

# SUSTAINABILITY RATING SYSTEMS ★ ★ ★ ★

Tools to encourage sustainable practices and communicate benefits

## CASE STUDIES

**Sustainability Rating Systems (SRS)** are checklists of sustainable practices with common metrics. Although not the primary focus of SRS, sustainable pavement practices can contribute to the overall score earned by a project. A [recent case study](#) featured three agencies who used SRS to improve the sustainability performance of major construction projects.

### INVEST: GEORGE V. VOINOVICH EASTBOUND BRIDGE



#### Cleveland, Ohio

The Ohio Department of Transportation (DOT) used its [Infrastructure Voluntary Evaluation Sustainability Tool](#), or **INVEST** – an SRS for surface transportation including planning, development, operation, and maintenance of projects – to measure, track, and improve the sustainability performance of the George V. Voinovich Eastbound Bridge project.

- \$273 million design-build project, certified in 2015
- Removal of existing innerbelt bridge and construction of a 3,900-ft long, five-lane steel delta-girder bridge, retaining walls, city street improvements, and a bicycle trail
- Social considerations: pedestrian and bicycle access, scenic/recreational qualities

39 out of 58 possible pavement-related SRS points achieved



**100%** of demolished old innerbelt bridge reused or recycled



**>20%** reclaimed asphalt pavement (RAP) content in recycled materials used



**2,388 tons** of rebar steel reused



**13,044 tons** of concrete reused

### GREENROADS: NORTHEAST 120TH STREET EXTENSION



#### Kirkland, Washington

The City of Kirkland's 120th Street extension project was certified by the [Greenroads](#) Rating System, an SRS for roadway design and construction.

- \$6.7 million project, certified in 2014
- 44-ft wide, 880-ft long asphalt pavement, bicycle lanes in each direction, 6 bioretention units, 270,000-gal stormwater detention vault
- Social considerations: noise mitigation, light pollution reduction, pedestrian and bicycle access, water use tracking

23 out of 53 possible pavement-related SRS points achieved



**40-year** pavement design life selected to reduce life-cycle costs



**100%** of existing hardscape and asphalt parking lot materials reused



**378 tons** of RAP incorporated into new asphalt pavement



WMA with **20% RAP** used for asphalt roadway

### ENVISION: I-4 ULTIMATE PROJECT



#### Central Florida

The Florida DOT's I-4 Ultimate project was certified by the [Envision](#) Rating System, an SRS for civil infrastructure and roads.

- \$2.3 billion public-private partnership project, certified in 2017 (estimated construction completion: 2021)
- 21-mile long section, including general-use travel lanes and four additional lanes and reconstruction of 15 major interchanges
- Widened 13 existing bridges, reconstructed 74 bridges, and added 53 new bridges
- Social considerations: noise mitigation, light pollution reduction, encouragement of alternative transportation modes, preservation of historical and cultural elements, and enhancement of public space

143 out of 247 possible pavement-related SRS points achieved



**95%** of waste diverted from landfills



**598,000 tons** of asphalt reused as RAP and road base



**550,000 yd<sup>2</sup>** of existing concrete pavement reused



**150,000 yd<sup>3</sup>** of other concrete items reused