

# Asset Management

## State of Good Repair

# *FACILITIES*

## *Building Inspection Procedure*

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*This procedure includes information for the SGR Inspection of the RTD buildings and grounds.*

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**Intended Audience:**

SGR Inspectors

**Subject:**

Procedural guidelines for a complete building facility inspection

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## Inspection Teams

A **minimum of two** SGR Inspectors are required to perform a building inspection:

- For safety purposes.
- To maintain consistency in grading.
- To help keep inspectors calibrated to the standards.

**Note:** If something seems urgent, doesn't look right, sound right, smell right, or feel right, then questions should be asked of the facility contact person (or his delegate) who has the applicable expertise.

# Facilities Contacts

Prior to visiting a building facility, the designated contact person should be notified that SGR will be on property. The following is contact information corresponding to the various facilities.

**Contact Person:**

<b>Location</b>	<b>E-mail</b>	<b>Extension</b>
Blake Street	Richard.Rost@rtd-denver.com	X2995
Boulder & Longmont	Robert.Hamilton@rtd-denver.com	X5140
Denver Union Station	Clarence.Pauls@rtd-denver.com	X2732
District Shops	Richard.Juhl@rtd-denver.com	X3357
East Metro	Michael.Young@rtd-denver.com	X7140
Elati	William.Ferares@rtd-denver.com	X3833
Platte	Thomas.Sherrick@rtd-denver.com	X4180
Rio Court & Mariposa	Terry.Mosely@rtd-denver.com	X3868

# Tier I/Tier II Definitions and Lists

Buildings will be categorized as either Tier I or Tier II. Tier I buildings are those that are mission-critical and would impact service directly should a catastrophe occur. All buildings not classified as Tier I are classified Tier II. For example, maintenance facilities are Tier I, while office space is Tier II.

Tier I	Tier II
Boulder Commuter Rail Maint. Facility District Shops East Metro Elati Longmont Mariposa MOW Platte Rio Court	Blake Street Treasury Wellness Center

## SGR Master Condition Rating Definitions for RTD

This rating is based on how close an asset or component is to replacement or major overhaul. Scores will not have a greater granularity than a half point. An asset is in a State of Good Repair if the score is greater than (2.5). Refer to individual asset group Inspection Standards Document for confidence in reliability and specific examples.

### **Confidence in Reliability = Remaining Useful Life**

**5.0)** New or like new, 95% to 100% confidence in reliability; no visible defects, no damage, cosmetically looks new. An asset is only new once, after rebuild some old parts are not new and therefore the highest score after rebuild is (4.5).

**4.5)** The inspector is 90% to 95% confident in the reliability of the component / asset.

**4.0)** The inspector is 80% to 90% confident in the reliability of the component / asset. Shows minimal signs of wear, no major defects, and some minor defects with only minimal signs of deterioration.  
**Cosmetic defects/minor wear.**

**3.5)** The inspector is 70% to 80% confident in the reliability of the component / asset.

**3.0)** The inspector is 60% to 70% confident in the reliability of the component / asset. Some moderately defective or deteriorated components; expected maintenance needs. Cosmetically “fair” but all devices are functioning as designed.  
**Small repairs or minor refurbishment.**

**2.5)** The inspector is 50% to 60% confident in the reliability of the component / asset.

**2.0)** The inspector is 40% to 50% confident in the reliability of the component / asset. Asset near overhaul or retirement, but in serviceable condition. Asset has increasing number of defects or deteriorated component(s).  
**Significant or multiple repairs needed.**

**1.5)** The inspector is 30% to 40% confident in the reliability of the component / asset.

**1.0)** The inspector is less than 30% confident in the reliability of the component / asset. Asset is in need of major repair or refurbishment, multiple minor defects or major defects. Evidence of corrosion may be apparent; major or numerous minor areas of damage or structural issues.  
**Safety concern, critical damage, close to or time for overhaul or replacement.**

**0)** Not safe to use, multiple major repairs or Asset set for disposal/retirement.

# Condition Inspection Procedure

## Building Roof

<b>Task Number</b>	<b>Equipment</b>	<b>Task</b>
SGR4001	<b>Roof/Mechanical</b>	<p>HVAC - Inspect unit for any visible damage, leaks, or excessive corrosion.</p> <p>Inspect any roof-mounted building structures including storage and workshop areas.</p> <p>Exhaust fans – Look/listen for damage &amp; weather related plenum deterioration.</p> <p>If equipped, look for missing parts &amp; listen for strange noises coming from the methane evacuation pumps.</p> <p>Inspect any plumbing &amp; drainage for damage, leaks, or missing components including strainers.</p> <p>Check skylights for hail damage and boiler flues for damage &amp; proper anchoring.</p> <p>Inspect all electrical components including conduit, boxes, solar panels and mountings, lightning arresters &amp; cabling, for any damage, wire chaffing, loose or corroded connections.</p>
SGR4002	<b>Roof/Structural</b>	<p>Inspect stem walls &amp; walls for missing flashing, broken brick, crumbling concrete or other physical damage.</p> <p>Check ladders, catwalks and stairs for damage, corrosion and insecure mounting.</p>

SGR4003	<b>Roof/Surfaces</b>	<p>Inspect exposed rubber membrane for indications of having been breached.</p> <p>Look for missing or crumbling roof tiles &amp; uneven pea gravel distribution.</p> <p>Check flashing &amp; hardware for damage, and painted or coated surfaces for needing renewed.</p> <p>Check for broken or missing roof tiles. Look for excessive vegetation growing in the cracks.</p>
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# Building Shell

SGR4004	<b>Building Shell/ Mechanical</b>	<p>Inspect down spouts &amp; electrical conduit &amp; boxes for impact damage or missing parts.</p> <p>Look at exterior lighting for secure mounting.</p> <p>View the roll-up doors for being out of their tracks and for worn/tattered bottom edges.</p> <p>Check for broken windows and any damaged/corroded plumbing.</p>
SGR4005	<b>Building Shell/ Structural</b>	<p>Inspect walls for crumbling &amp; severe cracking.</p> <p>Look at foundations, columns, and pillars for deterioration and indications of shifting or settling.</p>
SGR4006	<b>Building Shell/ Surfaces</b>	<p>Inspect paint, coatings, siding, concrete or masonry for deterioration.</p>

## Parking Lots

SGR4007	<b>Parking Lots/ Mechanical</b>	<p>Inspect lighting for lamp heads that are damaged and poles that are badly corroded, have fallen, or are leaning.</p> <p>Look for physical damage to plumbing, electrical conduit and boxes.</p>
SGR4008	<b>Parking Lots/ Structural</b>	<p>Inspect concrete for severe settling/cracking &amp; curbs for damage.</p> <p>Visually inspect parking blocks for dislocation and Ballard posts for vehicle damage.</p>
SGR4009	<b>Parking Lots/ Surfaces</b>	<p>Check the asphalt surfaces for pot holes, wide cracks &amp; “alligating”.</p> <p>Note the striping and handicap parking indicators’ condition.</p>

## Grounds & Landscape

SGR4010	<b>Grounds &amp; Landscape/ Mechanical</b>	<p>Inspect gates for secure mounting, vehicle damage, &amp; missing hardware or damaged wheels on roller gates.</p> <p>Look at the picnic tables &amp; benches for being intact &amp; secure.</p> <p>Check lighting fixtures and poles for damage.</p> <p>Note any damage or corrosion to conduit &amp; electrical boxes.</p> <p>Inspect plumbing for corrosion &amp; indications of leaks.</p> <p>Look for missing or crushed sprinkler heads.</p>
SGR4011	<b>Grounds &amp; Landscape/ Structural</b>	<p>Inspect fencing for bent &amp; insecure posts or piping, &amp; distorted chain link.</p> <p>Note damaged curbing.</p> <p>Look at the sidewalks for cracking, heaving, &amp; settling or other potential tripping hazards.</p> <p>Check for ineffective landscape drainage.</p>
SGR4012	<b>Grounds &amp; Landscape/ Surfaces</b>	<p>Look around for large areas of dying grass and weed overgrowth.</p> <p>See that there is adequate mulch coverage that is fairly evenly distributed.</p> <p>Note any damaged, dead, or dying trees &amp; shrubbery.</p> <p>Check any painted or coated surfaces for fading, peeling or otherwise in need of repair.</p>

## Vehicle Wash Bay & Fuel Island

SGR4013	<b>Vehicle Wash Bay &amp; Fuel Island/Mechanical</b>	<p>Visually inspect electrical boxes, plumbing, chemical tanks, wash components, fuel dispensers, &amp; vacuum systems for obvious signs of damage, wear, or disrepair.</p> <p>Inspect lighting fixtures for proper mounting/suspension.</p> <p>Check roll-up doors for frayed edges &amp; being out of their tracks.</p> <p>Look at ventilation ducting for damage or joint separation.</p> <p>Drains should have strainers on them &amp; not clogged.</p> <p>Check vehicle lifts for damage or missing parts.</p> <p>Note the clarity &amp; legibility of the area's signage.</p>
SGR4014	<b>Vehicle Wash Bay &amp; Fuel Island/Structural</b>	<p>Inspect walls, columns, &amp; pillars for cracking, crumbling or corrosion.</p> <p>View the foundation &amp; floors. Note any signs of shifting, heaving, or settling.</p>
SGR4015	<b>Vehicle Wash Bay &amp; Fuel Island/Surfaces</b>	<p>Inspect paint and coatings for peeling, &amp; for missing/damaged wall tiles.</p> <p>Ensure that the floor grates are not damaged.</p>

## Parking Garage

SGR4016	<b>Parking Garage/ Mechanical</b>	<p>Inspect electrical conduit, boxes and fixtures for damage or insecure mounting.</p> <p>Look at plumbing, supply and drainage, for damage or corrosion. Check for damaged or separated ventilation ducts.</p> <p>Man doors should be square in their frames and hardware, tight.</p>
SGR4017	<b>Parking Garage/ Structural</b>	<p>Inspect walls for major cracks or other indications of shifting.</p> <p>Look for signs of settling floors such as gaps along walls and curbing, or cracks that pose a tripping hazard.</p> <p>Check foundations, columns and pillars for concrete deterioration, vehicle damage, or signs of movement.</p>
SGR4018	<b>Parking Garage/ Surfaces</b>	<p>Inspect painted and epoxy coated surfaces for peeling.</p> <p>Concrete flooring should be relatively smooth and free from large areas of spalling (the crumbling or deterioration of the top finished surface due to wear, weathering, excessive pressure, or all of the above).</p>

## Admin Offices & Break Room

SGR4019	<b>Admin. Offices &amp; Break Room/ Mechanical</b>	<p>Do a brief visual check on the lighting fixtures, exposed electrical conduit and boxes.</p> <p>Look for signs of leaking plumbing.</p> <p>Doors should be square in their frames and windows free from broken panes.</p> <p>Ask occupants about any known problems in their area that we should be aware of.</p>
SGR4020	<b>Admin. Offices &amp; Break Room/ Structural</b>	<p>Inspect walls for water damage.</p> <p>Notice if the floors feel uneven or not level.</p> <p>Stairs should feel solid and if made of concrete, not crumbling or have any trip hazards.</p> <p>Look at the foundations that may be exposed for shifting or settling.</p>
SGR4021	<b>Admin. Offices &amp; Break Room/ Surfaces</b>	<p>Inspect floor tiles and carpeting for severe wear and tear.</p> <p>Look at drywall and ceiling tiles for crumbling or signs of water damage that could be from leaking plumbing or storm water.</p> <p>Note paint and other coatings that are in need of renewal.</p>

## Maintenance Shop

SGR4022	<b>Maintenance Shop/ Mechanical</b>	<p>Inspect electrical conduit, fixtures and boxes for physical damage &amp; corrosion.</p> <p>Look for damaged or leaking plumbing.</p> <p>Doors are to be square in their frames &amp; hardware, tight.</p> <p>Check ventilation ducts for distortion and separation.</p> <p>Drains need to be intact and unobstructed.</p> <p>Vehicle lifts should show none-to-minimal signs of hydraulic leakage or other damage.</p>
SGR4023	<b>Maintenance Shop/ Structural</b>	<p>Inspect walls for major cracks or other indications of shifting.</p> <p>Look for signs of settling floors such as gaps along walls and curbing, or cracks that pose a tripping hazard.</p> <p>Check foundations, columns and pillars for concrete deterioration, vehicle damage, or signs of movement.</p> <p>Look for indications of water leaking from the ceiling</p>
SGR4024	<b>Maintenance Shop/ Surfaces</b>	<p>Note paint and epoxy coatings that are in need of renewal.</p> <p>Concrete flooring should be relatively smooth and free from large areas of spalling.</p>

## Storeroom & Parts Storage

SGR4025	<b>Storeroom &amp; Parts Storage/ Mechanical</b>	<p>Inspect electrical conduit, fixtures and boxes for physical damage &amp; corrosion.</p> <p>Look for damaged or leaking plumbing.</p> <p>Doors are to be square in their frames &amp; hardware, tight.</p> <p>Check ventilation ducts for distortion and separation.</p> <p>Drains need to be intact and unobstructed.</p>
SGR4026	<b>Storeroom &amp; Parts Storage/ Structural</b>	<p>Inspect walls for major cracks or other indications of shifting.</p> <p>Look for signs of settling floors such as gaps along walls and curbing, or cracks that pose a tripping hazard.</p> <p>Check foundations, columns and pillars for concrete deterioration, damage from fork lifts, or signs of movement.</p> <p>Look for indications of water leaking from the ceiling.</p>
SGR4027	<b>Storeroom &amp; Parts Storage/ Surfaces</b>	<p>Note paint and epoxy coatings that are in need of renewal.</p> <p>Concrete flooring should be relatively smooth and free from large areas of spalling.</p>

## Stairs & Stairways

SGR4028	<b>Stairs &amp; Stairways/ Mechanical</b>	<p>Inspect electrical conduit, fixtures and boxes for damage or corrosion.</p> <p>Note any plumbing that is damaged or leaking in stairwell areas.</p> <p>Doors need to be square in their frames and hardware, tight.</p> <p>Check ventilation ducts for distortion and separation.</p> <p>Drains need to be intact and unobstructed.</p>
SGR4029	<b>Stairs &amp; Stairways/ Structural</b>	<p>Inspect stairwell walls for major cracking.</p> <p>Steps should not shift under load or pose any tripping hazards.</p> <p>Framework of metal stairs needs to be solid with no broken welds or severe corrosion.</p> <p>Handrails used in stairways need to be solidly mounted and present no sharp edges.</p>
SGR4030	<b>Stairs &amp; Stairways/ Surfaces</b>	<p>Note paint and glazed coatings that are in need of renewal.</p> <p>Check for excessively worn carpet, floor tiling, or traction strips.</p> <p>Look for perturbances on the surface that may cause a tripping hazard.</p>