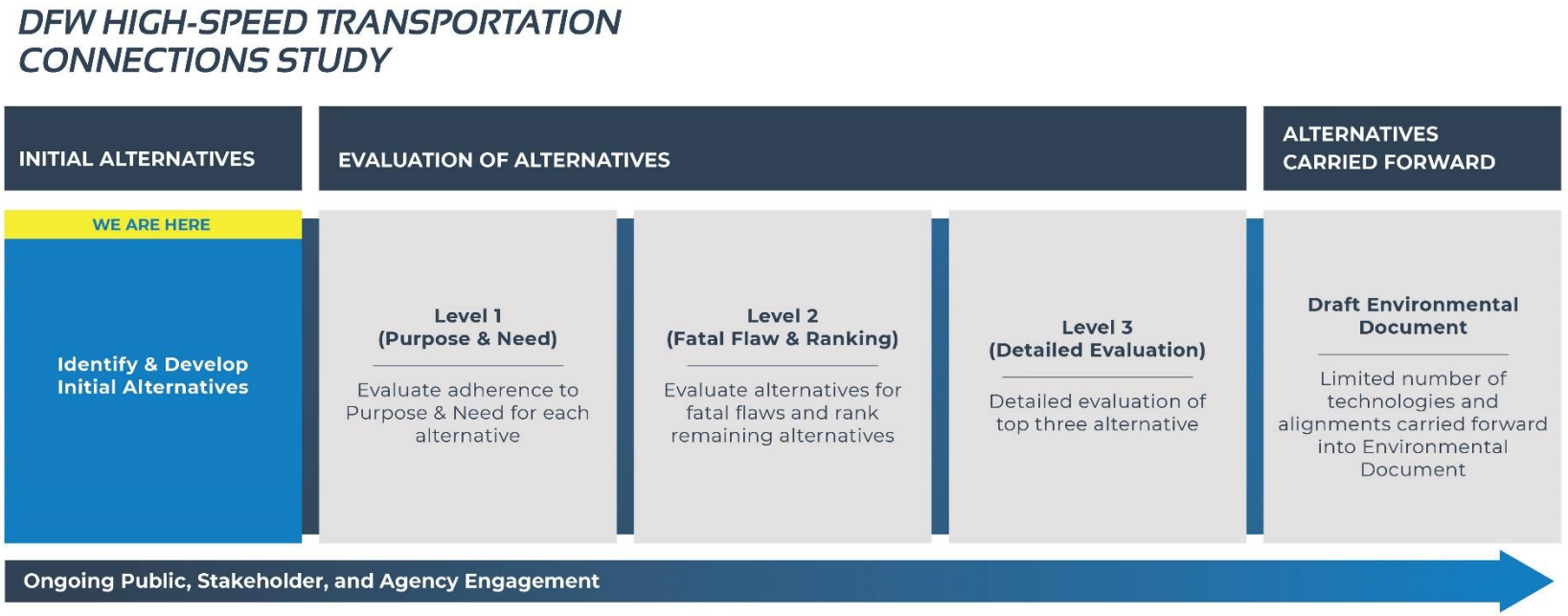
Draft Evaluation Methodology & Evaluation Criteria



The following tables shows the proposed criteria to be used to evaluation alignments/corridors & technologies. The intent of the evaluation criteria is to help differentiate technologies & alignments, not merely quantify elements. Therefore, some criteria that would be the same or similar is not included.

Draft Level 1 (Ability to Meet Purpose & Need) Evaluation Criteria

Draft Evaluation Criteria	Description
Serves downtown of Dallas & Fort Worth stations	Connects downtown Dallas HSR station & Fort Worth Central station locations (yes/no)?
Competitive travel time	Competitive travel time to auto and improved travel time to TRE
Safe	Have design and safety guidelines been established (yes/no)?
	Can this be an exclusive (closed) corridor (yes/no)?
Reliable	Would reliability of the alternative be impacted by weather or traffic (yes/no)?
Convenient	Ease of access to other transportation options (roadways, trails, existing Park & Rides, etc.)
	Technology convenience & frequency of service
Linkages to other high-performance system	Ease of transfer to Dallas-Houston high-speed rail
	Ease of connecting to a future Fort Worth to Laredo Corridor
	Long-distance capability/expandability
Connect to existing regional/light rail in Dallas & Fort Worth	Could the alternative provide connections to existing light, regional, & commuter rail?
Improved access to major activity centers	Does the alignment and/or technology offer the potential for mid-alignment station alternatives access to major activity centers (e.g., employment, education, entertainment, health, shopping)

Draft Level 2 (Fatal Flaw & Ranking) Evaluation Criteria

	Draft Evaluation Criteria	Description
Proximity to Sensitive Social, Biological, or Cultural Areas	Potential residential impacts	% length adjacent to residential areas; 500 feet (250 feet on each side of centerline)
	Potential wetland and water body impacts	% length adjacent to wetlands and water bodies; 500 feet (250 feet on each side of centerline)
	Potential impacts to sensitive areas	% length within an existing transportation corridor; 500 feet (250 feet on each side of centerline); higher percentage is better, less likely to be adjacent to other sensitive areas
	Potential parks impacts	% length adjacent to parks & designated open spaces; 500 feet (250 feet on each side of centerline)
Potential Community Impacts	Potential community facility impacts	Number of community facilities within 500 feet (250 feet on each side of centerline)
	Potential Environmental Justice (EJ) impacts	Total EJ populations within 500 feet (250 feet on each side of centerline)
Technology Maturity	Technology maturity (guideway infrastructure)	Rail, tunnel, tube, switching, etc.
	Technology maturity (wayside infrastructure)	Substations, vacuum systems, emergency response systems, etc.
	Available design criteria	Design criteria available for technology
	Regulatory approval complexity	Regulatory framework by technology (process in place)
Design & Operational Considerations	Meets design criteria	Ability for corridor to meet design criteria for vertical & horizontal
	System capacity versus demand	Operational system capacity versus anticipated demand
	Travel time & average operating speed	Actual in-vehicle travel time & average operating speed compared to auto
	Compatibility with existing infrastructure	Compatibility with major existing transportation infrastructure and utilities
	Ability to move cargo in addition to passengers	Vehicle and infrastructure configuration support the transportation of high-volume cargo
	Ability to interline	Ability to interline with other existing or planned projects

Draft Level 3 (Detailed Evaluation) Evaluation Criteria

	Draft Evaluation Criteria	Description
Proximity to Sensitive Social, Biological, or Cultural Areas	Potential water body & floodplain impacts	Total length of water body & floodplain crossings
	Potential wetland impacts	Total acres of wetland within proposed right-of-way
	Potential structures displaced	Number of potential structures displaced (houses, outbuildings, businesses, public buildings, billboards, etc.)
	Potential parks impacts	Total acres of parks impacted
	Potential historic resources impacts	Number of national and state historic sites potentially impacted
Potential Community Impacts	Community facilities	Number of facilities impacted
	Noise & vibration	Number of sensitive receivers impacted
	Visual/aesthetic	Potential visual/aesthetic impacts
	Environmental Justice	Potential impacts on Environmental Justice populations
Costs	Construction (capital) cost	Construction cost per mile for the guideway, ancillary facilities, maintenance facilities & vehicles
	Operations & Maintenance (O&M) Cost	Annual O&M cost per mile
	Modifications to existing infrastructure	Capital costs associated with modifications to existing infrastructure to accommodate the alternative
Constructability & Operations	Constructability	Includes impacts to existing parallel transportation systems during construction
	Potential Right-of-Way (ROW) Impacts	Acreage of required non-public ROW
	Technology maturity (safety systems)	Established/adopted Safety system requirements (emergency response, ventilation, fire life safety, etc.)
	Technology maturity (operations systems)	Established/adopted Operations system requirements (signaling, autonomous vehicle operations, control systems, etc.)