North Legacy to Legacy Connection Corridor Preservation Study

The scope of this study was to examine potential corridors for a future connection between the existing Legacy Parkway and the future North Legacy Highway. The selected corridor will be used in land use planning and corridor preservation activities. The selected corridor must be a "continuation of the Legacy Parkway" and must meet the following four criteria as required by the state legislature:

1. Provide a direct connection to I-15. This condition requires a system to system interchange, which is characterized by high-speed, free-flow ramps connecting the individual traffic movements.
2. Provide a direct connection to the Legacy Parkway. This requires a system to system interchange, which is characterized by high-speed, free-flow ramps connecting the individual traffic movements.
3. Provide local access connections to the Legacy/North Legacy Parkway. This condition would provide access by means of a grade separated interchange. The type and size of the interchange would be determined by future operational studies.
4. Meet the transportation needs based on 2040 traffic predictions. Traffic volumes are based on existing traffic counts and historical trends for growth along the Wasatch Front. Existing and proposed land uses and the Wasatch Front Regional Council (WFRC) travel demand model were also used to generate traffic volumes for the design year of 2040.

The selected corridor is intended to function as a continuation of the existing Legacy Parkway. It is anticipated that design principles and decisions from the Legacy Parkway would be carried forward in the design of the North Legacy Parkway. The estimated right-of-way 'footprint' is expected to be 300 feet, with a divided median. Right-of-way requirements would be greater at the system to system interchanges, and at grade-separated interchanges with local streets. Specific right-of-way requirements and cost estimates were outside of the scope of this study. A high level rough estimate of costs for construction, right-of-way, and environmental mitigations is included in the report. Estimates for costs are based on construction costs only, based on current costs. An analysis of the impacts to wetlands, wildlife, residences, businesses and other socioeconomic issues was outside of the scope of this study, and was not performed. That analysis will be performed during the environmental study process.

The study area for the connection between Legacy Parkway, I-15, and North Legacy lies within the municipal boundaries of Farmington City. This area was chosen due to the convergence of the individual highway alignments. Legacy Parkway and I-15 parallel each other as they extend toward the north, currently terminating at the I-15/US-89 interchange. Proceeding northward, the existing I-15 and planned North Legacy alignments diverge, making an interchange connection more disruptive to existing homes and businesses. The large amount of undeveloped land in west Farmington facilitates the construction of an interchange system with fewer impacts to existing properties. Additionally, the Utah Transit Authority (UTA) is constructing the *FrontRunner* Commuter Rail with a station to be built near the Park Lane interchange at I-15. The location of this station provides an additional multi-modal connection that would complement a Legacy/North Legacy/I-15 interchange. The selection of corridors was based on existing development, proposed land use and zoning, and availability of land for corridor preservation. An overview of the four corridors considered is outlined below..

Option 1 follows the Denver & Rio Grande alignment with system interchanges north and south of Park Lane. It impacts wildlife and wetlands at the south system interchange. Traffic demands are met through 2030, with congestion and delays evident by 2040. Local access is provided via a grade separated interchange near Park Lane. Overall this option ranked second in meeting the selection criteria, and has an estimated planning level cost of $330 million.

Option 2 aligns the road to the west, parallel to the Great Salt Lake Shoreline. It has the greatest impact to wildlife and wetlands of any of the reviewed options. Regional traffic demands are met through 2030, with increasing delays and congestion through 2040. This alignment does little to alleviate severe congestion at the Park Lane interchange. Overall this option ranked fourth in meeting the selection criteria, and has an estimated planning level cost of $310 million.

Option 3 follows the Denver & Rio Grande alignment with a combined system interchange between State Street and Glovers Lane. Regional traffic is served adequately through the 2040 design year. Local access is provided via a grade separated interchange near Park Lane. Operating characteristics of I-15 and the Legacy Parkway make this the most favorable to the local transportation system. Overall this option ranked first in meeting the selection criteria, and has an estimated planning level cost of $260 million.

Option 4 parallels the I-15 corridor near Lund Lane, extends over Park Lane and the Station Park commercial center with an elevated structure and connects to I-15 and Legacy Parkway between State Street and Glovers Lane. Local access is potentially served with an interchange between Sheppard Lane and Park Lane. This local connection provides access, but does little to improve congestion on the local street network. Traffic demands in I-15 are met through 2040 for this connection, although other parts of the local and regional network have increased congestion when compared to other concepts. Overall this option ranked third in meeting the selection criteria, and has an estimated planning level cost of $410 million.

After reviewing these four options, the technical analysis concluded that Option 3 best met the study criteria provided.

UDOT CONNECTING COMMUNITIES