

**MINIMUM QUALITY ASSURANCE TESTING REQUIREMENTS
COLD IN-PLACE RECYCLED (CIR)**

CIRQA/12 TEST	STANDARD	MINIMUM FREQUENCY	
SAMPLING & FORMING MARSHALL BRIQUETTES <ol style="list-style-type: none"> 1. Loose CIR Mix (Sampled by the Contractor) 2. 150 mm by 150 mm Slabs or 150 mm diameter cores (Obtained by Contractor) Stratified random locations provided by the Consultant. 	<p align="center">ATT-37</p> <p align="center">ATT-56</p> <p align="center">ATT-5</p>	<p align="center">Three per Lot</p> <p align="center">Each Lot</p> <p align="center">One per Segment</p>	<p align="center">Daily Compaction Report - CIR</p>
MATERIAL TESTING <ol style="list-style-type: none"> 1. Field formed Marshall briquettes (Performed by the Contractor) 2. CIR Mix Moisture Content (Determined by the Contractor) 3. Slab/Core Moisture Content (by Consultant) 4. Bulk Density of Marshall briquettes (Determined by the Contractor) 5. Bulk Density of Slab/Core Samples (by Consultant) 6. Percent Compaction of CIR Mat (Determined by the Consultant) 	<p align="center">ATT-13 75 blows at room temperature</p> <p align="center">ATT-15, Part II</p> <p align="center">ATT-15, Part II</p> <p align="center">ASTM D1188 ASTM D6752</p> <p align="center">ATT-67</p>	<p align="center">Each CIR Mix Sample</p> <p align="center">Each CIR mix sample</p> <p align="center">Each Core/Slab sample</p> <p align="center">Each formed specimen Each slab or core specimen</p> <p align="center">One per Segment</p>	<p align="center">QC Marshall densities and CIR mix moisture results are to be provided to the Consultant.</p> <p align="center">All QC and QA results to be reported on the Daily Compaction Report - CIR</p>
CIR SURFACE <ol style="list-style-type: none"> 1. Smoothness (Three metre straightedge to be provided by the Contractor) 		<p align="center">Check for surface deviations in excess of specification limits.</p>	
REPORTING <ol style="list-style-type: none"> 1. CIR Mix Designs 2. Daily Inspection Report 3. Densities, Percent Compaction and Moisture Contents. 	<p>Submit verified CIR mix designs to Project Sponsor and email to trans.constructqa@gov.ab.ca</p> <p>Completed by the Contractor as per section 3.56.6 Quality Control of Specification 3.56 Cold In-Place Recycling. Include as part of the Final Details submission.</p> <p>Complete Daily Compaction Report - CIR. Submit to Project Sponsor along with other construction weeklies. Email to Surface Engineering & Aggregates section at trans.constructqa@gov.ab.ca.</p>		