



Chapter 2

Project Prioritization & Planning Process

Adopted October 27, 2016

Prepared for:



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1 INTRODUCTION

1.1 Study Overview

The Making Connections Plan focuses on formulating a sound and rational basis for guiding development, redevelopment, and supporting infrastructure in unincorporated southwest Adams County. The 13,177-acre study area focuses on the unincorporated lands within southwest Adams County bounded generally by Sheridan Boulevard on the west, 96th Avenue on the north, Brighton Boulevard on the east, and 52nd Avenue or the Adams County boundary on the south. Please refer to the Existing Conditions (Chapter 1) for more information about the project, the process, and existing conditions.

1.2 Chapter Section 2 Objectives

Chapter 2 builds on the background information gathered and analysis of existing conditions completed and summarized in Chapter 1. The purpose of Chapter 2 is to explain the second major phase of the Making Connection Plan, outlining a methodology of project prioritization resulting in a list of the “Top 40 Projects”. This chapter will describe the Top 40 Projects list (mobility and utility infrastructure, policies and programs, and development areas) and the rigorous quantitative vetting and qualitative prioritization processes used to develop the Top 40 Projects from the initial 188 projects identified through the literature review described in Chapter 1. Note that the term "Top 40 Projects" may be used throughout this Chapter, and includes anything from policy or program recommendations, to capital improvement projects, to highlighting key parcels for development opportunities.

1.3 Outreach

In the first phase of this project, a public open house was held to vet the initial project list with the community. At this gathering, participants provided additional ideas or recommended projects to add to the list. They also provided additional insights related to what they believe is the greatest need for the area. In this phase of the project, two different outreach strategies were used, including gaining additional insights via a Community Workshop and a Technical Advisory Committee meeting. Each of these meetings is further described below.

1.3.1 Community Workshop

Approximately 60 people attended the community workshop held on February 17, 2016 at the Skyview Academy High School in Thornton from 6:00 pm to 8:30 pm. An update of the project was presented, followed by break-out sessions, and ending with an interactive polling exercise. Spanish interpretation was provided at the meeting. There were approximately six Spanish-speaking individuals who used the interpretation services. The workshop activities conducted at this meeting were used as a primary component in identifying the Top 40 Projects.

Sticker Dot Exercise Participants at Community Workshop





The break-out sessions allowed participants to “zoom-in” to three sub-areas within the Making Connections Planning area. Participants were provided with nine stickers each—one sticker dot per category listed below. The sticker dots allowed participants to mark where they would like to see future investment and activity within the study area. Within each of the three sub-areas, two maps were provided with categories identified within each. The maps and their respective categories voted on by participants included:

- **Public Infrastructure Map:** This map allowed participants to indicate their support for public investments in Parks or Open Space; Roadway or Traffic Signals; Walking, Biking or Transit Stop Facilities; Water or Sewer; and Stormwater or Drainage.
- **Jobs, Housing and Services Map:** This map allowed participants to indicate their support for locations of development investments for Shops or Restaurants, Educational or Medical, Housing, and Jobs.

Figure 1, on page 7 is a map identifying the results of the sticker dot exercise.

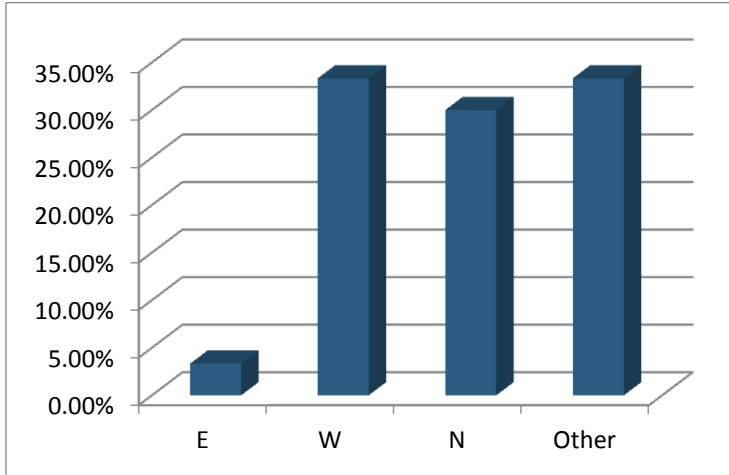
In addition to the sticker dot exercise, meeting participants were asked a series of questions via an interactive remote polling tool. The questions asked included an “ice-breaker” question followed by a series of questions that provide guidance as to how to appropriately prioritize and fund improvements in the study area. The interactive polling questions, followed by the summarized results area provided below:

Spanish Translation and Interactive Polling Participants at the Community Workshop

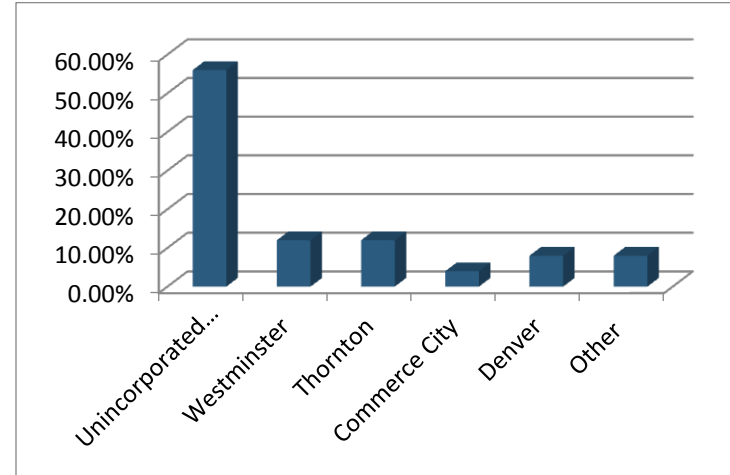




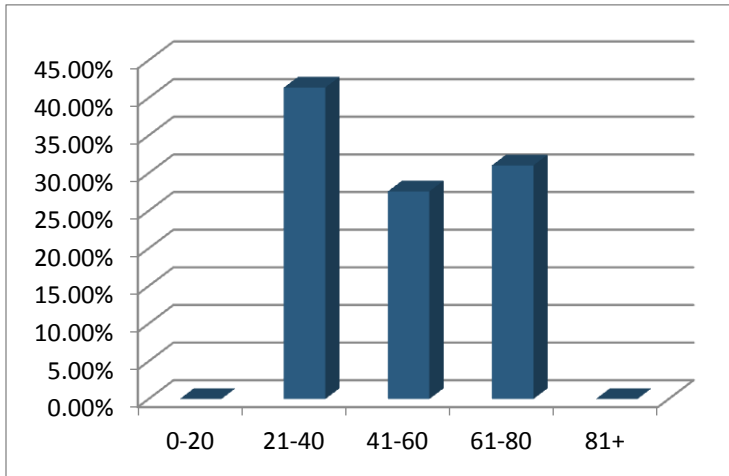
2. Do you live in one of the sub-group areas?



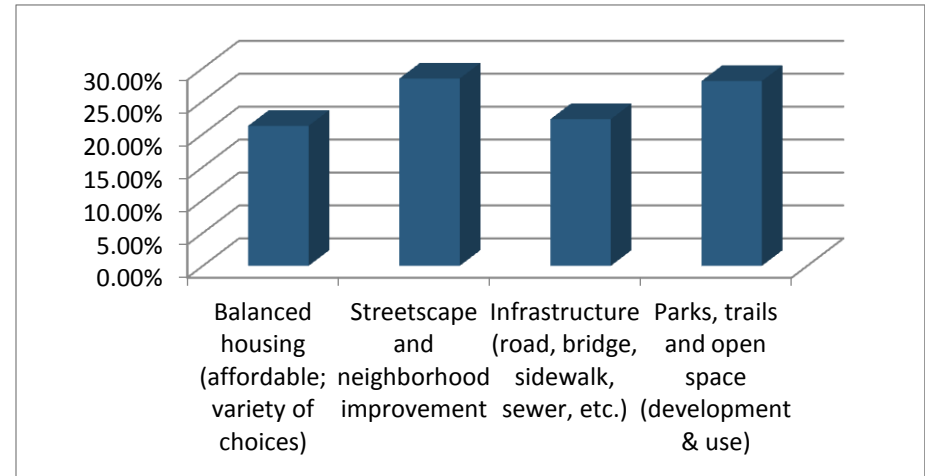
3. Do you live in unincorporated Adams County or a city?



4. How old are you?

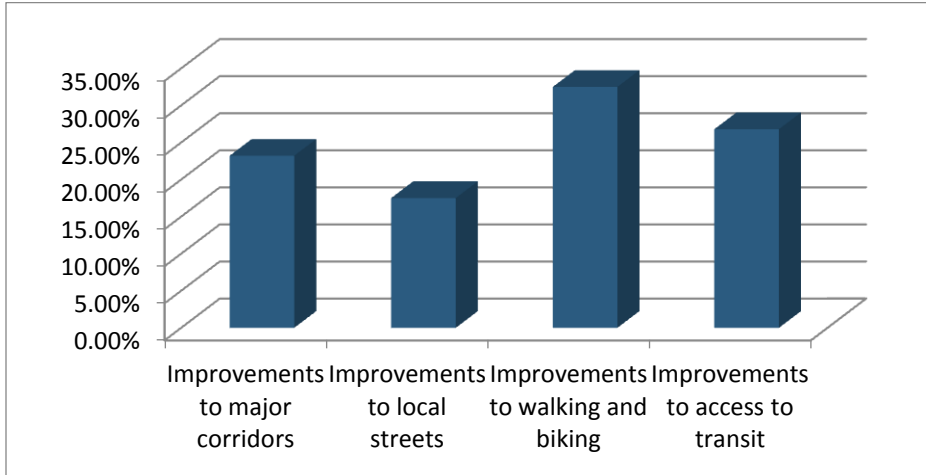


5. What types of programs needs more investment?

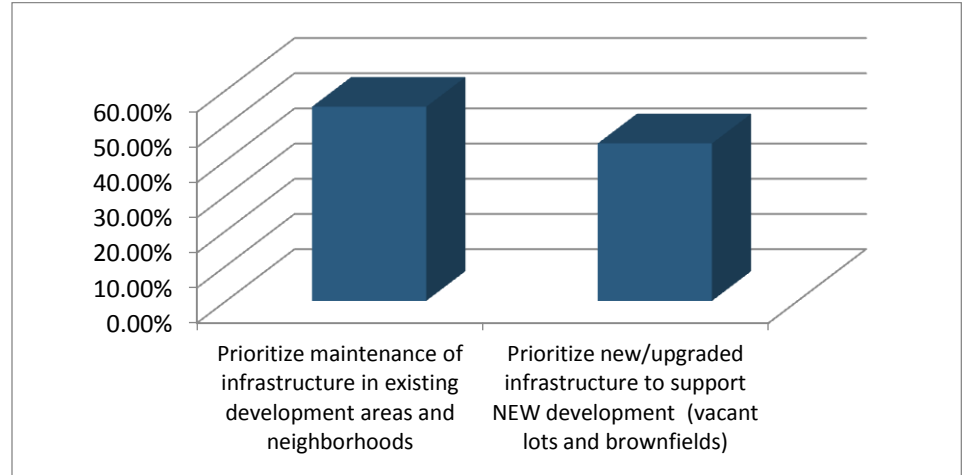




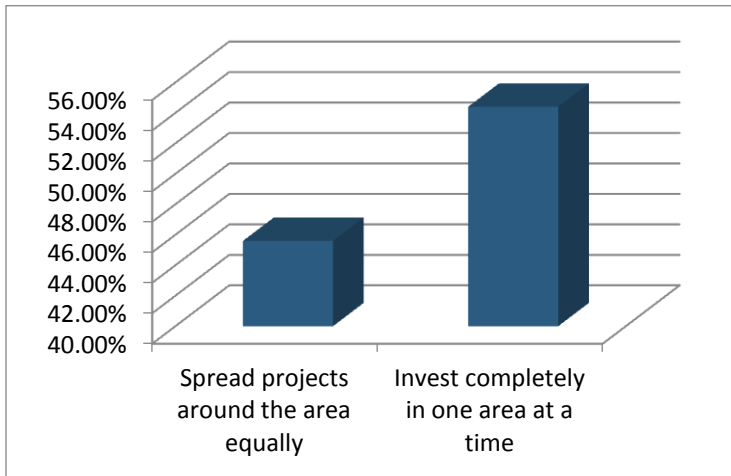
6. How should we prioritize transportation needs?



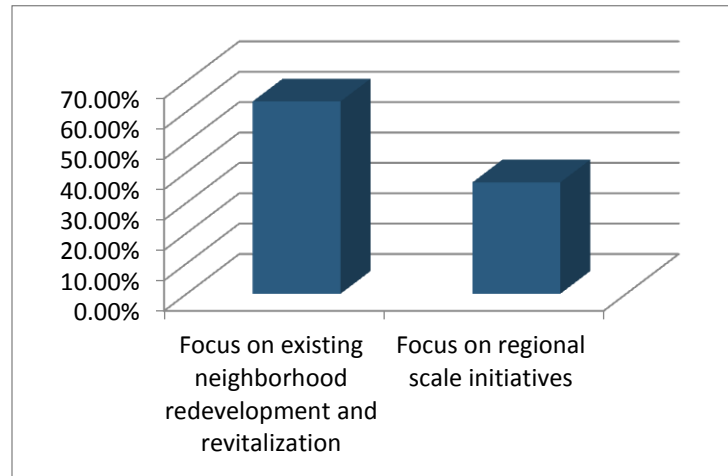
7. Where should we prioritize water, sewer, or stormwater infrastructure?



8. How should we prioritize our investments?



9. What scale should we prioritize our investment upon?





10. How should we pay for projects?

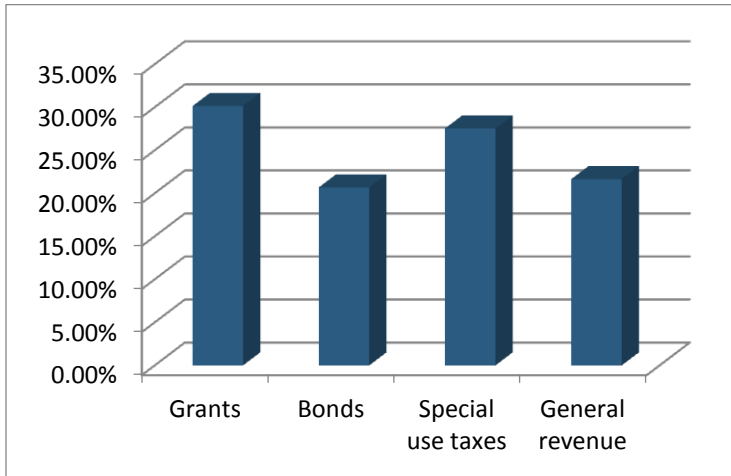
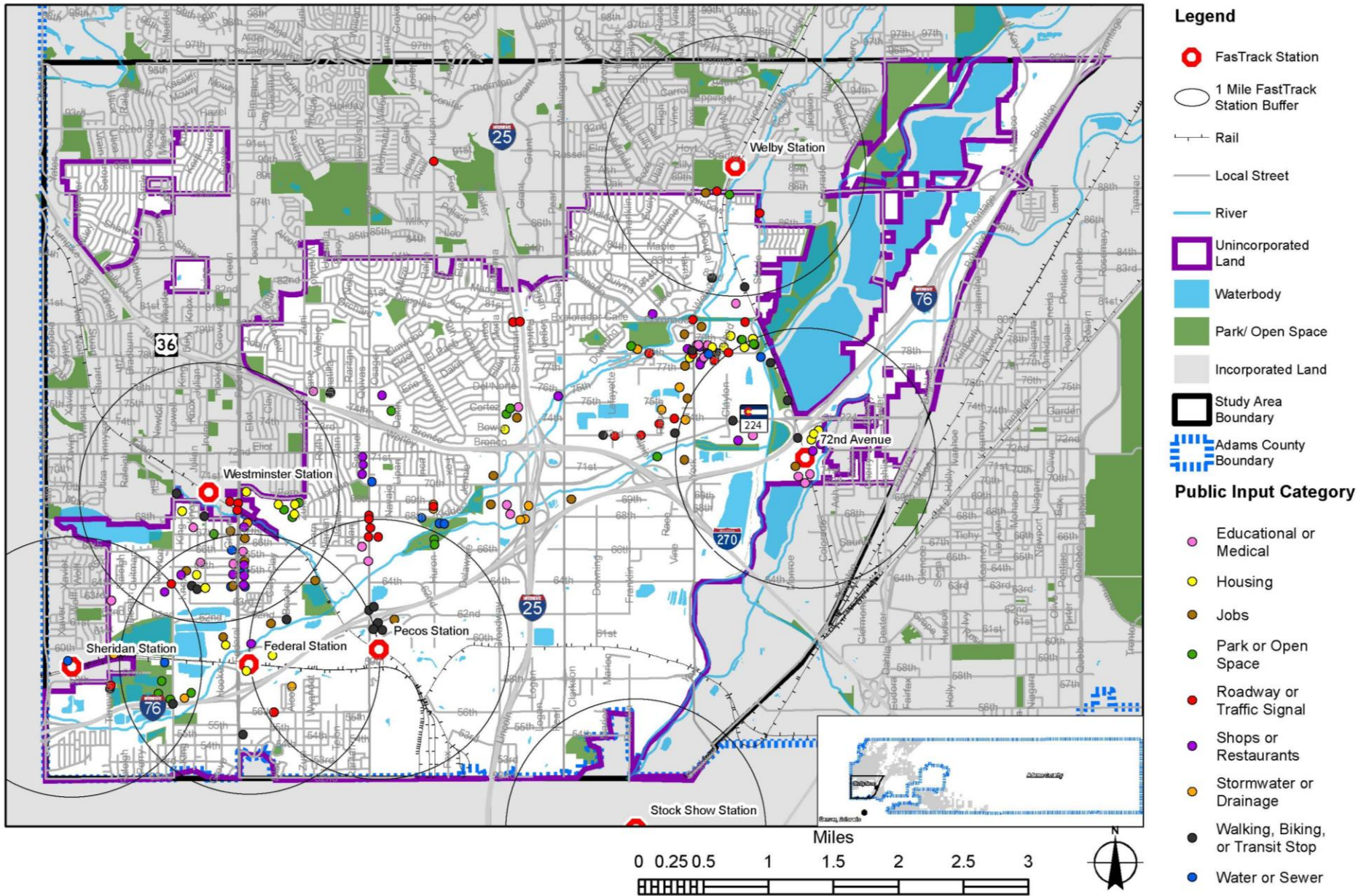


Figure 1-1: Public Input Results for Recommended Redevelopment from the Community Workshop





1.3.2 Technical Advisory Committee Meeting

A Technical Advisory Committee (TAC) meeting took place on February 18, 2016—the morning following the Community Workshop. During the TAC meeting, the consultant team provided a summary of the input garnered at the Community Workshop and discussed alternatives to compile all the information to-date in an effort to establish a methodology to create a Top 40 Projects list. This methodology was discussed with TAC members. In turn, members of the TAC then provided insight on how to affectively prioritize areas where new development interest is being discussed and how to prioritize those infrastructure needs.

1.3.3 Project Team Meetings

Between February and April 2016, numerous conference calls were held between the consultant team and the County’s project managers during this phase of the process. The County project managers provided additional insights that helped refine the project ranking methodology.

Feedback collected from the Community Workshop, TAC meeting, and project team meetings were ultimately used to produce the Project Identification Methodology further described in Section 2 of this report.



2 PROJECT IDENTIFICATION

A significant amount of background data was used for this project. This background data included various Geographical Information Systems software (GIS) datasets provided by Adams County, as well as a list of 85 previous plans and studies that the consultant team collected and analyzed. The background information along with public input collected during the first two public meetings were compiled to provide an exhaustive list of 188 projects. The primary contributions to producing the full project list include a literature review, TAC Input, and Public Meeting Input. The following sub-sections provide more detail on each primary contributor to the full project list.

2.1 Full Project List

Throughout the first phase of this project, Adams County staff and the consultant team compiled an exhaustive list of the 85 previous plans, studies, and reports conducted within the Making Connections Plan study area. These plans, studies, and reports include relevant publications from incorporated cities within the study area as well as adopted publications produced by Adams County. The process of this initial literature review is further described in the Existing Conditions Report (Chapter 1).

In addition to the Literature Review, several ongoing efforts were considered in the identification of projects within the study area. The City of Westminster provided recommendations related to neighborhoods that are within unincorporated Adams County but are in close proximity to the Westminster Station. Meetings and conversations were held with the various water and sanitation districts to determine what large projects could potentially use Adams County's support; these projects were added to the project list. Additionally, two data files were provided by TAC members; these files included a database of known stormwater improvement projects and a database of planned bicycle infrastructure.

Ultimately what came of this process was a compilation of all projects into a Full Project List. The Full Project List can be found in Chapter 3, Appendix A. Each of these projects were mapped to determine their locations as well as proximity to other projects. A project list database was created and includes fields for the following:

- **Project ID:** Each project was provided with a unique Project ID number. The Project ID number is not an indication of ranking of the project.
- **Plan ID:** Each plan, study, or report that was referenced was provided with a unique Plan ID number.
- **Plan/Study/Report Name:** This entry is an abbreviated writing of the full report name.
- **Date:** This entry provides the date upon which the plan, study, or report was published or adopted.
- **Recommendation or Project Name/Description:** This entry provides an abbreviated writing of the project name, recommendation, or project description.
- **Plan IDs:** This entry provides a cross-reference of all other plans, studies, or reports upon which the recommendation or project was referenced. The Plan ID Key can be found in Chapter 3, Appendix A..
- **Project Type:** This entry classifies the project in six project types including Drainage, Non-Motorized, Parks/Open Space, Roadway/Traffic, Water/Sanitation, and Development/Private Development.



- **Project Status:** This entry classifies projects in four status categories including Completed/To Be Completed in 2016, Non-Relevant, In Progress, and Identified. This effort is further described in Section 2.2.

2.2 Project Vetting

After the full project list was compiled, members of the TAC were asked to “vet” these projects. This exercise included asking the following questions:

- Has the project been implemented?
 - Yes or No
 - A 'Yes' answer indicated the project should be categorized as "Completed/To Be Completed in 2016"
- Is the project still relevant?
 - Yes or No
 - A 'No' answer indicated the project should be categorized as "Non-relevant".
- Do you have a status update to provide on this project?
 - Updates that were provided included if they were raising funds for the project, if it’s programmed in the Capital Improvements Program (CIP), as well as if the initial project components or facility type has changed, among other comments.

Using this process, the consultant team was able to classify if a project was not completed, if it is no longer relevant, and information was provided for a better understanding of where the project is in the implementation process. Of the 188 projects initially identified, 23 projects were deemed as completed and 13 were determined to be no longer relevant. Refer to Appendix A: Full Project Listing for a list and map of the completed and non-relevant projects. This information was then used to narrow the project list further before conducting the project ranking process.

The resulting project map is illustrated at the end of Section 4, after the priority area methodology is described.

2.3 Policy/Program Observations

The project team created a list of several policies or program items that should be considered to support investment within the Study Area. The most critical policy and program observations became part of the Top 40 Project list. The policy and program observations for investment include the following tasks:

- Update Comprehensive Plan as needed to support recommendations from this study, particularly discussing future station areas.
- Update zoning codes to provide base zoning appropriate for mixed-use and expansion of possible use of transit-oriented development.
- Update parking regulations to work with mixed-use and to support affordable housing goals.
- Update landscape regulations to ensure adequate screening and minimal site design standards are met for every new development, as well sustainable low impact design (LID) techniques to confirm opportunity to conserve water at both the local and regional level.
- Update sign code to permit appropriate typologies, size, and location for signs calibrated to different mixed-use, transit and commercial areas.
- Improve code enforcement to reduce visual blight and general “run down” appearance of areas within the study area.
- Create a Low Impact Design (LID) manual/guidelines for the County.
- Create a streetscape design manual.
- Create an Affordable Housing Program with a focus initially on Southwest Adams County within a one-mile radius of future transit stations.



- Create or execute the annual Americans with Disabilities Act (ADA) Transition Plan implementation funding, focusing first on areas with high active-travel propensity (further described in Section 3).
- Create missing sidewalk implementation program with annual funding.
- Undertake a comprehensive review and update of the County's street standards to assure appropriate urban street design standards are in place, available, and are targeted particularly for Activity Centers (as identified in the Comprehensive Plan) and around transit stations. Current street standards are rural focused and do not accommodate urban development patterns.
- Create a streamlined development review process for high-priority development areas.
- Counties in Colorado currently are not able to use some valuable tools that Cities can use. The concern is that urbanized Counties will continue to be at a disadvantage when competing with Cities that can leverage these tools. The specific actions noted during this study include:
 - Advocating for change at the state level to allow counties to have parking management districts.
 - Advocating for change at the state level to allow counties to utilize urban renewal outside of the current restrictions of being adjacent to a City's established urban renewal district.
 - Advocating for change at the state level to allow counties to create an inclusionary housing ordinance.

3 IDENTIFYING PRIORITY AREAS

Two versions of geographic propensity models were built to determine areas to prioritize investments in the study area and aid the project prioritization process. The 188 identified projects would overlay the model results to select the projects that overlap with the model results. These propensity models include a model to identify the propensity for people to walk, bike and use transit, as well as a model to determine where development is more likely to occur within the study area.

Understanding areas within the study area with the highest opportunity for active travel and development is critical for developing a multimodal transportation network and in determining high-priority areas. The following section provides the methodology behind the propensity models describing the datasets used for model inputs, the scoring system, and a discussion of the model output results. The raster-based Active Travel Propensity Model (ATPM) and Development Propensity Model (DPM) were built using GIS by combining two submodels.

The ATPM and DPM were developed based off steps used in the methodology behind spatial suitability analysis commonly used in the geography field. Spatial suitability analysis is a systemic and multi-factor tool used to aid decision-making by determining the qualification of a given area for a particular use by layering input information on a map. Layering the multiple factors helps pinpoint the spatial correlation between the different inputs—ultimately to determine an areas suitability or unsuitability for planned actions based on the spatial distance between certain land uses or population types.

Each of the ATPM and DPM models are further described in the following sections. The results of these models are used to identify target areas in order to appropriately prioritize projects where the County is likely to get the highest return on investment. That return on investment may be with more people using walking, biking, and transit facilities, or in development activities in target areas.



3.1 Development Propensity Model

Suitability analysis tools have been widely used by Local governments and developers to aid decision-making by forecasting where development will likely occur. Southwest Adams County is anticipated to undergo a significant growth in development patterns with the emergence of the FasTrack transit system. As part of the Making Connection Plan, a Development Propensity Model (DPM) was developed using geographic data sets to identify locations within the study area that have prime conditions suitable for development. The DPM is composed of an attractor submodel and a detractor submodel. The attractor submodel identifies locations within the study area that have favorable conditions for redevelopment; whereas, the detractor submodel identifies locations within the study area with obstacles that may prevent or make development more challenging. The public input collected during the Community Workshop (described in Section 1.3) was a factor in the DPM. During the Community Workshop on February 3, 2016, participants placed a sticker dot in areas they would encourage specific development types to occur. Each dot placed by a participant in the meeting was mapped and became a layer of information that was subsequently weighted and used in the DPM. Table 9 and 10 show the data sets used to build the attractor and detractor submodels for the DPM, as well as the primary data source for each input. The categories for each input receive a score on a point-ranking system based on research and discussion between the project team and the TAC.

Table 9: Development Attractor Submodel Inputs & Sources

Model Input	Source
Age of Structure (Joined to Parcel)	Adams County GIS
Improvement to Land Value Ratio	Adams County GIS
Future Land Use	Adams County GIS
Proximity to Transit Stations (Future Rail Stations and Existing High Ridership Bus Stops)	Adams County GIS
Public Input (Proximity to Public Recommended Locations for Redevelopment)	Public Meeting
Proximity to Limited Access Freeways	Adams County GIS
Proximity to Primary Travel Corridors (Principal Arterials with Transit Service)	Adams County GIS

Table 10: Development Detractor Submodel Inputs & Sources

Model Input	Source
Floodplain/Floodway	Adams County GIS
Landfills	Adams County GIS

Table 11 lists the development attractor inputs with the assigned point value for each category which is related to the effect on possible development or redevelopment. For instance, land with structures built in 1945 or earlier are more likely to be redeveloped compared to land with recently constructed infrastructure. In addition, a weighted percentage is shown for each input, which is multiplied by the point value to produce the final score. The weighted multipliers are used to determine the sensitivity of each attractor, ultimately determining the propensity for development activity. For example, public input and proximity to transit stations have a weight of 25%, meaning these factors will have greater influence on the model output compared to the other attracting factors. The input received from the public and land adjacent to transit stations were determined to be the main influential components through professional knowledge and research, local level testing, and conversations between the TAC and the project team.



Table 11: Development Attractor Submodel Scoring

Attractor	Points	Weight
Age of Structure (Joined to Parcel for Non-Residential Uses)		
1945 and earlier	3	10%
1946 to 1975	2	
1976 to 1990	1	
1991 and later	0	
Improvement to Land Value Ratio		
Less than 1.0	2	15%
1.0 to 2.0	1	
Greater than 2.0	0	
Future Land Use		
Mixed-Use Neighborhood, Activity Center, Commercial, Mixed-Use Employment	2	5%
Industrial	1	
Urban/Estate Residential, Agriculture, Parks and Open Space, Public, DIA Reserve	0	
Proximity to Transit Stations (Future Rail Stations and Existing High Ridership Bus Stops)		
Within ½ mile	2	25%
Within 1 mile	1	
Not within 1 mile	0	
Public Input (Proximity to Public Recommended Locations for Redevelopment)		
Within ¼ mile	2	25%
Within ½ mile	1	
Not within ½ mile	0	
Proximity to Limited Access Freeways		
Within ½ mile of traffic interchange	1	5%
Not within ½ mile of traffic interchange	0	
Proximity to Primary Travel Corridors (Principal Arterials with Transit Service)		
Within ¼ mile of route	1	5%
Not within ¼ mile of route	0	

Table 12 provides the two inputs in the detractor submodel used to identify physical barriers for development within the Study Area. The negative point values are correlated with the level of constraint on future development opportunity.



Table 12: Development Detractor Submodel Scoring

Detractor	Points	Weight
Floodplain/Floodway		
Within floodway	- 2	5%
Within floodplain	- 1	
Landfill		
Moderate risk (Solid Waste Landfill, Solid Waste and Construction Debris Landfill)	- 3	5%
Low to moderate risk (Construction Debris Landfill)	- 2	
Low risk (Inert Fill Land Fill, Other Disposal Facilities)	- 1	

3.1.1 Development Propensity Model Results

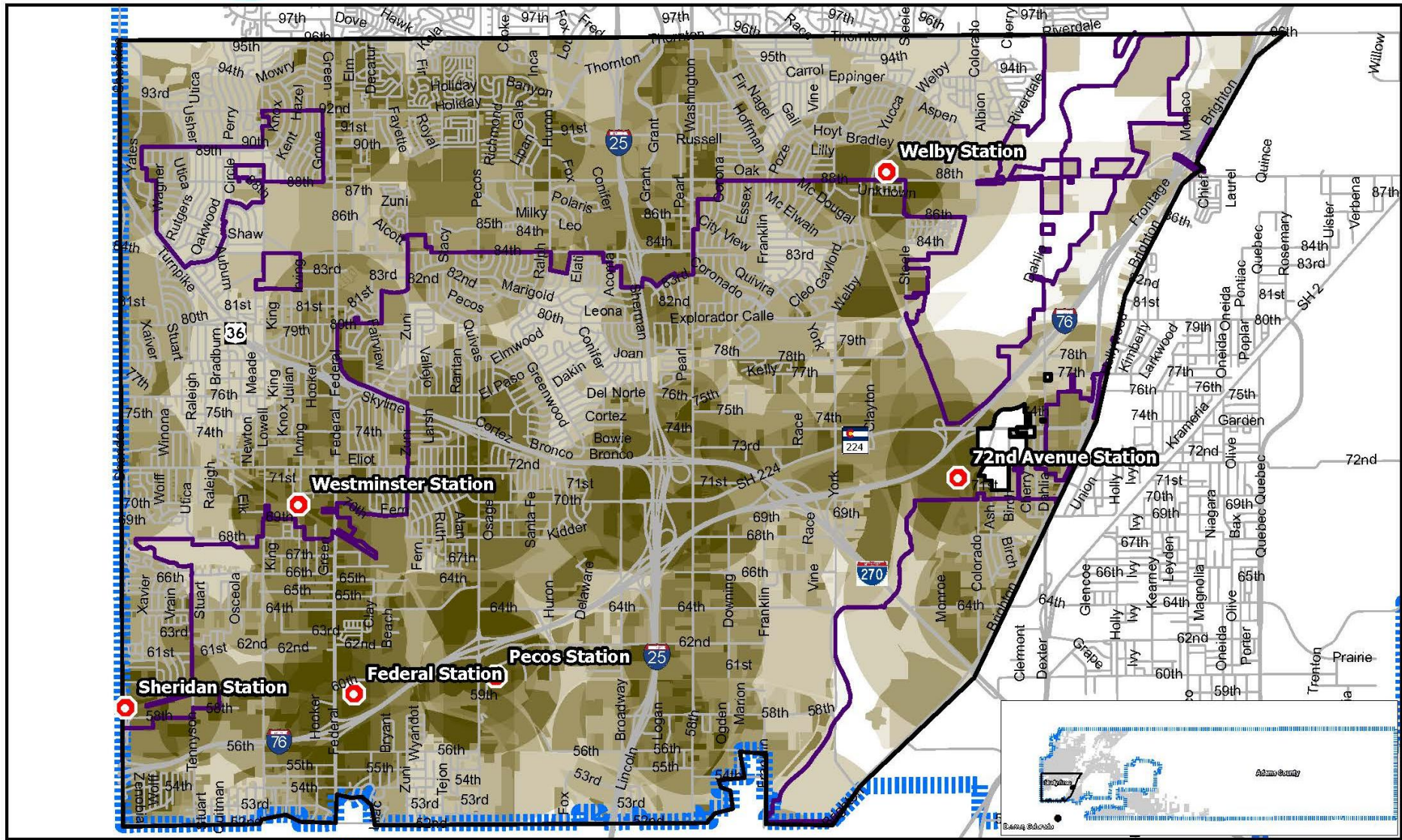
Figure 2 displays the development attractor submodel results where the dark areas on the map are likely to attract development. Land neighboring the future FasTrack stations and areas along the highways and major arterial streets show the highest level of potential opportunity for development.

Figure 3 visually shows the results from the development detractor submodel. The map illustrates land in directly adjacent to Clear Creek and South Platte River as the areas with unfavorable conditions for development. On the other hand, the land adjacent to the Clear Creek and South Platte River also has significant potential for development because of the open space and proximity to transit stations. However, in order for these areas to be favorable to development, engineering solutions addressing flooding concerns and currently unknown environmental contamination will need to be considered.

The development attractor and detractor submodels are combined together to produce a composite map illustrating the areas within the entire Study Area with the highest propensity for development opportunity. As shown in Figure 4, the land illustrated in the darker green near the FasTrack stations and the Pecos commercial district just south of U.S. 36 show the greatest opportunity for development. The centrally located land where I-25 intersects with I-76 and I-276 are also forecasted for development opportunity.

Figure 5 displays refined results from the development propensity composite map highlighting the top quartile, or the top 25% of propensity scores, within the unincorporated land within the Study Area. The model identifies the land near Federal and Pecos FasTrack stations as scoring the highest for development opportunity.

Figure 2: Development Propensity Model - Attractor Submodel Results



Development Attractor Submodel
 High : 80
 Low : 0

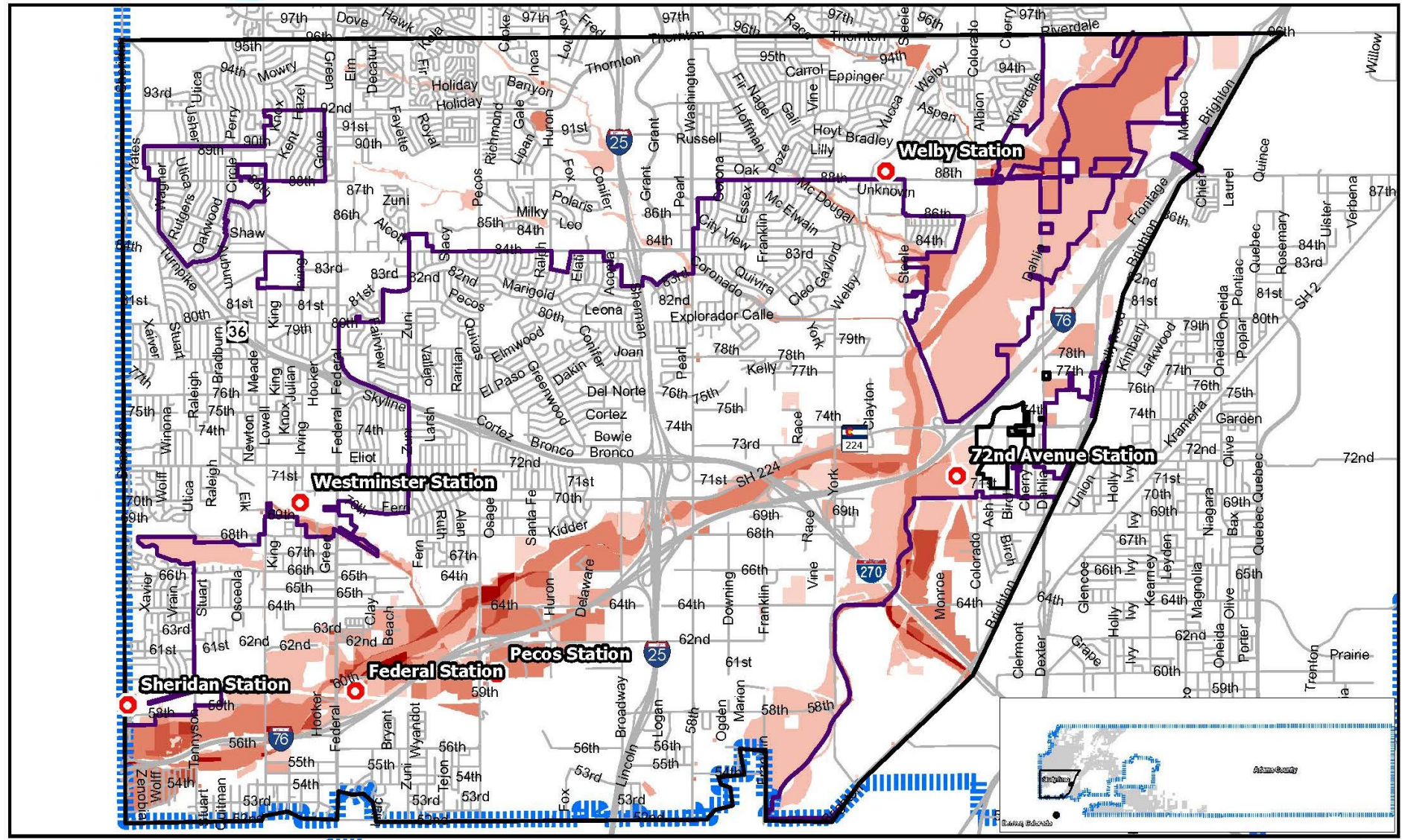
Adams County Boundary
 Study Area Boundary
 Unincorporated Land

Future Rail Station
 County Streets

Miles
 0 0.25 0.5 1 1.5 2 2.5 3

North arrow pointing up.

Figure 3: Development Propensity Model - Detractor Submodel Results



Development Detractor Submodel
 High : 0
 Low : -10

Adams County Boundary
 Study Area Boundary
 Unincorporated Land

Future Rail Station
 County Streets

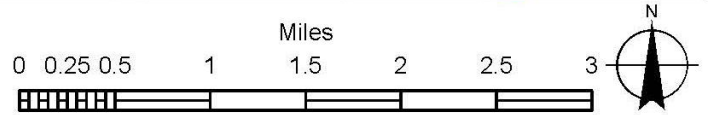
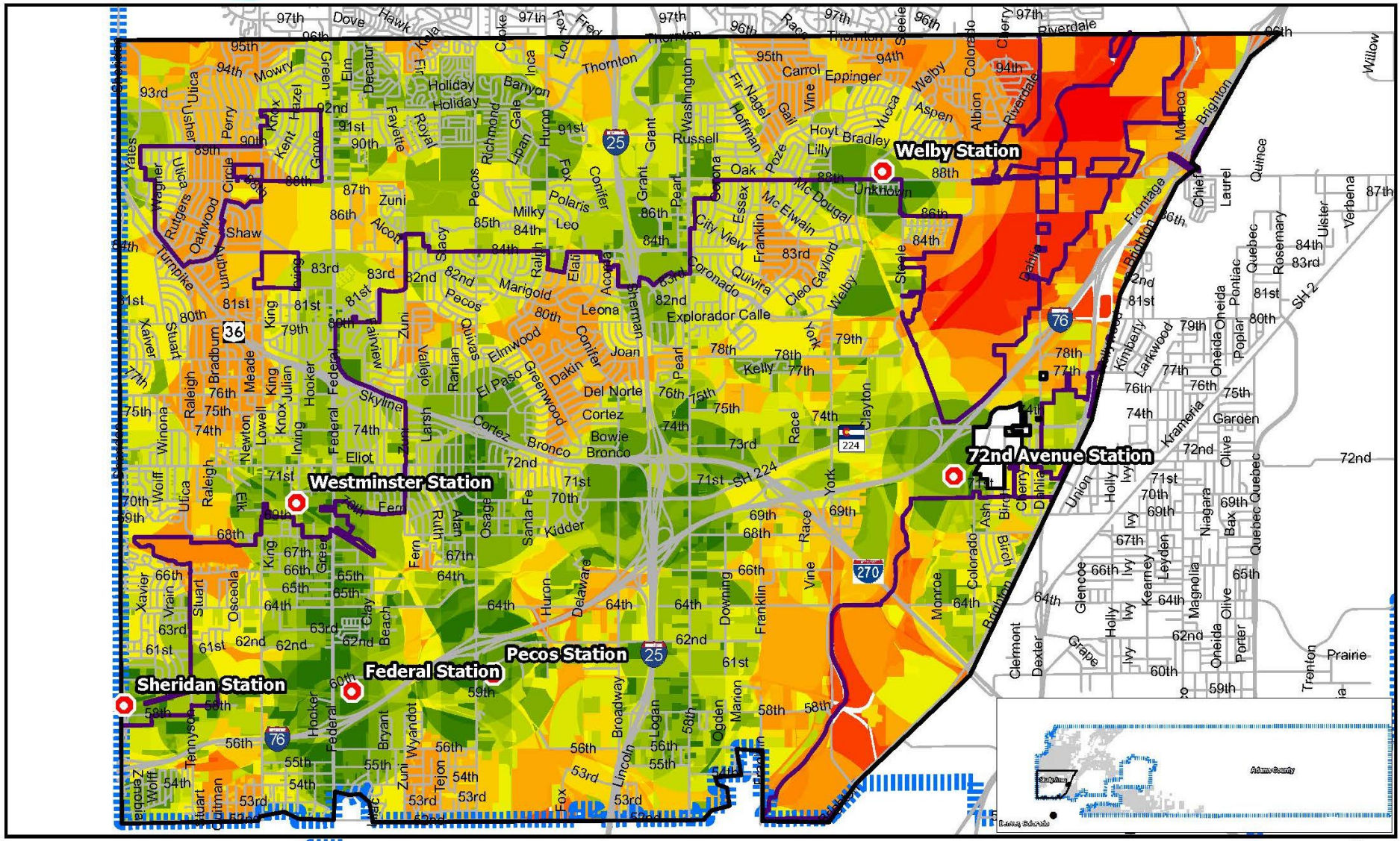


Figure 4: Development Propensity Model Composite Results



Composite Development Model
 High : 77.5
 Low : -5

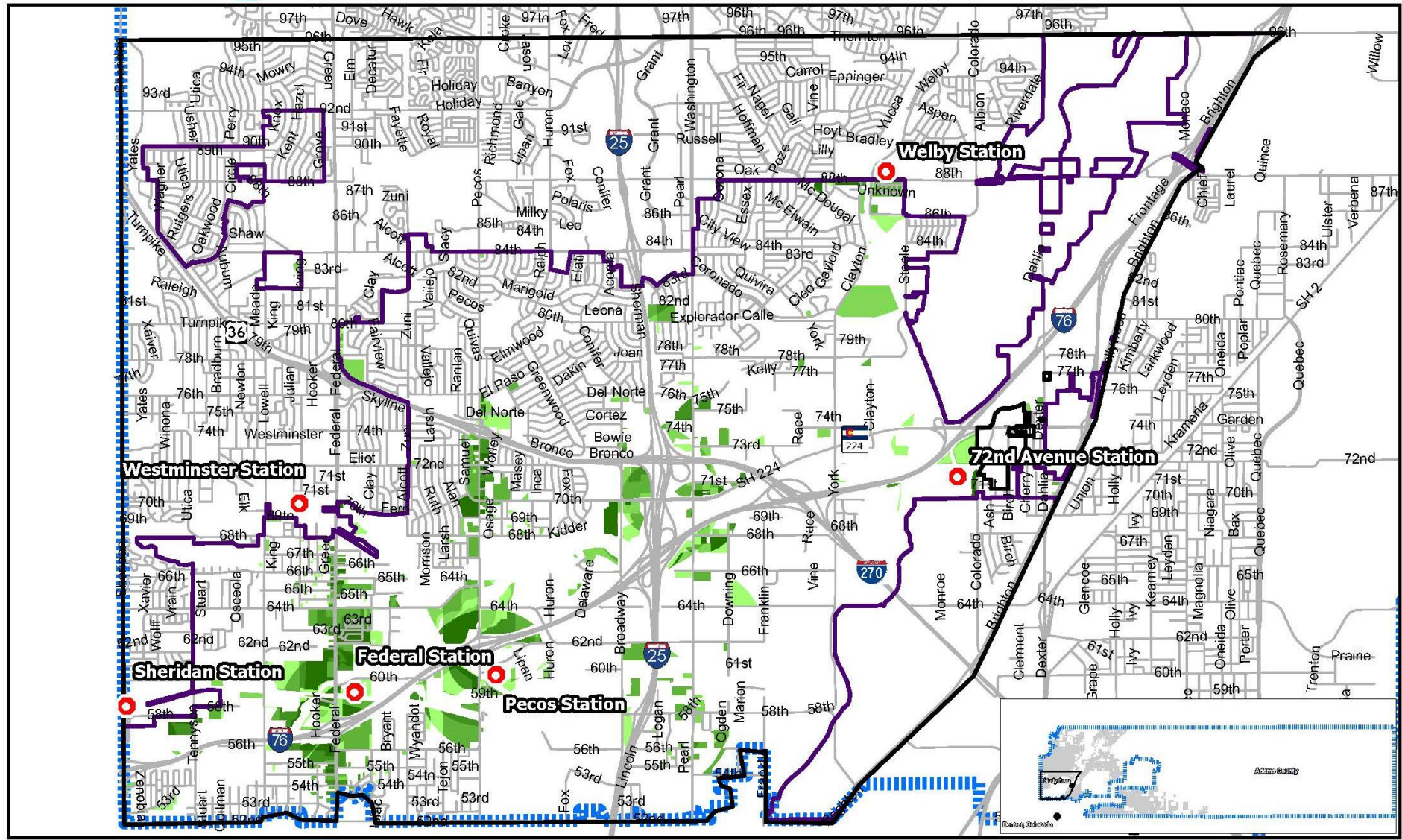
Adams County Boundary
 Study Area Boundary
 Unincorporated Land

Future Rail Station
 County Streets

Miles
 0 0.25 0.5 1 1.5 2 2.5 3

N

Figure 5: Development Propensity Model - Top Quartile Results



Top Quartile of Development Scores

- 48.3 - 50.8
- 50.9 - 53.3
- 53.4 - 57.5
- 57.6 - 62.5
- 62.6 - 75.0

Adams County Boundary
 Study Area Boundary
 Unincorporated Land
● Future Rail Station
 County Streets

Miles

0 0.25 0.5 1 1.5 2 2.5 3



3.2 Active Travel Propensity Model

A separate Active Travel Propensity Model (ATPM) was developed due to the overwhelming support by the public for additional walking, biking, and transit infrastructure. The study area covers a large geography, therefore appropriately prioritizing where people are most likely to walk, bike, or use transit is an effective way to prioritize implementation and funding. Over the last decade, many communities have adopted computer-based analytical procedures to determine locations with low and high active travel capabilities. This model is designed to identify locations with a high propensity for walking, biking, and transit use by analyzing the overlap between infrastructure, land use types, and population information. Due to the changing characteristics in the area two separate ATPMs were developed, one under existing conditions and one under future conditions. Each of these models is further described in the sections that follow.

3.2.1 Existing Conditions - Active Travel Propensity Model

The ATPM uses a trip attractor submodel with a trip generator submodel. The generator submodel identifies areas where socioeconomic characteristics indicate the population is more likely to walk, bike, or use transit. The attractor submodel identifies destinations within the study area that are primary destinations for walking, biking, and transit activity. The attractor and generator submodels visually display the information about active travel origins and destinations to allow the project team to identify potential linkages for pedestrian, bike, and transit facilities within the Study Area.

Tables 1 and 2 present the trip attractor and trip generator inputs used to generate the ATPM, as well as the primary data source for each input. The categories for each input receive a score on a point ranking system based on previous research and discussion between the project team including County staff. Listed in Table 1, trip attractors are defined as a given area or feature that are inclined to attract walk or bike trips. Listed in Table 2, trip generators are defined in terms of population groups and employment types anticipated to generate a walk or bike trip.

Table 1: Existing - Active Travel Attractor Submodel Inputs & Sources

Model Input	Source
Schools	Adams County GIS
Transit Stops (Future Rail Stations and Existing High Ridership Bus Stops)	Adams County GIS
Civic Facilities (Post Office, Libraries, Government Buildings)	Adams County GIS
Commercial Land Use	Adams County GIS
Active Open Space	Adams County GIS



Table 2: Existing – Active Travel Generator Submodel Input Sources

Model Input	Source
Walk Mode Share by Block Group	2014 ACS 5-Year Estimates Table B08301 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Bike Mode Share by Block Group	2014 ACS 5-Year Estimates Table B08301 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Population Density per Acre by Block Group	2014 ACS 5-Year Estimates Table B01003 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Employment Density per Acre by Block Group	2013 OnTheMap data joined to Block Group shapefile (TIGER/Line)
Density of Children (16 and Under) per Acre by Block Group	2014 ACS 5-Year Estimates Table B01001 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Density of Seniors (65 and older) per Acre by Block Group	2014 ACS 5-Year Estimates Table B01001 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Household Income by Block Group	2014 ACS 5-Year Estimates Table B19013 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Density of People with Disability per Acre by Block Group	2014 ACS 5-Year Estimates Table C21007 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Percentage of Zero-Vehicle Households by Block Group	2014 ACS 5-Year Estimates Table B25044 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)

Each of the data sets listed in Tables 1 and 2 were geospatially mapped. A score was assigned based upon distance from attractors. Table 3 displays the trip attractor inputs with the associated distance-based point values for each of the inputs. Locations within a closer proximity to the trip attractor are assigned a higher point value because more people are likely to walk or bike 1/8 of a mile compared to 1/2 of a mile. Table 4 shows the trip generator inputs which are broken up into three different categories and ranked on a point system (zero to two) based on the level of effect on active travel.

Table 3: Existing – Active Travel Attractor Submodel Scoring

Attractor	Points			
	1/8 Mile	1/4 Mile	1/3 Mile	1/2 Mile
Distance to Attractor				
Schools	3	2	1.5	1
Transit Stops	3	2	1.5	1
Civic Facilities (Post Office, Libraries, Government Buildings)	3	2	1.5	1
Commercial Land Use	3	2	1.5	1
Active Open Space	3	2	1.5	1



Table 4: Existing – Active Travel Generator Submodel Scoring

Generator	Points
Walk Mode Share by Block Group	
2% and greater	2
0.01% to 1.99%	1
0.00%	0
Bike Mode Share by Block Group	
1.5% and greater	2
0.01% to 1.49%	1
0%	0
Population Density per Acre by Block Group	
12 and greater	2
6 to 11.99	1
Less than 6	0
Employment Density per Acre by Block Group	
2 and greater	2
0.25 to 1.99	1
Less than 0.25	0
Density of Children (16 and Under) per Acre by Block Group	
1.5 and greater	2
0.5 to 1.49	1
Less than 0.5	0
Density of Seniors (65 and older) per Acre by Block Group	
1 and greater	2
0.5 to 0.99	1
Less than 0.5	0
Household Income by Block Group	
Less than \$30,000	2
\$30,000 to \$59,999	1
\$60,000 and greater	0
Density of People with Disability per Acre by Block Group	
0.5 and greater	2
0.25 to 0.49	1
Less than 0.25	0
Percentage of Zero-Vehicle Households by Block Group	
6 and greater	2
2 to 5.99	1
Less than 2	0

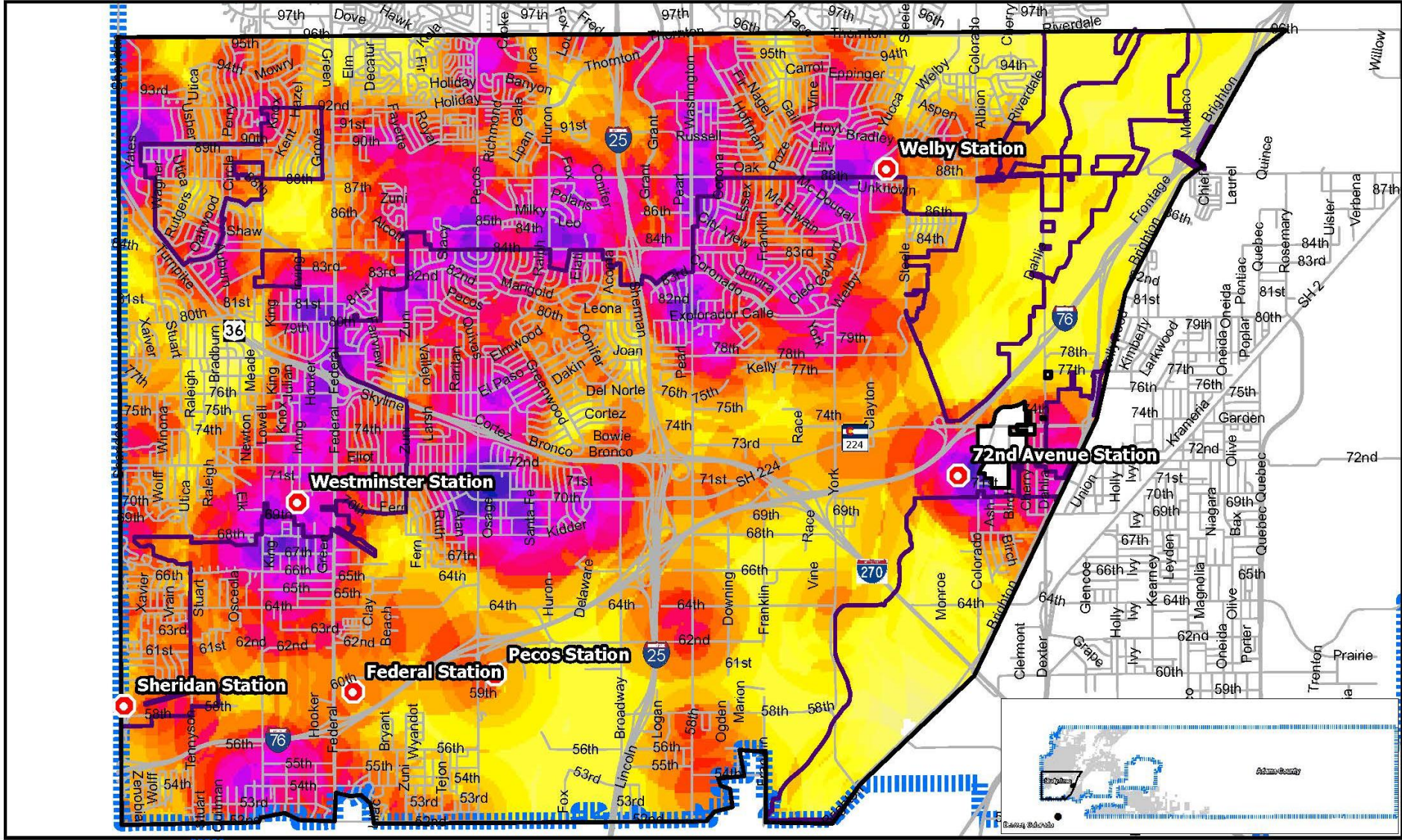
3.2.2 Existing Active Travel Propensity Model Results

Figure 6 displays the Active Travel Attractor submodel results, illustrating the locations within the study area inclined to attract or act as destinations for active travel trips. Areas adjacent to the upcoming RTD FasTrack stations and the northwestern neighborhoods show the highest level of attractiveness for trips made by walking, biking, or transit.

Figure 7 displays the Active Travel Generator submodel results, identifying locations prone to generate or act as active travel origins. Bike, walk, or transit trips are most likely to be generated in the South Westminster neighborhood and other parts of the northwestern neighborhoods.

The Active Travel Propensity Model shown in Figure 8 is a composite map combining the trip attractors and generators submodel. A propensity score of 28 or greater was used as the threshold for highlighting locations within the study area with the high active travel propensity.

Figure 6: Active Travel Propensity Model - Attractor Submodel Results



Attractor Score
 High : 15
 Low : 0

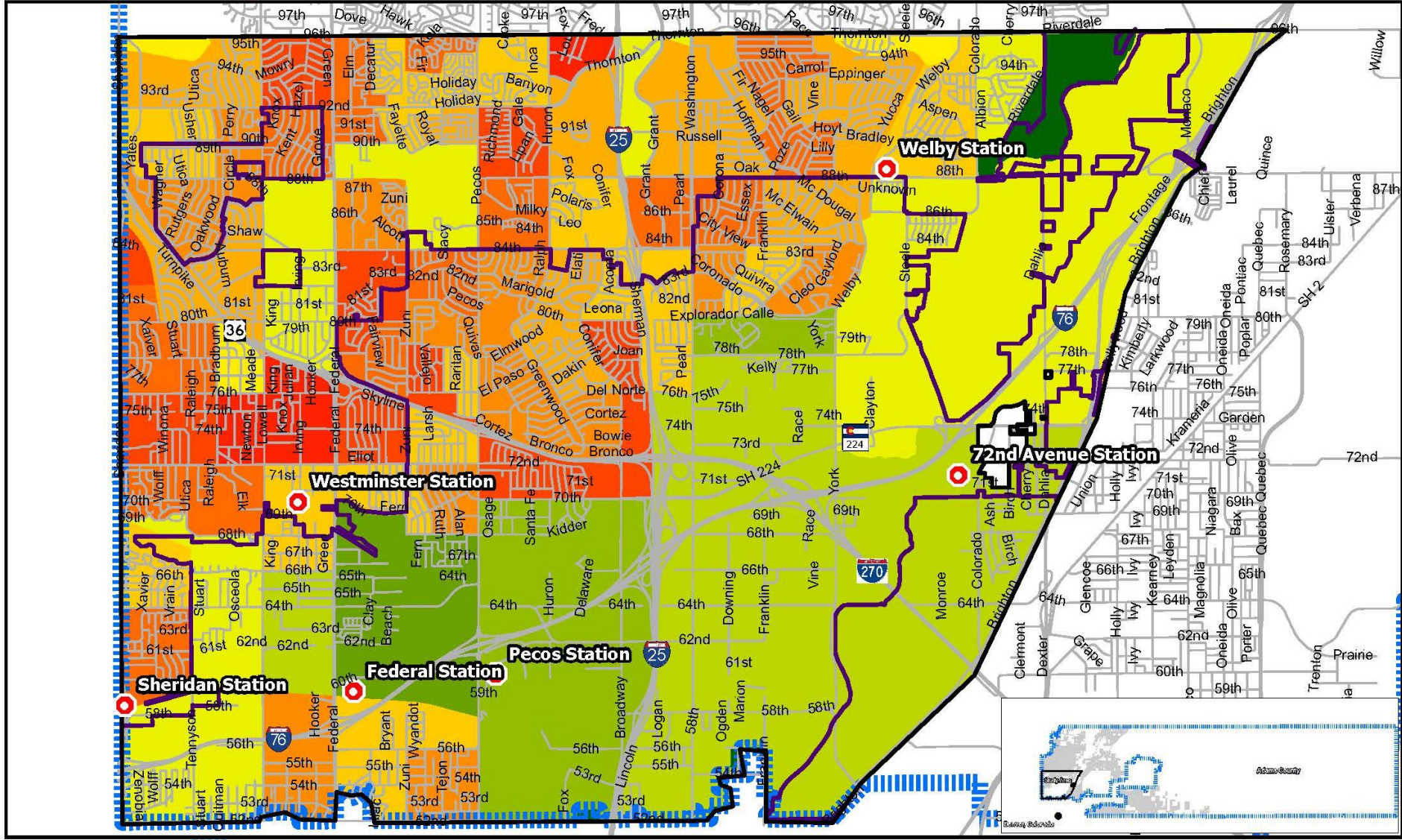
Adams County Boundary
 Study Area Boundary
 Unincorporated Land

Future Rail Station
 County Streets

Miles
 0 0.25 0.5 1 1.5 2 2.5 3

North arrow

Figure 7: Active Travel Propensity Model - Generator Submodel Results



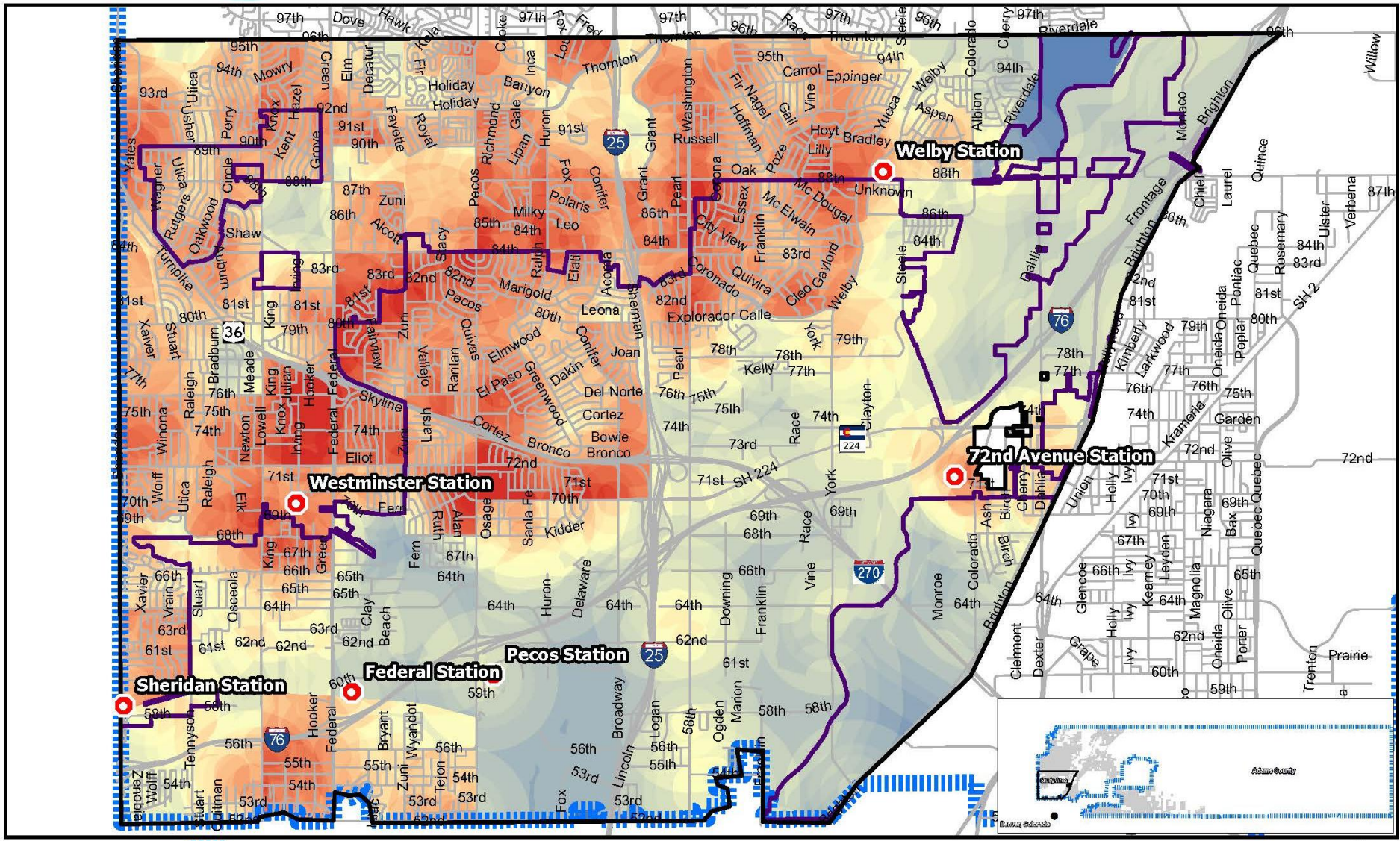
Value
 High : 14
 Low : 0

Adams County Boundary
 Study Area Boundary
 Unincorporated Land

Future Rail Station
 County Streets

Miles
 0 0.25 0.5 1 1.5 2 2.5 3

Figure 8: Active Travel Propensity Model Composite Results



Value
 High : 28
 Low : 2

Adams County Boundary
 Study Area Boundary
 Unincorporated Land

Future Rail Station
 County Streets

Miles
 0 0.25 0.5 1 1.5 2 2.5 3

North arrow pointing up.



3.2.3 Future Conditions - Active Travel Propensity Model

Future active travel behavior in Adams County will change over time with the increase of population and employment trends associated with the opening of the RTD FasTrack stations and the likelihood for development activities to occur in proximity to these areas. Thus, the County and the project team developed a future ATPM by integrating the Denver Regional Council of Governments (DRCOG) 2040 population and employment growth projections into the methodology. Growth factors from DRCOG projections were then applied to the children, seniors, and people with disability population groups. Additionally, future land use was used to determine attractor locations rather than existing land use. This process allowed the project team to identify locations projected to experience elevated active travel in the future within the study area. Table 5 and 6 list the trip attractor and trip generator inputs used to generate the future ATPM, as well as the primary data source for each input.

Table 5: Future - Active Travel Attractor Submodel Inputs & Sources

Model Input	Source
Schools	Adams County GIS
Transit Stations (Future Rail Stations and Existing High Ridership Bus Stops)	Adams County GIS
Civic Facilities (Post Office, Libraries, Government Buildings)	Adams County GIS
Future Commercial Land Use	Adams County GIS
Active Open Space	Adams County GIS

Table 6: Future - Active Travel Generator Submodel Inputs & Sources

Model Input	Source
Walk Mode Share by Block Group	2014 ACS 5-Year Estimates Table B08301 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Bike Mode Share by Block Group	2014 ACS 5-Year Estimates Table B08301 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Population Density per Acre by Traffic Analysis Zone	DRCOG Projections
Employment Density per Acre by Traffic Analysis Zone	DRCOG Projections
Forecasted Density of Children (16 and Under) per Acre by Block Group	Growth Factor From DRCOG Projections applied to 2014 ACS 5-Year Estimates Table B01001 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Forecasted Density of Seniors (65 and older) per Acre by Block Group	Growth Factor From DRCOG Projections applied to 2014 ACS 5-Year Estimates Table B01001 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Household Income by Block Group	2014 ACS 5-Year Estimates Table B19013 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Forecasted Density of People with Disability per Acre by Block Group	Growth Factor From DRCOG Projections applied to 2014 ACS 5-Year Estimates Table C21007 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)
Percentage of Zero-Vehicle Households by Block Group	2014 ACS 5-Year Estimates Table B25044 (American Fact Finder) joined to Block Group shapefile (TIGER/Line)



Table 7 displays the trip attractor inputs with the associated distance-based point values for each of the inputs. The point values were increased in the future ATPM because the attractors will have an elevated effect on active travel with increased population, employment, and development.

Table 7: Future - Active Travel Attractor Submodel Scoring

Attractor	Points			
	1/8 Mile	1/4 Mile	1/3 Mile	1/2 Mile
Distance to Attractor				
Schools	6	4	3	2
Transit Stations	6	4	3	2
Civic Facilities	6	4	3	2
Commercial Land Use	6	4	3	2
Active Open Space	6	4	3	2

Table 8 on the following page shows the trip generator inputs which are broken up into three different categories and ranked on a point system (zero to two) based on the level of effect on the projected active travel. The thresholds for the three different population types were adjusted to maintain an even break within the ranking system.



Table 8: Future - Active Travel Generator Submodel Scoring

Generator	Points
Walk Mode Share by Block Group	
2% and greater	2
0.01% to 1.99%	1
0.00%	0
Bike Mode Share by Block Group	
1.5% and greater	2
0.01% to 1.49%	1
0%	0
Population Density per Acre by Block Group	
12 and greater	2
6 to 11.99	1
Less than 6	0
Employment Density per Acre by Block Group	
2 and greater	2
0.5 to 1.99	1
Less than 0.5	0
Density of Children (16 and Under) per Acre by Block Group	
3 and greater	2
0.5 to 2.99	1
Less than 0.5	0
Density of Seniors (65 and older) per Acre by Block Group	
1.5 and greater	2
0.5 to 1.49	1
Less than 0.5	0
Household Income by Block Group	
Less than \$30,000	2
\$30,000 to \$59,999	1
\$60,000 and greater	0
Density of People with Disability per Acre by Block Group	
1 and greater	2
0.5 to 0.99	1
Less than 0.5	0
Percentage of Zero-Vehicle Households by Block Group	
6 and greater	2
2 to 5.99	1
Less than 2	0



3.2.4 Future Active Travel Propensity Model Results

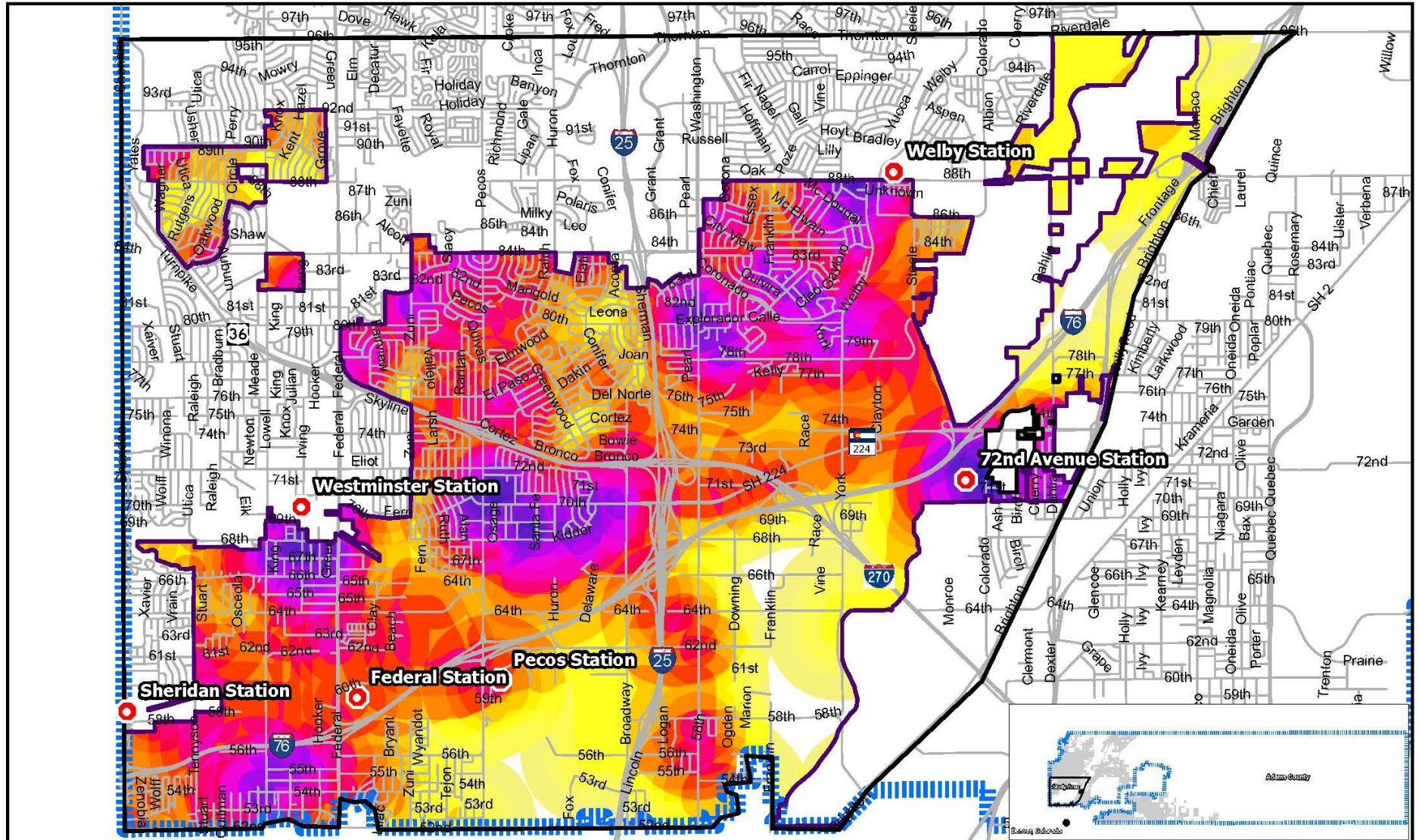
Figure 9 displays the attractor submodel results, illustrating locations projected to act as destinations for active travel. The residential neighborhoods are forecasted to attract a higher level of active travel compared to the rest of the study area.

Figure 10 displays the generator submodel results, explaining the locations within the study area projected to act as destinations for active travel. Areas adjacent to the upcoming Westminster and 72nd Avenue RTD FasTrack stations and the commercial district along Pecos Street south of US 36 show the highest level of attractiveness for trips made by walking, biking, or transit.

Future ATPM is shown as composite map of the attractor and generator submodels in Figure 11, highlighting the areas in red with the highest suitability for walking, biking, and transit use.

Figure 12 the top quartile of the ATPM results. The locations with the highest level of projected active travel are within the neighborhoods and near the upcoming RTD FasTrack Stations.

Figure 9: Future Active Travel Propensity Model - Attractor Submodel Results



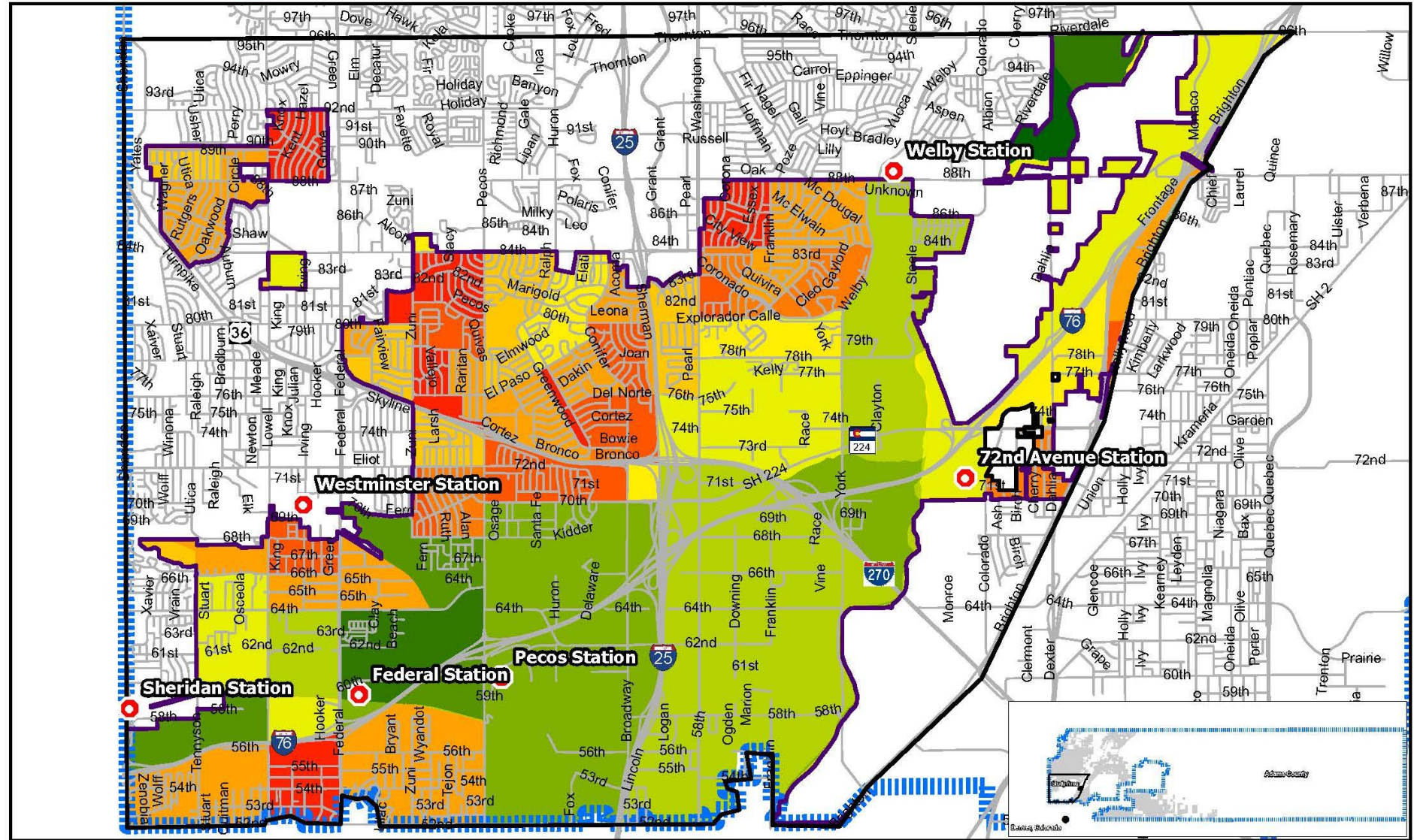
Value
 High : 30
 Low : 0

Adams County Boundary
 Study Area Boundary
 Unincorporated Land

Future Rail Station
 County Streets

Miles
 0 0.25 0.5 1 1.5 2 2.5 3

Figure 10: Future Active Travel Propensity Model - Generator Submodel Results



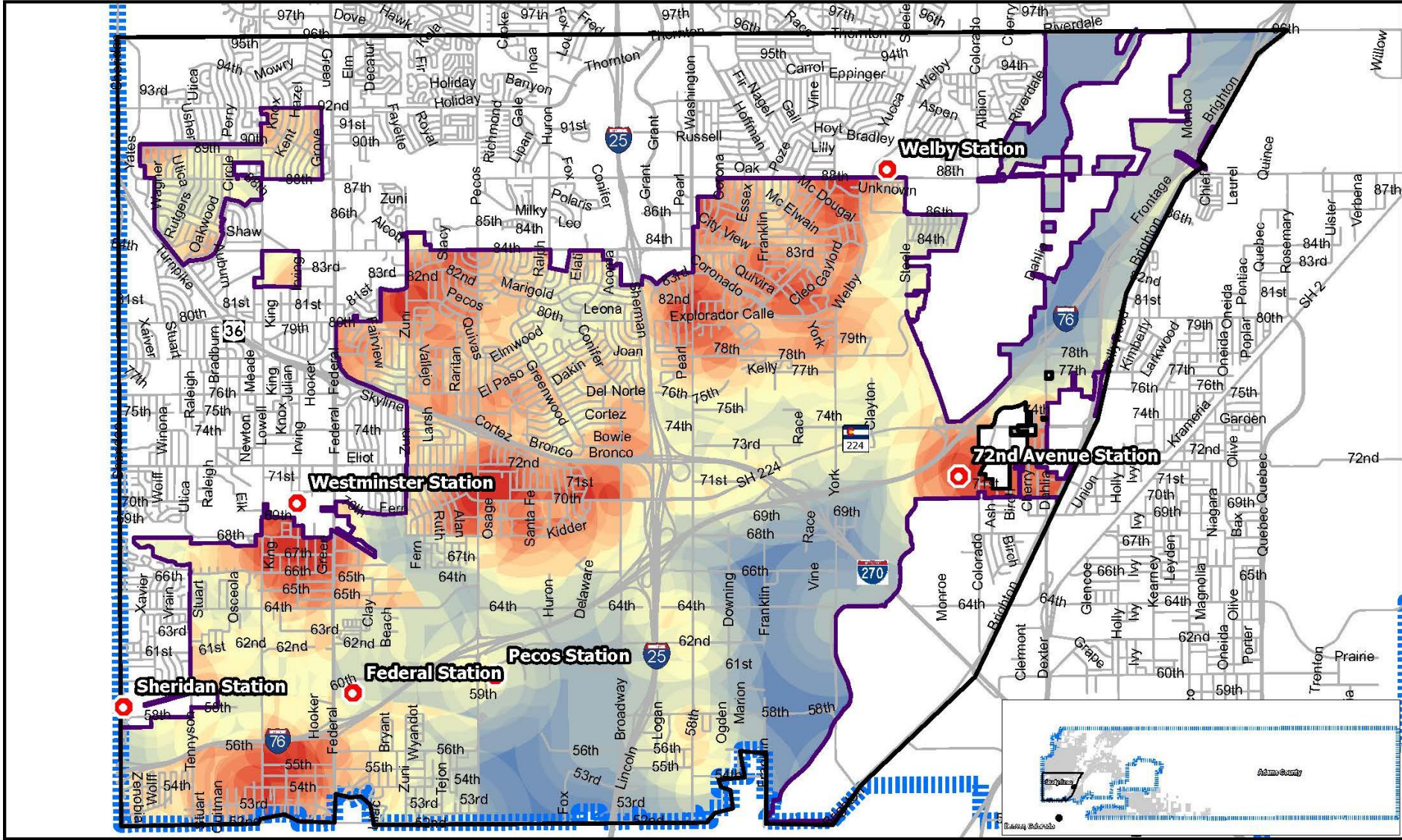
Value

	High : 14	Adams County Boundary	Future Rail Station
		Study Area Boundary	County Streets
	Low : 2	Unincorporated Land	

Miles

0 0.25 0.5 1 1.5 2 2.5 3

Figure 11: Future Active Travel Propensity Model Results



Value
 High : 39
 Low : 3

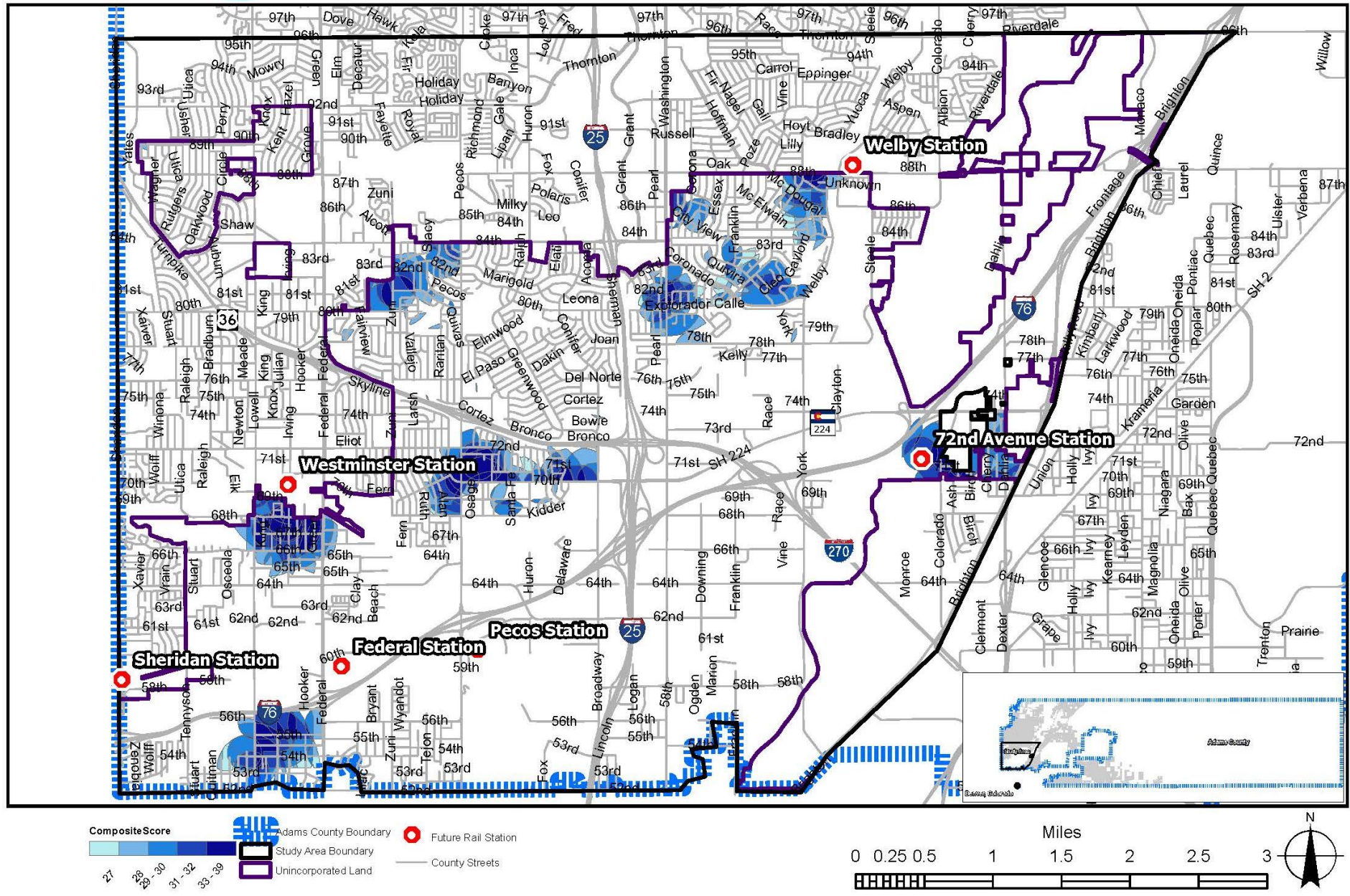
Adams County Boundary
 Study Area Boundary
 Unincorporated Land

Future Rail Station
 County Streets

Miles
 0 0.25 0.5 1 1.5 2 2.5 3

Scale bar and North arrow.

Figure 12: Future Active Travel Propensity Model Top Quartile

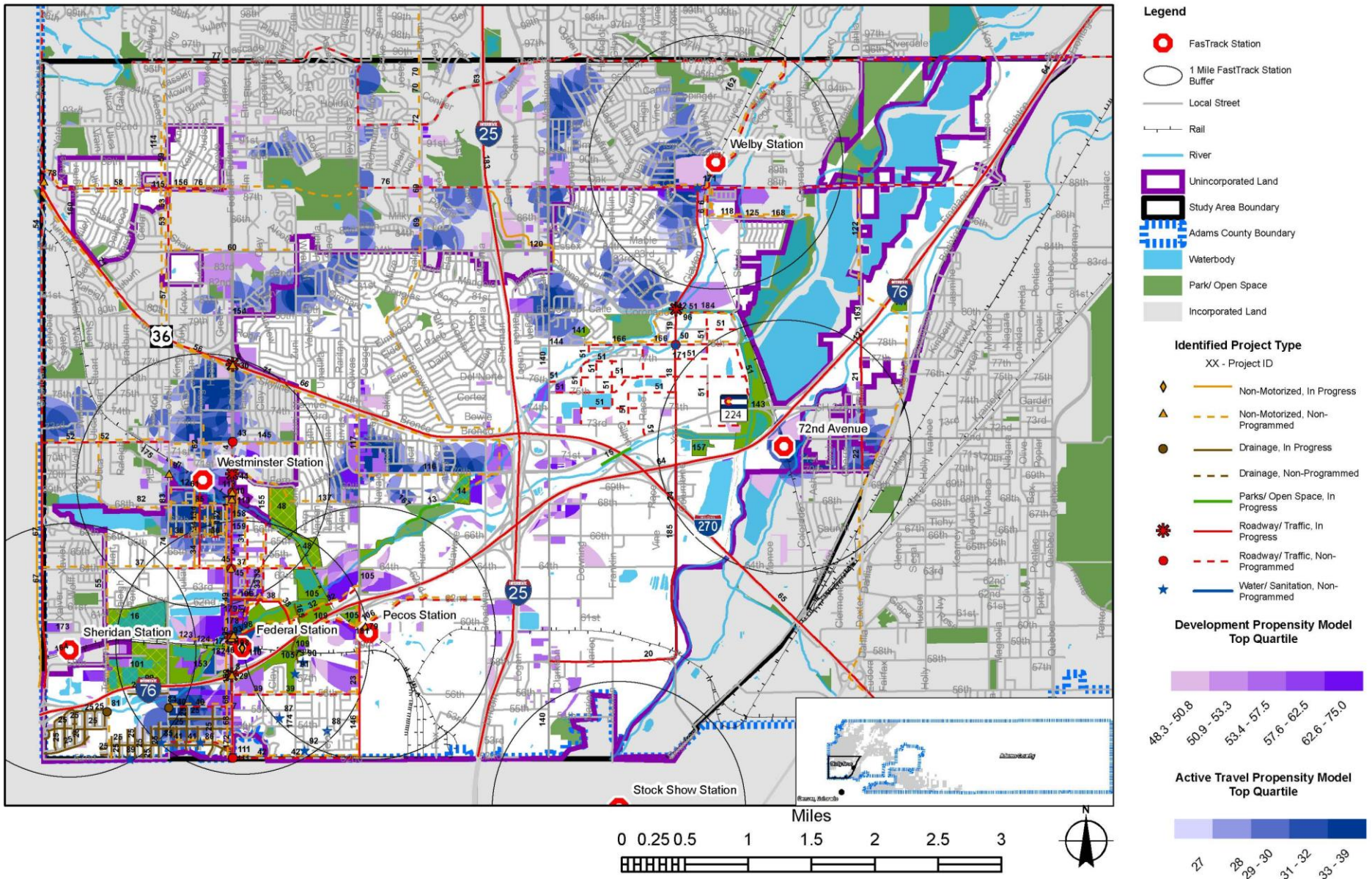


4 TOP 40 PROJECTS

Described in Sections 2 and 3 of this report, the project team first worked to identify a full list of projects followed by an exercise to identify target areas for prioritization. From these two efforts, a composite map was developed that indicates the top quartile of the two propensity models (active travel and development) as well as all of the identified projects. The composite map is displayed as Figure 13.

The project team then worked on identifying projects that fall within the priority or target areas and clustering or grouping projects by project type. The results of this effort are summarized into infrastructure, policy/program, and development site projects. The infrastructure projects are categorized by target area. The policies and programs are intended to cover the full project area and are therefore under a separate heading. The development sites include summarization of efforts needed to get target locations development-ready. These Top 40 Projects are described in the following sections. An initial project rank by target area was established based on several factors including number of times it was referenced in a planning document, project status, and if partnership organizations are identified.

Figure 13: Identified Projects and Propensity Results





4.1 Policies or Programs

Twelve policy or program improvements were identified as part of the Top 40. They are described below and summarized in Table 9.

1. Update Zoning

Implement a uniform and adaptable zoning structure. Many of the current zone district categories do not allow for good urban development patterns without forcing a developer to go through a PUD process. The County desires to reduce the number of PUD applications and have sufficient base zone regulations to accommodate different development typologies. First, an assessment should take place to identify where specific needs may be, whether creating new zone districts and/or amending existing zone district language. Updates to the code should then be written and adopted.

A cursory review reveals that the County needs to provide at least one base zone district for mixed-use activity centers. Two new districts may be needed, such as clear "Residential Mixed-Use" and "Employment Mixed-Use" zone districts. In addition, the TOD zone district should be updated to include a larger area around a station, address more than the Federal and Pecos stations, and be calibrated as necessary since original adoption.

2. Update Parking Regulations

Adjust current parking regulations to blend with future development and the emergence of the FasTrack transit system. Parking regulations are not calibrated to account for typical spaces provided in mixed-use activity centers. Parking reductions need to be made for both commercial and residential uses and to support affordable housing goals.

3. Affordable Housing Policy

Create a comprehensive affordable housing policy for development. The policy should begin by focusing within one-mile of rail station or bus rapid transit stop. The policy should be expanded to the larger Study Area and overall County after a baseline policy and applicability has been established. The policy may include things such as (not exhaustive list):

Regulatory:

- Review options for enhanced efficiency in the development review and permitting processes
- Reduce/waive permit fees
- Assure appropriate regulations exist to support affordability
- Assure reduction in parking requirements
- County share on public street improvements adjacent to public housing

Financing:

- Establish a housing trust fund
- Provide a low interest/interest only loans program with local bank partners
- Establish a County Land Trust

Infrastructure:

- Reduced tap fees



- Use of regional or off-site stormwater detention

4. Sidewalk Gap Annual Implementation Program

Create an annual program and identify budget dollar amount per year for 10 years (to start) to provide better pedestrian mobility within the study area.

5. Bicycle Facility Annual Implementation Program

Identify budget dollar amount per year for 10 years (to start) to provide better bicycle mobility. This could include bicycle lanes, trails, bicycle racks, bicycle lockers, etc.

6. ADA Transition Plan Annual Implementation Program

Identify annual budget dollar amount for 10 years (to start) to implement the approved County ADA Transition Plan within the study area. This would involve updating public sidewalks, ramps, crossings, and other features to be ADA-accessible.

7. Create Low Impact Development Standards

Update subdivision regulations to encourage low-impact developments.

8. Create a Neighborhood Toolkit

Establish a neighborhood and community support program offering broad and comprehensive tools to address individual neighborhood needs. This may range from branding/placemaking programs, traffic and speed mitigation programs, community gardens, mini-grants for neighborhood needs, tool libraries, leadership and community development training and support, clean-up programs, etc.

9. Create a Transportation Demand Management Program

Study and identify strategies to enhance mobility management. Such strategies may include improved transportation options, incentives to use alternative modes and reduce driving, parking and land use management, and policy and institutional reforms.

10. Create a Complete Streets Policy and Complete Streets Standards

Create urban roadways design standards that promote mixed traffic activity and identify mode priorities by street type and character of development area.

11. Conduct Improvements Funding Study

Options discussed include Special Use Tax, Local Improvement Districts (LIDs), Public Improvement Districts (PIDs), Infrastructure Authority/Intergovernmental Agreement, and Bond Measure. Funds to be dedicated to transportation, public health, and recreational facilities.

12. Create a “Planning to Programming” or “Planning to Projects” process at Adams County

Create an internal process where long range planning results in programmatic decision-making as well as translates to development review processes.



Table 9: Policy or Program Recommendations

Rank	Project Number	Initial Project Name
1	P1	<u>Update Zoning</u> Need to provide at least one base zone district that is workable in mixed-use activity centers. Perhaps need two –"Residential Mixed Use" and "Employment Mixed Use." Calibrate TOD district language as needed and expand where it can be applied to beyond a ½-radius of a proposed/planned rail transit station. Current zoning does not allow for good urban development patterns without forcing a developer to go through a PUD process.
2	P2	<u>Update Parking Regulations</u> Parking regulations are not calibrated enough to account for typical spaces provided in and near transit areas or to accommodate mixed-use activity centers.
3	P3	<u>Affordable Housing Policy</u> Create comprehensive affordable housing policy for development within one-mile of rail station or bus rapid transit stop (to start).
4	P4	<u>Sidewalk Gap Annual Implementation</u> Identify budget dollar amount per year for 10 years (to start) to provide better pedestrian mobility.
5	P5	<u>Bicycle Facility Annual Implementation Program</u> Identify budget dollar amount per year for 10 years (to start) to provide better bicycle mobility. This could include bicycle lanes, trails, bicycle racks, bicycle lockers, etc.
6	P6	<u>ADA Transition Plan Annual Implementation</u> Identify budget dollar amount per year for 10 years (to start) to implement ADA Transition Plan within study area. Involves updating public sidewalks, ramps, crossings, and other features to be ADA-accessible.
7	P7	<u>Create Low Impact Development Standards</u> Update subdivision regulations to encourage low-impact developments.
8	P8	<u>Create a Neighborhood Toolkit</u> Establish a neighborhood and community support program offering broad and comprehensive tools to address individual neighborhood needs. This may range from branding/placemaking programs, traffic and speed mitigation programs, community gardens, mini-grants for neighborhood needs, tool libraries, leadership and community development training and support, clean-up programs, etc.
9	P9	<u>Create a Transportation Demand Management Program</u> Study and identify strategies to enhance mobility management. Such strategies may include improved transportation options, incentives to use alternative modes and reduce driving, parking and land use management, and policy and institutional reforms.
10	P10	<u>Create a Complete Streets Policy and Complete Streets Standards</u> Create urban roadways design standards that promote mixed traffic activity and identify mode priorities by street type and character of development area.
11	P11	<u>Conduct Improvements Funding Study</u> Options discussed include Special Use Tax, LIDs, PIDs, Infrastructure Authority/Intergovernmental Agreement, and Bond Measure. Funds to be dedicated to transportation, public health, and recreational facilities.
12	P12	<u>Create a "Planning to Programming" or "Planning to Projects" process at Adams County</u> Create an internal process where long range planning results in programmatic decision-making as well as translates to development review processes.



4.2 Development

Development recommendations focus around the five target areas displayed in Table 10. All development areas are identified to be a next step to a parallel study the County is undertaking that includes a brownfields inventory followed by Phase I or Phase II Environmental Site Assessments. The intent is to complete the initial environmental review on parcels within these five development areas and then prioritize, create a clean-up strategy, and solicit funding for clean up to help spur development in these key areas around transit or at potential future mixed-use nodes. Each of these target development nodes are listed in Table 10 below.

Table 10: Target Development Area Recommendations

Rank	Project Number	Initial Project Name
1	D1	<p><u>Federal Gold Line Station—sites included in Clear Creek TOD Plan</u></p> <ul style="list-style-type: none"> • Larger sites and mix of uses currently • Approximately 4-5 parcels around future rail station • Some within area identified for key future road connection • Portions in floodway and floodplain • Recommend Phase I or II Environmental Site Assessment as part of ongoing brownfields study
2	D2	<p><u>Federal Boulevard—between 62nd and 70th Avenues</u></p> <ul style="list-style-type: none"> • Smaller sites and mix of uses currently • Approximately 3-4 parcels • In floodplain • Recommend Phase I or II Environmental Site Assessment as part of ongoing brownfields study
3	D3	<p><u>64th and Pecos—both sides of Pecos Street north of I-76</u></p> <ul style="list-style-type: none"> • Mix of uses currently • Approximately 4-5 parcels around future rail station • Portions in floodway and floodplain • Recommend Phase I or II Environmental Site Assessment as part of ongoing brownfields study
4	D4	<p><u>72nd Avenue and Colorado</u></p> <ul style="list-style-type: none"> • Currently industrial • Approximately 4-5 parcels around future rail station • Small piece in floodway • Recommend Phase I or II Environmental Site Assessment as part of ongoing brownfields study
5	D5	<p><u>72nd Avenue and Pecos Street—Southwest Corner</u></p> <ul style="list-style-type: none"> • Currently commercial • 1 small parcel/area of larger development identified as solid waste site • Recommend Phase I or II Environmental Site Assessment as part of ongoing brownfields study



4.3 Infrastructure

Prioritized infrastructure projects include parks and open space, floodplain mitigation, stormwater improvements, water and sanitary improvements, roadway or traffic improvements, and non-motorized improvements. Each of these recommendations are categorized into geographic target areas and are listed in Tables 11, 12, and 13.

Table 11: Federal Boulevard and Federal Station Projects

Rank	Project Number	Initial Project Name	Project Status	Partnership
1	i68 i17	<u>Federal Boulevard Comprehensive Street Design</u> •Federal Blvd, 52 nd -72 nd Ave 2035 Baseline Roadway Network (comprehensive street design) •Sidewalk Gap Fill Project •Phasing considerations will include ranked projects 2 through 6, as well as 10 and 11	In Progress Identified	
2	i95 i49	<u>Federal Boulevard Waterline Improvements</u> •Waterline Replacement Federal, 56 th to 64 th Ave •"Improve Crestview Water Capacity to Accommodate New Development"	Identified Identified	Water & Sanitation
3	i1	<u>Little Dry Creek Federal Boulevard Bridge</u> •Federal Blvd Bridge Expansion Over Little Dry Creek/BNSSF	In Progress	DOT
4	i45 i44	<u>Intersection Improvements</u> •Intersection Improvement (High Priority) 64th and Federal •Intersection Improvement 70 th and Federal Blvd	Identified In Progress	
5	i4 i43	<u>Westminster Partnership Project</u> •Westminster Federal Streetscape 70 th -72 nd Ave •Intersection Improvement 72 nd Ave and Federal Blvd	Identified Identified	Westminster
6	i32 i46 i93 i98	<u>Proposed Clear Creek Parkway or 60th Avenue</u> •Study necessary, various recommendations to be considered •Proposed Clear Creek Pkwy (Multimodal) •60 th Ave Intersection Improvements •Waterline Replacement 60 th Ave, Federal Blvd to Zuni St •Roadway Improvement 60 th Ave, Federal Blvd to Zuni St	Identified In Progress Identified Identified	Water & Sanitation
7	i108	Parcels to be Removed from Floodplain in proposed Phase B Urban Drainage Master Plan	Identified	UDFCD
8	i105 i153 i123	<u>Park/ Open Space & Trail Improvement</u> •Park and Open Space in Clear Creek TOD Plan •New/Improvement of Park/Open Space, NW Corner of Federal Blvd and I-76 •ADCO Multi-Use Trail Improvement/Development	Identified Identified Identified	
9	i31	Proposed "Elm Street" 61 st to 67 th Ave (Multimodal)	Identified	



Rank	Project Number	Initial Project Name	Project Status	Partnership
10	i33	Proposed Clay St, Federal Blvd to Little Dry Creek (Multimodal)	Identified	
11	i29 i8	<u>I-76 and Federal Ramp</u> •Preserve and Enhance On-/Off-Ramp at Federal and I-76 •Safe Pedestrian Crossing, I-76 and Federal Blvd	In Progress Identified	DOT
12	i30 i9	<u>U.S. 36 and Federal Ramp</u> •Preserve and Enhance On-/Off-Ramp Federal Blvd and U.S. 36 •Safe Pedestrian Crossing, U.S. 36 and Federal Blvd	In Progress Identified	DOT Westminster
13	i165	<u>Clay Community Outfall</u> •County indicated need for Clay Outfall project •Zuni St alignment under UPRR •Connect Guardian Angel Neighborhood north to Clear Creek	Identified	

Table 12: Pecos Station and Pecos Commercial District Projects

Rank	Project Number	Project Name	Project Status	Partnership
1	i23 i146 i117	<u>Pecos Street Improvements</u> •Pecos St Roadway Improvement, 52 nd Ave to I-76—5-yr CIP •Pecos St Bike/Trail Facility, 52 nd Ave to I-76 •Pecos St Bike Facility/Trail, 70 th Ave to U.S. 36	In Progress Identified Identified	DOT
2	i106 i79	<u>Pecos Station Area Improvements</u> New Collector Street, Federal Blvd to Pecos St to Broadway St Multimodal/Pedestrian Activity Center at Pecos Station	Identified Identified	
3	i116 i137 i145	<u>Pecos/US36 Commercial Area Improvements</u> •SH 224/70 th Ave Bike Facility, I-25 to Pecos St •70 th /68 th Ave Bike Lanes, Federal to Pecos St •72 nd Ave Non-Motorized Improvements, Lowell Blvd to Pecos St	Identified Identified Identified	DOT
4	i105	New Parks/Open Space in Clear Creek TOD Plan	Identified	
5	i71	•U.S. 36 Highway Multi-Use Path, I-25 to Sheridan Blvd	Identified	



Table 13: Welby Station and Welby Neighborhood Projects

Rank	Project Number	Project Name	Project Status	Partnership
1	i6	<u>York/Welby Street Improvements</u> • Welby St Improvements including Bike/Trail Facility • York Rd Improvement, SH 224 to 78 th -5-yr CIP • York/Welby St Improvement 78 th to 88 th -5-yr CIP • York St Improvement, 58 th Ave to SH 224 • York St/78 Ave Intersection Improvement • York St/Welby St. and Coronado Grade Separation	Identified In Progress In Progress In Progress Identified In Progress	
	i18			
	i19			
	i24			
	i50			
	i96			
2	i118	<u>Thornton Partnership Project</u> • 86 th and 88 th Ave Bike Connection • Adams County Local Trail • 88 th Ave New Bus Route	Identified Identified Identified	Thornton
	i125			
	i76			
3	i166	<u>North Washington Water and Sanitation Partnership Project</u> • York St Water and Sewer Improvements, 78 th to 88 th Ave • York St Water and Sewer Improvements, 58 th Ave to SH 224	Identified Identified	Water & Sanitation
	i167			
4	i15	<u>Park/Trail Improvements</u> • Clear Creek Trail Access- 5-yr CIP • Downing St/78 th Ave, Park Improvement Trail Improvements from S. Platte River to S. Rotella Park Entrance • West of Railroad-78 th Ave to I-76, New/Improved Park/Open Space • York St. and I-76, New Park/Park Improvement	In Progress Identified Identified Identified Identified	DOT
	i141			
	i142			
	i143			
	i157			
5	i51	<u>Proposed Roadway Network (Approximate Alignments)</u> • N/S Streets: Downing, Lafayette, Franklin, Richard, Race, Clayton, Steele • E/W Streets: Coronado, 79 th , 77 th , 76 th , 75 th , 74 th Avenues, Brannan Way	Identified	
		<u>78th Street Improvements</u> • Improvements for 78 th Ave from Downing St to Steele St		
6	i166	<u>78th Street Improvements</u> • Improvements for 78 th Ave from Downing St to Steele St	Identified	

5 SUMMARY

The culmination of this Chapter is the Top 40 Projects list identified in Section 4. In Chapter 3: Plan Implementation and Appendices, the process to get to the Top 10 Project List is described, including develop implementation strategies, planning level cost estimates, and the identification of potential funding sources.