

Concrete Pre-Construction Conference

1. WHAT is a pre-construction conference?

Prior to the start of a job, particularly a major project, a concrete pre-construction conference (sometimes referred to as a pre-pour meeting) should be held to define and allocate responsibilities of the entire construction team. It is imperative that all members of the team meet to establish the responsibilities of the ready-mix concrete supplier , owner, architect, structural engineer, general contractor, subcontractors, testing agencies and inspectors. This meeting should be held well in advance of the project to ensure there is sufficient time for all parties to be absolutely clear as to what their responsibilities will entail.

2. WHY have a pre-construction conference?

Every construction project brings together different companies, personnel and procedures, that may or may not have worked together before. Two jobs are never the same, even when working with the same companies, as personnel changes can realign the perceptions of individuals responsibilities. Pre-construction conferences are needed to sort out the details of how a job will be executed, identify the authorized contacts for various aspects, and what should be done if some things don't go as planned. In far too many cases, projects are started without a clear understanding of assigned responsibilities resulting in extra work, lost time and major expenses. In some cases a pre-construction conference could have prevented some, if not all these problems from occurring. Having this meeting serves to document the chain of responsibilities, which can be referenced when needed.

3. HOW to conduct pre-construction conferences.

The pre-construction conference agenda should contain the following to ensure that all details are addressed prior to concrete placement.

Purpose: To define and to allocate individual responsibilities of the concrete construction team.

Subjects: Pre-construction agenda, concrete mix designs, placement, inspection and testing.

Project Name and Location: Establish the project name and address.

Personnel to Attend: Contractor's project manager, owner's representative, concrete subcontractor and finisher foreperson, architect, engineer, testing lab supervisor, pumping contractor, concrete producer's quality control director, inspector and construction manager, if applicable, and anyone else with the need to know.

Minutes of the Meeting: Assign someone to take minutes and establish a distribution list.

Concrete Mix Design and Specifications: Have the concrete mix designs been approved? What's the approval process? Are there any special concrete performance requirements or conditions? Is site addition admixtures approved for use and who can authorize them?

Ordering Concrete and Scheduling Deliveries: Ensure that concrete delivery schedules are in place and are aligned with planned placing and finishing crew capacity. Establish the lead-time required to place concrete orders, especially for large placements or for special concrete, and establish links of communication for last minute postponements or cancellations. Establish who has the authority to place and to cancel concrete orders. Establish pump locations, truck staging areas and locations to wash out trucks if the contractor has made provision for ready-mix drivers to do so on site. Are there any roadway restrictions?

Plant Inspections/Certifications: Are plant inspections/certifications required for the project? Who will conduct the plant inspections and what nature of certification will be deemed acceptable?

- References:
1. Ready-mixed Concrete Quality Control Checklist, Quality Control Manual- Section 1 NRMCA, Silver Spring, MD
 2. Concrete Pre-Construction Checklist, Georgia Concrete and Products Association—1st edition.
 3. NRMCA-ASCC Checklist for the Concrete Pre-Construction Conference NRMCA, Silver Spring, MD
4. Best Practices Guidelines for Concrete Construction Chapter 4: Pre-Construction and Pre-Placement Meetings, OGCAVRMCAO, Mississauga, ON Canada.
5. Reviewed and revised 2016.

Job Inspections: Who is responsible for inspection of forms and rebar prior to concrete placement? Who is responsible for adequacy of sub grade preparation for concrete slabs on grade? Who is responsible for placement and consolidation of concrete? Who will ensure that proper methods of finishing and curing are employed? Which method of curing will be employed and for what time period? What's the minimum concrete strength requirement before form stripping? Will there be a formal form stripping report requirement? Is monitoring of curing and/or peak temperatures? Will there be any in-place strength testing? Who is responsible to authorize form removal? Where will field-cured concrete test specimens be stored and for what purpose will they be tested?

Sampling & Testing: What procedures will be followed for acceptance samples? What is the frequency for sampling and testing concrete? Will concrete be sampled as it is discharged from the truck mixer or at another location (end of the pump)? What tests will be performed? Who will conduct the testing and who will verify that the field technicians are certified? How many test cylinders/flexural beams will be made, how will they be cured and at what ages will they be tested? What procedure will be followed for non-conformance to specifications?

Acceptance & Rejection Responsibilities for Fresh Concrete: Who has the authority to add water or admixtures to the concrete on site? Who has the authority to reject concrete delivery? For what reasons can concrete be rejected? What are the tolerances for concrete slump, air content, unit weight and temperature? Establish re-test procedures for concrete prior to rejection.

Test Specimen Handling: How will cylinders/beams be stored at the test site? Who is required to provide the initial curing environment for the test specimens and how will controlled temperature and moisture be maintained and tracked? How will test specimens be transported to the test lab on weekends or non-work days and who will arrange for access onto the site? What curing procedure is used at the testing facility? Verify that the test specimens will be handled, transported and cured in accordance with CSA A23.2-3C or other applicable standards.

Report Distribution & Acceptance Criteria: Define the time frame for the report distribution and who will get copied of the test reports. CSA A23.1 mandates the immediate distribution of concrete test results to the designers, general contractor, concrete supplier, and concrete subcontractor as they are produced. What information will be on the reports and what will be the strength acceptance criteria? CSA A23.1? Has a 7- day data review been scheduled? Has a low strength investigation protocol been established?

Testing of In-Place Concrete: The meeting should address which situations will require further testing. How will the test results be evaluated, and by whom? Who will incur the cost of additional testing?

The aforementioned are just some of the issues that should be discussed at a pre-construction meeting. See the box below for additional suggestions of topics for discussion at these conferences.

Suggested Concrete Pre-Construction Conference Discussion Topics

- | | | |
|---|---|--|
| > Project Info & Schedule | > Finishing | > Quality Control/Assurance |
| > Project Participants | > Requirements for Finishes | > Report Distribution |
| > Construction sequence & processes | > Jointing | > Corrective Actions |
| > Base/subgrade construction & acceptance | > Curing & Sealing | > Test Specimen Storage transportation and testing |
| > Site access | > Protection of Concrete | > Acceptance/rejection of |
| > Power, lighting, water | > Hot & Cold Weather Concerns | > In-Place Concrete Strength evaluation |
| > Formwork and removal | > Concrete Materials & Mixtures | > Dispute resolution and cost assignment |
| > Placing concrete—equipment and procedures | > Specification requirements for concrete | > Jobsite environmental management |
| > Vapour retarders/barriers | > Jobsite adjustments | |
| | > Special Materials | |
| | > Ordering and Scheduling | |