Bureau Veritas North America, Inc.
COMMERCIAL PLAN SUBMITTAL AND CHECKLIST

Uniform Construction Code (UCC)

***THIS CHECKLIST MUST BE TURNED IN WITH PLAN AND BUILDING PERMIT APPLICATION FOR NEW BUILDINGS/STRUCTURES, ADDITIONS AND RENOVATION PROJECTS. ALL INFORMATION MUST BE FILLED IN, CHECKED OR MARKED "NA"	
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):	Phone: _____ 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 longs 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 Transportation (PennDOT) permit allowing access to a highway under its jurisdiction is not required at the time that application is made for a UCC building permit. If the highway occupancy permit issued by PennDOT requires a location of the building/structure differing from that approved under the UCC building permit, applicants must send the Department a letter requesting a determination whether a revision of approved plans will be required.

While we understand that many items on this check-list may not be included in minor alteration or renovation projects, we request that all applicants work through the entire checklist to ensure that any necessary items are included. If any item is <u>not necessary</u>, <u>please insert NA</u> ("not applicable"). This will greatly facilitate review and approval of projects.

___ Two (2) sets of drawings are included in this application package.
___ Two (2) site plans are included in this application package.
___ One (1) set of specifications is included in this application package.
___ Local Municipal Approval
___ L&I Occupancy Permit for all projects that involve existing buildings.

SITE PLANS:

___ a. Site plans shall be prepared to scale (not less than 1"=20'), with legend, north arrow, and <u>separate</u> vicinity (site location) map.
___ b. Show the correct street address, parcel number and required municipal zoning (if there is local zoning ordinance) on the site plans.
___ c. Show and identify all property lines and rights-of-way, with distance from property lines and adjacent buildings on site plans.
___ d. Show all accessible parking spaces and signage per ICC/ANSI A117.1 and the International Building Code on site plan.
___ e. Show accessible curb cuts, ramps and access ways to the building.
___ f. Show all existing and proposed driveway entrances.
___ g. Identify adjacent land uses and zoning.
___ h. Show all easements, flood ways, and required buffers.
___ i. Show existing and proposed utilities (with backflow preventers) to serve the site.
___ j. Show existing and proposed finish grades.
___ k. Show details, sections, and elevations needed for construction.
___ l. Show all buffer and screening landscaping.
___m. Show all required parking and loading spaces and calculations.

ARCHITECTURAL PLANS:

<u>*PROVIDE CODE SUMMARY DESIGN INFO. AS PER IBC CHAPTER 1603</u>

___ a. Show architectural floor plans of each floor. These pages must be at least 18" x 24" in size (but not more than 36" x 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). Show all fire-rated walls (both existing and new) with their ratings, if not shown elsewhere. Indicate draft stopping and fire blocking details when required. Drawings submitted without required fire-rated walls shown will be rejected.
___ b. Show the square footage of each floor on the corresponding floor plans.
___ c. Identify the names and uses of each room. Designate occupant load of each room and total.
___ d. Provide <u>all</u> applicable ICC/ANSI accessibility requirements on general plans.
___ e. Provide separate drawing showing all accessibility details applicable to the project.
___ f. Furnish door schedule(s), including size, type, rating (if any) and hardware.
___ g. Provide interior finish data as per IBC Chapter 8.
___ h. Provide all glazing schedules.
___ i. 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 <u>all elements</u> necessary to determine compliance with the UCC.)**

___ j. Provide basement percentage-below-grade calculations.
___ k. Indicate roof slopes, drainage system and sized through wall scuppers, if applicable to the project.
___ l. Show fixed seating for assembly occupancy to allow determination of occupancy posting required by *International Building Code.*
___ m. Show wall sections with proposed material sizes, construction and fire-rated assemblies.
___ n. Show proposed plumbing fixtures and privacy screens on the plans.
___ o. 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.
___p. 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 manufacturing process and contained within its fire barriers. Provide a Material Safety Data Sheet for each listed hazardous material. See sections 414 and 415 of the International Building Code.
___ q. Show the floor slab vapor barrier.
___ r. Show foundation water-proofing, if applicable.
___ s. 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 their system numbers. New penetrations of existing fire-rated walls and assemblies shall be shown with appropriate designs.
___ t. Show penthouse drawings.
___ u. 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, corridors and ramped exits.
___ v. Show required ventilation louvers and vent sizes.
___ w. Provide all applicable International Energy Conservation Code compliance data on the Building Code Summary sheet or on the electrical plans.
___ x. Show occupancy hazard classification, size, type and location of all fire extinguishers.

STRUCTURAL PLANS:
___ a. Show foundation plans indicating the proposed slab elevations and type of foundation (i.e., mat foundation, caissons, spread footings, etc.).
___ b. Provide preliminary soil analysis data done by a licensed engineer, if Required.
___ c. Indicate dimensions of foundations.
___ d. Show type, size and location of piling and pile caps for pile foundation.
___ e. Indicate grade beam sizes.
___ f. Indicate a footing schedule defining footing sizes and the required reinforcing.
___ g. Show the established footing depth below grade and method of frost protection allowed in section 1805.2.1 of the *International Building Code.*
___ h. Indicate the thickness of the floor slab, size of reinforcing, slab elevations, and type and details of foundations.
___ i. Indicate location, size and amount of reinforcing steel.
___ j. Show foundation corner reinforcing bars and minimum overlapping (as applicable to project structure).

___ k. Provide strength of concrete according to designed soil reports.

___ l. Show beams, joists, girders, rafters, and/or truss layouts and details of connections, structural steel stud gage, gage size, and connections.
___m. Indicate the sizes and species of all wood members and their respective design strength.
___ n. Show all columns, girders, joists, purlins, beams and base plates; for wood construction show all headers.
___ o. Provide a complete lintel schedule.
___ p. Indicate the type of anchoring for steel bearing directly on masonry.
___ 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 rooms, 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.
___ r. Where applicable, indicate on roof framing plan where concentrated loads (mechanical equipment, cranes, etc.) will be placed.
___ s. Indicate on foundation and framing plans the location and lateral load resisting system. (Show walls, braced frames, moment connections, etc.)

FIRE PROTECTION PLANS:

___a. Complete a sprinkler design data sheet and include it on the first plan of the sprinkler drawings.
___ b. Show floor plans for each floor with sprinkler piping layout, pipe sizes, pipe hanger details, piping materials, doors, walls and room identities.
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.

___ c. Show ceiling plans with sprinkler head(s) layout, walls, soffits, openings, doors, dimensions and room identities.
___ d. Verify system design by providing hydraulic calculations along with the following:
____ Recent water flow test
____ 10 percent safety margin
____ Type of backflow-preventer or reduced pressure zone showing equivalent foot loss
____ Fire pump summary
___ e. Note the type of sprinkler system used (e.g., 13, 13D, or 13R)
___ f. For residential occupancies such as apartments and condominiums, show sprinkler head locations at breezeways, if applicable.
___ g. Indicate the certified testing laboratory agency (e.g., U.L.), their test number 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.

___ 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 include their system numbers. All new penetrations of existing fire-rated walls and assemblies shall be shown with appropriate designs.
___ i. Provide a fire alarm riser showing connection to a UL-approved central station. Show tamper switches on both OS and Y valves of backflow prevention device, unless shown elsewhere.
___ j. Indicate commodity class (per section 2303 of the International Fire Code) and height of any storage.
___ k. Provide Material Safety Data Sheets for any hazardous materials (also specified under "Architectural Plans").
___ l. 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 CALCULATIONS (FIRE PROTECTION):
Hydraulically calculated and pipe schedule fire systems should be designed with a 10 percent safety margin for all new buildings and additions to existing buildings. Calculations for hydraulic systems should include:

___ a. Flow and pressure at each flowing sprinkler head
___ b. Flow diagram for a grid system.

PLUMBING PLANS:
___ 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.

___ b. Show interceptors as applicable to project and size by flow rate. (i.e., grease, oil, lint, acid, sand).
___ c. 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.
___ d. Show the location of all major components required for a complete system.
___ e. Provide fixture and equipment schedule showing fixture number, detailed description, hot water, cold water, waste and vent connection sizes and other pertinent data.
___ f. Identify all fixtures on floor plans and in riser diagrams with the plumbing fixture schedule number.
___ g. Supply and Waste/Vent piping shall be shown on the floor plans. All pipe sizes shall be clearly shown. In congested areas (e.g., restaurants, grocery stores, etc.), isometrics are required.
___ 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 number (e.g., R1, R2, etc.). Show where all riser base terminations connect to the building drain, along with all interconnected piping on each floor plan. All pipe sizes shall be clearly defined.
___ i. Show the water, sanitary drain-waste-vent piping and storm leaders/drains. Indicate sizes and materials for above/below grade.

___ j. Show all drainage fixture unit and water supply fixture unit calculations and totals
___ k. Show slope of horizontal sanitary and storm drains that equal or exceed 3" diameter, if less than 1/8" per foot.
___ l. Indicate roof drains and emergency 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)

___ m. Show toilet room layouts with minimum of ¼ " = 1 foot scale.
___ n. Show drinking fountain locations.
___ o. All penetrations of fire-rated construction must be per manufacturer's details. The details shall meet or exceed rating 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.
___ p. Room names and numbers for each floor should be on a floor plan for each level.
___ q. Provide minimum facilities calculations.
___ r. Column line notations, if provided on the architectural/structural plans, shall be indicated on the plumbing plans.

MECHANICAL PLANS:

___ a. Show all required wall louvers, penetrations and fans.
___ b. Indicate roof-mounted equipment locations.
___ c. Show all mechanical equipment, piping, ductwork (above/below slab) on the mechanical floor and/or roof plan.
___ d. Provide mechanical plans for each floor and the roof. These shall show the ductwork layouts, schedules, notes, legends, piping schematics, and details necessary to define the system being installed.
___ e. Show calculations and totals for combustion air requirements
___ f. Indicate all air distribution devices and show total cfm of each unit for all supply, return and exhaust devices.
___ g. Indicate the location of all equipment components required for a complete system. Include thermostat controls.
___ h. Show the smoke ventilation of atriums and pressurization of high-rise stairwells.
___ i. Show condensation drains, primary and secondary, from the unit to the point of discharge.
___ j. Indicate toilet exhaust requirements.
___ k. Show mechanical room layouts at sufficient scale for dimensions and details to be ascertained.
___ l. Show the size of duct runs.
___ m. Indicate controls for fan shutdown: emergency manual and automatic smoke detection.
___ n. Show the location of all UL 555-certified fire dampers, ceiling radiation dampers, smoke dampers, and fire doors.
___ o. Show all fire-rated walls (both existing and new) with their ratings on the mechanical plans.
___ p. All penetrations of fire-rated construction must be per manufacturer's details.
___ q. Room names and numbers for each floor should be on a floor plan for each level.
___ r. Provide outside air ventilation rate per the International Mechanical Code.
___ s. Column line notations, if provided on the architectural/structural plans, shall be identified on the mechanical plans.
___ t. Show calculation and methods used for each room for ventilation.
___ u. Provide gas piping layout on the floor plan for each floor. If it is a multi-story building, all gas piping shall be shown per floor. Include pipe sizes, water column, and type of material. Provide a schedule of connected equipment, total BTUH demand, total equivalent length, and most remote gas appliance. Show method used and calculation for gas pipe sizing.

ELECTRICAL PLANS:

___ 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.

___ 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.

___ c. Indicate number of services and their physical locations; clearly indicate mains and characteristics.

___ d. Indicate the grounding electrode conductor size with new and/or affected services and transformers; where necessary provide details or notes on methods.

___ e. Show physical locations of all new and/or affected panels and switchgear (indicate front).

___ f. Indicate receptacle plans with circuitry.

___ g. Indicate lighting plans with circuitry.

___ h. Show electrical plans for each affected floor, including the roof.

___ i. Show wiring method(s), conduit sizes and types, termination temperature (60, 75, 90) requirements, conductor sizes and insulation types.

___ j. Indicate the design and/or operation for any of the following applicable life safety systems: emergency generators, smoke evacuation, shaft pressurization and relief, smoke detection, egress and emergency lighting, and fire alarms.

___ 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. hangers, waste treatment and collection, flammable dusts, gases or liquids, spray booths, vehicle servicing and parking, etc.).

___ l. Provide all HVAC nameplate data, including MCA and MOCP. List all other 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.).

___m. Indicate all motor horse power ratings, if not supplied elsewhere.

___ 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.

___ o. 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 approved 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.

___ p. All submittals should include a listing and labeling statement. (All electrical materials, devices, appliances and equipment shall be labeled and listed by a certified testing laboratory or agency.)

Bureau Veritas North America, Inc.

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 *International Building Code*.

Project Name:_____

Project Address:_____

Owner:_____Telephone:_____

This is to certify that all the inspections and observations checked on pages 2 and 3 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 Bureau Veritas-approved plans and specifications and all applicable provisions of the Uniform Construction Code;
- Records of all required special inspections and observations will be retained and made available to Bureau Veritas representatives upon request; and,
- The Final Report section of this statement must be signed by me and a copy of this statement submitted to the Bureau Veritas 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

PLEASE AFFIX SEAL IN SPACE TO THE LEFT

CHECK EACH THAT 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 Fabricators		
☐	Inspection of Steel Construction		
☐	Inspection of Concrete Construction		
☐	Inspection of Masonry Inspection		
☐	Inspection of Wood Construction		
☐	Inspection of Soil Conditions		

CHECK EACH THAT 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		
☐	Structural Observations		

FINAL REPORT	I certify that each of the inspections or structural observations checked above has been completed and that the covered work is in compliance with the Department-approved plans and specifications and all applicable provisions of the Uniform Construction Code. Signature of Design Professional in Responsible Charge: _____ Date signed (Day/Month/Year): _____
KEY for use in **CREDENTIALS** column	**ACI** American Concrete Institute Certified Concrete Field Testing Technician
	AWS American Welding Society Certified Welding Inspector
	ASNT American Society of Non-Destructive Testing
	MCA Model Code agency (ICC, BOCA, SBCCI, ICO) special inspection certification
	PA Professional Architect (currently licensed)
	PE Professional Engineer (currently licensed)
	OTHER Specialized training coursework or other basis for competency deemed appropriate