



Evaluation Screening Process

Phase 1

- Does the concept meet the Purpose & Need for the project? *Completed*

Phase 2

- Analyze the concepts using the Purpose & Need and other performance measures. *Draft completed*

Phase 3

- Develop engineering and schematic-level alternatives and study all environmental, social, and economic components. *Next Phase to be performed*



Phase 1 Evaluation Screening

| Purpose and Need Performance Criterion | Measure | Concept A | Concept B | Concept C | Concept D | Concept E-1 | Concept E-2 | Concept F | TSM Concept* | TDM Concept* | 2007 Mediation Alt. | No-Build |
|--|---|-----------|-----------|-----------|-----------|-------------|-------------|-----------|--------------|--------------|---------------------|----------|
| Improve mobility and operational efficiency | Reduces conflict between local and through traffic in the corridor (barrier separation, control of access, grade separation, driveway improvements) | Yes | Yes | Yes | Yes | No | No | Yes | No | No | Yes | No |
| | Reduces travel times (Signal improvements, improve loss of service, improve intersection efficiency) | Yes | Yes | Yes | Yes | No | No | Yes | Yes | No | Yes | No |
| Increase multimodal travel options for people and goods | Provides opportunity for multimodal travel options (transit, bicycle and pedestrian accommodations) | Yes | Yes | Yes | Yes | No | No | Yes | No | No | Yes | No |
| Improve safety and emergency response | Reduce crashes (Reduction in conflict points, grade separation, driveway improvements) | Yes | Yes | Yes | Yes | No | No | Yes | No | No | Yes | No |
| | Serves as a reliable route for emergency response organizations (Signal improvements, control of access, adequate shoulder widths) | Yes | Yes | Yes | Yes | No | No | Yes | No | No | Yes | No |
| CARRY FORWARD TO SECONDARY SCREENING? | | Yes | Yes | Yes | Yes | No | No | Yes | No | No | Yes | Yes |

*TSM and TDM Concepts were eliminated as stand-alone concepts; however, elements of TSM and TDM can be included with any concept.



Phase 2 Evaluation Screening

| Performance Measures | Criterion | Evaluation Parameters | Evaluation Parameters (Units) | Concept A | Concept B | Concept C | Concept D | Concept F | 2007 Mediation Alt. | No-Build | |
|---|---|--|---|--|-----------|-----------|-----------|-----------|---------------------|----------|-----|
| Improve mobility and operational efficiency | Improves US 290 operational efficiency - reduce travel time during peak hour for 2035 traffic | WESTBOUND MAIN LANES: Travel time along WB US 290 main lanes from Old Fredericksburg Rd to Circle Dr, PM Peak | Minutes | 6.7 | 5.6 | 5.2 | 8.2 | 6.3 | 19.6 | 29.0 | |
| | | WESTBOUND FRONTAGE ROADS: Travel time along WB US 290 FTG RD from Old Fredericksburg Rd to Circle Dr, PM Peak | Minutes | 13.2 | 10.6 | 10.3 | 18.7 | n/a* | 12.7 | 29.1 | |
| | | EASTBOUND MAIN LANES: Travel time along EB US 290 main lanes from Circle Dr to Old Fredericksburg Rd, AM Peak | Minutes | 11.5 | 10.9 | 11.9 | 10.7 | 19.0 | 13.3 | 34.6 | |
| | | EASTBOUND FRONTAGE ROAD: Travel time along EB US 290 FTG RD from Circle Dr to Old Fredericksburg Rd, AM Peak | Minutes | 12.6 | 11.3 | 11.4 | 13.8 | n/a* | 18.5 | 35.8 | |
| | Improves SH 71 operational efficiency - reduce travel time during peak hour for 2035 traffic | WESTBOUND MAINLANES: Travel time along WB US 290 and SH 71 from Old Fredericksburg Rd to Silvermine Dr, PM Peak | Minutes | 5.3 | 4.6 | 3.9 | 9.9 | 5.8 | 3.7 | 25.3 | |
| | | WESTBOUND FRONTAGE ROADS: Travel time along WB US 290 and SH 71 from Old Fredericksburg Rd to Silvermine Dr, PM Peak | Minutes | 9.4 | 6.8 | 6.8 | 9.5 | n/a* | 7.2 | 25.4 | |
| | | EASTBOUND MAINLANES: Travel time along EB SH 71 and US 290 from Silvermine Dr to Old Fredericksburg Rd, AM Peak | Minutes | 4.0 | 7.4 | 4.1 | 9.7 | 4.8 | 4.2 | 32.2 | |
| | | EASTBOUND FRONTAGE ROAD: Travel time along EB SH 71 and US 290 from Silvermine Dr to Old Fredericksburg Rd, AM Peak | Minutes | 10.0 | 8.8 | 7.6 | 11.1 | n/a* | 8.8 | 33.4 | |
| Increase multimodal travel options for people and goods | Provides opportunity for multimodal travel options | Adds sidewalk, bike/pedestrian elements as part of the project | Yes/No | YES | YES | YES | YES | YES | YES | NO | |
| | | Provides opportunity for high capacity transit to utilize the corridor | Yes/No | YES | YES | YES | YES | YES | YES | NO | |
| | | Provides opportunity for local bus service to utilize the corridor | Yes/No | YES | YES | YES | YES | YES | YES | NO | |
| Improve safety and emergency response | Corrects geometric deficiencies within project limits | Adds shoulders, separates through traffic from local traffic making frequent turns onto collectors, and corrects sharp horizontal curves | Yes/No | YES | YES | YES | YES | YES | YES | NO | |
| | | Upgrades facility to current design standards | Proposed design meets FHWA standards for National Highway System (23 CFR 625.4) and TxDOT's Roadway Design Manual and Bridge Design Manual, including associated references | Yes/No | YES | YES | YES | YES | YES | YES | NO |
| | | | Serves as a reliable route for emergency response organizations | Adequate ramps and detour route for emergency vehicles or alternate route due to accidents | Yes/No | YES | YES | YES | YES | NO | YES |
| Potential displacements | Minimize residential displacements | Number of residential displacements | Each | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Minimize commercial displacements | Number of commercial displacements | Each | 0 | 0 | 0 | 0 | 7 | 0 | 0 | |
| Preliminary project cost | Minimize construction cost | Preliminary construction cost estimate | \$ Million | 269 | 257 | 280 | 250 | 204 | 266 | N/A | |
| | | ROW area | Acres | 27.8 | 24.3 | 27.6 | 30.5 | 39.2 | 25 | N/A | |
| | Minimize utility relocation cost | Preliminary ROW estimated cost | \$ Million | 34.8 | 31.1 | 34.6 | 37.3 | 51.1 | 31.6 | N/A | |
| | | Anticipated utility relocation effort | High/Med/Low | Med | High | High | High | High | Med | N/A | |
| CARRY FORWARD TO ALTERNATIVE DEVELOPMENT? | | | | | | | | | | | |
| | | | | YES | NO** | YES | NO | NO | NO | YES | |

LEGEND
 Concept with highest score
 Concept with lowest score
 The No-Build Alternative must be carried forward in the Evaluation score

*Concept F does not have continuous frontage roads

**Elements of this concept will be incorporated into Concept C



Phase 1 Evaluation Screening

Purpose and Need

- Concept A – Meets purpose and need – moving forward
- Concept B – Meets purpose and need – moving forward
- Concept C – Meets purpose and need – moving forward
- Concept D – Meets purpose and need – moving forward
- Concept E1 – Does not meet purpose and need – Not advancing
- Concept E2 – Does not meet purpose and need – Not advancing
- Concept F – Meets purpose and need – moving forward
- Concept 2007 Alternative – Meets purpose and need – moving forward
- Concept TSM – Does not meet purpose and need – Not advancing
- Concept TDM – Does not meet purpose and need – Not advancing

- No-Build Concept – moving forward



Phase 2 Evaluation Screening

Performance Measures

- Concept A – Improves mobility, increases travel options, improves safety, and minimizes displacements – moving forward
- Concept B – Elements will be incorporated into Concept C – Not advancing
- Concept C – Improves mobility, increases travel options, improves safety, and minimizes displacements – moving forward
- Concept D – Provides limited mobility improvements – Not advancing
- Concept F – Provides limited mobility and safety improvements, and increases displacements – Not advancing
- Concept 2007 Alternative – Provides limited mobility improvements – Not advancing
- No-Build Concept – moving forward



Phase 3 – Schematic & Environmental Process

The study will include:

- Engineering development of schematics of Concepts A & C
- Alternatives analysis
 - Evaluate the alternatives for a wide variety of parameters
 - Include a No-Build alternative in all analyses
- Detailed description of the affected environment
 - Natural resources
 - Human environment
- Evaluation of potential impacts
- Recommend a preferred alternative