## **Quality Check List**

## 100% CONSTRUCTION DRAWINGS QUALITY CHECKLIST

QU	QUALITY ITEM		YES	NO	Signature
1.	Ar	e the following shown?			
	a.	All necessary information previously described.			
	b.	All necessary details.			
	C.	All sections.			
	d.	All schedules.			
	e.	All system diagrams.			
	f.	All construction types.			
	g.	All wall ratings - fire and "U" values.			
	h.	All listed fire stop systems.			
2.	Do	the documents clearly depict the following?			
	a.	All design and construction requirements.			
	b.	Adequate information to permit accurate Contractor take off and pricing.			
	C.	The finalization of the previously submitted and approved design phases.			
	d.	The agreed upon responses of earlier design review quality comments.			
	e.	All items provided by Owner installed by Contractor, in matrix format.			
	f.	All items installed by Owner, in matrix format.			

QUALIT	TY ITEM	YES	NO	Signature
g.	Project name, project number and project location.			
h.	Site orientation the same on all plan view sheets.			
i.	All easements, right-of-way, and interfaces with public, city or county utilities.			
j.	All proposed alternates shown clearly and accurately, and consistent between the specifications and drawings.			
k.	All previously approved energy and life-cycle cost analyses, schemes and architectural features.			
l.	All necessary building code approvals.			
m.	Drawing sheet signed and sealed by Architect are Engineer?			
n.	Do square footage areas correlate to' program requirements?			
0.	Does cast correlate to' established budgets?			
p.	Have the estimated costs Of construction's between the Architect Engineer and the Construction Manager are Owner's Cost Consultant been reconciled?			
q.	Is the design intent of ceiling grid clearly shown?			

	Q	UALITY ITEM	YES	NO	Signature			
3.	3. Mechanical/ Plumbing:							
	a.	Are all fire/smoke dampers provided in all rated walls/ceilings?						
	b.	Is a detail shown for sealing all wall and ceiling penetrations?						
	C.	Is the water heater relief piping and discharge point shown?						
	d.	Is all ductwork designed in compliance with ASHRAE and SMACNA?						
		Are ductwork pressure testing/leakage restrictions indicated?						
	a.	Are all systems in compliance with Standards?						
	b.	Are "wing" type coils specified on air handling equipment?						
	C.	Are all plUll1bing systems in compliance with applicable codes?						
	d.	Is the following equipment provided in all attics?						
		2. Access opening, platforms, and walkways, where applicable.						
		3. Lighting.						
		4. Auxiliary pans/drains for air conditioning equipment.						
		5. GPI convenience outlets.						
	e.	Do all kitchen hoods conform to mechanical and fire codes?						
		Do all chemical fume hoods conform to mechanical and fire codes?						
	f.	Are all air conditioning condensate lines with discharge shown?						
		Does the discharge conform to codes?						
	g.	Are all required backflow prevention devices shown?						
		Details of water source?						

1			1
	2. Type of sprinkler system?		
	3. Plan of sprinkler system?		
	4. Are risers shown?		
	5. Are connections to existing systems shown?		
	6. Are all valves and controls shown?		
	7. Notation requiring fire protection contractor to provide the sprinkler head model number on the design submittal shop drawings?		
h.	Is the temperature control system provided?		
i.	Is the energy management system provided?		
j.	Is the building automation system provided?		
k.	Are temperature control energy management and building automation system's schematics shown on the drawings?		
I.	Are the sequences of the HVAC systems of operation provided, complete with a point list?		
m.	Are the ceiling diffusers and sprinkler head locations coordinated with the architectural reflected ceiling plans?		
n.	Was a CAD overlay made of the mechanical work to ensure no conflicts with other work, equipment or structures?		
0.	Is adequate access provided to mechanical equipment located in attic spaces via ladders, catwalks, etc		
4. E	lectrical:-		
a.	Is an electrical site plan shown?		
b.	Was a CAD overlay made of the electrical work to ensure no conflicts with other work, equipment or structures?		
C.	Is lighting system in accordance with University energy guidelines?		
d.	Does all electrical work comply with the latest National Electrical Code?		
e.	Are all conductors copper?		
f.	Is the electrical legend complete?		

g. Are all panel board schedules provided?		
Do they show voltage and phase?		
2. Is the rating of the main disconnect shown?		
3. Are all circuit numbers shown?		
4. Is the number of poles shown?		
5. Are all trip-amperes shown?		
6. Are all volt-amperes shown?		
7. Are all wire sizes shown?		
8. Are all conduit sizes shown?		
h. Is Lighting Fixture schedule shown?		
Are all fluorescent lamps and ballasts of the energy-saving type?		
10. Is an exterior lighting photometric plan included?		
i. Are riser diagrams shown for the following:		
Electrical service?		
2. Fire alarm system?		
3. Intercom system?		

QUALITY ITEM	YES	NO	Signature
4. Telecommunications system?			
5. Computer data system?			
j. Is the following transformer data provided?			
1. Voltage?			
2. Phase?			
3. KVA rating?			
k. Is the division of work between contractor, University of Notre Dame Utilities and AEP clearly shown?			
I. Is the voltage and KVA rating of all generators shown?			
m. Is the voltage and KVA rating of all transfer switches shown?			
n. Is sufficient space shown as required by the National Electrical Code for the following?			
1. Panel board locations?			
2. Switchgear locations?			
3. Transformer locations?			
Are insurances made that no water lines are above electrical panels or switchgear?			
p. Are all locations of mechanical equipment and their circuits shown?			
q. Are all rooms designated as shown on the architectural plans?			
r. Is the lighting layout coordinated with the architectural reflected ceiling plan?			

QUALITY ITEM		NO	Signature
s. Is all grounding shown?			
t. Is all the electrical equipment shown on the floor plans?			
u. Are all circuits shown on the floor plans?			
v. Are specifications provided for the following?			
All electrical equipment.			
2. The fire alarm system.			
3. The intercom system.			
4. The lighting protection.			
5. The security system.			
6. The telecommunications system.			
7. The computer data system			
8. The fire stopping details.			
9. All grounding, including equipment grounding.			
w. Are the schematic diagrams for door card swipe access systems shown?			
x. Are 'the power requirements and sequence of control shown for elevator recall system?			
y. Is the emergency generator fuel fill vent and whistle indicated?			
z. Are the preliminary security plans with card readers shown, including electrical power requirements?			

QUALITY ITEM	YES	NO	Signature
aa. Are OIT/data outlets indicated at vending machines?			
bb. Is electrical closet construction of fire rated assembly?			

## **INTERDISCIPLINARY QUALITY CHECKLIST**

QUALITY ITEM	YES	NO	Signature
Review all drawings to become familiar with the project.			
<ol> <li>New underground utilities (power, telephone, water, sewer, gas storm drainage Fuel lines, grease traps, fuel tanks) have no interference. Existing power/telephone poles, pole</li> </ol>			
guys, street, drainage inlets, valve boxed,			
Manhole covers, etc., do not interfere with new driveways, sidewalks, or other site improvements.			
<ol> <li>Limits of construction, clearing, grading, sodding, grass or mulch are shown and are consistent with other disciplines.</li> </ol>			
<ol><li>Fire hydrants and street light poles do not conflict with other above ground items</li></ol>			
<ol><li>Profile sheets show other underground utilities and void conflicts.</li></ol>			
7. Horizontal distances between drainage structures and manholes match scaled dimensions and stated dimensions on both plan and profile sheets			
Are the project location, Architect and Engineering firms     addresses and telephone numbers shown?			
9. Architectural:			

QUALITY ITEM	YES	NO	Signature				
PLUMBING							
Plumbing floor plans match architectural floor plans.							
New gas, water, sewer, etc, connect to existing or new utilities on civil drawings.							
Plumbing fixtures match plumbing schedule and architectural locations.							
Roof drains locations and roof slopes match architectural roof plan.							
<ol><li>Roof drain pipes are sized correctly and that drains are connected and do not interfere with foundations.</li></ol>							
Wall chases are provided in architectural drawings to conceal vertical piping.							
7. Sanitary drain system pipes are sized and all fixtures are connected.							
HVAC floor plans match architectural.							
Sprinkler heads are in appropriate rooms and do not interfere with other ceiling Items.							
Mechanical/ plumping ducts and pipes do not conflict with architectural features structural members							
11. Adequate ceiling height exists at worst case duct intersection and largest beam.							
Structural supports required for mechanical equipment are indicated on structural drawings.							
13. Necessary dampers are indicated at smoke and fire walls.							
14. Diffusers match architectural reflected ceiling plans.							
15. Opening for roof penetrations (ducts, fans, etc.) are indicated on structural roof plans.							

QUALITY ITEM	YES	NO	Signature
16. Ductwork is sized.			
17. Notes are referenced.			
18. Air conditioning unites, heaters, and exhaust fans match architectural roof plan locations.			
19. Mechanical equipment will fit in spaces allocated that there is room for maintenance such as removing, filters or tubes			
20. Horsepower rating, phase, and voltage of major items of equipment on mechanical and electrical drawings and specifications match.			
21. Thermostat locations have been coordinated with architectural drawings.			
ELECTRICAL			
Electrical floor plans match architectural and mechanical.			
<ol> <li>The location of light fixtures matches architectural reflected ceiling plan and that light fixtures do not conflict with the structure or mechanical HVAC system.</li> </ol>			
<ol> <li>Major pieces of equipment have electrical connections and that horsepower rating, phases, and voltage are consistent with other discipline schedule.</li> </ol>			
Locations of panel boards are consistent with architectural,     mechanical, and plumbing floor plans and that the panel     boards indicated on the electrical riser diagram			
5. Notes are referenced.			
There is sufficient space for electrical panels to fit within partitions and rooms.			

QUALITY ITEM	YES	NO	Signature
7. Electrical panels are not recessed in fire rated walls.			
Exterior electrical equipment locations are coordinated with site paving, grading and landscaping.			
Structural supports are provided for roof top electrical equipment.			
Locations of electrical conduit runs, floor trenches, and openings are coordinated with structural plan.			
PLAN CHECK SPECIFICATION			
Check that specified items explicitly state what is intended.			
Check specifications for phasing of construction			
Compare architectural finish schedule to specification index.			
Check major items of equipment and verify that they are coordinated with contract drawings.			
<ol> <li>Verify that the items specified "as indicated" or "Where indicated" in the specifications are in fact indicated in the contract drawings.</li> </ol>			
Verify that all specification sections are in the index			
Do not indicate thickness of materials or quantities of materials in specifications.			
8. Tailor the specifications to the project.			
Avoid duplications between specification sections and drawings.			

ARCHIT	TUCRAL /PLUMPING &FIRE PROTECTION	YES	NO	Signature
1.	Confirm if plumbing fixtures are coordinated with architect/interiors and with fixture schedule.			
	Confirm if mounting height standard and disability heights for all fixtures and accessories have been included. Water closet mounting heights should be to seat not the fixture rim.			
3.	Confirm if applicable plumbing code has been used.			
4.	Confirm that floor drains and clean out material types have been coordinated with architecture.			
5.	Confirm that pipes containing water do not pass thru elevator equipment and electrical rooms.			
6.	Confirm if water cooler type and finish are appropriate.			
7.	Confirm if access panel and cleanout locations, sizes and finishes have been coordinated with architect. Verify where specified.			
8.	Verify connection of gas (if applicable) to civil work or existing utility lines			
9.	Confirm that all concealed gas piping has been sleeved and vented.			
ADCUIT	ΓUCRAL / ELECTRICAL	YES	NO	Signatura
ARCHII	TUCKAL / ELECTRICAL	163	NO	Signature
1.	Confirm that drawing backgrounds match architectural.			
2.	Confirm if fixture cut sheets are coordinated with architecture/interior/lighting consultant.			
3.	Confirm if switch and receptacle plate finishes are appropriate materials and types with architecture.			
4.	Coordinate access panel locations with ceiling pattern, finish and fixtures/diffusers.			
5.	Confirm if equipment foundations/pads are coordinated.  Verify where specified.			
6.	Confirm if penetrations are coordinated. Verify if curb(s) are required.			
7.	Confirm if firewalls, smoke doors and smoke partitions are addressed.			
8.	Confirm if site and building facade lighting is coordinated.			
9	Confirm if display/signage lighting is coordinated (interior			

Confirm if size and location of switchgear rooms and electrical/telephone closets are adequate in size		
11. Confirm if fixture in rated ceilings are coordinated with architecture.		
12. Confirm if exit light types and locations are coordinated with ceiling plans and interior wall elevations. Establish mounting heights. Check for interferences with full height doors. Confirm if means to feed fixtures has been addressed, i.e. exit lights at curtain walls.		
Confirm if receptacle, telephone .and switch locations     have been coordinate d with Furniture layouts and wall     materials.		
14. Confirm if clocks/clock outlets are coordinated with interior elevations and wall materials. Establish mounting heights.		
15. Confirm if power for door strikes, switches and operators are coordinated. Verify with hardware schedule.		
16. Confirm if disability requirements, mounting heights schedule, listing standard and disability heights for all fixtures and accessories has been provided.		
17. Confirm if panel board locations in fire rated walls, stud walls and masonry walls are coordinated. Verify that fire rating is maintained and partition depths are adequate and not located above beams.		
18. Confirm if fire alarm devices with wall and ceiling materials and patterns are coordinated. Establish mounting heights for devices ill walls. Confirm locations are appropriate.		
19. Confirm if under-floor duct/poke through/power poles and coordinated with architectural, interior and structural work.		
20. Confirm if telephone, control and enunciator panel locations are coordinated.		
21. Confirm if trenches, duct banks, below grade wall penetrations are coordinated with other disciplines.		
22. Verify connections to trench drains		
23. Confirm if kitchen equipment is coordinated.		
24. Confirm if utility company space requirements for transformers and/or vaults etc, are coordinated.		
25. Confirm if kitchen equipment is coordinated (including necessary interlocks and switched disconnects).		
26. Confirm if power to special items (i.e. overhead doors, window washers, monorail cranes, etc.) has been provided.		

27. Confirm if elevator and/or escalator power including elevator cab power, telephone, shaft lighting and receptacle services have been included.		
28. Confirm in emergency generator and fuel storage tank(s) including access and noise containment has been addressed.		
29. Verify if a sound masking system (if required) power source has been provided. Verify operation and scope of system 'with architect and any consultants.		
30. Confirm if power and/or empty conduit for miscellaneous systems have been provided		
31. Verify that telecommunications closets are large enough for equipment.		
32. Verify that quantities and locations of telecommunications closets are adequate to limit cable runs to. allowable lengths		
33. Coordinate speaker locations in ceiling with reflected ceiling plans. Also coordinate any wall speaker locations ,with architectural drawings		
34. Confirm if an intercom system (if required) has been included and coordinated.		
35. Confirm if a synchronous clock system (if required) has been included and coordinated		
36. Confirm if power and control requirements for A/V equipment and outlets have been coordinated.		
37. Verify that audio/visual equipment rooms are large enough.		
38. Confirm if any equipment such as projection screens and supports are coordinated with architectural plans and ceiling plans.		

ARCHITUCRAL / HVAC	YES	NO	Signature
Confirm that drawing backgrounds match architectural.			
Confirm if diffusers and grilles are coordinated with appropriate wall or ceiling construction. Confirm that finish for diffusers and grills have been coordinated with architect. Coordinate with reflect ceiling plan. Confirm which discipline is specifying open slot returns.			
Confirm if thermostat / humidistat locations are coordinated with electrical devices and reviewed with architect. Verify mounting height.			
<ol> <li>Confirm if access and access panel locations have been shown and coordinated. Verify where specified.</li> </ol>			
<ol> <li>Confirm if louver sizes, locations and finish have been coordinated with architecture. Building envelop louvers should be provided by architects.</li> </ol>			
Review external louvers for required bird screens and/or fire rated dampers.			
Confirm if fire walls and smoke partitions dampers have been provided.			
Confirm if fire rate ceiling/floor assemblies have been coordinated.			
<ol> <li>Confirm if equipment location and sizes have been reviewed with architecture. Verify equipment will fit within space allocated.</li> </ol>			
10. Confirm if penetrations through roof and \va11s are coordinated. Verify where curbs are specified.			
<ol><li>Confirm if location and size of door grilles and undercuts are coordinated.</li></ol>			
12. Confirm if architectural envelope wall and roof sections and details have been reviewed for heat shorts and infiltration sources.			

ARCHITUCRAL / HVAC	YES	NO	Signature
13. Confirm if equipment housekeeping and/or inertia pads have been coordinate? Verify where specified.			
<ol> <li>Confirm if connections to special equipment have been coordinated.</li> </ol>			
<ol> <li>Confirm if elevator equipment rooms have been provided with air conditioning and HVAC loads have been considered.</li> </ol>			
<ol><li>Confirm if underground or in slab ductwork has been coordinated. Verify need for insulation.</li></ol>			
17. Confirm if kitchen equipment (including exhaust hoods, cooler heat rejection, special exhaust, gas valves, safety devices) etc., have been considered in the HV AC design			
18. Confirm if fire alarm devices with wall and ceiling materials and patterns are Confirm if the energy code has been complied with in the HVAC design.			
19. Confirm if location and type of roof protection pads (wa1k-ways) have been coordinated. Verify connection to primary services (gas, steam, central plan devices water			

STRUCTUAL / HVAC	YES	NO	Signature
Confirm if mechanical equipment locations and weights have been coordinated.			
Confirm if routing of duct work piping has been coordinated			
Confirm if penetrations and sleeves through structure has been coordinated.			
Confirm if support of equipment, piping and ductwork has been coordinated.			
<ol><li>Confirm if vertical space and clearance requirements have been coordinated.</li></ol>			
<ol> <li>Confirm weight of roof top equipment does not, exceed limits of helicopter lifting capacity where crane lifts are inappropriate.</li> </ol>			

STRUCTUAL / PLUMPING &FIRE PROTECTION	YES	NO	Signature
Confirm if equipment and large piping locations and weights have been coordinated.			
Confirm if routing of piping has been coordinated.			
Confirm if penetrations and sleeves through structure has been coordinated.			
Confirm if support of piping has been coordinated.			
5. Confirm fire sprinkler head layout with ceiling plans.			
<ol> <li>Confirm fire sprinkler piping mains and branches have adequate space above ceilings for ductwork, lights, piping, etc.</li> </ol>			
STRUCTUAL / ELECTRICAL	YES	NO	Signature
Confirm that electrical equipment locations and weights have been coordinated.			
Confirm if structural penetrations and sleeves have been coordinated.			
Confirm if support of conduit and cable trays have been coordinated.			
Confirm if below slab conduit locations have been coordinated.			

HVAC / ELECTRICAL	YES	NO	Signature
Confirm that most current RV AC/equipment motor sizes     have been provided the electrical engineer			
Confirm that generator installation has been coordinated			
Confirm if transformer and switchgear rooms are cooled or ventilated.			
Confirm if transformer and switchgear rooms are cooled or ventilated.			
Verify if equipment name plates require protection by fuses in lieu of breakers.			
Verify which contractor(s) provide control wiring.			
Confirm if mechanical equipment interlocks not furnished by temperature control contractor are addressed.			
Verify if starters are in the mechanical or electrical contract. All starters should be by the Electrical Contractor			
<ol><li>Verify if disconnects in mechanical/electrical contract disconnects should be by the Electrical Contractor.</li></ol>			
10. Confirm if control of equipment (i.e., thermostats, switches, HOA-P, momentary contracts S/S, two speed starters, variable speed drives, etc., are coordinated.			
Confirm if additional 120 volts receptacles or control circuits are required for miscellaneous equipment. (EMCS panels, chemical treatment pumps and controls, motorized dampers)			
<ol> <li>Confirm if HVAC/fire alarm system and sequences has been coordinated, - including smoke detectors and smoke control overrides.</li> </ol>			
<ol> <li>Confirm if air handling light fixtures have been supplied with power.</li> </ol>			
14. Confirm if ceiling cavity space requirement for mechanical duct, light 4 fixtures, major piping runs, cable trays, etc. have been coordinated:			
15. Confirm if lighting protection has been coordinated.			
16. Verify if motor starters are provided for all motors.			

STRUCTUAL / HVAC	YES	NO	Signature
Confirm if equipment locations and weights have been coordinated.			
Confirm if routing of duct work piping has been coordinated.			
Confirm if penetrations and sleeves through structure has been coordinated.			
Confirm if support of equipment, piping and ductwork has been coordinated.			
ELECTRICAL /SITE (CIVIL)	YES	NO	Signature
Confirm if electrical building service has been coordinated.			
Confirm if routing of electrical services has been coordinated.			
Confirm if site lighting locations has been coordinated.			
<ol> <li>Confirm if electrical service to other miscellaneous site items, i.e.; pumps, fountains, security gates, irrigation, convenience outlets, etc., has been coordinated.</li> </ol>			
<ol><li>Confirm if site power and telephone has been coordinated 'with civil utilities</li></ol>			
Confirm if building telephone service had been coordinated			
7. Confirm if transformer locations have been coordinated.			
Confirm if security equipment locations have been coordinated.			

HVAC / PLUMPING AND FIRE PROTECTION	YES	NO	Signature
Confirm if make-up water lines to primary equipment has been shown and sized.			
Confirm if make-up water lines to computer type equipment has been shown and sized.			
Confirm if backflow preventers have been shown on plumbing drawings.			
Confirm drain lines from equipment have been shown, sized and tied into the proper dram system.			
<ol><li>Confirm if floor drains are required for equipment's shown.</li></ol>			
6. Confirm if ceiling cavity space has b en coordinated.			
<ol><li>Confirm if filter bank sprinklers (if required) have been provided.</li></ol>			
Confirm if cooling tower sprinklers (if required) have been provided.			
Confirm if fire .sprinklers have been coordinated with ceiling air devices and electrical light Fixtures			
10. Confirm if electrical rooms are sprinkled.			
<ol><li>Confirm if type of grounding for building(s) has been coordinated.</li></ol>			
<ol> <li>Confirm if fire sprinkler flow, fire alarm and tamper switches have been provided.</li> </ol>			
13. Confirm if fire pump(s) have been coordinated.			
14. Confirm if electrical water heater and booster pumps have been coordinated.			
15. Confirm if equipment motor sizes, voltage and number phases has been coordinated.			
16. Confirm if equipment schedule equipment capacity has been coordinated.			

**DESIGN DEVELOPMENT DRAWINGS QUALITY CHECKLIST** 

QUALITY ITEM	YES	NO	Signature
Does the design development submission represent the philosophy of design?			
Are the outline specifications included?			
Do the drawings show overall floor plans, outside elevations, location and orientation on the site?			
4. Are the system schematics shown for the facility?			
a. HVAC			
b. Plumbing			
c. Electrical Power Distribution			
d. Fire Alarm			
e. Security			
f. Site Water			
g. Site Storm Sewer			
h. Site Sanitary Sewer			
5. Does HVAC schematic diagram depict the following?			
Approved results of the life-cost analysis.			
b. Approved results of the energy analysis.			
Are schematic diagrams shown for campus type of utilities for the following :-			
a. Chilled Water			
b. Steam			

QUALITY ITEM		YES	NO	Signature
C.	Fire			
d.	Domestic Water Distribution			
7. Do	the outline specifications describe the following:			
a.	Scope of project.			
b.	Applicable codes.			
C.	Applicable rules.			
d.	Applicable standards			
e.	Applicable regulations			
f.	Each discipline with required design values shown			
	the project location, Architect and Engineering firms dresses and telephone numbers shown?			
9. <b>Arc</b>	hitectural:			
a.	Are occupancy types and floor areas indicated?			
b.	Are square footage calculations shown for every space in accordance with program requirements?			
C.	Is a description of the shape and facade of the building provided?			
d.	Are all code-required features shown?			
e.	Is the fire protection system described?			
f.	Are the insulation "U" values shown?			
g.	Are the glazing type "U" values Show?			

QUALITY ITEM		YES	NO	Signature
h.	Are the existing requirements stated?			
	1. Are the required numbers of exits clearly shown?			
	2. Are the capacity calculations clearly shown?			
i.	Are dimensions strings indicated on column grid?			
j.	Are interior handrail posts noted to be set in Portland cement grout?			
k.	Is sufficient access provided to all elevator machine components?			
l.	Is tempered glass indicated where required?			
m.	Is VCT indicated at OIT closets?			
n.	Are sightlines into bathrooms appropriate?			
0.	Do exterior elevations depict visible rooftop mechanical equipment?			
p.	Are exterior hollow metal frames treated with a bituminous coating on the back/throat side?			
10. C	ivil/ Structural:			
a.	Is a site plan shown?			
b.	Is a grading plan, including contours and finish floor elevations provided?			
C.	Is a utility plan included?			
d.	Is a. statement of loadings provided?			
e.	Are preliminary foundation plans shown?			

QUALITY ITE	M	YES	NO	Signature
f.	Are preliminary floor and roof plans shown, including beam sizes & slab depths?			
g.	Is a soil and geotechnical report relating to foundation design provided?			
h.	Are dimension strings indicated on column grid?			
i.	Are exterior handrail posts noted to be set in Portland cement grout?			
11. Me	chanical/ Plumbing:	ı		
a.	Are HVAC and plumbing plans showing preliminary layout of equipment areas provided?			
b.	Is air handling units specified with "wing" type coils?			
C.	Is a description of HVAC controls included?			
d.	Is a description of the building automation system included?			
e.	Is a description of the building automations system included?			
f.	Are the critical interfaces with life safety system such as fire/smoke dampers, fire stopping and fire control interlocks described?			
g.	Are special plans and criteria for mechanical/plumbing systems shown (i.e. kitchen hoods, paint storage ventilation, fuel systems, and compressed gas systems)?			
h.	Are fire protection plans shown?			
i.	Were the NFP A requirements for construction phase submittal reviewed?			
j.	Do the drawings reflect the approved scheme resulting from the energy and life cycle cost analysis?			

QUALITY ITE	М	YES	NO	Signature
k.	Is adequate access provided to mechanical equipment located in attic spaces via ladders, catwalks, etc.?			
12. Ele	ectrical:		I	
a.	Is the lighting layout provided?			
b.	Are the calculations to show foot-candle intensities in each room provided?			
C.	Are exterior lighting levels/photometric indicated?			
d.	Do lighting illumination levels comply with the requirements of the Energy Analysis?			
e.	Are the preliminary electrical equipment locations shown?			
f.	Are the phase and voltage electrical characteristics shown?			
g.	Is the type ofw-iri.'1g system indicated?			
h.	Are the preliminary communications and data plans shown?			
i.	Are the preliminary fire alarm plans shown?			
j.	Are the preliminary security plans with card readers shown, including electrical power requirements?			
k.	Is a narrative on proposed power distribution system provided?			
I.	Is the emergency generator fuel fill vent and whistle indicated?			
m.	Is electrical closet construction of fire rated assembly?			
n.	Do OIT closets indicate surface mounted %" fire retardant plywood on all wall surfaces, painted?			

	TY ITEM	YES	NO	Signature
13. Cost:				
a.	Does cost correlate to established budgets?			
b.	Have the estimated costs of construction between the Architect/ Engineer and the Construction Manager or Owner's Cost Consultant been reconciled?			