



Project Evaluation Methodology

2018

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INTRODUCTION

Atlanta's Transportation Plan is the access strategy for Atlanta City Design. The Plan is divided into a concise final report and a series of detailed technical appendices. The final report summarizes Atlanta's Transportation Plan in an easily digestible manner using infographics, maps, and images and is intended for the general public and elected officials. The technical memorandums are intended for planners, City staff, and implementation partners that require a higher level of detail.

As part of Atlanta's Transportation Plan, this technical appendix summarizes the methods used to evaluate and prioritize projects included in the Plan. The City of Atlanta has a number of neighborhood scale plans and business district transportation plans, as well as projects that have been identified on funding referendums and other ballot initiatives. This project evaluation assessed how well each of these projects makes progress towards the goals of Atlanta's Transportation Plan – safety, mobility, and affordability – through 12 quantitative and qualitative metrics.

EVALUATION FRAMEWORK

PROJECT SOURCES

The following documents, reports, studies, and funding programs were reviewed to generate a list of projects for evaluation and inclusion in the plan. As the City of Atlanta has adopted a number of robust neighborhood scale plans as well as identifying projects through referendums and other ballot initiatives, we began by gathering these existing projects and consolidating them into a single list.

- Connect Atlanta (2008), including projects that have not been completed or have entered a project development process.
- Completed Livable Centers Initiative (LCI) Studies and neighborhood plans since 2008, primarily:
 - Oakland City/Fort McPherson LCI
 - Vine City/Washington Park LCI
 - Lakewood LCI
 - Turner Field LCI (and related Mobility Improvements)
 - Poncey-Highland Master Plan
 - Virginia-Highland Master Plan
 - Chosewood Park Redevelopment Plan
- Midtown Transportation Plan
- Atlanta Beltline connecting trail projects
- More MARTA, which includes BeltLine/Atlanta Streetcar SSP and any COA-driven projects that result in capital improvements for transit service
- City of Atlanta TSPLOST projects
- Renew Atlanta Complete Streets, including TCC corridor upgrades as a program

The project list was then organized into six primary project types, described as follows:

- **BI** – Standalone, non-program bike corridor enhancements, primarily for protected facilities (neighborhood greenways will be more program-based). Multi-use trails and off-street paths will be fit into this category; Atlanta BeltLine trail fits under this category (with specific projects as defined in TSPLOST and other current programs) for all of its unfinished phases.
- **EX**- Access improvements to interstate freeways and interchange on- and off-ramps particularly to improve access, safety, and reduce congestion.
- **NS** – New streets and street extensions that are classified as publicly-led projects (i.e. not desired network enhancement that is to be negotiated with development).

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- **ST** – Corridor operational improvements, which may be based on funded projects through Renew Atlanta or 2016 TSPLOST. Types of projects include discrete signals, a general corridor (correcting lane imbalances, etc.), or operational upgrades for a small district. One-way to two-way conversions are also captured in this category. ST programs may consolidate multiple small-scale projects, generally organized around major growth corridors or geographic districts. These projects and programs collect many of the capacity-based projects and multimodal street reconstructions.
- **SA** – Safety-based corridor projects and intersection improvement programs, which may encompass multiple single intersections and spot improvements. These projects include road diets and other street reconstructions and reconfigurations, including multimodal improvements, that originated from a need to address safety issues.
- **SW** – Standalone, non-program sidewalk and streetscape projects, usually for a significant corridor extent or high-profile street.
- **TR** – Corridor and location-specific capital investment for high-quality transit, including discrete alignments from Streetcar System Plan and infill station proposals from More MARTA.

Each project candidate was assigned one of these codes and a unique three-digit ID number, done for purposes of keeping distinct candidates with their own numbers. Refinement of the list for consolidation, removal of duplicate projects and other removal means that many of the numbers have been disappeared, and to avoid confusion between draft versions of the list, projects have not been renumbered to fill in gaps in the number sequence. Project numbers do not imply priority or order of implementation; they simply assign an arbitrary unique number for categorization and shorthand naming purposes. Additionally, as projects were being evaluated and refined the project type may have been changed, but the prefix code remains the same to avoid confusion between draft versions of the list. Figure 1 shows the breakdown of projects across these different project types.

Where feasible, smaller small-scale projects were grouped into programs that could be funded and implemented as a package of projects. The ATP team combined any projects that it determined not to have sufficient citywide or districtwide impact to be evaluated in a competitive process against other projects. Rather, these program-based packages of projects respond to general objectives related to the ATP's implementation of Atlanta City Design, such as operational improvements on designated growth corridors. These programs are listed in the project list with PROG as the project type. Some areas with projects already identified that could be included in these programs of projects are listed in a separate tab in the project list. However, these projects were not evaluated as there are likely many more projects that should be considered in each of these programmatic areas.

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FIGURE 1 PROJECT LIST

Type	Detail	Number
BI	Standalone, non-program bike corridor enhancements, primarily for protected facilities and multi-use trails.	42
EX	Interchange improvements on access streets	12
NS	New streets and street extensions	29
ST	Improvements to street operations	31
SA	Safety-based corridor projects, intersection improvement programs and street reconstructions and reconfigurations that are intended to address safety issues	21
SW	Standalone, non-program sidewalk and streetscape projects, usually for a significant corridor extent or high-profile street.	10
TR	Corridor and location-specific capital investment for high-quality transit, including discrete alignments from the Streetcar System Plan and infill station proposals from MORE MARTA.	33

REFINEMENT

From this list, projects were removed if they were:

- Completed based on City's December 2016 updated progress (color-coded) list
- Under construction or programmed for completion in 2017
- Funded in the current TIP
- No longer needed or deemed unnecessary for the following primary reasons
 - A past plan or study project has been superseded in definition by a newer project idea, especially one in TSPLOST or Renew Atlanta.
 - High-capacity transit projects have not been retained in the SSP or More MARTA programs and were not essential to realizing ATP mode shift targets.
 - Projects were combined into a standalone program (documentation of what individual project 'pieces' make up a program will be provided in a final list; the ATP Mapbook will include all pieces but show them labeled with regard to their respective program ID.

METHODOLOGY

Projects were evaluated based on the three goals of Atlanta's Transportation Plan: Safety, Mobility, and Affordability. Each goal consisted of four objectives and evaluation metrics used as guidance to determine whether the project had the potential to help achieve the objective. While certain Objectives state that entire project categories are scored similarly, there are individual exceptions, as each project was evaluated on a case-by-case basis. A binary system was used to score projects for each metric, where a score of 1 indicated "Yes" and 0 indicated "No." Results for each project were tallied for the final score, with a maximum possible score of 12.

SAFETY

Objective #1: Eliminate traffic fatalities

Metric: Does the project reduce vehicle speeds to improve safety?

Projects were evaluated on a case-by-case basis and according to the designated project type. Projects classified as "safety-based" and on-street bicycle facilities, and streetscape projects were generally given a score of 1. Expressways, off-street bicycle facilities, operational improvements and transit projects were generally given a score of 0.

Objective #2: Target projects at high crash locations

Metric: Is this a project located in a high crash location?

GIS analysis was performed to determine whether projects intersected with or were located within a high crash location. Projects classified as "new streets" were given a score of 0.

Objective #3: Reduce transportation related emissions to improve air quality

Metric: Is the project expected to reduce automobile miles travelled and/or emissions?

Projects were evaluated according to the designated project type. Bike and transit projects were given a score of 1. Safety-based projects and streetscapes were also given a score of 1 if they included road diets. Expressways and new streets were given a score of 0. Operational improvements were evaluated on a case-by-case basis.

Objective #4: Provide all residents with active transportation opportunities to improve health

Metric: Does the project enhance or increase safe, comfortable, and accessible bike and pedestrian facilities or transit?

Projects were evaluated according to the designated project type. Bike and transit projects were given a score of 1. New streets also received a score of 1 if the designs included bike/ped

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elements. Safety-based projects, streetscape projects, and operational improvements received a score of 1 if they included bike, pedestrian, or transit accommodations. Expressways were given a score of 0, unless they included, bike, pedestrian, or transit elements.

MOBILITY

Objective #1: Focus density and economic development to support transportation investments

Metric: Is the project located in a City Design growth area?

GIS analysis was performed to determine whether projects were located within a growth area.

Objective #2: Reduce congestion

Metric: Is the project expected to increase vehicle occupancy, reduce single occupancy vehicle trips, or increase person throughput?

Projects were evaluated according to the designated project type. Expressways, bike projects, and transit projects were given a score of 1. New streets, streetscaping, and safety-based projects were given a score of 0.

Objective #3: Funding Identified

Metric: Does the project have an identified funding source or potential non-city funding source including private sources?

Projects funded by Renew Atlanta, MORE MARTA, and those receiving TSPLOST funding were given a score of 1. If the project was freeway-related or involved the Atlanta Beltline, it also received a score of 1. All other projects were given a score of 0.

Objective #4: Fix existing infrastructure and address critical maintenance

Metric: Does the project address an identified maintenance need, without adding new facilities or maintenance responsibilities?

GIS analysis was performed to determine whether projects intersected with areas where pavement conditions were classified as “very poor,” “poor,” or “marginal.” Projects that intersected with these pavement conditions were screened a second time using the criteria below shown in Figure 2.

FIGURE 2 PROJECTS TO ADDRESS PAVEMENT CONDITIONS

Project Type	Score
Bike	1: If it's a complete street replacement or involves milling, repaving, or resurfacing the road 0: If it's a trail, shared path, or a simple restriping of the road
New Streets	0 (New streets add maintenance)
Operational Improvements	1: If it involves any kind of reconstruction 0: If it involves traffic signals or road widening
Safety-based	1: If it involves milling, repaving, or resurfacing the road 0: If it's a road diet without repaving or resurfacing the road
Streetscape	1: If it involves milling, repaving, or resurfacing the road 0: If it's a road diet without repaving or resurfacing the road
Transit	0 (Transit projects add maintenance)

AFFORDABILITY

Objective #1: Provide transportation options to economically disadvantaged neighborhoods

Metric: Is the project located in an ARC Equitable Target Area?

GIS analysis was performed to determine whether projects were located within Equitable Target Areas that had received a ranking of “very high,” “high,” or “medium.”

Objective #2: Expand access to jobs and services

Metric: Does the project increase multimodal network connectivity to core job centers?

GIS analysis was performed to determine whether projects provided bike, pedestrian, or transit connections to job centers. A job center was defined as an area containing 100 jobs per acre at the TAZ (traffic analysis zone) level. Access was determined by projects located within a job center or abutting it.

Objective #3: Reduce household transportation costs for lower income households

Metric: Is the project located in an area with high transportation costs and expected to reduce household transportation costs?

GIS analysis was performed to determine whether projects were located within high transportation cost areas. A location affordability index was used to isolate areas with high transportation costs. If an area contained moderate income households who spent more than 19% of their household income on transportation, it was considered a high transportation cost

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area. For this analysis, a “household” was defined as a family with three members, including one commuter earning 80% of the median regional income.¹

Objective #4: Support livable communities and local character through great design

Metric: Does the project include context-sensitive design?

Projects were evaluated according to the designated project type. Streetscape projects were given a score of 1, as were transit projects if there was no dedicated guideway. Operation improvements and safety-based projects were given a score of 0, unless they included streetscape improvements. New streets were evaluated on a case-by-case basis. Bike projects were also evaluated on a case-by-case basis, unless they included a multi-use trail.

RESULTS

The evaluation scores were assessed using both qualitative methods through literature reviews and quantitative methods using geospatial analysis. The resulting scores ranged from 1 to 10. From this list projects were sorted into high, medium, and low priority based on the methodology shown in Figure 3. As many of these projects are part of pre-determined funding streams or controlled by organizations outside the City of Atlanta, the prioritizations are not intended to indicate which projects should be built first. However, this analysis should indicate which projects best meet all the goals of Atlanta’s Transportation Plan.

FIGURE 3 EVALUATION PRIORITY METHODOLOGY

Priority	Details	Number
High Priority	Projects rated 7 or higher out of 12. These projects meet the majority of the objectives of the City.	81
Medium Priority	Projects rated 4, 5, or 6 out of 12. These projects meet many of the objectives of the City.	58
Low Priority	Projects rated 1, 2, or 3 out of 12. These projects meet some of the objectives of the City.	39

¹ Housing and Transportation costs for different household types were developed by ARC. For more information see: http://opendata.atlantaregional.com/datasets/607ad63983fb4cfa9e8823a0d12e701b_188 and https://www.neighborhoodindicators.org/sites/default/files/publications/housingaffordability_fulldeck.pdf