# UDOT Project Selection Process

Transportation System Information

| Public Input | Pavement Condition | Bridge Condition | Safety Information | Roadway Configuration | Traffic Projections |
|---|---|---|---|---|---|

Initial Analysis of Data

Strategic Goals → Specific Goals

Initial Project Identification

Transportation Commission

Project Estimate/ Funding

Public Input

Project Review

Region Input

Local Official Input

**Long Range Plan Draft Final Project List**

Transportation Commission

Repeat Project Selection Process
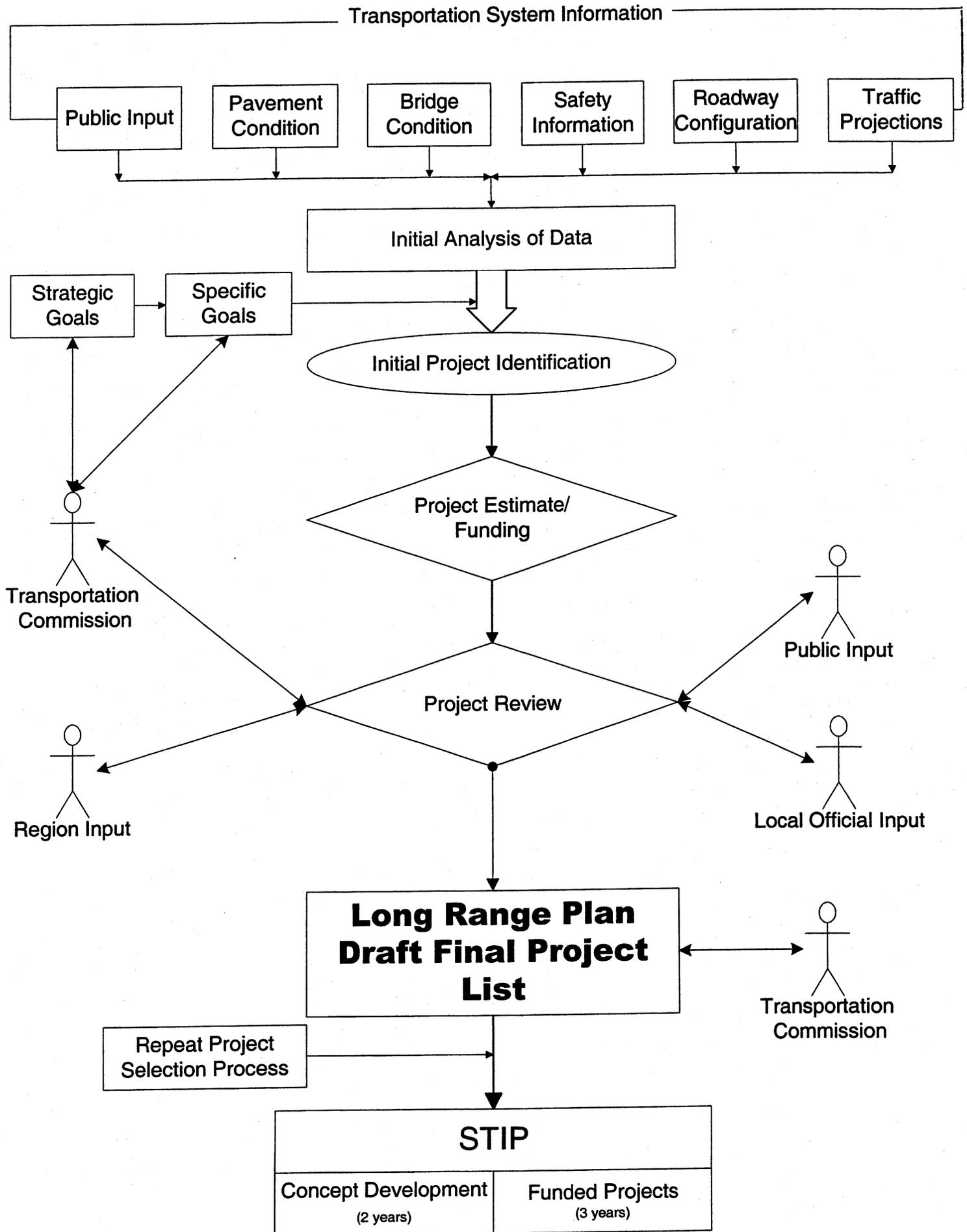
## STIP

| Concept Development (2 years) | Funded Projects (3 years) |
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# UDOT and Transportation Commission Project Selection Process for

The evaluation and selection of projects comprise numerous components for both the Long Range Plan, which comprises a 20 to 30 year look, and the Statewide Transportation Improvement Program (STIP), which is 5-year program. Project selection is based upon diverse data collection and analysis, public input, physical inspection, strategic asset management measures, resource (funding) availability, and professional judgment.

Planning in urbanized areas is conducted by Metropolitan Planning Organizations (MPO), which are federally-required organizations. Four MPOs are designated in Utah with each governed by local elected officials. Each MPO prepares a separate long range plan that is adopted into the overall statewide plan. Each MPO also prepares its own short term Transportation Improvement Program (TIP) that is adopted into the STIP. UDOT cooperates with each MPO in the development of plans and programs.

## Transportation System Information

Extensive data on the state highway system is continually collected by UDOT. This data provides a picture of the current condition of the state highway system, both for overall system condition and for individual segments covering the entire highway system. In addition, biannual physical inspections are made statewide by Region personnel for every mile of the highway system. The information collected on physical inspections is compared with data results. The following data is collected:

Pavement Condition: Data collected for the ride quality (pavement smoothness), surface fracturing and cracking, rutting, and pavement strength.

Bridge Condition: Data collected for the condition of bridge structures and the bridge deck.

Safety Information: Data is collected for all vehicle, pedestrian and cycling accidents on the state and local transportation systems. Data includes accident location, type of accident (single vehicle rollover, head-on collision, animal hit, etc.), vehicle type (auto, commercial truck, etc.), and contributing factors (weather, road conditions, etc.).

Roadway Configuration: Inventory of the transportation system examines what facilities are currently in place, and the functional classification and purpose of each roadway to the overall system.

Traffic Projections: Growth projections are developed by the Governor's Office of Planning and Budget through economic base and demographic modeling. Using this data, traffic volume, travel patterns, and location and levels of congestion are identified.

## Public Input

Customer and stakeholder involvement is important to the project selection process. Public involvement strategies include community outreach with local councils and commissions, civic organizations, and special needs groups; telephone survey to determine traveler priorities; and interviews with various focus groups. In addition UDOT's Region offices continually interact with local government officials on various transportation issues. The Utah Transportation Commission is a key instrument for public involvement through public interaction with individual commissioners, and through monthly Commission meetings held at locations throughout the state.

## Initial Analysis of Data

Using the transportation system information collected, performance of the system is measured against engineering standards developed for each data element and each highway asset. Analysis identifies highway deficiencies and the level of congestion in travel corridors that must be addressed.

## Strategic Goals

The Utah Department of Transportation has adopted four strategic goals based upon long-term funding strategies adopted by the Utah Transportation Commission. The four strategic goals are:

1. Take care of what we have. Protect the investment in the existing infrastructure through maintenance and preservation strategies that improve performance and extend life of the system.
2. Make it work better. Optimize the existing transportation system for all modes.
3. Improve safety. Make the roadways safer for travelers thereby saving lives.
4. Increase capacity. Expand the existing transportation system where needed to accommodate increased travel.

These goals focus efforts and resources within UDOT to better manage the transportation system and better manage limited resources among competing needs.

## Specific Goals

Specific goals are set for each data element and highway asset to measure progress toward strategic goals. For example, the International Ride Index (IRI) is used to measure progress toward preserving the existing infrastructure, in this case, pavement. The IRI is a measure of pavement smoothness and is an indication of pavement health. A poor IRI is an indicator of pavement deficiencies. A specific goal is adopted to maintain at least 90% of the interstate in "fair" or better condition using IRI as a measure toward attainment of that goal.

## Initial Project Identification

Based on cost-effective management of the system, initial projects are identified, generally at a higher corridor level, using strategic goals, system analysis, and public input. Significant priority is given to first preserve and protect the existing infrastructure, to improve safety, and to optimize capacity of the existing infrastructure through cost effective strategies, such as intelligent transportation applications. Capacity needs are address commensurate with available resources.

## Project Estimate/Funding

Refinement of a list of potential projects is begun as project cost estimates are developed and projects subsequently sized to fit available funding. For development of the short term funding program, the STIP, several factors significantly influence project selection. Restrictions on use of funding sources, primarily for federal funds, constrain project selection. For example, federal funds are divided into five major categories and further subdivided into numerous subcategories, each of which are fiscally constrained. Each funding category and subcategory mandates specific project criteria and uses for those funds, which significantly impact project selection. For example, federal funds in the Interstate Maintenance category may be used to rehabilitate and reconstruct the existing interstate but may not be used to add lanes or expand the interstate.

Project size is also an influencing factor. Mega projects – larger capacity-adding projects – can not be funded through normal federal or state channels due to costs and funding constraints. Certain smaller needs and activities may be addressed through normal funding channels, but cost effective contracting and construction of mega projects often require a separate and unique funding strategy.

For the long range plan, individual funding sources are not considered. Total projected funding is compared against projected needs for all modes of transportation.

## Project Review

The list of potential projects is further refined with additional input from local and state government officials, the Utah Transportation Commission, the public, UDOT Region personnel and other transportation experts. Also, packaging and timing of projects is considered to seek the most cost effective project delivery. For example, smaller individual projects may be packaged into a single larger project to reduce total construction costs due to economy of scale.

## Long Range Plan

The Long Range Plan is a 20 to 30 year look at transportation needs. Identification of needs includes all modes of transportation, including highway, transit and passenger rail, freight movement such as rail and highway, aviation, pedestrian, and bicycle. The list of projects is fiscally constrained against projected revenues. Projects are grouped into three separate 10-year horizons with projects that can be funded within the first 10 years included in the first horizon. Final project selection is made by the Utah Transportation Commission.

## Statewide Transportation Improvement Program (STIP)

The STIP is a five year program of transportation projects. Projects are selected from the first horizon of the Long Range Plan. The project selection process for the STIP is similar to the project selection process for the Long Range Plan. However, the selection process is refined as better cost estimates are developed, including environmental requirements, and funding sources are better known.