

LEFT
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Appendix I:
**SUSTAINABILITY
EVALUATION OF
ENHANCED
MULTI-USE
CORRIDOR PLAN**



Sustainability Evaluation of Enhanced Multi-Use Corridor plan

November, 2017

On November 27, 2017, a sustainability review of the Enhanced Multi-Use Corridor Plan was completed by a team made up of City staff from the Public Works & and Natural Resources Department and the Development Services Department. Module 1 of the Sustainability Evaluation System (SES) developed by Public Works & Natural Resources (PW& NR) was used for the review. The City's Sustainability Plan promotes use of the SES to evaluate the sustainability aspects of projects. The SES is a tool that provides a structured way to address social, environmental, and economic considerations in order to help make more informed and transparent decisions about plans, projects or programs. The SES helps users apply interdisciplinary thinking across sustainability-related topic areas, and consider important questions that might otherwise be overlooked. The SES is intended to be used as early possible in a project so that sustainability can be integrated into decisions from the beginning to avoid having to mitigate a project or decision after the fact.

The SES is meant to be used by a multi-disciplinary team, if possible. The team members for the review of the Enhanced Multi-Use Corridor plan were:

Erin Fosdick, Senior Planner (Planning and Development Services)
Phil Greenwald, Transportation Planner (Planning and Development Services)
Kathy Kron, Parks Planner (PW&NR)
Tyler Stamey, Traffic Systems Manager (PW&NR)
Micah Zogorski, Senior Civil Engineer, Streets & Drainage (PW&NR)

The review was led and facilitated by Cal Youngberg, Environmental Services Manager and Lisa Knoblauch, Sustainability Coordinator (PW&NR).

Background: Many projects, programs and plans can benefit from a sustainability analysis. The Enhanced Multi-Use Corridor plan and the projects that are included in it involve many aspects of sustainability.

The SES is made up of two modules. **Module 1** guides reviewers through sustainability categories and topics to determine which topics are applicable to the project, plan or program under review. **Module 2** lets the review team rate alternatives using the topics in Module 1 that were determined to be applicable.

The categories and topics in the SES are as follows (categories are shown in **bold**):

Best Practices (Organizational)

- Alignment
- Integration
- Partnerships
- Stakeholder engagement

Best Practices (Assets and Infrastructure)

- Adaptability
- Commissioning
- Ongoing monitoring & evaluation
- Long-term maintenance and repair
- Reliability
- Infrastructure Resilience

Best Practices (Financial)

- Debt ratios
- Funding of capital costs
- Operations & Maintenance (O&M) cost recovery
- Rate impacts

Buildings and Infrastructure

- Accessibility
- Ambient light and noise
- Cultural and historic preservation
- Development footprint
- Floodplain protection
- Heat island effect
- Housing options
- Indoor air quality
- Infill or redevelopment
- Low impact development (LID)
- Public spaces
- Scale and massing
- Site compatibility
- Vegetation
- Wayfinding

Energy

- Alternative fuels
- Energy efficiency
- Renewable energy
- Embodied energy

Transportation

- Bicyclists and pedestrians
- Freight delivery systems
- Level of service

- Parking
- Transit
- Vehicle miles traveled (VMT)

Community and Individual Well-being

- Arts and culture
- Crime and law enforcement
- Diversity and rights
- Education
- Environmental justice
- Food and nutrition
- Hazard mitigation
- Health and human services
- Safety features
- Sense of community

Economic Vitality

- Business development
- Affordable housing
- Jobs
- Local commodities and services
- Economic Resilience

Materials and Waste

- Deconstruction/reuse
- Environmentally responsible materials
- Waste

Natural Environment

- Agricultural lands
- Air quality
- Aquatic habitat
- Climate adaptation
- Ecological connectivity
- Natural floodplains
- Greenhouse gas emissions (GHG)
- Tree Canopy
- Wildlife and habitat

Water Resources

- Irrigation efficiency
- Water conservation
- Water source protection
- Water management

Water Quality

- Watershed health
- Pollution control
- Stormwater management

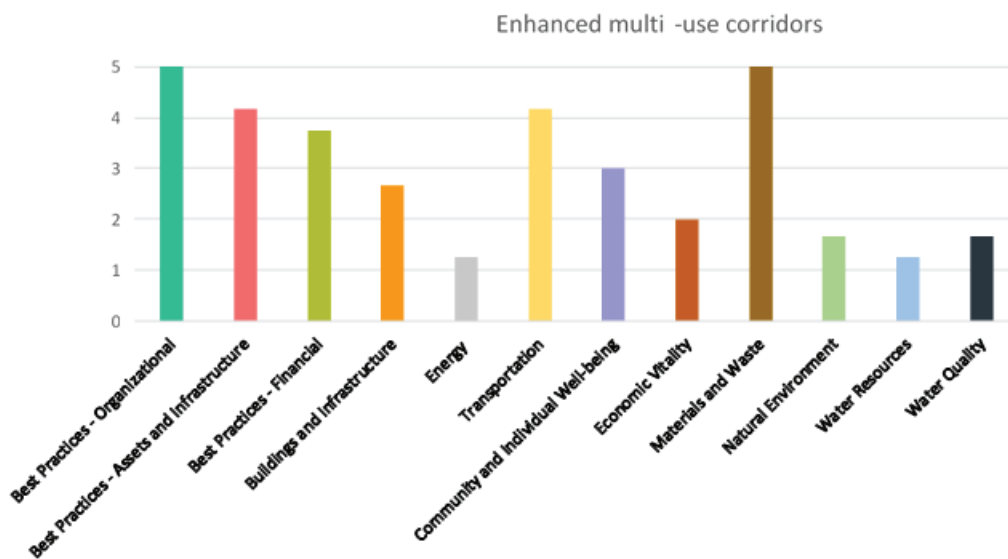
The review team decided that at this point in the project a review using Module 1 was appropriate in order to identify what sustainability aspects of the Enhanced Multi-Use Corridor plan would be carried

through to evaluation of alternatives or prioritization of corridors as funding for the projects identified in Module 2 could then be applied to specific projects or scenarios to rate their sustainability

The SES and the categories in Module 1 support the goals and policies in the Envision Longmont plan and the Sustainability Plan. The results for the team ratings of Module 1 are shown graphically below. These indicate the relative importance of the categories on a scale of 1 (lowest) to 5 (highest). The scores are based on the number of topics in each category that were considered to be applicable. Note that a lower rating for a category does not mean that it is unimportant, just that less topics in that category were found to be applicable to the project. If a topic was determined to be “not applicable” or “unknown” the reasons were documented in the comment fields in the SES. There were also some comments and observations for topics deemed to be “applicable” and those were also recorded in the SES. The comments are listed below, following the summary of Module 1 results.

Module 1 Results:

	Raw Score
Best Practices - Organizational	5.0
Best Practices - Assets and Infrastructure	4.2
Best Practices - Financial	3.8
Buildings and Infrastructure	2.7
Energy	1.3
Transportation	4.2
Community and Individual Well-being	3.0
Economic Vitality	2.0
Materials and Waste	5.0
Natural Environment	1.7
Water Resources	1.3
Water Quality	1.7
Total (Out of 5)	3.0



Review comments

A list of all of the topics, the designation of whether the topic’s relationship to the project was applicable, not applicable or unknown and the comments and observations from the review team that would inform further review of the topic(s) are shown in the following table. If a topic was judged to be “not applicable” or “unknown” the SES requires that a reason for the response be provided. The reasons or explanations are in the comments and observations.

Best Practices - Organizational

TOPIC	RESPONSE (Applicability)	COMMENTS AND OBSERVATIONS
Alignment	Yes	None
Integration	Yes	None
Partnerships	Yes	None
Stakeholder Engagement	Yes	None

Best Practices – Assets and Infrastructure

TOPIC	RESPONSE (Applicability)	COMMENTS AND OBSERVATIONS
Adaptability	Yes	
Commissioning	Unknown	Unsure how to measure and criteria not well defined
Ongoing monitoring & evaluation	Yes	Traffic volume, bicycle usage, accidents, maintenance requirements; criteria should be developed for measurement
Long-term maintenance and repair	Yes	
Reliability	Yes	
Infrastructure Resilience	Yes	Providing for alternate modes during adverse conditions; improve connections City-wide

Best Practices – Financial

TOPIC	RESPONSE (Applicability)	COMMENTS AND OBSERVATIONS
Debt ratios:	Yes	Funding sources not all identified
Funding of Capital Costs	Yes	
O&M Cost Recovery	Yes	

Rate impacts	Not Applicable	No identified rate impacts
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Buildings and Infrastructure

TOPIC	RESPONSE (Applicability)	COMMENTS AND OBSERVATIONS
Accessibility	Yes	The purpose of this project!
Ambient light and noise	Yes	
Cultural and historic preservation	Not Applicable	Project will be designed not to affect these resources
Development footprint	Yes	Intent is to stay within existing street footprint
Floodplain protection	Not Applicable	Project not in floodplain; may be connections to greenway in floodplain
Heat island effect	Not Applicable	No effect on increased pavement/temperature effects
Housing options	Yes	No effect on housing
Indoor air quality	Not Applicable	Project is all outdoors
Infill or redevelopment	Yes	Will coordinate with infill/redevelopment projects
Low impact development (LID)	Yes	
Public spaces	Yes	
Scale and massing	Not Applicable	No buildings involved
Site compatibility	Yes	
Vegetation	Yes	
Wayfinding	Yes	

Energy

TOPIC	RESPONSE (Applicability)	COMMENTS AND OBSERVATIONS
Alternative fuels	Not Applicable	No direct alternative fuel usage
Energy Efficiency	Not Applicable	No direct opportunities: LED lighting is part of city-wide replacement
Renewable Energy	Not Applicable	No opportunities
Embodied energy	Yes	Using existing infrastructure

Community and Individual Well-being

TOPIC	RESPONSE (Applicability)	COMMENTS AND OBSERVATIONS
Arts and culture	Yes	Potential identity improvements/cultural features
Crime and law enforcement	Not Applicable	Opportunities to use alternatives to underpasses
Diversity and rights	Yes	Transportation & recreation access and equity
Education	Yes	
Environmental justice	Yes	
Food and nutrition	Not Applicable	Evaluated grocery locations; consider destinations (such as farmer's market and community gardens) and access
Hazard mitigation	Not Applicable	No effect on hazard mitigation
Health and human services	Not Applicable	Considered as part of corridor evaluation
Safety features	Yes	
Sense of community	Yes	

Economic Vitality

TOPIC	RESPONSE (Applicability)	COMMENTS AND OBSERVATIONS
Business development	Yes	Connections to commercial areas, increase traffic to businesses
Affordable housing	Not Applicable	No direct effect resulting from project
Jobs	Not Applicable	No direct effect resulting from project
Economic resilience	Not Applicable	No effect resulting from project
Local commodities and services	Yes	Possibility for contracted maintenance, use of local materials

Materials and Waste

TOPIC	RESPONSE (Applicability)	COMMENTS AND OBSERVATIONS
Deconstruction /reuse	Yes	
Environmentally responsible materials	Yes	
Waste	Yes	Possible waste minimization opportunities in future

Natural Environment

Topic	RESPONSE (Applicability)	COMMENTS AND OBSERVATIONS
Agricultural lands	Not Applicable	Project not in ag land areas
Air quality	Yes	
Aquatic habitat	Not Applicable	No proximity to or effect on aquatic habitat
Climate adaptation	Not Applicable	Minimal impact, but could reduce VMT, increase in landscaping could affect GHG emissions
Ecological connectivity	Not Applicable	No effect
Natural floodplains	Not Applicable	Not in floodplains
Greenhouse gas emissions (GHG)	Yes	
Tree Canopy	Yes	