

Regional Parkway

SEGMENT A
PARK RD. 22 - RODD FIELD RD.

SEGMENT B
RODD FIELD RD. - SH 286

SEGMENT C

SEGMENT D

SEGMENT E

SEGMENT F

SEGMENT G

Planning and Environmental Linkages (PEL) Study



Prepared by:

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City of Corpus Christi**



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1.0 Summary



The Corpus Christi Metropolitan Planning Organization (CCMPO), in cooperation with the City of Corpus Christi (City), initiated the Regional Parkway Planning and Environmental Linkages (PEL) Study to further refine transportation needs and potential route alignment alternatives for two of the

seven segments of independent utility identified in the Regional Parkway Mobility Corridor (RPMC) Feasibility Study (2013). The RPMC yielded seven segments, Segments A to G; this PEL centers on Segments A and B, as well as the future extension of Rodd Field Road. Segment A extends from the intersection of Park Road 22 (PR 22), on Padre Island to an area just south of the proposed extension of Rodd Field Road. Segment B extends from the western terminus of Segment A to the intersection of State Highway 286 (SH 286) (Crosstown Expressway).

PEL studies are a collaborative and integrated approach to identifying mobility solutions, allowing the CCMPO and the City to review and consider community, environmental, and economic issues early in the transportation planning process. In turn, the CCMPO and City will use the information, analysis, and products developed during a PEL to inform future environmental reviews.

The Regional Parkway PEL Study alternatives were developed and guided by establishing purpose and need as described later in this Report. This Study does not go so far as to determine the purpose and need for a NEPA action, but rather serves to inform a more robust NEPA process in future development phases. There has been discussion going back to the mid-eighties among the

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CCMPO, City, Nueces County and other interested parties concerning the need for an alternate major transportation route within Nueces County, particularly on the south side of Corpus Christi.

The Texas State Data Center (TSDC) has projected that the population of the Corpus Christi Metropolitan Area, which includes Nueces and San Patricio Counties, will increase by 21 percent by 2050. This alternate route would be designed to address the expanding housing, industrial and commercial developments in Nueces County and the resulting traffic congestion and safety issues. This projected growth in population and its accompanying development activity is anticipated to result in a substantial increase in future traffic volumes by the year 2040 along existing roadways in Nueces County. This projected growth is likely to be concentrated on the south side of Corpus Christi and North Padre Island.

A comprehensive public involvement process was undertaken as a part of the Study. There were several opportunities for public engagement and coordination with public agencies. Over 400 people received direct information about the project and information was made available to the wider public through the website, televised presentations, and media coverage.



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Multiple alignment alternatives were established for the PEL on the basis of key parameters such as prioritization of existing public rights-of-way, previously disturbed areas, proximity to intersecting roadways, existing drainage features, as well as on the basis of feedback from the planning team and targeted stakeholder interviews. In total, eight (8) alternatives were considered in Segment A, four (4) alternatives were considered in Segment B, and three (3) alternatives were considered for the future extension of Rodd Field Road. These fifteen alternatives, along with the No-Build alternative, were subject to the screening process.

The screening methodology and criteria were mutually agreed upon by the planning team and shared with stakeholders. It should be noted the initial screening is a high-level, pass/fail type analysis intended to eliminate alignment alternatives that do not meet purpose and need. Each of the alignment alternatives, other than the No-Build, meets the purpose and need of the Regional Parkway. Therefore, none of the alignment alternatives identified were eliminated from further study.

The secondary evaluation process involves analyzing and differentiating between the alternatives in Segment A, Segment B and the extension of Rodd Field Road. Three areas of consideration were employed to conduct the secondary evaluation: Engineering considerations, environmental considerations, and stakeholder input. Each was evaluated using multiple criteria, each criterion was defined, and ranges were established for the purpose of scoring. The cumulative engineering, environmental, and stakeholder considerations and evaluation results for Segments A, B and Rodd Field Road are tabulated later in this Report.

Next steps in the project planning process may include incorporation of the results of this PEL into the City of Corpus Christi's Urban Transportation Plan. Future planning efforts should include: further evaluation of strategies to avoid, minimize, and mitigate environmental impacts; consideration of additional connecting facilities; and assessment of potential funding strategies. Additionally, amendments to the City's Unified Development Code may be necessary to accommodate implementation of Regional Parkway.

» *These memoranda describe the processes and significant findings which formed the basis for the highest ranking alignment alternatives for subsequent environmental analyses under the National Environmental Policy Act (NEPA) process.*

Several technical memoranda are provided as appendices to this Report:

[Appendix A](#) includes a Summary of Previous Studies and Project History relative to the Regional Parkway corridor.

[Appendix B](#) includes the Purpose and Need Technical Memorandum.

[Appendix C](#) includes the Stakeholder and Public Outreach Report which describes the public involvement efforts which have occurred throughout the study area.

[Appendix D](#) includes the Affected Environment and Environmental Consequences Technical Memorandum, detailing existing environmental constraints.

[Appendix E](#) contains the Alternatives Development and Evaluation Technical Memorandum, along with various supporting data.

[Appendix F](#) Traffic Analysis Technical Memorandum includes additional data and analyses.

[Appendix G](#) covers the Crossing of the Laguna Madre Bridge Type Study.

[Appendix H](#) includes digital files of the Regional Parkway PEL Study Alignment Alternatives Exhibits, Design Summary Report, and Preliminary Cost Estimates.

[Appendix I](#) includes the PEL Questionnaire, which was used as a guide during the study.



10.0 Conclusion & Recommendations

The Regional Parkway PEL Study developed fifteen alignment alternatives that met the fundamental purpose and need of the PEL Study.

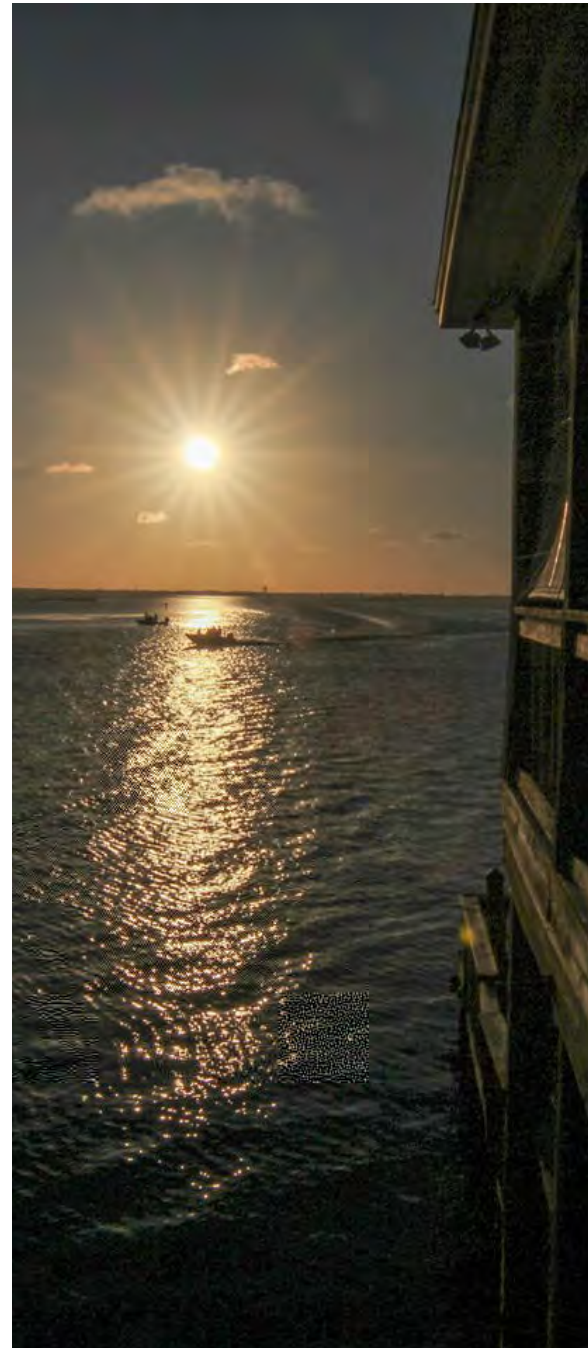
These alternatives were subjected to a two-step evaluation process to identify alignment alternatives with the highest potential to meet the purpose and need of the Study, as defined in the RPMC Feasibility Study. The initial screening of the evaluation process was a high level pass/fail type analysis designed to eliminate alternatives that did not meet the purpose and need. No alternatives (other than the No-Build) were found to not meet the purpose and need of the Study.

In the secondary evaluation, each of the alignment alternatives was evaluated in greater detail on the basis of engineering considerations such as dimensional analyses, structural elements, and drainage elements; direct environmental impacts; and stakeholder input/support. The secondary evaluation process provided a more distinct comparison of alignment alternatives and ultimately identified the highest ranking alignment alternative for Segment

A, Segment B, and the extension of Rodd Field Road.

Of the eight alignment alternatives evaluated in Segment A, Alternative A-5 was the highest ranking alternative. Of the four alignment alternatives evaluated in Segment B, Alternative B-4 was the highest ranking alternative. The future extension of Rodd Field Road included the evaluation of three alternatives; Alternative R-3 was the highest ranking.

The evaluation results lend themselves to a phased approach to future development. Project implementation can be phased over time to provide incremental benefit in terms of improved mobility and enhanced travel safety as the study area continues to experience growth. The PEL Study recommends each of the alignment alternatives A-5, B-4, and R-3 as shown in **Figure 8** be carried forward and added into the City of Corpus Christi's Urban Transportation Plan.



Planning level order of magnitude cost estimates for each alignment alternative are provided and summarized in [Appendix H](#). These costs are very conservative due to the conceptual nature of the alternatives and are suggested for planning purposes only. The capital cost elements considered such items as right-of-way preparation, paving, drainage and bridge structures. These items typically represent up to 80% of the costs associated with the development and construction of similar facilities. Additionally, a contingency factor of 20% was applied to each estimate for costs associated with engineering, ROW acquisition, utility coordination/adjustment/relocation, and environmental mitigation strategies. The median estimated cost of alignment alternatives is \$42.4M per mile. Costs are largely driven by the bridge structure quantities and the crossing of the Laguna Madre.

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The CCMPO must continue to work collaboratively with the City and TxDOT to explore opportunities for including Regional Parkway in future updates of the MTP. The initial data collection and analyses presented in this PEL Study are intended to serve as a foundation for more comprehensive future field surveys and financial analyses necessary to consider Regional Parkway for placement on the State's transportation system.

Figure 8: Recommended Regional Parkway - Segment A5, B4 and R3