

PARKING LOT PRE-CONSTRUCTION CHECKLIST



INTRODUCTION

This **Parking Lot Pre-Construction Checklist** was developed by the American Society of Concrete Contractors (ASCC) and the National Ready Mixed Concrete Association (NRMCA) to identify details of parking lot construction prior to the start of placement so that all impacted parties are aware of the issues related to the construction specification, equipment and schedules, responsible persons and jobsite safety. The presumption is that on larger projects the concrete construction team has been through a pre-construction conference and has addressed the pertinent items in the **NRMCA/ASCC Checklist for Concrete Pre-Construction Conference** and those items are excluded from this document. This document may be included in a broader preconstruction conference agenda.

This Checklist is not intended to be all inclusive of the items that need to be considered. Depending on a specific project, items regarding specification requirements, testing details, construction logistics and jobsite safety may need to be addressed in greater detail than outlined herein. Many of these items will be critical to the success of the project and should be discussed and agreed upon prior to the placement of concrete with appropriate notification to the owner and his representative.



Parking Lot Pre-Construction Checklist

A. Safety

1. Personal protective equipment required. Site safety person: _____
- First aid supplies
 - Providing and maintaining Safety Data Sheets (SDSs) at the jobsite
 - Safety Inspections
 - Safety meetings

B. Project Information

1. Project name: _____
2. Location: _____
3. Project start date: _____
4. Project completion date: _____

5. Project participants Contacts
- Owner _____
 - Architect _____
 - Civil/Geotechnical engineer _____
 - Construction manager
or General Contractor _____
 - Concrete contractor _____
 - Concrete producer _____
 - Admixture supplier _____
 - Concrete pumping contractor _____
 - Testing laboratory _____
- ACI Concrete Laboratory Testing Technician Grade I or II
- Equivalent _____

C. Concrete Materials and Required Mixture Proportioning (Mix Design)

1. Concrete Mixtures (Mixes)

Mix Designations	Mix Codes	Location/Function	Approximate Volumes

2. Mix Acceptance

i. Mixes approved Yes No

ii. Copies of the approved mixes to:

- Owner's Representative Yes No
- Architect Yes No
- Engineers Yes No
- General Contractor Yes No
- Concrete Contractor Yes No
- Concrete Pumping Contractor Yes No
- Concrete Finisher Yes No
- Testing Laboratory Yes No
- Inspection Agency Yes No

3. Pumped Concrete Yes No

4. Target Strength (PSI) Yes No Strength required _____psi at age _____

5. Water to Cement Ratio Yes No W/C Target _____

6. Concrete Batch Plant

a. Primary Plant: _____ Backup Plant: _____

b. NRMCA Plant Certification Required Yes No

c. Inspection Requirement

- Full Time
- Part Time
- Not Required

7. Other mix ingredients:

- Mid range water reducing admixture Yes No
- High range water reducing admixture Yes No
- Non-chloride accelerator Yes No
- Corrosion inhibitors Yes No
- Fly Ash ASTM Class C Yes No
- Fly Ash ASTM Class F Yes No
- GGBF Slag Yes No
- Silica fume Yes No
- Shrinkage reduction admixture Yes No
- Accelerator/Retarder Yes No
- Fibers Yes No
- Color Yes No
- Air Entrainment Yes No

Conventional _____% +/- _____%

Pumped _____% +/- _____%

Note: Batching all ingredient materials at the plant ensures the best quality control of concrete.

Jobsite modifications to a mixture must be communicated to the concrete producer and recorded.

D. Construction Process

1. Responsible for construction/acceptance of base/subgrade, compaction, elevation including buried utilities: _____
2. Placing Concrete: Equipment, procedures and subcontractors. List all that apply:
 - a. Placement _____
 - b. Method _____
3. Placement and Finishing

Area	Finish Sequence

Variances reference: Refer to the ASCC Guide for Surface Finish of Formed Concrete

4. Joint Layout
 - a. Review/verification of control/contraction, isolation, and construction joint layout plans
 - Jointing Plan provided Yes No
 - Engineered Plan Yes No
 - Contractor Supplied Yes No
 - Accepted and approved by _____
5. Reinforcement required Yes No
 - Position of reinforcement in slab _____
 - Method of supporting reinforcement at specified elevation _____
 - Termination at joints _____
 - Load transfer devices if required by design (e.g. dowel bars)
 - Type, size, and location _____
 - Check for specified alignment _____
6. Curing and Sealing
 - Methods _____
 - Curing periods _____
 - Temperature Control Yes No
 - Excessive evaporation control method _____
 - Other _____

- Responsibility for removing curing compounds for striping/sealer _____
- Sealers _____
 - o Types _____
 - o Locations _____

7. Materials permitted to adjust slump

- Water _____
- Mid-range water reducer _____
- High-range water reducer _____

a. Procedure to be followed and limitations that apply to jobsite slump adjustment (maximum amount, subsequent mixing, sampling of the load) _____

8. Project specification requirements for temperature

- a. Required temperature of concrete as delivered: Max _____°F Min _____°F
- b. Responsible person for requiring and approving special measures to meet concrete temperatures such as hot water, heated aggregate, cold water, ice, liquid nitrogen _____

9. Project specification requirements for concrete delivery time

- ASTM C 94
- Other _____

E. Ordering and Scheduling Concrete

1. Person(s) responsible for ordering concrete (concrete must be ordered by mixture (mix) code)

2. Minimum time notice required for go/no placements _____

3. Define large and specialty orders _____

4. Minimum notice required for large and specialty placements _____

5. Procedure for handling will call orders _____

6. Procedure for handling revised orders _____

7. Name(s) and phone number(s) of concrete producer, concrete contractor, and general contractor for last-minute cancellations _____

8. Person on jobsite responsible for reviewing delivery ticket prior to placement _____

9. Regular workday hours M_F are between _____ A.M. and _____ P.M. Other _____

a. Location of placement on site _____

b. Anticipated placement sizes _____ cubic yards

c. Minimum load size _____ cubic yards

d. Anticipated placement rates _____ cubic yards/hour

e. Approximate placements dates _____

f. Inclement weather plant capability _____

10. Concrete delivery

a. Directions to site _____

b. Traffic restrictions at or near the jobsite Yes No

Comments _____

c. Restrictions on entrance to or exits from jobsite Yes No

Comments _____

d. Other _____

Comments _____

11. Trucks:

a. Number of trucks _____

b. Type of trucks _____

c. Interval Schedule (Turnaround time) _____

F. Environmental Aspects

1. Environmentally sensitive areas around the project Yes No

Comments: _____

2. Responsibility for providing a concrete wash out area at the jobsite _____

3. Responsibility for clean up of the wash out area _____

4. Are spill response kits available on site? Yes No

Comments _____

5. On site emergency contact person _____

6. Responsibility for disposal of curing compounds _____

7. Other _____

G. Quality Control/Assurance

1. Accreditation requirements for laboratory _____

2. Certification requirements for testing personnel

Field personnel _____

Lab personnel _____

3. Advanced notice for scheduling testing personnel _____

4. Procedures for verification of specified requirements

Batch Records

Strength Tests

Other _____

H. Concrete Sampling and Testing Requirements

H.1 Concrete Sampling and Testing Requirements

1. Sampling frequency _____
2. Sampling location
 - Point of discharge as per ASTM C94
 - Point of placement, if specified
 Comments (agreement on sampling location) _____

3. Tests performed on each sample (Check each test required)
 - Slump
 - Temperature
 - Density (unit weight)
 - Air content
 - Compressive strength
 - Flexural strength
 - Other _____
4. Cylinder size for compressive strength test
 - 4x8 inch 6x12 inch
5. Beam size for flexural strength test
 - 6x6 inch Other _____
6. Number of cylinders per sample _____
 (hardened cylinder weight must be recorded on concrete strength reports)
7. Number of beams per sample _____
8. Number of cylinders to be cured _____ Field _____ Lab _____
9. At what ages are cylinders to be tested? _____
10. Are reserve cylinders required? Yes No How many? _____
11. Frequency of yield tests and compliance checks (three-load average of unit weight) _____
12. Distribution of reports _____

H.2 Test Cylinder Storage and Transportation

1. Initial curing (up to _____ hours)
 - Immersed in water-controlled temperature
 - Storage box-controlled temperature
 - Exposed to environment spaces - record daily minimum and maximum temperatures
2. Responsibility for providing cylinder storage box _____
Note: Refer to ACI 301
3. Responsibility for maintaining temperature in storage box after molding _____
4. Responsibility for final curing as per ASTM C31 _____
Note: Cylinders made and field-cured can be used to determine the time the structure is put in service.

H.3 Acceptance/Rejection of Fresh Concrete

1. Who has the authority to reject a concrete delivery? _____

Note: A second person may be designated as having the authority for FINAL rejection of a concrete delivery.

2. Criteria used to reject concrete

- Slump _____
- Air content _____
- Unit weight _____
- Temperature _____
- Time limit _____
- Other _____

3. Are re-tests allowed before rejection? Yes No

Procedure _____

H.4 Acceptance Criteria for Hardened Concrete

1. Review Acceptance Criteria

- ACI 330
- Project Specifications
- Other _____

I. Cracks

1. Define unacceptable cracks (see surface defects in tolerances) _____

2. Method of repair of unacceptable cracks _____

3. Responsibility for repair of unacceptable cracks _____

4. Sealing (Filling) Joints Yes No

 • Epoxy joint filler Yes No

 • Elastomeric sealant Yes No

 • Timing (review product directions and ACI Guidelines) _____

 • Depth of filling _____

 • Procedure - as per sealant manufacturer instruction.

J. Responsibility for protection of concrete slab before transferring to owner:

Notes: _____

Sketch:

The **National Ready Mixed Concrete Association (NRMCA)** is a trade association representing producers of ready mixed concrete and those companies that provide materials and support to the industry. The primary goal of NRMCA is to increase the professionalism of the industry. NRMCA provides its members with education, training, product promotion assistance, information on research and technology and representation before Congress and regulatory bodies.

The **American Society of Concrete Contractors (ASCC)** is a non-profit organization dedicated to enhancing the capabilities of those who build with concrete. Members of ASCC are concrete contractors, material suppliers, equipment manufacturers, and others involved in concrete and decorative concrete construction. ASCC provides a unified voice in the concrete construction industry, and offers many services including an extensive safety program, problem solving assistance, networking opportunities, and educational materials.



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