relocation of more than 20 heads</i></b>  <b><i>Addition of heads</i></b></p> <p>2015 Tenant Construction Review Manual (TCRM), Section 12.III.B.1.i  New Jersey: NFPA 13-2013, Sections 23.1.3(34) &amp; 23.3.5  New York City: NFPA 13-2007, Sections 22.1.3(34) &amp; 22.3.4</p> <p><b>Clean Agent Systems:</b>  Protected spaces fail initial acceptance room pressurization tests. Construction does not satisfactorily seal the space to contain the extinguishing agent. Repeated attempts are conducted to</p>

		<p>get a successful test. Alternate fire suppression systems could be used such as pre-action sprinkler systems.</p> <p><b>Fire Fighting Foam Systems:</b> Installed inside of buildings where code required initial acceptance and routine inspection, testing, and maintenance is not performed. Design must include ability to perform the required testing.</p> <p><b>Deluge sprinkler systems:</b> Installed inside of buildings where code required initial acceptance and routine inspection, testing, and maintenance is not performed. Design must include ability to perform the required testing.</p> <p><b>Approved Equal:</b> QAD inspectors find different equipment or systems than what was identified on approved design drawings. Changes made during construction were approved by an A/EOR who is an outside consultant. QAD - Design Standards Unit is not aware of the change. QAD – Design Standards Unit should review changes to fire protection and life safety systems or equipment as a scope change.</p> <p><b>Certified Contractors:</b> Fire Protection staff have found out at final acceptance inspections that contractors are not certified to perform the work as required by NJ. REO claims that is not required under the contract specifications.</p>
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**Plumbing (2015 TCRM, Section 11 Plumbing)**

<input type="checkbox"/>	A.	<p><b>PVC piping shall not be used above ground within buildings</b></p> <p>2015 Tenant Construction Review Manual (TCRM), Section 11.III.A.1</p>
<input type="checkbox"/>	B.	<p><b>Water heater calculations</b></p> <p>2015 Tenant Construction Review Manual (TCRM), Section 11.IV New Jersey: 2015 NSPC, Section 10.15.11 New York City: New York City Plumbing Code, Sections 106.5 &amp; 607</p>
<input type="checkbox"/>	C.	<p><b>Show backflow preventers with proper clearances for all new fixtures, appliances, and water supplies</b></p> <p>2015 Tenant Construction Review Manual (TCRM), Section 11.I New Jersey: 2015 NSPC, Section 10.5 New York City: New York City Plumbing Code, Sections 608</p>
<input type="checkbox"/>	D.	<p><b>Provide calculations for all grease waste interceptors</b></p> <p>New Jersey: 2015 NSPC, Section 6.2.10 New York City: New York City Plumbing Code, Sections 1003</p>
<input type="checkbox"/>	E.	<p><b>Provide the required minimum number of required plumbing fixtures based on the Occupant Load</b></p> <p>New Jersey: 2015 NSPC, Section 7.21, Table 7.21.1 New York City: New York City Plumbing Code, Section 403, Table 403.1</p>

**Elevator**

<input type="checkbox"/>	A.	<p><b>Code NYC:</b></p> <p>A17.1 – 2000 with A17.1A 2002 Addendum &amp; A17.1B – 2003 Addendum and 2014 NYC Building Code, Appendix K</p>
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<input type="checkbox"/>	B.	<b>Code NJ:</b> A17.1 – 2013 Provide a complete set of construction documents with details and associated specifications. <ul style="list-style-type: none"> <li>• Design with Specifications</li> <li>• We need to the design drawings (not the shop drawings)</li> </ul>
<input type="checkbox"/>	C.	<b>After having successfully passed the appropriate test in this standard (ANSI Z97.1), like products and materials produced in the same manner as specimens submitted per test shall be legibly and permanently marked.</b>  New Jersey: 2015 International Building Code, NJ, Section 2406 Safety Glazing -2015 ANSI Z97.1, Chapter 6 Marking of Safety Glazing Material  New York City: 2014 New York City Building Code, Section 2406 Safety Glazing -2015 ANSI Z97.1, Chapter 6 Marking of Safety Glazing Material  <b>This shall apply to the follow but not be limited to:</b> <ul style="list-style-type: none"> <li>• Hoist way enclosure walls, doors &amp; door vision panels</li> <li>• Car enclosure walls &amp; doors</li> <li>• Escalator balustrade panels, deck barricades &amp; ceiling intersection guards</li> </ul>

Civil (2015 TCRM, Section 8 Civil)

<input type="checkbox"/>	A.	<b>Provide a complete set of construction documents with details and associated specifications</b>
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Environmental (2015 TCRM, Section 15 Environmental)

<input type="checkbox"/>	A.	<b>Asbestos forms / Abatement documentations</b>  2017 Tenant Construction and Alteration Process Manual (TCAP) Form: PA 3677 / 2-17 Form: PA 3678 / 08-10 (if required)
<input type="checkbox"/>	B.	<b>Environmental Management Plan to be provided for any scope that involves disrupting soil</b>  2017 Tenant Construction and Alteration Process Manual (TCAP), Section 7 2015 Tenant Construction Review Manual (TCRM), Section 15

Traffic (2015 TCRM, Section 17 Traffic)

<input type="checkbox"/>	A.	<b>Provide a complete set of construction documents with details and associated specifications</b>
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Landscaping (2015 TCRM, Section LS1 Landscape Architectural Design at Airports)

<input type="checkbox"/>	A.	<b>Provide a complete set of construction documents with details and associated specifications</b>
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Sustainable Design (Sustainable Building Guidelines & Sustainable Infrastructure Guidelines)

<input type="checkbox"/>	A.	<b>Recommend coordinating with the Sustainable Design group during the early stages of the design.</b>
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**RECOMMENDATIONS ISSUED TO THE FACILITIES:**

**Approval** to construct is recommended. There are no comments.

**Conditional approval** to construct is recommended, subject to conformance with the --- **(#) comments** on the attached Rider. However, the documents shall be revised and resubmitted as per the comments. All comments must be resolved prior to the completion of construction.

(2017 TCAP, Section 4.1.2.7.1 Conditional Approval)

Conditional Approval may be granted for only specific areas within the leasehold. In such cases, no construction activity should take place except in the approved areas.

**Disapproval** to construct is recommended. The documents must be revised and resubmitted as per the --- **(#) comments** on the attached Rider. The comments marked with an asterisk (\*) must be resolved before construction may proceed conditionally. All comments must be resolved prior to the completion of construction.