

QC Precast Structural Concrete Checklist

Section 03.41.00

<p>Piece marks and identification tags on each precast member correspond to approved erection drawings and intended grid location before lifting.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> ✓ QC OPN NA </div>
<p>Bearing surfaces on both precast units and supporting structure are clean, level, and fully shimmed with steel or grout to achieve uniform bearing within $\pm 1/8$ in tolerance.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> FTQ QC ✓ NA </div>
<p>Erected precast members meet specified alignment tolerances: plumb within 1/4 in per 20 ft and relative horizontal alignment within 1/2 in between adjacent pieces.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> FTQ ✓ OPN NA </div>
<p>Temporary erection bracing is installed to engineer-of-record design loads, anchored to approved points, and remains in place until permanent connections reach design strength.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> ✓ QC OPN NA </div>
<p>Field welded connections use specified electrode classification, weld size, and length; completed welds exhibit full throat, sound profile, and are visually accepted by qualified inspector.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> ✓ QC OPN NA </div>
<p>Bolted connections incorporate correct bolt grade, diameter, washers, and achieve required tension verified by calibrated torque wrench or DTI washers with results recorded.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> ✓ QC OPN NA </div>
<p>Grout pads, shear keys, and column pockets are filled with approved non-shrink grout after alignment and allowed to reach specified compressive strength before removal of temporary supports.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> FTQ ✓ OPN NA </div>
<p>Elastomeric bearing pads of specified durometer and thickness are positioned at designated locations and remain undisturbed after member seating.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> FTQ QC ✓ NA </div>
<p>Lifting inserts, anchors, and hardware are rated for member weight with safety factor, properly engaged during picks, and show no deformation or cracking after release of lifting load.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> ✓ QC OPN NA </div>
<p>Precast surfaces are free of spalls, cracks wider than hairline, or exposed reinforcement; any damage is repaired using approved procedures before erection continues.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> FTQ ✓ OPN NA </div>
<p>Embedded plates, weld plates, and threaded inserts are located within $\pm 1/4$ in of design coordinates and are free of rust, paint, or debris that would inhibit connection.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> ✓ QC OPN NA </div>
<p>Projecting dowels or reinforcement from precast elements provide full design development length and align with receiving grout sleeves or in-situ concrete pockets.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> FTQ QC ✓ NA </div>
<p>Joint gaps between adjacent precast members maintain specified width ($\pm 1/8$ in) and are sealed continuously with approved joint sealant to required depth and profile.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> FTQ QC ✓ NA </div>
<p>Fire-rated joints and penetrations in precast assemblies are completed with UL-listed firestopping systems matching required hourly rating and installed to manufacturer instructions.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> FTQ QC ✓ NA </div>
<p>Dissimilar metal connections incorporate specified galvanic isolation washers or coatings to prevent corrosion at interface.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> ✓ QC OPN NA </div>
<p>Post-erection survey documents vertical and horizontal position of precast structure; measured deviations are within allowable tolerance and recorded on as-built drawings.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> ✓ QC OPN NA </div>