

FM 455 Feasibility Study Alternatives Evaluation Matrix

From Dallas Parkway to Shady Brook Lane

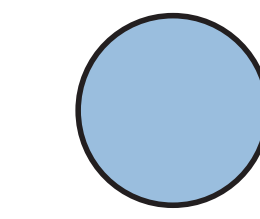
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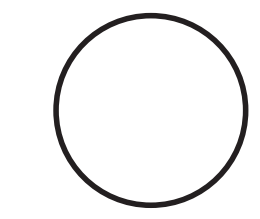
ANALYSIS MATRIX



Good



Neutral



Poor

| SCREENING/EVALUATION CATEGORY | | No Build | Widening Existing Alignment | Alignment 1 | Alignment 2 | Alignment 3 | Alignment 4 | Alignment 5 | Alignment 6 | Alignment 7 | |
|---|--|---|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|
| Purpose & Need | Improve East-West Mobility | ○ | ○ | ● | ● | ● | ● | ● | ● | ● | |
| | Improve Safety | ○ | ○ | ● | ● | ● | ● | ● | ● | ● | |
| Engineering | Total Segment Length along CL (miles) | 12.4 | 12.4 | 8.6 | 8.8 | 8.9 | 8.8 | 8.7 | 8.7 | 8.8 | |
| | Number of Skewed Intersections: Cross Streets that intersect at a skew greater than 15 degrees | 3 | 3 | 2 | 2 | 2 | 4 | 2 | 5 | 4 | |
| | Number of Major Utility Conflicts: Any location where we are on top of and run parallel to a utility line. (Not including gas lines) | 0 | 16 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | |
| | Gas Pipeline Crossings (count) | 0 | 2 | 4 | 2 | 2 | 2 | 2 | 4 | 4 | |
| | Gas Line Relocation (feet) | 0 | 0 | 8006 | 0 | 0 | 0 | 0 | 8006 | 8006 | 8006 |
| | Curves with Reduced Design Speeds: Curves that do not meet 45 MPH Low Speed Criteria at Minimum | 25 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Displacements & Right-of-Way Requirements | Parcels Impacted | 0 | 277 | 74 | 88 | 99 | 92 | 82 | 83 | 86 | |
| | Residential Displacements | 0 | 32 | 1 | 0 | 2 | 2 | 3 | 3 | 3 | |
| | Business Displacements | 0 | 19 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | |
| | Other Displacements (includes barns, sheds, and out-buildings) | 0 | 3 | 4 | 5 | 4 | 3 | 3 | 0 | 1 | |
| | Potential Damaged Buildings: Any existing structure that is within 40 feet of ROW | 0 | 21 | 5 | 7 | 7 | 6 | 8 | 9 | 11 | |
| | Amount of New Right-of-Way (ROW) Required (acres) | 0 | 73 | 127 | 138 | 149 | 131 | 143 | 127 | 128 | |
| Environmental & Natural Resources | Number of Rivers/Streams Crossed | 12 | 12 | 14 | 14 | 14 | 13 | 14 | 12 | 12 | |
| | Protected Lands/Parks Along Corridor | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Prime Farmland Present | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| | Number of Hazardous Materials Sites | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Oil and Gas Wells (count) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NWI Wetland Features (count) | 0 | 7 | 6 | 9 | 12 | 12 | 8 | 9 | 8 | |
| | Equestrian Facility with Potential Impacts (count): Legacy Equestrian Center and Lancaster Hill Stables | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 2 | 2 | |
| | Floodplains within Proposed Right-of-Way (ROW) in acres | 0 | 13 | 26 | 24 | 26 | 18 | 24 | 20 | 20 | |
| Community Impacts & Cultural Resources | Future Development Impacts: All developments that are next to or on top of the ROW | 0 | 4 | 6 | 5 | 5 | 5 | 6 | 6 | 7 | |
| | Presence of Environmental Justice Population (Yes/No) | No | No | No | No | No | No | No | No | No | |
| | Number of Adjacent Places Worship | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Impacts to Ponds | 0 | 3 | 3 | 3 | 4 | 3 | 4 | 2 | 2 | |
| | Number of Adjacent Public School Property(ies) | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | |
| | Archeological Sites, Cemeteries, and Historic Properties | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Estimated Total Project Costs in Millions (M) | \$0 | \$174 | \$121 | \$123 | \$124 | \$124 | \$121 | \$121 | \$123 | |
| Stakeholder, Agency, and Public Input | Adherence to Collin County Thoroughfare Plan | ○ | ○ | ● | ○ | ○ | ○ | ● | ● | ● | |
| | Adherence to Celina Thoroughfare Plan | ○ | ○ | ● | ○ | ○ | ○ | ● | ● | ● | |
| | City of Celina | TO BE DETERMINED BASED ON INPUT FROM PUBLIC MEETING #1 | | | | | | | | | |
| | Collin County | | | | | | | | | | |
| | Public | | | | | | | | | | |
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