

CONSTRUCTABILITY REVIEW CHECKLIST

PWD / ROICC _____

Contract No. _____

Title/Location: _____

Reviewers: Engr / Arch _____ Date: _____

Eng Tech _____ Date: _____

Contract Specialist _____ Date: _____

General Information	OK	Needs Correction	N/A
1. Contract scope adequately reflects extent of work.			
2. Bid Items are understandable and logical.			
3. Multiple completion times (durations or dates) specified. a. Liquidated damages apply to each multiple completion time			
4. Supported Activity is in agreement with targeted completion time(s).			
5. Pre-Bid / Pre-solicitation Team Meeting recommended & specified.			
6. Category of Work for contract is I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>			
7. Level A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> Partnering is specified and is appropriate for project.			
8. Usably complete facility will require NMCI, collateral equipment identified in the contract documents.			
9. Contract includes contractor requirements for NAVFAC Red Zone Process.			

Schedule and Access	OK	Needs Correction	N/A
1. Aggressive but appropriate contract duration for type of work, geographic location, material & equipment lead times, and time of year.			
2. Work occurs on more than one site or special circumstances exist, such as building occupied during renovations. a. Specifications clearly define sequence (order in which work must be completed) and is necessary (too many constraints to allow contractor to choose) and logical. b. Specifications clearly define phasing (chunks of work) which is necessary and logical. c. Completion requirements are compatible with phasing and/or sequencing.			
3. Landscaping and planting season requirements are compatible with contract duration.			
4. Work will occur in occupied building.			

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5. Contract adequately describe conditions and requirements associated with working inside occupied building a. Limited access / construction gate b. Additional security requirements / contractor passes c. Escorts required (Activity has budgeted for this) d. Contract provides for additional wait-time for Escorts (note that if this is included, proposal prices will include it; if not included and there are unreasonable and/or repeated delays, contractor will incur wasted lost time with possible entitlement.)			
6. Impacted Activities understand implications of construction in/ near their building (blocked-off spaces, noise, dust – general inconvenience) and can remain functional. a. Contract does not require hazardous materials to be disturbed or removed in/ near the Activity's operation.			
7. Hazards and precautions for work near runways, landing strips are included.			
8. Haul route is not specified and not required.			
9. Current Station Contractor and Contractor Vehicle access / security requirements included.			
10. Special base/area/building security access requirements are clearly identified for: a. Waterfront work b. Airfield operations c. Weapons storage areas d. Contractor vehicle access and parking restrictions			
11. Work hours and "Work after Normal Work Hours" clause are consistent with operational requirements, such as housing area, etc.			
12. Network schedule is required and appropriate for size / complexity.			
13. Requirements for network schedule are reasonable and suitable for project.			
14. Cost-loaded network schedule is required.			
15. Requirement for schedule of prices is deleted because of cost-loaded schedule requirement.			

Site Conditions and Utilities	OK	Needs Correction	N/A
1. Existing facilities on site accurately shown on plans.			
2. Fencing around designated construction area is required. Type of fencing is specified in accordance with Station requirements.			
3. Designated and/or adequate area on site for contractor office, material storage / prefab area. a. Construction storage area fencing is contractor's option. b. Construction storage shown at off-site location.			
4. What other construction is going on or will be going on in this and adjacent areas? Does it interfere or overlap this contract work? What are current schedules for this work?			

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5. Temporary utilities (water, power, etc) are available “in reasonable quantities” and specification includes cost rates for contractor usage.			
6. Temporary utility connection points are indicated on the plans, and will remain as shown when construction begins.			
7. Restrictions on utility outages adequately described and realistic based on experience. Required notice and procedures for scheduling outages included.			
8. Requirement to and procedures for locating underground utilities and obtaining digging permits defined. Standard “dig permit” procedures are appropriate for work in this area.			
9. Existing site shows no signs of unidentified contaminated soil or other contamination not already indicated in the contract documents.			
10. Is a storm water permit required?			
11. Contract includes requirements for contractor to scan construction site with electromagnetic and sonic equipment.			
12. Geotechnical information generally indicates expected site conditions. <ul style="list-style-type: none"> a. Specifications are compatible with boring logs. b. Based on previous projects in same area, soil conditions properly indicated 			

Contract Administration	OK	Needs Correction	N/A
1. Invoicing process does not require updated schedule and/or submittal log because they are routinely received otherwise, including electronically.			
2. Contract allows payment for material stored offsite, and contains the storage and bonding requirements.			
3. Salvage material & equipment requirements clearly specified.			
4. Contract includes GFM / GFM which is clearly identified and described.			
5. Contract includes first-tier subcontractor requirement for the Private Qualified Person for Engineering Control of Asbestos Containing Materials.			
6. Contract includes first-tier subcontractor requirement for Testing/Adjusting/Balancing subcontractor.			
7. Contract does not require extraordinary clean-up or dirt and dust-control requirements.			
8. Special permits are identified (COE, state, local, etc.) and in hand or clearly defined as contractor requirement. <ul style="list-style-type: none"> a. Contractor-secured permits will not automatically delay progress through no fault of contractor. b. Non-secured permits by Government will not delay progress. 			

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Site Safety and Health	OK	Needs Correction	N/A
1. Required Site Safety & Health Officer is Level 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> which is appropriate Level for Category of Work and project specifics. Superintendent can serve as SSHO (with qualifications).			
2. Contractor Site Safety Plan a. Must comply with EM-385-1-1 b. Must comply with base requirements			
3. Contract includes non-routine hazardous (nuclear environment, fuel tanks) and contract adequate addresses work in these conditions.			

Quality Control / Contractor Administration / Documentation	OK	Needs Correction	N/A
1. ECB 2006-04 (Cat I & II require BMS-based QCM; Cat III requires limited CQM oversight; Cat IV requires CQM oversight by exception)			
2. QC Staff requirements (including specialty inspectors and submittal reviewers) are adequate and cost-effective. a. QCM may also serve as superintendent. b. QCM responsibilities are appropriate for project.			
3. QC Plan requirements are appropriate for Category of Work & project.			
4. Construction submittals are limited to those that are value-added, that is, for materials/equipment that are not routine construction materials/ equipment and easily identifiable in the field (verify for each specification section).			
5. Technical submittal reviewers are identified for items requiring: a. Designer (A/E) approvals b. Government approvals			
6. Contract specifies if OMSI is required. For OMSI prepared by other than contractor, OMSI-“A/E” is identified or submittals for OMSI are identified.			
7. Operation and Maintenance information and training is suitable for project.			
8. Contract includes WebCM requirements suitable for Small or Large project (BMS B-1.6.2.1)			
9. Project/ Contract require LEED certification.			
10. Production Report requirements (daily or otherwise) are appropriate for Category of Work & project.			

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Environmental and Personnel Protection	OK	Needs Correction	N/A
1. Contract adequately identifies hazardous materials to be removed, and provides sufficient information to be biddable.			
2. Existing hazardous materials to be disturbed or removed: <ul style="list-style-type: none"> a. Are identified and located on the drawings b. Levels of contamination are provided c. Existing surveys, inspection reports are included. 			
3. Contract identifies hazardous materials such as lead paint, asbestos, PCB, etc.			
4. Contract adequately addresses hazardous materials control, handling, disposal and record-keeping.			

Other	OK	Needs Correction	N/A
1. Specification or RFP is based on most recent guide specs guidance.			
2. Contract includes adequate training of PW/ activity personnel.			
3. Contract includes adequate provisions for start-up, testing, and turnover of mechanical and electrical equipment.			
4. Specialized construction required: <ul style="list-style-type: none"> a. Elevators or other weight handling equipment b. Boilers, c. Specialized coatings. 			
5. Contract includes testing requirements for specialized construction that meet certification requirements.			
6. Contract includes/or has requirement to include safe and adequate access for equipment maintenance and repair once installed.			

Cross-Reference Check	OK	Needs Correction	N/A
1. Check major items of equipment and verify they are coordinated with contract drawings. Pay particular attention to horsepower ratings and voltage requirements.			
2. Verify that items specified "as indicated" or "where indicated" are in fact indicated on drawings.			
3. Verify that cross-referenced specification sections exist.			
4. Confirm no proprietary items are specified, or if they are, there is adequate justification and documentation.			

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Plan Check – Civil		OK	Needs Correction	N/A
1.	Verify that site plans with new underground utilities (power, telephone, water, sewer, gas, storm drains, fuel lines, grease traps, fuel tanks) have been checked for interferences.			
2.	Verify existing telephone poles, pole guys, street signs, drainage inlets, valve boxes, manhole castings, etc., do not interfere with new driveways, sidewalks, or other site improvements on architectural site plans.			
3.	Verify that limits of clearing, grading, sod, grass or mulch are shown and are consistent with architectural or landscaping plans.			
4.	Verify fire hydrant and street light pole locations against electrical and architectural.			
5.	Verify profile sheets show other underground utilities and avoid conflicts.			
6.	Verify horizontal distances between drainage structures and manholes match with respect to scaled drawings and stated dimensions on both plan and profile sheets.			
7.	Verify provisions have been included for adjusting valve box and manhole castings (sewer, power, telephone, and drainage) to match final or finish grade of pavement, swales, or sidewalks.			
8.	Verify existing and proposed grades are shown.			

Plan Check – Structural		YES	Needs Correction	N/A
1.	Verify column lines on structural and architectural.			
2.	Verify all column locations are same on structural and architectural.			
3.	Verify perimeter slab on structural matches architectural.			
4.	Verify all depressed or raises slabs are indicated.			
5.	Verify slab elevations against architectural.			
6.	Verify all foundation piers are identified.			
7.	Verify all foundation beams are identified.			
8.	Verify roof framing plan column lines against foundation plan column lines.			
9.	Verify perimeter roofline against architectural roof plan.			
10.	Verify all columns and beams are listed in column and beam schedules.			
11.	Verify length of all columns in column schedule.			
12.	Verify all sections and details are properly labeled.			

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13.	Verify expansion joint locations against architectural.			
14.	Verify dimensions.			
15.	Verify drawing notes do not conflict with specifications.			
16.	Ensure concrete slabs have an adequate placement schedule. If saw cutting of concrete is required, ensure "soft cut" technique is specified. Ensure that notes and/or details require re-entrant steel, outside corner steel, adequate embedment details, etc.			

Plan Check – Architectural		YES	Needs Correction	N/A
1.	Verify property line dimensions on-site survey plan against architectural.			
2.	Verify building is behind set back lines.			
3.	Verify all concrete columns and walls against structural.			
4.	Verify on-site plans that all existing and new work is clearly identified.			
5.	Verify building elevations against floor plans. Check rooflines, window and door openings, and expansion joints.			
6.	Verify building sections against elevations and plans. Check rooflines, windows and door locations.			
7.	Verify wall sections against architectural building sections and structural.			
8.	Verify masonry openings for windows and doors.			
9.	Verify expansion joints through building.			
10.	Verify partial floor plans against small scale floor plans.			
11.	Verify reflected ceiling plan against architectural floor plan to ensure no variance with rooms. Check ceiling materials against finish schedule, check light fixture layout against electrical, check ceiling diffusers/registers against mechanical, check all soffits and locations of vents.			
12.	Verify all room finish schedule information including room numbers, names of rooms, finishes and ceiling heights. Look for omissions, duplications, and inconsistencies.			
13.	Verify all door schedule information including sizes, types, labels, etc.			
14.	Verify all rated walls.			
15.	Verify dimensions.			
16.	Ensure that adequate details are provided for roofing. Ensure that roofing details and specifications are coordinated.			

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Plan Check – Mechanical & Plumbing		YES	Needs Correctio n	N/A
1.	Verify all new electrical, gas, water, sewer, etc. lines connect to existing.			
2.	Verify all plumbing fixture locations against architectural. Verify all plumbing fixtures against fixture schedule and/or specs.			
3.	Verify storm drain system against architectural roof plan. Verify pipes are sized and drains are connected and do not interfere with foundations. Verify wall chases are provided on architectural to conceal vertical piping.			
4.	Verify sanitary drain system pipes are sized and fixtures are connected.			
5.	Verify HVAC floor plans against architectural.			
6.	Verify sections are identical to architectural/structural.			
7.	Verify adequate ceiling height exists at worst case duct intersection.			
8.	Verify structural supports required for mechanical equipment are indicated on structural drawings.			
9.	Verify dampers indicated at smoke and fire walls.			
10.	Verify diffusers against architectural reflected ceiling plan.			
11.	Verify roof penetrations (ducts, fans, etc.) are indicated on roof plans.			
12.	Verify all ductwork is sized.			
13.	Verify all notes.			
14.	Verify all air conditioning units, heaters, and exhaust fans against architectural roof plans and mechanical schedules.			

Plan Check - Electrical		YES	Needs Correctio n	N/A
1.	Verify all plans are identical to architectural.			
2.	Verify all light fixtures against architectural reflected ceiling plan.			
3.	Verify all major pieces of equipment have electrical connections.			
4.	Verify location of panel boards and that they are indicated on the electrical riser diagram.			
5.	Verify all notes.			
6.	Verify there is sufficient space for all electrical panels to fit.			
7.	Verify electrical panels are not recessed in firewalls.			
8.	Verify electrical equipment locations are coordinated with site paving and grading.			

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Specialty Items		YES	Needs Correction	N/A
1.	Dewatering requirements properly specified.			
2.	Test piles properly specified.			
3.	Raised floor systems properly specified and drawn.			
4.	UPS system properly specified.			
5.	EMCS/DDC systems properly specified, proprietary specifications included if required.			
6.	Verify keying requirements.			
7.	For all plans ensure that Legends, Abbreviations and Notes are complete and accurate.			
8.	Ensure handicapped access is provided unless facility does not require it.			