



STEVEN M. FULOP  
MAYOR OF JERSEY CITY

**CITY OF JERSEY CITY**  
OFFICE OF THE CONSTRUCTION CODE OFFICIAL

1 JACKSON SQUARE, 2<sup>nd</sup> FLOOR JERSEY CITY, NJ 07305  
P: 201 547 5055



RAYMOND MEYER  
Director

Visual inspection is the process of concrete surface examination to specify and illustrate various concrete conditions concrete might demonstrate during its life span. It helps to determine concrete deterioration at early stages which facilitates repair of concrete member before replacement is required.

**Table: Checklist for Visual Inspection of Concrete Structure**

Inspection Items	Description
Description of structure	<ul style="list-style-type: none"> <li><input type="checkbox"/> Name, location, type, and size</li> <li><input type="checkbox"/> Owner, project engineer, contractor, date of construction</li> <li><input type="checkbox"/> Photographs involve general view and a detailed close-up of the condition of an area</li> <li><input type="checkbox"/> Draw map-orientation showing the sunny and shady areas and the well and poorly drained regions.</li> </ul>
Nature of environmental and loading conditions	<p>Exposure of the structure to various environmental and loading conditions:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Arid, subtropical, marine, freshwater, industrial environment.</li> <li><input type="checkbox"/> Freezing and thawing, wetting and drying under a dry atmosphere.</li> <li><input type="checkbox"/> Chemical corrosion and attack: sulfates, acids, bases, chloride, gases</li> <li><input type="checkbox"/> Abrasion, erosion, cavitation, impact</li> <li><input type="checkbox"/> Electrical conductivity</li> <li><input type="checkbox"/> Deicing chemicals that contain chloride ions</li> <li><input type="checkbox"/> Heat from adjacent sources</li> </ul>
Drainage	<ul style="list-style-type: none"> <li><input type="checkbox"/> Flashing Joint, sealants, Weep holes, Contour Elevation of drains</li> </ul>
Loading conditions	<ul style="list-style-type: none"> <li><input type="checkbox"/> Dead</li> <li><input type="checkbox"/> Live</li> <li><input type="checkbox"/> Impact</li> <li><input type="checkbox"/> Vibration</li> <li><input type="checkbox"/> Traffic</li> <li><input type="checkbox"/> Seismic</li> <li><input type="checkbox"/> Other types of loads</li> </ul>



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Soils (foundation conditions)	<input type="checkbox"/> Expansive soil <input type="checkbox"/> Compressible soil (settlement) <input type="checkbox"/> Evidence of pumping
Distress indicators	<input type="checkbox"/> Cracking <input type="checkbox"/> Staining <input type="checkbox"/> Surface deposits and exudations <input type="checkbox"/> Leaking
Overall apparent alignment of structure	<input type="checkbox"/> Settlement <input type="checkbox"/> Deflection <input type="checkbox"/> Expansion and contraction.
General Condition of Concrete Surface	<input type="checkbox"/> Good <input type="checkbox"/> Satisfactory <input type="checkbox"/> Poor
Formed and finished concrete surfaces	<input type="checkbox"/> Smoothness <input type="checkbox"/> Bug-holes (surface air voids) <input type="checkbox"/> Sand streaks <input type="checkbox"/> Honeycomb <input type="checkbox"/> Soft areas <input type="checkbox"/> Cold joints <input type="checkbox"/> Staining
Cracking	<input type="checkbox"/> Location and frequency of cracks <input type="checkbox"/> Crack map <input type="checkbox"/> Crack width and pattern <input type="checkbox"/> Leaching
Scaling of concrete	<input type="checkbox"/> Type <input type="checkbox"/> Area <input type="checkbox"/> Depth
Spalls and pop-outs	<input type="checkbox"/> Number <input type="checkbox"/> Size <input type="checkbox"/> Depth <input type="checkbox"/> Type
Stains, efflorescence	
Exposed reinforcement	<input type="checkbox"/> Corrosion
Curling and warping	-
Erosion	<input type="checkbox"/> Abrasion, Cavitation



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Previous patching or other repair	-
Surface coatings/protective systems/linings/ toppings	<input type="checkbox"/> Type and thickness <input type="checkbox"/> Bond to concrete <input type="checkbox"/> Condition
Penetrating sealers	<input type="checkbox"/> Type <input type="checkbox"/> Effectiveness <input type="checkbox"/> Discoloration