ENGINEERS SURVEYORS BUILDING CODE INSPECTORS MUNICIPAL SERVICES

LIGHT-HEIGEL

& ASSOCIATES, INC.

A full service provider of Pennsylvania Uniform Construction Code (UCC) services.

### **Uniform Construction Code**

# MODULAR CONSTRUCTION BUILDING PERMIT

## **Washington Township**

LOCAL LIGHT-HEIGEL OFFICE CONTACT INFORMATION:

Light-Heigel & Associates, Inc. 430 East Main Street Palmyra, PA 17078 Attn: Building Codes

Phone: (717) 838-1351 Fax: (717) 838-3820

FOR ADDITIONAL INFORMATION: E-mail: Permits @light-heigel.com

Website: www.light-heigel.com

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#### **MODULAR CONSTRUCTION BUILDING PERMIT:**

#### **Application Requirements**

The following items constitute a complete UCC application package for the construction of a building shell. Buildings that are constructed speculatively, with the tenants unknown at the time that application is made for a building permit, are the intended recipients of building shell permits.

#### 1. A completed UCC APPLICATION FOR BUILDING PERMIT

- Please complete this fully. If an informational item does not apply, indicate this with "NA."
- 2. Payment in full of the amount(s) determined on the COMMERCIAL FEE SCHEDULE.

Fees paid cover plan review and all inspections.

- 3. Two (2) complete sets of construction drawings and one (1) set of specifications.
  - Seals of licensed design professionals must appear on all sheets and be signed and dated by the designer.
  - Drawings must be at least 18" x 24" (but no more than 36" x 42") in size, drawn to scale of no less than 1/8"=1', with sufficient detail to fully indicate the nature and scope of the work to be performed.
  - On the first page of each set, indicate any systems or installations for which plan submission is deferred (e.g., fire alarm system, pre-engineered truss system, sprinkler system).

Applicants/design professionals should note the following regarding deferred submittals:

- a. Plans for any deferred systems must be submitted to Light-Heigel as a plan revision at least 2 weeks before proposed installation.
- b. Per §403.43(k) of the UCC regulation, these plans must bear the signature of the design professional in responsible charge and a brief statement indicating that the design professional has reviewed the plans and found them to be in general conformance with the design of the building or structure.
- Provide a building code summary on the first or second sheet of the drawings, with all
  applicable building code sections filled out.
- 4. Two (2) copies of a site plan showing the size and location of the new construction, with accurate boundary lines, distances from lot lines, and the established street grades and proposed finish grades. (See also the UCC PLAN REVIEW CHECKLIST for additional requirements.)
- 5. When construction will occur in a flood plain, one (1) copy of one of the certifications required in section 1612.5 of the International Building Code.
- 6. A letter signed by a licensed design professional containing all of the following:

A statement certifying that all construction within the modular units (or the fully assembled modular building) and hidden from view will fully comply with all requirements of the International Building Code 2003 and all other provisions of the Uniform Construction Code.

A listing of all alternative construction methods or materials proposed for use, and a statement certifying that the proposed methods or materials meet the requirements of 34 PA Code §403.44.

If the certification letter mentioned above has been provided, Township inspections of modular construction will be limited to: footers; foundations; any electrical, plumbing or mechanical rough-ins that have been done at the construction site; and, a final inspection. The final inspection will ensure, among other things, that all electrical, plumbing and mechanical systems are functioning properly and that all accessibility requirements have been satisfied.

# Uniform Construction Code (UCC) APPLICATION FOR BUILDING PERMIT

| Application Type  Alteration or Renovation Wew Structure/Facility Plansed Approval Plan Revision or Partial Occupancy Request  Use/Occupancy Classification: F-1   |                        | ☐ Accessibility Only Review       |                       | ☐ Addition                       | า                              |
|--|------------------------|-----------------------------------|-----------------------|----------------------------------|--------------------------------|
| Plan Revision or Partial Occupancy Request   Unapproved Existing Building  | Application            | ☐ Alteration or Renovation        |                       | ☐ New Bu                         | ıilding                        |
| Plan Revision or Partial Occupancy Request   Unapproved Existing Building  | Туре                   | ☐ New Structure/Facility          |                       | ☐ Phased                         | Approval                       |
| Use/Occupancy   A-1  |                        | ☐ Plan Revision or Partial Oc     | cupancy Reques        | t 🗆 Unappr                       | oved Existing Building         |
| Classification: Check box to gleft of applicable group. Check alt bits of applicable group. Check alt has apply. Site Information (Pollical Subdivision & County manes are required!)  Site Information (Pollical Subdivision & County manes are required!)  Special Requirements & Documentation  Special Requirements & Documentation  Check each block below indicating that all of the following will be submitted with this application: Tax Parcel # Two (2) site plans  | Use/Occupancy          |                                   | · · · · ·             |                                  |                                |
| Special Requirements & Documentation    1-1  |                        | <br>  □ F-1                       | <del></del>           |                                  | <b>=</b>                       |
| R-3 Adult Care   |                        |                                   | _                     | <del>_</del>                     |                                |
| Project Name   Street Name   Street Name   Street Name   Street Name and #   Street Name and #   Street Name and #   Street Name and #   County   State   Zip Code     Zip Code   Zip Cod |                        |                                   | <u>—</u>              |                                  | <u>—</u>                       |
| Special Requirements & Documentation   | Site Information       |                                   | 1-5 L1(- <del>1</del> |                                  | 0-2                            |
| City   | (Political Subdivision |                                   |                       |                                  |                                |
| Political Subdivision  |                        |                                   | County                | State                            | Zip Code                       |
| Two (2) site plans   |                        | Political Subdivision             |                       | Tax Parcel #                     | <u> </u>                       |
| Documentation  |                        |                                   |                       |                                  |                                |
| Does this co nstruction involve modular units built in a factory?    Yes   |                        |                                   |                       |                                  | construction drawings          |
| Does this co nstruction involve modular units built in a factory?    Yes   | Documentation          |                                   |                       |                                  | ng or New Structure/Facility)  |
| design professional certifying that construction within the modular units (or the fully assembled modular building) and hidden from view will fully comply with all requirements of the UCC.    Is this construction regulated by the Health Care Facilities Act?   If "Yes," submit 1 copy of approval letter from the Pennsylvania Department of Health.    If "Yes," submit 1 copy of letter indicating that that the building or structure will use neither electricity nor fossil fuels, and thus is exempt per ASHRAE 90.1, §2.3(B).    If "No," submit 1 copy of the COMcheck-EZ Certificate or the ENERGY CODE PRESCRIPTIVE COMPLIANCE REPORT.    Is project in flood hazard area?   |                        |                                   | , <u></u> , <u>-</u>  | ,,                               | <u></u> ,                      |
| within the modular units (or the fully assembled modular building) and hidden from view will fully comply with all requirements of the UCC.  Is this construction regulated by the Health Care Facilities Act?  Is this construction exempt from energy code requirements?  Is this construction exempt from energy code requirements?  If "Yes," submit 1 copy of approval letter from the Pennsylvania Department of Health.  If "Yes," submit 1 copy of letter indicating that that the building or structure will use neither electricity nor fossil fuels, and thus is exempt per ASHRAE 90.1, §2.3 (B).  If "No," submit 1 copy of the COMcheck-EZ Certificate or the ENERGY CODE PRESCRIPTIVE COMPLIANCE REPORT.  Is project in flood hazard area?  Yes \  No \  If "Yes," submit 1 copy of one of the flood hazard certifications mandated in section 1612.5 of the International Building Code.  Are any of the International Building Code.  Are any of the International Building Code.  If "Yes," submit 1 copy of the SPECIAL INSPECTIONS OBSERVATIONS STATEMENT.  Will an alternative construction method or material be used on this project?  Will an alternative construction method or material be used on this project?  Is this application for "phased approval"?  If "Yes," submit a letter sign ed by the desi gn professional and owner acknowledging that the issuance of a permit for pha sed construction provides no assurance that the municipal lity will grant approval of any UCC permits needed to complete the construction, and that the design professional and owner will ensure that the building/structure fully complies with all UCC  |                        |                                   | ☐ Yes ☐ No            |                                  |                                |
| modular building) and hidden from view will fully comply with all requirements of the UCC.  Is this construction regulated by the Health Care Facilities Act?  Is this construction exempt from energy code requirements?  Is this construction exempt from energy code requirements?  Is this construction exempt from energy code requirements?  If "Yes," submit 1 copy of letter indicating that that the building or structure will use neither electricity nor fossil fuels, and thus is exempt per ASHRAE 90.1, §2.3(B).  If "No," submit 1 copy of the COMcheck-EZ Certificate or the ENERGY CODE PRESCRIPTIVE COMPLIANCE REPORT.  Is project in flood hazard area?  Yes \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \   |                        | modular units built in a factory? |                       |                                  |                                |
| Sthis construction regulated by the Health Care Facilities Act?   Yes   No the Health Care Facilities Act?   Is this construction exempt from energy code requirements?   Yes   No the building or structure will use neither electricity nor fossil fuels, and thus is exempt per ASHRAE 90.1, §2.3(B).   If "No," submit 1 copy of letter indicating that that the building or structure will use neither electricity nor fossil fuels, and thus is exempt per ASHRAE 90.1, §2.3(B).   If "No," submit 1 copy of the COMcheck-EZ Certificate or the ENERGY CODE PRESCRIPTIVE COMPLIANCE REPORT.    Is project in flood hazard area?   Yes   No   If "Yes," submit 1 copy of one of the flood hazard certifications mandated in section 1612.5 of the International Building Code.   Are any of the International   Yes   No   If "Yes," submit 1 copy of the SPECIAL INSPECTIONS OBSERVATIONS STATEMENT.   Inspecial inspection or structural observations required?   Yes   No   If "Yes," submit a signed statement indicating that the proposed method or material meets the requirements of 34 PA Code §403.44.   Is this application for "phased   Yes   No   If "Yes," submit a letter sign ed by the desi gn professional and owner acknowledging that the issuance of a permit for pha sed construction provides no assurance that the municipal thy will grant approval of any UCC permits needed to complete the construction, and that the design professional and owner will ensure that the building/structure fully complies with all UCC   If the proposed in the building/structure fully complies with all UCC   If the proposed in the building/structure fully complies with all UCC   If the proposed in the building/structure fully complies with all UCC   If the proposed in the building/structure fully complies with all UCC   If the proposed in the building/structure fully complies with all UCC   If the proposed in the building/structure fully complies with all UCC   If the proposed in the proposed in the proposed in the building that the proposed in the proposed in the propose |                        |                                   |                       |                                  |                                |
| the Health Care Facilities Act?  Is this construction exempt from energy code requirements?    Yes   |                        |                                   |                       | comply with all require          | ements of the UCC.             |
| Is this construction exempt from energy code requirements?    Yes   No   If "Yes," submit 1 copy of letter indicating that that the building or structure will use neither electricity nor fossil fuels, and thus is exempt per ASHRAE 90.1, §2.3(B). If "No," submit 1 copy of the COMcheck-EZ Certificate or the ENERGY CODE PRESCRIPTIVE COMPLIANCE REPORT.    Is project in flood hazard area?   Yes   No   If "Yes," submit 1 copy of one of the flood hazard certifications mandated in section 1612.5 of the International Building Code.    Are any of the International Building Code.   Yes   No   If "Yes," submit 1 copy of the SPECIAL INSPECTIONS OBSERVATIONS STATEMENT.   Is project   Yes   No   If "Yes," submit a signed statement indicating that the proposed method or material meets the requirements of 34 PA Code §403.44.    Is this application for "phased approval"?   Yes   No   If "Yes," submit a letter sign ed by the desi gn professional and owner acknowledging that the issuance of a permit for pha sed construction provides no assurance th at the municipality will grant approval of any UCC permits needed to complete the construction, and that the design professional and owner will ensure that the building/structure fully complies with all UCC  |                        |                                   | ☐ Yes ☐ No            |                                  |                                |
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| Second Policy   Second Polic |                        |                                   |                       |                                  |                                |
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| Observations required?  Will an alternative construction method or material be used on this project?  Is this application for "phased approval"?  Wes, "submit a signed statement indicating that the proposed method or material meets the requirements of 34 PA Code §403.44.  If "Yes," submit a letter sign ed by the desi gn professional and owner acknowledging that the issuance of a permit for pha sed construction provides no assurance th at the municipa lity will grant approval of any UCC permits needed to complete the construction, and that the design professional and owner will ensure that the building/structure fully complies with all UCC   |                        | Building Code (Chapter 17)        |                       | INSPECTIONS OBSE                 | ERVATIONS STATEMENT.           |
| Will an alternative construction method or material be used on this project?  Is this application for "phased approval"?  If "Yes," submit a signed statement indicating that the proposed method or material meets the requirements of 34 PA Code §403.44.  If "Yes," submit a letter sign ed by the desi gn professional and owner acknowledging that the issuance of a permit for pha sed construction provides no assurance th at the municipa lity will grant approval of any UCC permits needed to complete the construction, and that the design professional and owner will ensure that the building/structure fully complies with all UCC   |                        |                                   |                       |                                  |                                |
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| Is this application for "phased approval"?  If "Yes," submit a letter sign ed by the desi gn professional and owner acknowledging that the issuance of a permit for pha sed construction provides no assurance th at the municipa lity will grant approval of any UCC permits needed to complete the construction, and th at the design professional and owner will ensure that the building/structure fully complies with all UCC   |                        |                                   |                       |                                  |                                |
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| issuance of a permit for pha sed construction provides no assurance th at the municipa lity will grant approval of any UCC permits needed to complete the construction, and that the design professional and owner will ensure that the building/structure fully complies with all UCC   |                        |                                   | ∐ Yes ∐ No            |                                  |                                |
| provides no assurance th at the municipa lity will grant approval of any UCC permits needed to complete the construction, and that the design professional and owner will ensure that the building/structure fully complies with all UCC   |                        | αργιυναι :                        |                       |                                  |                                |
| complete the construction, and that the design professional and owner will ensure that the building/structure fully complies with all UCC  |                        |                                   |                       | provides no assuranc             | e th at the municipa lity will |
| professional and owner will ensure that the building/structure fully complies with all UCC   |                        |                                   |                       |                                  |                                |
| building/structure fully complies with all UCC   |                        |                                   |                       |                                  |                                |
|  |                        |                                   |                       |                                  |                                |
|  |                        |                                   |                       |                                  |                                |

| Project Data  | Lot Number: Block Number:   |
|---|---|
|   | Does municipality have a zoning ordinance? ☐ Yes ☐ No  If "Yes," has permit been acquired? ☐ Yes ☐ No If "Yes," list date acquired:   |
|   | Minimum setbacks required by municipal zoning ordinance (in feet):  Front: Rear: Right Side: Left Side:   |
|   | Sq. ft. of conditioned space Sq. ft. of unconditioned space   |
|   | Number of stories above grade  Does it have a basement?  Total floor area (sq. ft.)  Yes No   |
|   | Floor area <b>new</b> construction (sq. ft.)  Floor area of <b>addition</b> (sq. ft.)  Floor area <b>renovated</b> (sq. ft.)  |
|   | # of multi-family dwelling units # of accessible dwelling units   |
|   | Type(s) of construction per Chapter 6 of the <i>International Building Code</i> (check all that apply):   |
|   | Fire suppression: ☐ Full ☐ Partial ☐ None   |
|   | If application applies to an existing building that is "legally occupied", indicate permits held:  Fire and Panic Occupancy Permit  Municipal Occupancy Permit  Municipality Name  L&I UCC Certificate of Occupancy  File number:  File number:  File number: |
|   | If "legally occupied," you must select which code requirements the building will comply with (choose only one):   |
|   | ☐ International Existing Building Code ☐ Chap. 34, International Building Code  |
|   | Tax Parcel ID #: Cost of Construction:  |
| Design Professional In Responsible Charge Seal must be in space to right of name & address. | Name: Address:  PA License #: E-Mail: Phone: Fax:   |
|   |   |

|                        |   |  | Permit #:           |                              |
|------------------------|---|--|---------------------|------------------------------|
|                        |   |  | Date:               |                              |
| Owner                  | Owner Name  |  |                     |                              |
| Information            | Street Address  |  |                     |                              |
|                        | City  | State  | Zip Co              | de                           |
|                        | Phone Number  |  | -                   |                              |
| Deferred<br>Submission |   | lans and other documentation ropriate box below and indicate box below and indicate Truss Shop Drawing | cate this on the fi | rst page of each building    |
| Fees:<br>Refer to Co   | OMMERCIAL FEE SCHEDULE  |  |                     |                              |
| Applicant              | t's Certification:  |  |                     |                              |
| As the own             | ner or the authorized agent of th                                 |  |                     |                              |
| 1.                     | The estimated construction co building permit is correct.         | st and all other information   | provided as part    | of this application for a    |
| 2.                     | The building or structure descri                                  | ribed in this application will   | not be occupied i   | until all known code         |
| ۷.                     | violations are corrected and a                                    |  |                     |                              |
| 3.                     | This project will be constructed                                  |  |                     |                              |
| 0.                     | (including any required non-de                                    |  |                     |                              |
|                        | specified in 34 PA Code Chap                                      |  |                     |                              |
| 4.                     | Any changes to the approved                                       |  | the municipal U     | CC Building Code Official.   |
| 5.                     | If the licensed architect or eng                                  | ineer in responsible charge  | of this constructi  | ion should change, written   |
| 6                      | notice of the change will be provided up to 20% of the            |  |                     |                              |
| 6.                     | When required, up to 20% of t existing building will be expended. |  |                     |                              |
| 7.                     | No error or omission in either                                    |  |                     |                              |
| 7.                     | shall permit or relieve me from                                   |  |                     |                              |
|                        | Code Chapters 401-405.  | reconstructing the work in ar  | ly mariner other    | inali provided for in 04 i A |
| Applicant              | Name  |  |                     |                              |
| Street Add             |   |  |                     | •                            |
|                        |   | State  | Zin C               | ode                          |
| Phone Nu               |   |  | Zip C               | ode                          |
| i none mu              | imber   |  |                     |                              |
| Applicant              | Signature   |  | Date                |                              |
| Applicant              | olylialule  |  | Dale                |                              |

#### Uniform Construction Code (UCC)

#### **COMMERCIAL FEE SCHEDULE**

for

#### Pennsylvania UCC Municipal Enforcement Program

**SERVICE UNIT PRICE** 1. New Construction and Additions - Base Fee \$0.31/ SqFt 2. Remodeling (see definition below) - Base Fee \$0.21/ SqFt All Plan Reviews and Inspections required on the standard Commercial Submittal Sheet are included in these permit fees. **Note:** Special Inspections required by IBC are at Owners Expense. See Worksheet below to calculate Building Permit and Sub-category fees. 3. Alterations or Repairs to electrical, gas, mechanical or plumbing installations. a. Single Event Permit (one inspection only) \$200.00 b. Annual Permit \$200.00 (Inspections in each appropriate discipline are also required) 4. Follow-up Inspections for Incomplete or \$100.00 Compliance Inspections for Annual Permit or Single Event Permits requiring additional inspections (per trip) 5. Meeting attendance/Hearing attendance \$102.00

7. Other services - Provided at No Charge to the Client: Telephone calls, correspondence, mileage, postage

#### **DEFINITIONS:**

6. Next Day Mail Service

**Remodeling** is work that includes none of the following:

- (1) Change in Occupancy/Use Group.
- (2) Modify Structural or Firewalls.
- (3) Addition or upgrade of electrical, plumbing, or HVAC services.
- (4) Addition to structure of any kind.

**Annual Permit** – as allowed in the UCC regulation (403.42(f)). Applicant must regularly employ qualified tradespeople. Applicant must keep detailed records of all alterations made under the permit. Applicant will submit copies to the BCO on a predetermined time schedule. BCO will schedule appropriate inspections for modifications made in the previous timeframe. Applicant will be billed for each required Compliance Inspection(s) at the time of inspection.

\$25.00

#### **Instructions for Completing the Permit Fee Worksheet**

- 1. Insert **Proposed Total Building Area** in Position A of Worksheet.
  - a. If building is new, use Total Building Area.
  - b. If work is addition or remodel, use Total Construction Area.
  - c. Minimum is 3000 SqFt.
- 2. Choose Proper Usage Group Code Factor from the Chart below and insert in Position B of Worksheet.
  - a. If multiple Usage building, select Primary Usage.
- 3. Multiply the <u>Area</u> and <u>Usage Factor</u> with the <u>Base Fee</u> to obtain the Building Permit Fee amount for Position D.
- 4. Calculate Permit Fees for Mechanical, Plumbing, Accessibility/Energy at 25% of the Building Permit Fee. The Electrical Permit is calculated at 30% of the Building Permit Fee. Insert the amounts in Positions E H as necessary.

#### **COMMERCIAL BUILDING PERMIT FEE WORKSHEET**

| Α. | Project or Building Area (Minimum 3000SqFt)                     |                         |   |        |                 | SqFt |
|----|---|-------------------------|---|--------|-----------------|------|
| В. | Usage Group Factor  |                         |   |        | X _             |      |
| C. | Base Fee  |                         |   |        | x s             | 5    |
| D. | Building Permit Fee (BPF)                                       |                         |   |        | \$              |      |
| E. | Mechanical Permit Fee   | 0.25 X                  | \$(BPF)                                       | _ =    | \$              |      |
| F. | Plumbing Permit Fee   | 0.25 X                  | \$(BPF)                                       | . =    | \$              |      |
| G. | Accessibility/Energy Permit                                     | ee<br>0.25 X            | \$(BPF)                                       | =      | \$              |      |
| Н. | Electrical Permit Fee   | 0.30 X                  | \$(BPF)                                       | . =    | \$              |      |
|    |   |                         | State Fee                                     | + \$   | 4.50            |      |
| то | TAL COMMERCIAL BUILDI   | NG PER                  | MIT FEE                                       | = \$   |                 |      |
|    | Check made payable to: Li FOR OFFICE USE                        | ONLY:                   | <i>GEL &amp; ASSOCIATES,</i><br>_ RECEIVED ON |        | RV              |      |
| Μl | JNICIPAL FEE  Make <u>additional</u> check made  FOR OFFICE USE | =<br>e payable<br>ONLY: | \$50.00 required to the Municipality: W       | /ashin | \$gton Township |      |
|    | CHECK #   |                         | RECEIVED ON                                   |        | BY              |      |

**Usage Group Factors** 

| Factor | Usage Group                    |
|--------|--------------------------------|
| 2.0    | 12                             |
| 1.6    | A1                             |
| 1.5    | (A3-Churches), I3              |
| 1.2    | A2, A4, (A3-nonchurch), A5     |
|        | B, E, H5, I1, I4, R1, R4       |
| 1.0    | R2, R3                         |
| 0.9    | M                              |
| 0.7    | F1, F2, H1, H2, H3, H4, S1, S2 |
| 0.5    | U                              |

#### Usage Group definitions per Chapter 3 of current International Building Code.

#### Institutional A Assembly I-1 Ambulatory A-1 Theaters I-2 Hospital A-2 Restaurants I-3 Prison A-3 Worship, recreation and amusement I-4 Day Care A-4 Indoor Sports A-5 Outdoor Sports **B** Business

#### **E** Education

#### F Factory F-1 Moderate Hazard

F-2 Low Hazard

#### H High Hazard

H-1 Detonation Hazard

H-2 Deflagration or Accelerated burning

H-3 Readily support combustion

H-4 Health hazards

H-5 Semiconductor fabrication

#### Mercantile М

#### R Residential

R-1 Hotel

R-2 Apartment House

R-3 One & Two Family

R-4 Assisted Living

#### Storage

S-1 Moderate Hazard

S-2 Low Hazard

#### U Utility & Misc

#### Uniform Construction Code (UCC)

#### **UCC PLAN REVIEW CHECKLIST**

| This checklist must accompany permit applications for new b renovation projects (those which exceed the scope of ALTER.   | · · · · · · · · · · · · · · · · · · · |
|---|---------------------------------------|
| ALL INFORMATION MUST BE FILLED IN, CHECK  | KED OR MARKED "N/A"                   |
| Project Name:   |                                       |
| Project Address:  |                                       |
| Owner/Agent:  | Telephone:                            |
| Design professional or other person we can contact about info on this form and other project details (if same as Owner/Agent, just provide fax # and e-mail address): | Telephone:  Fax:  E mail:             |

#### **General Requirements:**

All drawings shall be sealed, signed, and dated by a design professional (licensed architect or engineer). The only exception is when all of the following apply:

- a) The proposed work only involves remodeling or alterations of an existing building or structure.
- b) The proposed work does not change the building's structure or means of egress.
- c) The person preparing the plans is not compensated for the preparation of the drawings.

All drawings must be neatly drawn with clean, crisp lettering --- they must remain legible after reduction for microfilming.

Computer-generated vicinity maps obtained from web-based services (such as *MapQuest*) are acceptable, as long as the roadways or street names are legible and will remain that way after reduction for microfilming.

When photographs (including digital ones) are submitted to show building elevations, the images must be in focus and correctly exposed.

A Pennsylvania Department of Tra nsportation (PennDOT) permit allowing access to a highway under its jurisdiction is not required at the time t hat application is made for a UCC building permit. If the highway occupancy permit issued by PennDOT requires a location o f the building/structure differing from that approved under the UCC buildingpermit, applicants must send the municipal UCC BCO a letter requesting a determination whether a revision of approved plans will be required.

While we understand t hat many it ems on this checklist may not be included in some alteration or renovation projects, we request that all applicant s work through the entire checklist to ensure that any necessary items are included. If any item is <u>not necessary</u>, <u>please check N/A</u> ("not applicable"). This will greatly facilitate review and approval of projects.

If any of the non-mandatory sections (any sections other than Site Plans and Architectural Plans) in this document do not apply to the proposed work, please check the "N/A" box beside the section title (rather than fill in "N/A" next to each item in that section.

| SITE PI    | LANS:   |      |  |
|------------|---------|------|--|
| ☐ Yes      | □ N/A   | a.   | ,  |
| ☐ Yes      | □ N/A   | b.   | separate vicinity (site location) map.  Show the correct street address, parcel number and required municipal zoning (if there is local zoning ordinance) on the site plans.   |
| ☐ Yes      | □ N/A   | c.   | Show and identify all property lines a nd rights-of-way, with distance from property lines and adjacent buildings on site plans.   |
| ☐ Yes      | □ N/A   | d.   | Show all a ccessible parking spaces and sig nage per ICC/A NSI A117.1 and the <i>International Building Code</i> on site plan.   |
| ☐ Yes      | ☐ N/A   | e.   | Show accessible curb cuts, ramps and access ways to the building.  |
| ☐ Yes      | ☐ N/A   | f.   | Show all existing and proposed driveway entrances.   |
| ☐ Yes      | ☐ N/A   | g.   | Identify adjacent land uses and zoning.  |
| ☐ Yes      | ☐ N/A   | h.   | Show all easements, flood ways, and required buffers.  |
| ☐ Yes      | ☐ N/A   | i.   | Show existing and proposed utilities (with backflow preventers) to serve the site.   |
| ☐ Yes      | □ N/A   | j.   | Show existing and proposed finish grades.  |
| Yes        | □ N/A   | k.   | Show details, sections, and elevations needed for construction.  |
| ∐ Yes      | □ N/A   | I.   | Show all buffer and screening landscaping.   |
| ☐ Yes      | ☐ N/A   | m.   | Show all required parking and loading spaces and calculations.   |
| ARCHIT     | ECTURAL | . PL | ANS:   |
| ☐ Yes      | □ N/A   | a.   | Show architectural floor plans of each floor. These pages must be at least $18" \times 24"$ in size (but not more than $36" \times 42"$ ), drawn to a scale of not less than $1/8" = 1$ '. Indicate (or reproduce) the approved, tested hourly rating, number, and location of all rated members and assemblies (walls, columns, beams, floor and ceiling, and ceiling and roof fire-rated design assemblies).   |
| ☐ Yes      | □ N/A   | b.   | Show the square footage of each floor on the corresponding floor plans.  |
| Yes        | ☐ N/A   | C.   | Identify the names and uses of each room.  |
| Yes        | ☐ N/A   | d.   | Furnish door schedule(s), including size, type, rating (if any) and hardware.  |
| Yes        | ☐ N/A   | e.   | Provide all glazing schedules.   |
| Yes        | □ N/A   | f.   | Show elevations with dimensions defining overall building height, floor-to-floor heights, or heights to ridge and eave as applicable to the type of building construction listed on the UCC application. (Note: Where an existing building is involved, photographs of all sides of the building may be submitted to show elevations. These will be acceptable only if they show all elements necessary to determine compliance with the UCC.)                   |
| ☐ Yes      | ☐ N/A   | g.   | Provide basement percentage-below-grade calculations.  |
| ∐ Yes      | ☐ N/A   | h.   | Indicate roof slopes, drainage system and sized through wall scupper, if applicable to the project.  |
| ☐ Yes      | □ N/A   | i.   | Show fixed seating for a ssembly occupancy to allow determination of occupancy posting required by <i>International Building Code</i> .  |
| ☐ Yes      | ☐ N/A   | j.   | Show wall sections with proposed material sizes, construction, and fire-rated assemblies.  |
| ☐ Yes      | ☐ N/A   | k.   | Show proposed plumbing fixtures and privacy screens on the plans.  |
| ☐ Yes      | □ N/A   | I.   | If masonry construction is proposed, include the following information:  Type of brick ties and spacing of weep holes  Control joints  Placement of wall flashing and reinforcement  |
| Yes        | □ N/A   | m.   | If appropriate for the proposed occupancy, plans should identify all hazardous material control areas, fire barriers, and the required fire-resistance ratings for these barriers. All identified control areas shall list the name, class, quantity and method of storage of all hazardous materials processed, manufactured or used in a man ufacturing process and contained within its fire ba rriers. Provide a Material Safety Data Sheet for each liste d |
| □ <b>V</b> | □ NI/A  |      | hazardous material. See sections 414 and 415 of the <i>International Building Code</i> .   |
| ∐ Yes      | ∐ N/A   | n.   | Show the floor slab vapor barrier.   |
| ∐ Yes      | □ N/A   | 0.   | Show foundation waterproofing, if applicable.  |
| ☐ Yes      | □ N/A   | p.   | All penetrations of fire-rated construction must be per manufacturer's details. The details shall meet or exceed the rating of construction being penetrated. The penetration details shall be exactly as tested by an approved testing laboratory or agency and shall include   |

| □Voo           | □ N/A          | ~        | their system numbers. New penetrations of existing fire-rated walls and assemblies shall be shown with appropriate designs.   |
|----------------|----------------|----------|---|
| ☐ Yes<br>☐ Yes | ☐ N/A<br>☐ N/A | q.<br>r. | Show penthouse drawings.  Provide on the drawings the calculations for the means of egress widths for the entire floor occupancy load and the existing capacity of all exits including all stairs, doors,   |
| ☐ Yes          | □ N/A          | S.       | corridors and ramped exits. Show required ventilation louvers and vent sizes.   |
| STRUCT         | ΓURAL PI       | LANS     | :: N/A  |
| ☐ Yes          | □ N/A          | a.       | Show foundation plans indicating the proposed slab elevations and type of found ation (i.e., mat foundation, caissons, spread footings, etc.)   |
| ☐ Yes          | ☐ N/A          | b.       | Provide preliminary soil analysis data done by a licensed engineer, if required.  |
| ☐ Yes          | ☐ N/A          | C.       | Indicate dimensions of foundations.   |
| ☐ Yes          | ☐ N/A          | d.       | Show type, size and location of piling and pile caps for pile foundation.   |
| ☐ Yes          | ☐ N/A          | e.       | Indicate grade beam sizes.  |
| ☐ Yes          | □ N/A          | f.       | Indicate a footing schedule defining footing sizes and the required reinforcing.  |
| ☐ Yes          | □ N/A          | g.       | Show the established footing depth below grade and method of frost protection allowed in section 1805.2.1 of the <i>International Building Code</i> .   |
| ☐ Yes          | □ N/A          | h.       | Indicate the thickness of the floor slab, size of reinforcing, slab elevations, and type and details of foundations.  |
| Yes Yes        | ☐ N/A          | i.       | Indicate location, size, and amount of reinforcing steel.   |
| ☐ Yes          | □ N/A          | j.       | Show foundation corner reinforcing b ars and minimum overlapping (as applicable to project structure).  |
| ∐ Yes          | ☐ N/A          |          | Provide strength of concrete according to designed soil reports.  |
| ∐ Yes          | □ N/A          | l.       | Show beams, joists, girde rs, rafters, and/or truss layouts and details of connections, structural steel stud gage, gage size, and connections.   |
| Yes            | ☐ N/A          | m.       | 1 5 5   |
| ☐ Yes          | ☐ N/A          | n.       | Show all columns, girders, joists, purlins, beams, and base plates; for wood construction   |
|                |                |          | show all headers.   |
| Yes            | □ N/A          | 0.       | Provide a complete lintel schedule.   |
| ∐ Yes          | □ N/A          | p.       | Indicate the type of anchoring for steel bearing directly on masonry.   |
| ☐ Yes          | □ N/A          | q.       | Indicate design dead and live, wind, snow, seismic loads for floor areas, roofs, balconies, porches, breezeways, corridors, stairs, mezzanines, and platforms. Show concentrated loads, i.e. file room s, machinery and forklift areas, if greater than those shown on the Code Summary Sheet. Identify shear walls, bracing, strapping, fastening, reinforcement and any special anchoring required.   |
| ☐ Yes          | □ N/A          | r.       | Where applicable, indicate on roof framing plan where concentrated loads (mechanical equipment, cranes, etc.) will be placed.   |
| ☐ Yes          | □ N/A          | S.       | Indicate on foundation and framing plans the location and lateral load re sisting system. (Show walls, braced frames, moment connections, etc.)   |
| FIRE PR        | OTECTIO        | ON PL    | LANS: N/A   |
| ☐ Yes          | □ N/A          | a.       | Complete a sprinkler design data sheet and include it on the first plan of the sprinkler drawings.  |
| ☐ Yes          | □ N/A          | b.       |   |
|                |                |          | Often, these shop drawings are not available at the time of initial plan submission. If this is the case, write in "NA," but note the following:  • These shop drawings must be submitted for review and approval at least two weeks before the projected installation date.  • Failure to obtain approval of these drawings before installation could result not only in delay of the final inspection and issuance of an occupancy permit, but also in removal and reconstruction of installations which fail to meet UCC |

requirements.

|   | ∐ N/A   | C.  | Show ceiling plans with sprinkler head(s) layout, walls, soffits, openings, doors,  |
|---|---|---|---|
| ☐ Yes   | □ N/A   | Ч   | dimensions and room identities.  Verify system design by providing hydraulic calculations along with the following:   |
| □ 163   | ☐ IN/A  | u.  | Recent water flow test  |
|   |   |   | 10 percent safety margin  |
|   |   |   | Type of backflow-preventer or reduced pressure zone showing equivalent foot loss  |
|   |   |   | Fire pump summary   |
| Yes   | □ N/A   |   | Note the type of sprinkler system used (e.g. 13, 13D, or 13R)   |
| Yes   | ☐ N/A   | f.  | For residential occupancies such as apartments and condominiums, show sprinkler head  |
| □ Voc   | □ N/A   | ~   | locations at breezeways, if applicable.  Indicate the certified testing laboratory agency (e.g. U.L.), their test number and hourly   |
| ☐ Yes   | ∐ IN/A  | g.  | ratings of all new and/or affected rated members and assemblies (i.e. columns, beams, floor/ceiling and ceiling/roof fire-rated design assemblies). Show all new and/or affected fire-rated walls with their ratings, if not show elsewhere.  |
| ☐ Yes   | □ N/A   | h.  | All penetrations of fire-rated construction must be per manufacturer's details. Details   |
|   |   | •••   | shall meet or exceed ratings of construction being penetrated. Penetration details shall be exactly as tested by a certified testing laboratory or agency and shall i nclude their system numbers. All new penetrations of existing fire-rated walls and assemblies shall be shown with appropriate designs.  |
| ☐ Yes   | □ N/A   | i.  | Provide a fire alarm ri ser showing connection to a UL-app roved central station. Show  |
|   |   |   | tamper switcher on both OS and Y valves of backflow prevention device, unless shown elsewhere.  |
| ☐ Yes   | ☐ N/A   | j.  | Indicate commodity class (per section 2303 of the <i>International Fire Code</i> ) and height of  |
| ☐ Yes   | □ N/A   | k.  | any storage.  Provide Material Safety Data Sheet's for any hazardous materials (also specified under "Architectural Plans").  |
| ☐ Yes   | □ N/A   | I.  | Where special temperature-rated or high-temperature sprinklers are required, show   |
|   |   |   | sprinkler type(s) per area, office size, cut sheets with K-factor, water requirements, spray pattern, coverage and other pertinent data.  |
|   |   |   |   |
| SYSTEM  | I CALCUL  | _ATI  | ONS (FIRE PROTECTION):  |
| Hydrauli  | cally calcu                                       | ılated  | ONS (FIRE PROTECTION): N/A  I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:   |
| Hydrauli  | cally calcu                                       | ılated<br>addit   | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head   |
| Hydrauli<br>new buil<br>Yes<br>Yes                      | cally calcudings and                              | ilated<br>addit<br>a.<br>b.   | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.   |
| Hydrauli<br>new buil<br>Yes<br>Yes                      | cally calcudings and                              | ilated<br>addit<br>a.<br>b.   | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head   |
| Hydrauli<br>new buil<br>Yes<br>Yes                      | cally calcudings and N/A N/A                      | addit<br>addit<br>a.<br>b.  | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.   |
| Hydrauli<br>new buil<br>Yes<br>Yes                      | cally calcudings and                              | addit<br>addit<br>a.<br>b.  | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  |
| Hydrauli<br>new buil<br>Yes<br>Yes                      | cally calcudings and N/A N/A                      | addit<br>addit<br>a.<br>b.  | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  1. Show the domestic water, fire, and irrigation services.  |
| Hydrauli<br>new buil<br>Yes<br>Yes                      | cally calcudings and N/A N/A                      | addit<br>addit<br>a.<br>b.  | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  |
| Hydrauli<br>new buil  Yes Yes  PLUMBI  Yes              | cally calcudings and N/A N/A N/A N/A N/A          | addit<br>addit<br>a.<br>b.  | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  1. Show the domestic water, fire, and irrigation services.  2. Show the location of water meters, backflow protection type and location.  3. Show the sanitary sewer service from building to public sewer or approved private sewage disposal system.  |
| Hydrauli<br>new buil<br>Yes<br>Yes                      | cally calcudings and N/A N/A                      | addit<br>addit<br>a.<br>b.  | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  1. Show the domestic water, fire, and irrigation services.  2. Show the location of water meters, backflow protection type and location.  3. Show the sanitary sewer service from building to public sewer or approved private sewage disposal system.  Show interceptors as applicable to project and size by flow rate. (i.e. greas e, oil, lint,   |
| Hydrauli new buil  Yes Yes  PLUMBI  Yes                 | cally calcudings and N/A N/A N/A N/A N/A N/A      | alated<br>addit<br>a.<br>b.   | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  1. Show the domestic water, fire, and irrigation services.  2. Show the location of water meters, backflow protection type and location.  3. Show the sanitary sewer service from building to public sewer or approved private sewage disposal system.  Show interceptors as applicable to project and size by flow rate. (i.e. greas e, oil, lint, acid, sand)   |
| Hydrauli<br>new buil  Yes Yes  PLUMBI  Yes              | cally calcudings and N/A N/A N/A N/A N/A          | alated<br>addit<br>a.<br>b.   | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  1. Show the domestic water, fire, and irrigation services.  2. Show the location of water meters, backflow protection type and location.  3. Show the sanitary sewer service from building to public sewer or approved private sewage disposal system.  Show interceptors as applicable to project and size by flow rate. (i.e. grease, oil, lint, acid, sand)  Provide plumbing plan layouts for each floor. These should show the water distribution and drain-waste-vent piping, and all details, notes, legends and schedules necessary to  |
| Hydrauli new buil  Yes Yes  PLUMBI  Yes                 | cally calcudings and N/A N/A N/A N/A N/A N/A      | alated<br>addit<br>a.<br>b.   | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  1. Show the domestic water, fire, and irrigation services.  2. Show the location of water meters, backflow protection type and location.  3. Show the sanitary sewer service from building to public sewer or approved private sewage disposal system.  Show interceptors as applicable to project and size by flow rate. (i.e. grease, oil, lint, acid, sand)  Provide plumbing plan layouts for each floor. These should show the water distribution  |
| Hydrauli new buil  Yes Yes PLUMBI Yes  Yes Yes          | cally calcudings and  N/A N/A N/A N/A N/A N/A     | alated<br>addit<br>a.<br>b.<br>IS:<br>a.<br>——————————————————————————————————— | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  1. Show the domestic water, fire, and irrigation services.  2. Show the location of water meters, backflow protection type and location.  3. Show the sanitary sewer service from building to public sewer or approved private sewage disposal system.  Show interceptors as applicable to project and size by flow rate. (i.e. greas e, oil, lint, acid, sand)  Provide plumbing plan layouts for each floor. These should show the water distribution and drain-waste-vent piping, and all d etails, notes, legends and schedules necessary to define the system being installed.  Show the location of all major components required for a complete system.  Provide fixture and equipment schedule showing fixture number, detailed description, hot  |
| Hydrauli new buill  Yes Yes  PLUMBI  Yes  Yes  Yes  Yes | cally calcudings and N/A N/A N/A N/A N/A          | alated addit a. b. lS: a b. c. d. e.  | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  1. Show the domestic water, fire, and irrigation services.  2. Show the location of water meters, backflow protection type and location.  3. Show the sanitary sewer service from building to public sewer or approved private sewage disposal system.  Show interceptors as applicable to project and size by flow rate. (i.e. grease, oil, lint, acid, sand)  Provide plumbing plan layouts for each floor. These should show the water distribution and drain-waste-vent piping, and all details, notes, legends and schedules necessary to define the system being installed.  Show the location of all major components required for a complete system.  Provide fixture and equipment schedule showing fixture number, detailed description, hot water, cold water, waste and vent connection sizes and other pertinent data. |
| Hydrauli new buil  Yes Yes PLUMBI Yes  Yes  Yes         | cally calcudings and  N/A N/A N/A N/A N/A N/A N/A | alated addit a. b. IS: a b. c. d.   | I and pipe schedule fire systems should be designed with a 10 percent safety margin for all tions to existing buildings. Calculations for hydraulic systems should include:  Flow and pressure at each flowing sprinkler head Flow diagram for a grid system.  N/A  Show a site utilities plan, if not provided with the civil drawings.  1. Show the domestic water, fire, and irrigation services.  2. Show the location of water meters, backflow protection type and location.  3. Show the sanitary sewer service from building to public sewer or approved private sewage disposal system.  Show interceptors as applicable to project and size by flow rate. (i.e. greas e, oil, lint, acid, sand)  Provide plumbing plan layouts for each floor. These should show the water distribution and drain-waste-vent piping, and all d etails, notes, legends and schedules necessary to define the system being installed.  Show the location of all major components required for a complete system.  Provide fixture and equipment schedule showing fixture number, detailed description, hot  |

| ☐ Yes          | □ N/A          | h.       | On buildings two stories and above, provide isometric diagrams and/or schematic riser diagrams for Supply and Waste/Vent piping and identify the risers by numb er (e.g. R1, R2, etc.). Show where all riser base terminations connect to the building drain, along with all interpretated piping and only the classification.               |
|----------------|----------------|----------|--|
| ☐ Yes          | □ N/A          | i.       | with all interconnected piping on each floor plan. All pipe sizes shall be clearly defined. Show the water, sani tary drain-waste-vent piping and storm leaders/drains. Indi cate sizes and materials for above/below grade.   |
| ☐ Yes          | □ N/A          | j.       | Show slope of horizontal sanitary and storm drains that equal or exceed 3" diameter, if less than 1/8" per foot.   |
| ☐ Yes          | □ N/A          | k.       | Indicate roof drains and emergen cy roof drains/scuppers with the areas they impact.  Note that "emergency" = "secondary" = "overflow." See following roof drainage examples:  Roof Drain – 6" RD (16880 SF)  Emergency Roof Drain – 6" ERD (8180 SF)  Parapet Wall Scupper – 8" x 5" WS (4000 SF)  Emergency Scupper – 8" x 7" ES (4200 SF) |
| Yes            | □ N/A          | I.       | Show toilet room layouts with minimum of $\frac{1}{4}$ " = 1 foot scale.   |
| ☐ Yes<br>☐ Yes | □ N/A<br>□ N/A | m.<br>n. | Show drinking fountain locations.  All penetrations of fire-rated construction must be per manufacturer's details. The details shall meet or exceed ratin g of construction being penetrated. The penetration details shall be exactly as tested by an approved testing laboratory or agency and shall include their system numbers.         |
| ☐ Yes<br>☐ Yes | ☐ N/A<br>☐ N/A | o.<br>p. |  |
| Yes            | □ N/A          | q.       | Column line notations, if provided on the architectural/structural plans, shall be indicated on the plumbing plans.  |
| MECHA          | NICAL PI       | LANS     | :: □ N/A   |
| Yes            | □ N/A          | a.       | Show all required wall louvers, penetrations and fans.   |
| ☐ Yes          | ☐ N/A<br>☐ N/A | b.<br>C. | Indicate roof-mounted equipment locations.  Show all mechanical equipment, piping, ductwork (above/below slab) on the mechanical floor and/or roof plan.   |
| ☐ Yes          | □ N/A          | d.       |  |
| Yes            | □ N/A          | e.       | Indicate air distribution devices and show cfm for all supply, return and exhaust devices.   |
| Yes            | □ N/A          | f.       | Indicate the location of all equipment components required for a complete system.  |
| ☐ Yes          | □ N/A<br>□ N/A | g.<br>h. | Show the smoke ventilation of atriums and pressurization of high-rise stairwells.<br>Show condensation drains, primary and secondary, from the unit to the point of discharge.   |
| Yes            | □ N/A          | i.       | Indicate toilet exhaust requirements.  |
| Yes            | □ N/A          | j.       | Show mechanical room layouts at sufficient scale for di mensions and details to be ascertained.  |
| Yes            | □ N/A          | k.       | Show the size of duct runs.  |
| Yes            | □ N/A          | l.       | Indicate controls for fan shutdown: emergency manual and automatic smoke detection.  |
| Yes            | ☐ N/A          |          | Show the location of all UL 555-certified fire dampers, ceiling radiation dampers, smoke dampers, and fire doors.  |
| ☐ Yes          | □ N/A          | n.       | Show all fire-rated walls (both existing and new) with their ratin gs on the mechanical plans.   |
| ☐ Yes          | □ N/A          | 0.       | All penetrations of fire-rated construction must be per manufacturer's details.  |
| T Yes          | ☐ N/A          | p.       | Room names and numbers for each floor should be on a floor plan for each level.  |
| T Yes          | ☐ N/A          | q.       | Provide outside air ventilation rate per the <i>International Mechanical Code</i> .  |
| Yes            | ☐ N/A          | r.       | Column line notations, if provided on the architectural/structural plans, shall be identified on the mechanical plans.   |
| ☐ Yes          | □ N/A          | S.       | Provide gas piping layout on the floor plan for each floor. If it is a m ulti-story building, all gas piping shall be shown per floor. Include pipe sizes, water column, and type of material. Provide a sch edule of connected equipment, total BTUH dem and, total equivalent length, and most remote gas appliance.                       |

| ELECTR         | RICAL PLA      | NS:      | □ N/A  |
|----------------|----------------|----------|--|
| ☐ Yes          | □ N/A          | a.       | Provide panel schedules with circuit and feeder loading, overcurrent protection, and NEC load summaries for all new and/or affected panels and services (loading has to be evaluated by highest phase); include fault current data, short circuit ratings and fault current protection co-ordination.  |
| ☐ Yes          | □ N/A          | b.       | Provide a single line riser diagram showing all new and/or affected services, feeders, wire sizes and insulation types, and conduit sizes and types.   |
| ☐ Yes          | □ N/A          | C.       | Indicate number of services and their physical lo cations; clearly indicate mains and characteristics.   |
| ☐ Yes          | □ N/A          | d.       | Indicate the grounding electrode conductor size with new and/or affected services and transformers; where necessary provide details or notes on methods.   |
| ☐ Yes<br>☐ Yes | □ N/A<br>□ N/A | e.<br>f. | Show physical locations of all new and/or affected panels and switchgear (indicate front). Indicate receptacle plans with circuitry.   |
| Yes            | □ N/A          | g.       | Indicate lighting plans with circuitry.  |
| Yes            | □ N/A          | h.       | Show electrical plans for each affected floor, including the roof.   |
| Yes            | □ N/A          | i.       | Show wiring method(s), conduit sizes and types, termination temperature (60, 75, 90) requirements, conductor sizes and insulation types.   |
| ☐ Yes          | □ N/A          | j.       | Indicate the design and/or operation for a ny of the following applicable life safety systems: emergency generators, smoke evacuation, shaft pressurization and relief, smoke detection, egress and emergency lighting, and fire alarms.   |
| Yes            | □ N/A          | k.       | Indicate how special needs such as classified (hazardous), corrosive and patient care are treated. Provide detailed plan of classified areas, the classifications and how complied with (i.e. han gers, waste treatment and collection, flammable dusts, gases or liquids, spray booths, vehicle servicing and parking, etc.).   |
| ☐ Yes          | □ N/A          | l.       | Provide all HVAC nameplate data, including MCA and MOCP. List all oth er appliance and/or equipment (other than those which will be connected to a general use receptacle) with nameplate data (i.e. voltage, phasing, HP, KVA, FLA, RLA, etc.).   |
| ☐ Yes          | ☐ N/A          | m.       | Indicate all motor horsepower ratings, if not supplied elsewhere.  |
| Yes            | □ N/A          | n.       | Indicate the certified testing laboratory or agency (e.g. UL), their test # and hourly ratings of all new and/or affected rated members and assemblies (i.e. columns, beams, floor/ceiling, and ceiling/roof fire-rated design assemblies). Show all new and/or affected fire-rated walls with their ratings, if not shown elsewhere.  |
| ☐ Yes          | □ N/A          | 0.       | All penetrations of fire-rated construction must be per manufacturer's details. The details shall meet or exceed ratings of construction being penetrated. Penetration details shall be exactly as tested by an approve d testing laboratory or agency and shall include their system numbers. New penetrations of existing fire-rated walls and assemblies shall be shown with appropriate designs. |
| ☐ Yes          | □ N/A          | p.       | Provide all applicable <i>International Energy Conservation Code</i> compliance data on the Building Code Summary sheet or on the electrical plans.  |
| ☐ Yes          | □ N/A          | q.       | All submittals should include a listing and labeling statement. (All electrical materials, devices, appliances and equipment shall be la beled and listed by a certified testing laboratory or agency.)  |

Uniform Construction Code (UCC)

# SPECIAL INSPECTIONS AND OBSERVATIONS STATEMENT

| This statement must accompany permit applications for all construction for which special inspections and observations are required in section 1704 and 1709 of the <i>International Building Code 2003</i> . | tion for which special<br>9 of the <i>International Building</i> |
|--|--|
| Project Name:  |  |
| Project Address:   |  |
| Owner:   | Telephone:   |

This is to certify that all the inspections and observations that I have checked on pages 2-3 **and** on page 4 of this statement are required for the project named above and will be performed by the designated individuals or firms. By signing this statement, I also acknowledge that:

- these inspections and observations must be performed by competent individuals in accordance with sections 1704 and 1709 (as applicable) and that the construction work must comply with the approved plans and specifications and all applicable provisions of the Uniform Construction Code;
- records of all required special inspections and testing observations (including any discrepancies and methods of correction of these discrepancies) will be retained and made available to Municipal UCC Officials, upon request; and,
  - the Final Report section of this statement must be signed by me and a copy of this statement submitted to the municipal UCC inspector, at the time that the final inspection is performed and before a certificate of occupancy is issued.

Name of Design Professional in Responsible Charge

Signature of Design Professional in Responsible Charge

PA License Number Date signed (Month/Day/Year)
PLEASE AFFIX SEAL IN SPACE TO THE LEFT.

| CHECK<br>EACH<br>THAT<br>APPLIES | TYPE OF SPECIAL INSPECTION OR OBSERVATION | NAME AND ADDRESS OF INDIVIDUAL AND/OR<br>FIRM PERFORMING INSPECTION OR<br>OBSERVATION | CREDENTIALS (Enter acronym from page 4. If "Other," please specify special training or basis for competency to perform work.) |
|----------------------------------|---|---|---|
|                                  | Inspection of Fabricators                 |   |   |
|                                  | Inspection of Steel Construction          |   |   |
|                                  | Inspection of Concrete Construction       |   |   |
|                                  | Inspection of Masonry Construction        |   |   |
|                                  | Inspection of Wood Construction           |   |   |
|                                  | Inspection of Soil Conditions             |   |   |

| CHECK<br>EACH<br>THAT<br>APPLIES | TYPE OF SPECIAL INSPECTION OR OBSERVATION                | NAME AND ADDRESS OF INDIVIDUAL AND/OR FIRM PERFORMING INSPECTION OR OBSERVATION | CREDENTIALS (Enter acronym from page 4. If "Other," please specify special training or basis for competency to perform work.) |
|----------------------------------|--|---|---|
|                                  | Inspection of Pile Foundations                           |   |   |
|                                  | Inspection of Pier Foundations                           |   |   |
|                                  | Inspection of Wood Panels and Veneers                    |   |   |
|                                  | Inspection of Sprayed Fire-Resistant Materials           |   |   |
|                                  | Inspection of Smoke Control                              |   |   |
|                                  | Inspection of Exterior Insulation & Finish System (EIFS) |   |   |
|                                  | Structural Observations                                  |   |   |

|       | Required Special Inspections or Observations:   | or Observations:                                    |  |  |
|-------|---|---|--|--|
| FINAL | Inspection of Fabricators Inspection of Steel Construction Inspection of Masonry Construction Inspection of Wood Construction Inspection of Soil Conditions Structural Observations | uction<br>nstruction<br>nstruction<br>ruction<br>ns | Inspection of Pile Foundations Inspection of Pier Foundations Inspection of Wood Panels and Veneers Inspection of Sprayed Fire-Resistant Materials Inspection of Smoke Controls Inspection of Exterior Insulation & Finish System (EIFS)                                     |  |
|       | I certify that I have reviewed the repor<br>is in compliance with the approved pla  | t on each of the inspectins and specifications a    | I certify that I have reviewed the report on each of the inspections or observations checked above. These reports indicate that the covered work is in compliance with the approved plans and specifications and all applicable provisions of the Uniform Construction Code. |  |
|       |   | O   | Signature of Design Professional in Responsible Charge:  |  |
|       |   | ' "   | Date signed (Day/Month/Year):  |  |
|       |   | 1   |  |  |
|       |   | ACI   | American Concrete Institute Certified Concrete Field Testing Technician  |  |
|       |   | AWS   | American Welding Society Certified Welding Inspector   |  |
|       |   | ASNT  | American Society of Non-Destructive Testing  |  |
|       |   | AWCI  | Association of Wall and Ceiling Industries   |  |
| 콨     | KEY for use in <b>CREDENTIALS</b> column:   | MCA   | Model code agency (ICC, BOCA, SBCCI, ICBO) special inspection certification  |  |
|       | (on pages 2 and 3)  | PA  | Professional Architect (currently licensed)  |  |
|       |   | R   | Professional Engineer (currently licensed)   |  |
|       |   | OTHER   | Specialized training coursework or other basis for competency deemed acceptable  |  |

# Uniform Construction Code (UCC) ENERGY CODE PRESCRIPTIVE COMPLIANCE REPORT

| PROJECT INFORMATION                 |  |                   |                   |
|-------------------------------------|--|-------------------|-------------------|
| Project Name:                       |  | IECC              | ASHRAE/IESNA      |
|                                     |  | Climate           | 90.1              |
| Street Number and Name:             |  | Zone              | Table             |
| <del></del>                         |  |                   |                   |
| City:                               | Zip Code:                                    | Zone 10B          | ☐ B-13            |
|                                     | <u> </u>                                     | Zone 11B          | │                 |
| Political Subdivision:              | County:                                      | Zone 12A          |                   |
|                                     |  | Zone 13B          | □ B-17            |
|                                     |  | Zone 14A          |                   |
|                                     |  | Zone 15           |                   |
| PROJECT DESCRIPTION                 |  |                   |                   |
|                                     |  |                   |                   |
| Building floor area: squ            | are feet                                     |                   |                   |
| ☐ New construction                  | Addition (conditioned)                       | Alteration        |                   |
| Unconditioned shell                 | Unconditioned addition                       |                   |                   |
|                                     |  |                   |                   |
| If using ASHRAE/IESNA 90.1 prescr   | riptions, indicate if Semi-heated Space of   | or if             | pace              |
| APPLICABLE STANDARDS                |  |                   |                   |
|                                     |  |                   |                   |
| Check which standards will be used  | for each component listed below.             |                   |                   |
|                                     | IECC CHAPTER 8                               | ASHRAE/II         | ESNA 90.1         |
| Building Envelope                   |  |                   |                   |
| Mechanical Systems                  |  |                   |                   |
| Electrical/Lighting Systems         |  |                   |                   |
|                                     |  |                   |                   |
| If no Building Envelope box was che | cked above, please indicate why the building | ng envelope is ex | empt from the     |
| energy conservation requirements:   |  |                   |                   |
| ☐ Peak design rate of energy us     | sage will be less than 3.4 Btu/h/sq. ft.     |                   |                   |
| Building or structure will be ne    | either heated nor cooled                     |                   |                   |
| Building of structure will be the   | surer reduce nor cooled.                     |                   |                   |
|                                     |  |                   |                   |
| Attack cither the IECC Cha          | entor 9 or the ACHDAE/IECNA "I               | Orocorintivo I    | Danart" for       |
|                                     | pter 8 or the ASHRAE/IESNA "F                | rescriptive r     | Report <u>Ior</u> |
| each of the components ch           | ieckeu above.                                |                   |                   |

## IECC Prescriptive Report: <u>BUILDING ENVELOPE</u>

| Window and Glazed Door                          | Area/Abo    | ove Grade Wall A            | rea Ratio:                                    |      | %                                 |
|---|-------------|-----------------------------|---|------|-----------------------------------|
| Skylights  R value of slab or below-            | grade wal   | Total Skylig<br>U<br>Assemb | of Area:<br>ht Area:<br>J-factor:<br>ly Type: |      | _ square feet                     |
| Windows and Glass Door                          | s (list ind |                             |   |      |                                   |
| Number/Location                                 |             | PF                          | =   | SHGC | U                                 |
|   |             |                             |   |      |                                   |
|   |             |                             |   |      |                                   |
|   |             |                             |   |      |                                   |
|   |             |                             |   |      |                                   |
|   |             |                             |   |      |                                   |
|   |             |                             |   |      |                                   |
|   |             |                             |   |      |                                   |
| Doof Accombly (list cook                        | turns of o  |                             |   |      |                                   |
| Roof Assembly (list each Elements of Roof Assem |             | Insulation Bet              | ween Framing<br>alue)                         | Co   | ontinuous Insulation<br>(R-Value) |
|   |             |                             |   |      |                                   |
| Floors Over Outdoor Air                         |             | ditioned Spaces (           | list each type of a                           |      |                                   |
| Elements Of Floor Assem                         | iblies      |                             | ween Framing<br>alue)                         | Co   | ontinuous Insulation<br>(R-Value) |
|   |             | <b>\</b>                    |   |      | (1111111)                         |
|   |             |                             |   |      |                                   |
| Above-Grade Walls (list                         | each type   | of assembly use             | d):   |      |                                   |
| Elements of Wall                                |             | o Framing                   | Metal Fram                                    | ing  | Wood Framing                      |
| Assembly Used                                   | (           | R-Value)                    | (R-Value                                      | )    | (R-Value)                         |
|   |             |                             |   |      |                                   |
|   |             |                             |   |      |                                   |
|   |             |                             |   |      |                                   |

#### IECC BUILDING ENVELOPE CHECKLIST (requirements that will also be checked during inspection process):

- All joints and penetrations caulked, gasketed, weather-stripped, or otherwise sealed.
- Windows, doors, and skylights certified as meeting leakage requirements.
- All component R-values and U-factors labeled as certified.
- Stair, elevator shafts, vents and other dampers integral to building envelope are equipped with motorized dampers. (Gravity dampers may be used in buildings less than 3-stories in height.)
- Cargo/loading dock doors weather sealed.
- Recessed lighting fixtures installed per Section 802.3.7
- Vestibule provided at building entrances, with self-closing doors.
- Vapor retarder installed.

## IECC Prescriptive Report: <u>MECHANICAL</u> <u>SYSTEMS</u>

Fill in all the requested information for either a simple or complex HVAC system.

| Heatin                       |                        |                         | ndamentals Handbook are     | <b>:</b> :             |
|------------------------------|------------------------|-------------------------|-----------------------------|------------------------|
| 803.2.2 HVAC Equipr          | ment Performance       |                         |                             |                        |
| Manufacturer<br>Model Number | Capacity               | Equipment<br>Efficiency | Table used from Section 803 | Required<br>Efficiency |
|                              |                        |                         |                             |                        |
|                              |                        |                         |                             |                        |
|                              |                        |                         |                             |                        |
|                              |                        |                         |                             |                        |
|                              |                        |                         |                             |                        |
| Heatin                       | g Load =<br>g Load =   | ·<br>                   | ndamentals Handbook are     | ):                     |
| Manufacturer<br>Model Number | Capacity               | Equipment<br>Efficiency | Table used from Section 803 | Required<br>Efficiency |
|                              |                        |                         |                             | •                      |
|                              |                        |                         |                             |                        |
|                              |                        |                         |                             |                        |
|                              |                        |                         |                             |                        |
|                              |                        |                         |                             |                        |
| Fill in all the informati    | on requested below for | r the service water he  | ating system.               |                        |
|                              | Nater Heating Equipme  |                         |                             |                        |
| Manufacturer<br>Model Number | Capacity               | Equipment<br>Efficiency | Equipment<br>Type           | Required<br>Efficiency |
|                              |                        |                         |                             |                        |
|                              |                        |                         |                             |                        |

# IECC Building Mechanical Systems & Service Water Heater Requirement Checklist (requirements that will also be checked during inspection process):

- Load calculations per ASHRAE Fundamentals Handbook-2001.
- Plant Equipment and system capacity not greater than needed to meet loads.
- Minimum one temperature control device per zone.
- Stair and elevator shaft vents are equipped with motorized dampers
- Discharge dampers prohibited on constant volume fans & variable volume fans with motors >25hp.
- Balancing and pressure test connections on all hydronic terminal devices.
- Single-duct Variable Air Volume (VAV) terminals reduce primary air before reheating.
- Dual-duct (VAV) mixing boxes installed to minimize mixing.
- Controls capable of resetting supply air temperature (SAT) by 25% of SAT-room temperate difference.
- Minimum one humidity control device per installed humidification/dehumidification system.
- Automatic Controls: Setback to 55 degrees F (heat) & 85 degrees F (cool)
- Outside air supply and exhaust ducts equipped with gravity or motorized dampers with automatic shut off.
- Duct insulation: R-5 unconditioned spaces, R-8 outside building, R-8 between duct and exterior envelope.
- Duct construction per International Mechanical Code (IMC).
- Balancing devices provided in accordance with IMC.
- Minimum pipe insulation per Table 803.3.
- Heat traps in inlet/outlet fittings for service water heating.
- Pipe insulation for Service Water Heating per Section 804.5
- Water temperature controls: 110 degrees F for dwelling units, or 90 degrees F for other occupancies.
- Hydronic three-pipe systems not used.
- Operation and maintenance manual provided to building owner.

#### IECC Prescriptive Report: <u>Electrical Power & Lighting Systems</u>

Fill in all the requested information for either the entire building method or the tenant portion/portion of the building method.

| Entire Building Method:                       |  |
|---|--|
| Building Use or Area Type from Table 805.5.2: |  |
| Total Area of the Building (Sq. Ft.):         |  |
| Total Interior Light Power (Watts):           |  |
|   |  |

**Tenant Area or Portion of Building Method:** 

| Tenant Area/<br>Building Portion | Use From<br>Table 805.5.2 | Total Area<br>sq.ft. | Total Interior<br>Lighting Power<br>(Watts) |
|----------------------------------|---------------------------|----------------------|---|
|                                  |                           |                      |   |
|                                  |                           |                      |   |
|                                  |                           |                      |   |
|                                  |                           |                      |   |

# IECC Electrical Power & Lighting Systems Requirements Checklist requirements that will also be checked during inspection process):

- Exterior Lighting: Efficacy greater than 45 lumens/W
- Independent controls for each space (switch/occupancy sensor).
- Master switch at entry to hotel/motel guest rooms.
- Individual dwelling units separately metered.
- Each space provided with a manual control to provide uniform light reduction capability.
- If area is corridor, storeroom, restroom, or lobby; area must be continuously illuminated; areas greater than 250 sq. ft. or use less than 0.6 watts/sq. ft.
- Photocell/astronomical time switch on exterior lighting.
- Tandem wired one-lamp & 3-lamp ballasted luminaries.

#### ASHRAE/IESNA 90.1 Prescriptive Report: <u>Electrical Power & Lighting Systems</u>

Fill in all the requested information for either the entire building method or the tenant portion/portion of the building method.

| Entire Building Method:            |                    |            |                |
|------------------------------------|--------------------|------------|----------------|
| Building Use or Area Type fr       | om Table 9.3.1.1:  |            |                |
| Total Area of the                  | Building (Sq.Ft.): |            |                |
| Total Interior Lig                 | ht Power (Watts):  |            |                |
| Tenant Area or Portion of Building | Method:            |            |                |
| Tenant Area/                       | Use From           | Total Area | Total Interior |

| Tenant Area/<br>Building Portion | Use From<br>Table 9.3.1.2 | Total Area<br>Sq. Ft. | Total Interior<br>Lighting Power<br>(Watts) |
|----------------------------------|---------------------------|-----------------------|---|
|                                  |                           |                       |   |
|                                  |                           |                       |   |
|                                  |                           |                       |   |
|                                  |                           |                       |   |

# ASHRAE/IESNA 90.1 Electric Power & Lighting Requirements Checklist (requirements that will also be checked during inspection process):

- Minimum Efficacy of 60 lumens/watts for lamps greater than 100W used for exterior lighting.
- Lighting power for freestanding canopy areas for building entrances with canopies less than or equal to 3 watts per square foot.
- Lighting power for building entrances without a canopy less than or equal to 33 watts per linear foot of exterior door width.
- Lighting power for buildings exits less than or equal to 20 watts per linear foot of exit door width.
- Lighting power for building facades less than or equal to 0.25 watts per square foot of the illuminated area.
- Independent manual or occupancy sensing controls for each space (remote switch with indicator allowed for safety or security).
- Automatic shutoff control for lighting in > 5000 sq.ft. buildings by time-of-day device, occupant sensor or other automatic control.
- Master switch at entry to hotel/motel guest room.
- Photocell/astronomical time switch on exterior lights (except areas requiring lighting during daylight hours).
- Tandem wired one-lamp and three-lamp ballasted luminaries (except high-frequency ballasts; luminaries not on same switch).
- Feeder conductors have been designed for a maximum voltage drop of 2 percent.
- Branch circuit conductors have been designed for a maximum voltage drop of 3 percent.

#### ASHRAE/IESNA 90.1 Prescriptive Report: Building Envelope

|               | ASHRAE/IES                       | 5NA 90.1 Pre                            | escriptive Report:       | <u>Building</u> Er | <u>ivelope</u>     |                      |
|---------------|----------------------------------|---|--------------------------|--------------------|--------------------|----------------------|
| Roof Assem    | nbly (list each type             | of assembly u                           | sed per table 5.3)       |                    |                    |                      |
| List Building | Envelope Option:                 | -                                       | Opaque Eleme             |                    | ssembly            | Insulation           |
| Residential   | Non-residential                  | Semi-heated                             |                          | N                  | lax. U             | Min. R               |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  | type of assemi                          | ply used per table 5.3)  |                    |                    |                      |
|               | Envelope Option:                 | Carri baatad                            | Opaque Eleme             |                    | Assembly           | Insulation           |
| Residential   | Non-residential                  | Semi-heated                             |                          | IV                 | lax. U             | Min. R               |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               | nbly (list each type             | e of assembly u                         |                          |                    | a a a mala la v    | lualatia.e           |
|               | Envelope Option: Non-residential | Semi-heated                             | Opaque Eleme             |                    | Assembly<br>Max. U | Insulation<br>Min. R |
| reordential   | Non rediaential                  | Ocim ricated                            |                          | - 10               | iuxi O             | WIIII IX             |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
| Slah on Gra   | de Floore (list eac              | h type of assen                         | nbly used per table 5.3) |                    |                    |                      |
|               | Envelope Option:                 | ii type oi asseii                       | Opaque Eleme             | nts A              | ssembly            | Insulation           |
|               | Non-residential                  | Semi-heated                             | opaquo Liomo.            |                    | lax. U             | Min. R               |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
| Wall. Below   | Grade (list each t               | vpe of assembl                          | y used per table 5.3)    |                    |                    |                      |
| List Building | Envelope Option:                 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Opaque Elemei            | nts                | Assei              | mbly                 |
| Residential   | Non-residential                  | Semi-heated                             |                          |                    | Max                | a. U                 |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
| L             |                                  |   | <u> </u>                 |                    |                    |                      |
|               | ors (list each type              | of assembly us                          |                          |                    |                    |                      |
|               | Envelope Option:                 |   | Opaque Element           | s                  | Assem              |                      |
| Residential   | Non-residential                  | Semi-heated                             |                          |                    | Max.               | U                    |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |
|               |                                  |   |                          |                    |                    |                      |

#### ASHRAE/IESNA 90.1 Prescriptive Report: <u>Building Envelope</u> (Continued)

Fenestration (list each type of assembly used per table 5.3)

| <u>List</u> Building Envelope Option:   | % Vertical | SHGC       | Assembly | SHGC  | SHGC |
|---|------------|------------|----------|-------|------|
| Residential Non-residential Semi-heated | Glazing    | Multiplier | Max. U   | North | All  |
|   |            |            |          |       |      |
|   |            |            |          |       |      |
|   |            |            |          |       |      |
|   |            |            |          |       |      |
|   |            |            |          |       |      |
|   |            |            |          |       |      |

Skylights (list each type of assembly used per table 5.3)

| List Building Envelope Option: Residential Non-residential Semi-heated | Туре | % of Roof | Assembly Max. | SHGC<br>Max. |
|--|------|-----------|---------------|--------------|
|  |      |           |               |              |
|  |      |           |               |              |
|  |      |           |               |              |
| _  |      |           |               |              |

# ASHRAE/IESNA 90.1 Building Envelope Requirements Checklist (requirements that will also be checked during inspection process):

- Open-blown or poured loose-fill insulation has not been used in attic roof spaces with ceiling slope greater than 3 in 12.
- Wherever vents occur, vents are baffled to deflect incoming air above the insulation.
- Recessed lights, equipment and ducts are not affecting insulation thickness.
- No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- All exterior insulation is covered with protective material.
- Cargo and loading dock doors are equipped with weather seals.
- Windows & skylights are labeled & certified by the manufactures for U-factor & SHGC.
- Fixed windows & skylights unlabeled by manufacturer have been site labeled using the default U-factor & SHGC.
- Other unlabeled vertical fenestration, operable and fixed, not labeled by the manufacturer, has been site labeled using the default U-factor and SHGC.
- All joints & penetrations are caulked, gasketed, weather-stripped, or otherwise sealed.
- Windows, doors, and skylights certified as meeting leakage requirements.
- Components R-values & U-factors labeled as certified.
- Building entrance doors have a vestibule and equipped with closing devices.

#### ASHRAE/IESNA 90.1 Prescriptive Report: Mechanical Systems (Simple)

A building that is <u>less than 2 stories in height</u>, and, <u>has less than 25,000 total square feet floor area</u>, and, <u>has a single HVAC zone</u>, must meet the requirements for a simple mechanical system.

If the requirements for a **simple mechanical system** apply, fill in all of the following information.

| Cooling (if provided)       |  |  |  |
|-----------------------------|--|--|--|
| Manufacturer Nar            | ne   |  |  |
| Mfg'er Specified Efficien   | cy   |  |  |
|                             | Air Conditioner   Min. Efficiency (Table 6.2.1A)                         |  |  |
|                             | Heat Pump   Min. Efficiency (Table 6.2.1B)                               |  |  |
|                             | Packaged Terminal & Room AC & Heat Pump   Min. Efficiency (Table 6.2.1D) |  |  |
|                             | Is Economizer required per Table 6.1.3?   Yes  No                        |  |  |
| Heating                     |  |  |  |
| Manufacturer Nar            | ne   |  |  |
| Mfg'er Specified Efficien   | cy   |  |  |
|                             | Heat Pump   Min. Efficiency (Table 6.2.1A)                               |  |  |
|                             | Heat Pump   Min. Efficiency (Table 6.2.1D)                               |  |  |
|                             | Fuel Fired Furnace   Min. Efficiency (Table 6.2.1E)                      |  |  |
|                             | Fuel Fired Boiler   Min. Efficiency (Table 6.2.1F)                       |  |  |
|                             | ectric Resistance Heat   |  |  |
| Service Hot Water           |  |  |  |
| Manufacturer Nar            | ne   |  |  |
| Mfg'er Specified Efficiency |  |  |  |
|                             | Load calculated per 7.2.1  |  |  |
|                             | Efficiency/Performance Requirements per 7.2.2                            |  |  |
|                             | Prescriptive Path per 7.3, if combined                                   |  |  |
|                             | boiler/service hot water   |  |  |

# ASHRAE/IESNA 90.1 Mechanical Systems (Simplified) Requirements Checklist (requirements that will also be checked during inspection process):

- Energy recovery ventilation required if outside air quality supplied by the system is greater than 3000 cfm & greater than 70% of the supply air quantity at min. outside air designs.
- Manual change over or dual set-point thermostat supplied.
- Heat pump controls to prevent supplemental heater operation.
- Systems controls to prevent reheat or any other form of simultaneous heating & cooling for humidity control supplied.
- Programmable time clock on HVAC systems greater than 15,000 BTU/H & supply fan greater than 3/4/hp.
- HVAC piping shall be insulated in accordance with Table 6.2.4.1.3 insulation suitable for outdoor service.
- Ductwork & plenums insulated in accordance with Table 6.2.4.1.2A & 6.2.4.1.2B and ducted systems air balanced.
- Thermostats shall be interconnected to prevent simultaneous heating & cooling.

#### ASHRAE/IESNA 90.1 Mechanical Systems (Simple) Requirements Checklist (continued)

- Dampers automatically shut on systems greater than 300 cfm.
- Optimum start controls supplied on systems with capacities greater than 10,000 cfm.

# ASHRAE/IESNA 90.1 Service Hot Water Systems Requirements Checklist (<u>requirements that will also be checked during inspection process</u>):

- Service Hot Water Piping Insulation meets 7.2.3
- Temperature maintenance automatic time switches installed (7.2.4.2)
- Outlet temperature controls installed (7.2.4.4)
- Circulating pump controls installed (7.2.4.4)
- Storage temperature controls installed (7.2.4.1)
- Heat traps installed (7.2.6)

#### ASHRAE/IESNA 90.1 Prescriptive Report: Mechanical Systems (Complex)

| If the requirements for a <b>complex mechanical system</b> apply, fill in all of the following information. |  |
|---|--|
| Heating System Design Load:   |  |

**HVAC Equipment Performance per section 6.2.1** 

Cooling System Design Load: \_\_

| Table used from Section 6.2.1 | Required<br>Efficiency | 1992<br>Epact |
|-------------------------------|------------------------|---------------|
|                               |                        |               |
|                               |                        |               |
|                               |                        |               |
| _                             |                        |               |

| Service Hot Water           |   |  |
|-----------------------------|---|--|
| Manufacturer Name           |   |  |
| Mfg'er Specified Efficiency |   |  |
|                             | Load calculated per 7.2.1                     |  |
|                             | Efficiency/Performance Requirements per 7.2.2 |  |
|                             | Prescriptive Path per 7.3, if combined        |  |
|                             | boiler/service hot water                      |  |

# ASHRAE/IESNA 90.1 Mechanical Systems (Complex) Requirements Checklist (requirements that will also be checked during inspection process):

- Economizers per 6.3.1
- Simultaneous heating & cooling limitations per 6.3.2
- Air system design & condoles per 6.3.3
- Hydronic system design & control 6.3.2.2.3
- Heat rejection equipment per 6.3.5
- Energy recovery per 6.3.6.
- Exhaust Hoods per 6.3.7
- Radiant Heating systems per 6.3.8
- Hot gas bypass limitations per 6.3.9
- Service hot water piping insulation meets 7.2.3
- Temperature maintenance automatic time switches installed per 7.2.4.2
- Outlet temperature controls installed per 7.2.4.3
- Circulating pump controls installed per 7.2.4.4
- Storage temperature controls installed per 7.2.4.1
- Heat traps installed per 7.2.6