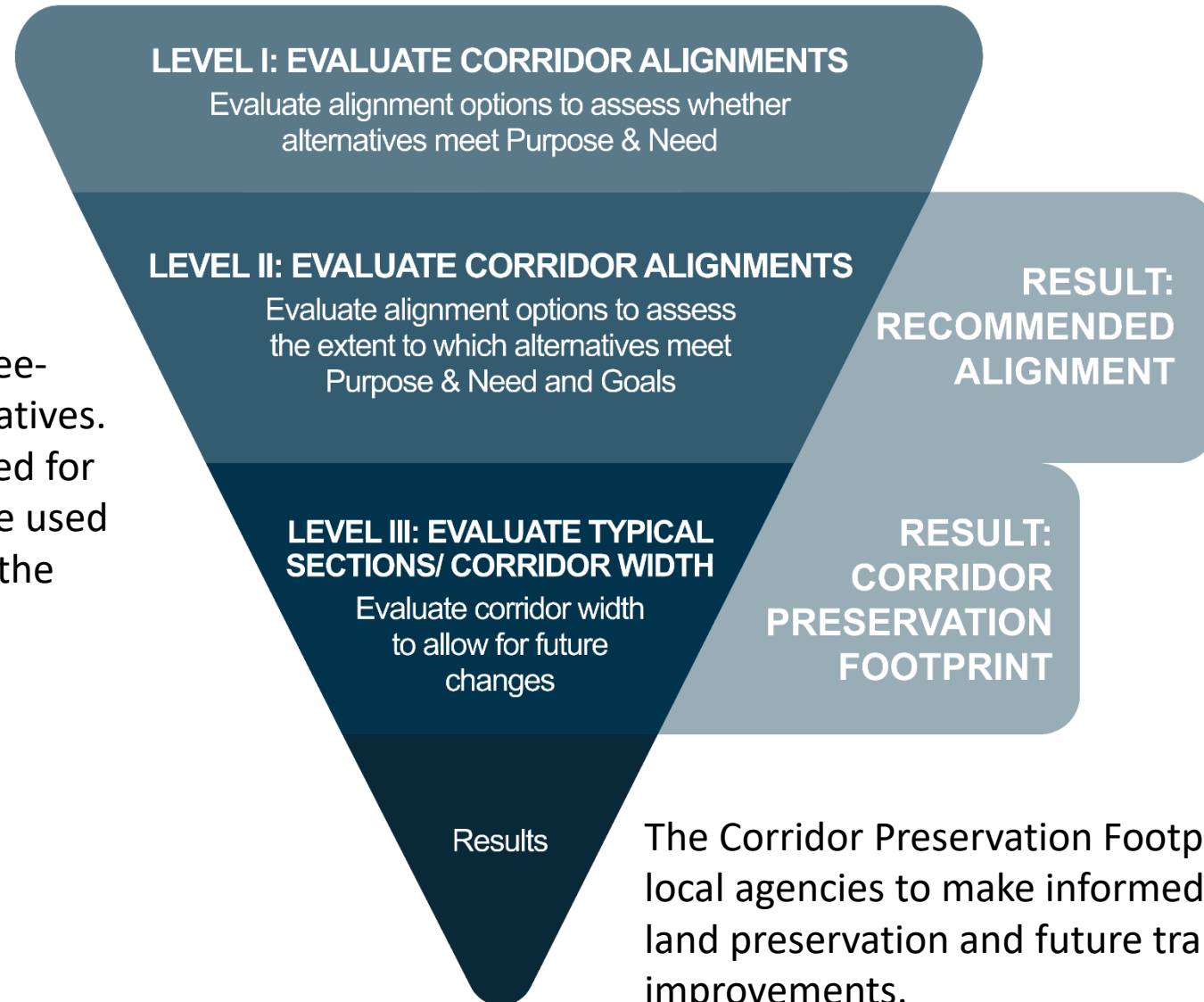


Alternative Analysis Process

The Study Team developed a three-tiered process to evaluate alternatives. Evaluation criteria were developed for each level of evaluation and were used to assess alternatives relative to the Purpose & Need and Goals.



The Corridor Preservation Footprint will allow state and local agencies to make informed decisions regarding land preservation and future transportation improvements.

Action Terminology

The following language was used to document the findings of the Level 1 and Level 2 analysis:

Level 1:

Carried Forward: Meets Purpose and Need, considered reasonable and feasible, and may be considered for further evaluation in this study or subsequent NEPA and Project development.

Eliminated: Does not meet Purpose and Need, has a fatal flaw, and/or is considered unreasonable. A project alternative that is Eliminated is removed from further consideration in the PEL Study.

Level 2:

Recommended: Considered reasonable and feasible and recommended for consideration as the Preferred Alternative during subsequent NEPA and project development.

Carried Forward: Considered reasonable and feasible and may be considered for further evaluation in this study or subsequent NEPA and project development

Not Recommended: Will not be evaluated further in this study due to comparatively negligible benefits and higher impacts than other alternatives, but may be studied further with subsequent NEPA and project development

Eliminated: Does not meet Purpose and Need, has a fatal flaw, and/or is considered unreasonable. A project alternative that is Eliminated is removed from further consideration in the PEL Study.

Alternatives Analysis: Level 1 - Alignments

The Level 1 evaluation assessed alternatives to identify those that meet Purpose & Need. The Level 1 evaluation was limited to qualitative or yes/no answers to these questions. Alternatives that met the Purpose & Need advanced to Level 2.

Category	Advance Local and Regional Mobility			Incorporate Multimodal Opportunities			Action	
Criteria	Mobility & Operations		Connectivity		Multimodal			Carried Forward
	Potential to Improve Travel Time for Adjacent Routes	Potential to Improve Mobility / Reduce Congestion	Military Rapid Deployment Route	Incident Management	Trail System Connectivity	Transit Opportunities	Freight Connectivity	
Performance Measures	Potential to Improve Travel Time for Adjacent Routes		Potential to Improve Mobility / Reduce Congestion		Potential to Improve Connectivity to Regional Destinations		Potential to Increase Multimodal Mobility	Eliminated
	Y/N	Y/N	Y/N		Y/N			
Alignment								
No Action	N	N	N		N			Carried Forward*
E2	Y	Y	Y		Y			Carried Forward
E3	Y	Y	Y		Y			Carried Forward
G1	Y	Y	Y		Y			Carried Forward
G2	Y	Y	Y		Y			Carried Forward
G3	Y	Y	Y		Y			Carried Forward
H1	Y	Y	Y		Y			Carried Forward
H2	Y	Y	Y		Y			Carried Forward
H3	Y	Y	Y		Y			Carried Forward
K	Y	Y	Y		Y			Carried Forward

Alternatives Analysis: Level 2 - Alignments

The Level II evaluation introduced detailed criteria to evaluate the project Needs and to assess how well the alternative met the project Goals. Each alternative was evaluated according to the established criteria shown in the table below. Alignments were compared against the No Action alternative and to each alignment. The alternatives with green cells represent a more favorable alternative, while the gray cells are neutral and orange less favorable.

Category	Advance Local and Regional Mobility			Incorporate Multimodal Opportunities			Accommodate Local and Regional Plans and Economic Growth	Corridor Preservation Footprint	Consider Impacts to Land Use and the Natural & Built Environment		Resiliency		Support Technology & Green Infrastructure	Action
	Criteria	Mobility & Operations	Connectivity		Multimodal			Local Agency Transportation and Development Plans	Landowners / Business Impacts / Neighborhoods	Social & Manmade Resources	Natural Resources	Redundancy	Regional Threats Fire, Flood, Etc.	
Military Rapid Deployment Route			Incident Management	Trail System Connectivity	Transit Opportunities	Freight Connectivity								
No Action	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Gray	Green	Orange	Green	Orange	Eliminated
E2	Green	Orange	Green	Green	Orange	Green	Gray	Gray	Orange	Green	Gray	Green	Green	Carried Forward
E3	Green	Orange	Green	Green	Green	Green	Gray	Gray	Green	Green	Gray	Green	Green	Recommended
G1	Gray	Green	Green	Orange	Gray	Green	Orange	Gray	Orange	Gray	Gray	Gray	Gray	Not Recommended
G2	Gray	Green	Green	Green	Gray	Green	Gray	Green	Green	Orange	Gray	Orange	Gray	Carried Forward
G3	Gray	Green	Green	Green	Gray	Green	Gray	Green	Gray	Gray	Gray	Gray	Gray	Carried Forward
H1	Green	Green	Green	Orange	Gray	Gray	Orange	Orange	Orange	Orange	Green	Gray	Green	Not Recommended
H2	Green	Green	Green	Green	Gray	Gray	Gray	Green	Gray	Gray	Green	Orange	Green	Carried Forward
H3	Green	Green	Green	Green	Gray	Gray	Gray	Green	Green	Gray	Green	Orange	Green	Recommended
K	Orange	Gray	Green	Green	Orange	Green	Orange	Orange	Green	Orange	Green	Orange	Green	Carried Forward

Alternatives Analysis: Level 3 – Typical Sections

In the final level of the alternatives analysis process, the Study Team evaluated several corridor widths to determine what future elements could be included without precluding potential future design ideas. Future corridor elements included multimodal infrastructure and connections, freight considerations, resiliency opportunities, and green infrastructure.

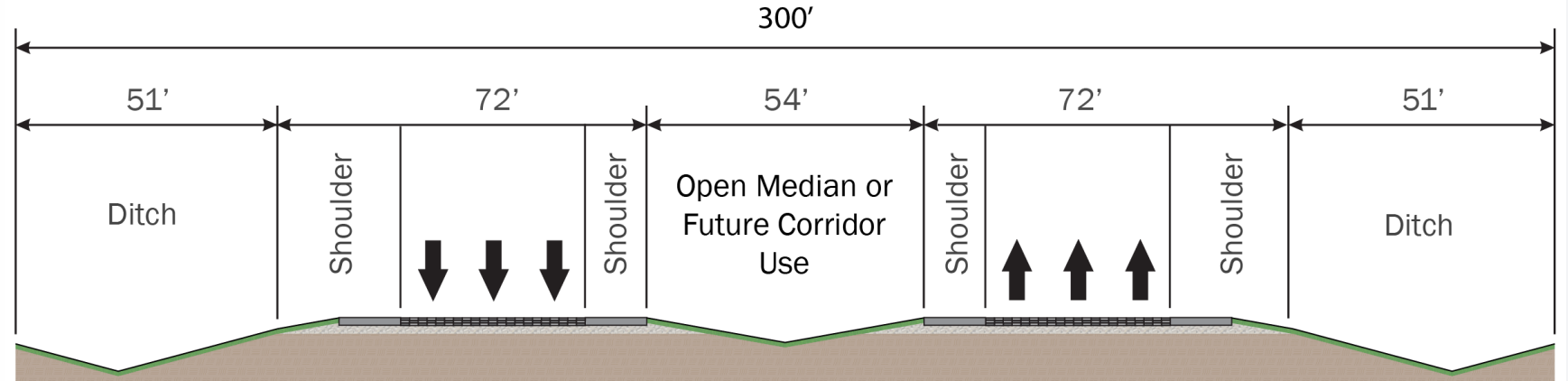
Each Typical Section alternative developed included the same basic elements, but the main difference was the amount of additional space available for potential corridor elements to be determined during final design.

Potential Corridor Elements

- Utility Corridor
- Multiuse Path
- Equestrian Trail
- Water Quality Detention Areas
- Pollinator Planting Areas
- Rail Line
- Managed Lanes
- Park-n-Ride Lots
- Bus Rapid Transit Lanes
- Wildlife Crossings
- Freight-only Lanes
- Future Technology

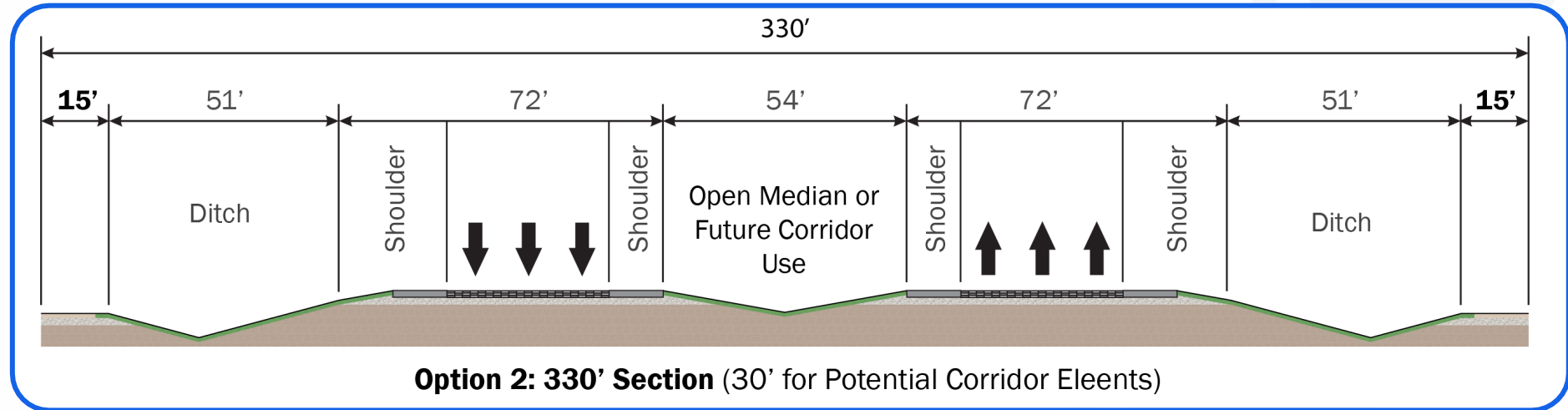
Typical Section/ Corridor Width Selection

Option 1 (300 feet): Includes spacing for 6-lane highway, with 12' shoulders, 54' median and ditches on either side, and resiliency elements.



Option 1: 300' Section (No Additions)

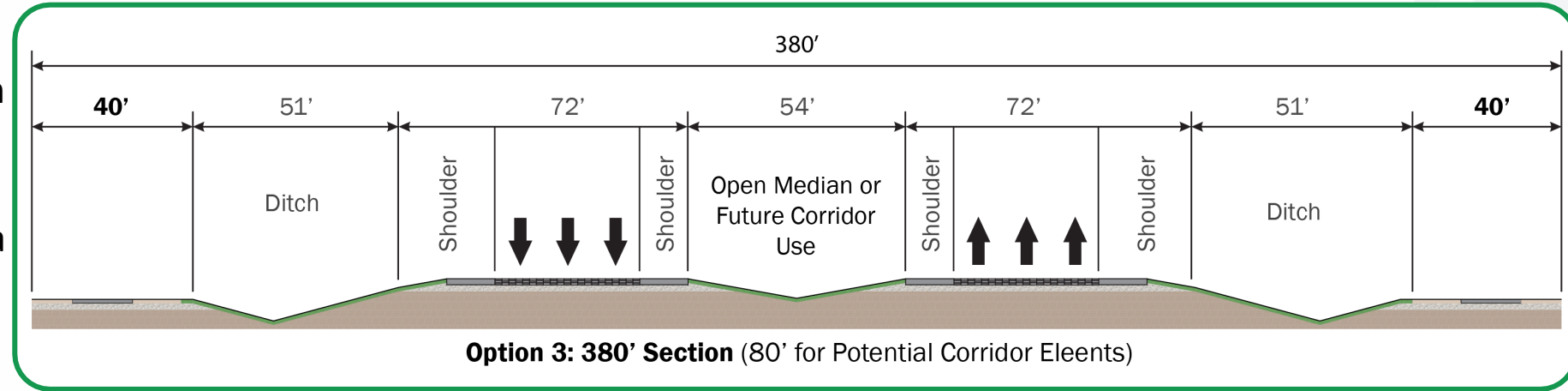
Option 2 (330 feet): Includes spacing for a 6-lane highway with median, 12' shoulders, two 12' multiuse paths (for bike and pedestrian use), ditches on either side, and resiliency elements.



Option 2: 330' Section (30' for Potential Corridor Elements)

Typical Section/ Corridor Width Selection

Option 3 (380 feet): Includes spacing for a 6-lane highway with median, 12' shoulders, two 30' multimodal paths, ditches on either side, resiliency elements, a utility corridor, freight or transit designated lanes, and an equestrian trail.



Option 4 (564 feet): Includes spacing for a 6-lane highway with median, two 30' multimodal paths, ditches on either side, resiliency elements, utility corridor, transit designated lane, freight designated lane, managed lanes, equestrian trail, and frontage roads.

