

# Littleton Linkages Improvement Concepts

### **Trail Crossings**

- + C1 New Belleview & Michigan Crossing
  - Install a formal pedestrian crossing along the west leg of the intersection, including at minimum ADA ramps at both corners and crosswalk striping.
- + C2 Improved Lowell & Arrowhead/Aksarben Crossing
  - ▶ Improve the existing pedestrian crossing, including at a minimum ADA ramps and better signage.
- + C3 Improved Belleview & Windermere Crossing
  - ▶ Implement pedestrian safety improvements at the intersection.
- ★ C4 New Prentice Midblock Crossing
  - Install a formal pedestrian crossing on the south side of Cornerstone Park between Windermere Street and Hickory Street, including at a minimum ADA ramps at both corners and crosswalk striping.
- C5 New Hickory Midblock Crossing
  - Install a formal pedestrian crossing aligned with the existing Progress Park access road, including ADA ramps, formal trail connections to both Progress Park and Cornerstone Park, and a pedestrian beacon. This could be a collaborative effort with South Suburban Parks & Recreation.
- ★ C6 New Prentice & Huron Crossing
  - Install a formal pedestrian crossing along the east leg of the intersection, including at a minimum ADA ramps, bulb-outs, crosswalk striping, and a sidewalk connection between Prentice and the Big Dry Creek Trail.



- → C7 New Windermere & Berry Crossing
  - Install a pedestrian crossing along the south leg of the intersection, including at a minimum ADA ramps and crosswalk striping.
- → C8 New Powers Park Crossing
  - Install a formal pedestrian crossing along the west leg of the Fox Street intersection, including at a minimum ADA ramps, crosswalk striping, and a bulb-out. This project should be done in coordination with the Powers Park Plan to fully address existing ADA issues.
- + C9 Improved Littles Creek Trail Crossings
  - Install raised crosswalks or bulb-outs where the Littles Creek Trail crosses Curtice and Rapp.
- + C10 Littleton Downtown Station Railroad Trail Overpass
  - Adapt the drainage structure over the railroad south of Littleton/Downtown Station to include a bicycle & pedestrian overpass connecting the Littleton Community Trial with Littles Creek Trail. This project would require substantial upgrades to the existing structure and would be challenging to implement.
- → C11 Improved Prince & Lake Crossing
  - ▶ Improve the existing pedestrian crossing, including at a minimum ADA ramps.
- → C12 New Bemis Midblock Crossing
  - Install a formal pedestrian crossing north of the Rose Garden parking lot access, including ADA ramps and a pedestrian beacon. This project should be done in coordination with other nearby park and trail improvement efforts.
- → C13 New Lake & Sterne Crossing
  - Install a formal pedestrian crossing along the east leg of the intersection, including at a minimum ADA ramps, bulb-outs, and connecting sidewalk improvements.
- + C14 –New Gallup & Shepperd Crossing
  - Install a formal pedestrian crossing along the south leg of the intersection, including at a minimum ADA ramps and a bulb-out on the west side.



- + C15 Improved Caley & Datura Crossing
  - ▶ Improve the existing pedestrian crossing, including ADA ramps, bulb-outs, and access modifications to Sterne on the north side.
- + C16 New Elati & Sterne Crossing
  - Install a formal pedestrian crossing along the south leg of the intersection, including at a minimum ADA ramps and crosswalk striping.
- + C17 Improved Windermere & Lee Gulch Trail Crossing
  - ▶ Improve the existing pedestrian crossing with a pedestrian beacon and sturdier bulb-outs.
- + C18 Improved Ridge & Apache Crossing
  - ▶ Improve the existing pedestrian crossings with ADA ramps and bulb-outs on north intersection corners.
- + C19 Improved Prince & Rangeview Crossing
  - ▶ Improve the existing pedestrian crossing, including at a minimum ADA ramps.
- + C20 Improved Geddes & HLC Trail Crossing
  - ▶ Improve the existing pedestrian crossing with a raised crosswalk or bulb-outs and ADA ramps.
- + C21 Improved Geddes & Gallup Crossing
  - ▶ Shift the trail alignment to connect more directly with the existing pedestrian crossing.
- + C22 Improved Elati & Lee Gulch Trail Crossing
  - ▶ Improve the existing pedestrian crossing with a pedestrian beacon.
- + C23 Broadway & Jamison Trail Underpass
  - ▶ Install a trail underpass of Broadway aligned with Lee Gulch Trail just north of the hospital access road.



- + C24 –New South Platte Canyon & Depew Crossing
  - Install a formal pedestrian crossing along the north leg of the intersection, including a refuge space in the existing median island, ADA ramps, and a pedestrian beacon. This crossing is not located within the City of Littleton.
- + C25 Improved Wolff & Mineral Trail Crossing
  - Improve the existing pedestrian crossing with curb radii, ramp, and striping improvements.
- + C26 Improved Dusk & Mineral Trail Crossing
  - ▶ Improve the existing pedestrian crossing with curb radii, ramp, and striping improvements.
- + C27 Improved Polo Ridge & Mineral Trail Crossing
  - ▶ Improve the existing east-west pedestrian crossing of Polo Ridge Drive with curb radii, ramp, and striping improvements.



#### **New Trail Connections**

- → N1 James Taylor Park/Harlow Park Trail
  - ► Construct a concrete trail along the north/east edge the parks, generally parallel to Belleview, between Meade and Lowell.
- → N2 Berry Avenue, Bow Mar to Federal
  - Construct a multi-use concrete trail along the south side of Berry between Bow Mar and Lowell, and between Julian and Federal. Construction of the segment north of Bowles Grove Park could be a collaborative effort with South Suburban Parks & Recreation. There is an existing trail segment between Lowell and Julian.
- → N3 Bowles Avenue. Sheridan to Santa Fe
  - ► Construct a multi-use detached concrete trail along the south side of Bowles Avenue. Bowles Avenue has significant multimodal improvement needs and the City will be studied the full corridor in greater detail starting in 2026.
- → N4 Hickory Street, Prentice to Big Dry Creek Trail
  - ► Construct a multi-use concrete trail along the east side of Hickory between Prentice and the SSPRD access road, and along the access road between Hickory and the Big Dry Creek Trail.
- → N5 Berry Avenue, Windermere to Delaware
  - ► Construct a multi-use concrete trail along the south side of Berry between Windermere and Delaware.
- → N6 Rafferty Gardens Avenue, Delaware to Broadway
  - ► Construct a multi-use concrete trail along the south side of Rafferty Gardens between Delaware and Broadway. Include a crossing of Rafferty Gardens to access Big Dry Creek Trail.
- + N7 Powers Park Trail
  - ▶ Widen the sidewalk along the west edge of Powers Park and construct a concrete or asphalt connection through the park.



- N8 Trail Connection, Big Dry Creek Trail to Littleton High School
  - ► Construct a concrete trail connection between the Big Dry Creek Trail and Powers along the south edge of the LHS sports fields.
- → N9 Washington Street/Littleton Boulevard, Big Dry Creek Trail to Clarkson
  - Construct a multi-use concrete trail along the east side of Washington and the south side of Littleton Boulevard to connect with the Clarkson Street trailhead.
- → N10 Prince Street, Lake to Little's Creek
  - ▶ Construct a multi-use concrete trail along the west side of Prince.
- → N11 Lake Avenue, Prince to Datura
  - ▶ Construct a multi-use concrete trail along the north side of Lake.
- → N12 Sterne Park Trail.
  - ► Construct a concrete or asphalt trail through the south portion of Sterne Park (along the west side) between the parking lot/playground and Lake.
- → N13 Sterne Parkway, Windermere to Lake
  - ► Construct a multi-use concrete trail along the north side of Sterne Parkway.
- → N14 Lakeview Street, Ketring Park to Shepperd
  - ▶ Construct a multi-use concrete trail along the west side of Lakeview.
- → N15 Lakeview Street, Caley to Ketring Park
  - ► Construct a multi-use concrete trail along the east side of Lakeview.
- → N16 Caley Avenue, Prince to Broadway/High Line Canal
  - ▶ Construct a multi-use concrete trail along one side of Caley.
- → N17 Euclid Avenue, Elati to Broadway/High Line Canal
  - ▶ Construct a multi-use concrete trail along the north side of Euclid.



- → N18 Sterne Parkway, Elati to Broadway
  - Construct a multi-use concrete trail along of Sterne Parkway.
- + N19 Ridge Road, Littleton Community Trail to High Line Canal
  - ▶ Construct a multi-use concrete trail along the south side of Ridge Road.
- → N20 Peakview Avenue, Ridge to Elati
  - ▶ Construct a multi-use concrete trail along the south side of Peakview.
- → N21 Trail Connection, Mary Carter Greenway to Davies
  - ▶ Formalize the existing unpaved trail connection with concrete paving.
- + N22 Trail Connection, Meadowbrook to Lee Gulch Trail
  - ► Formalize the existing unpaved travel connection between the Meadowbrook Road cul-desac and Lee Gulch Trail with concrete or asphalt paving.
- → N23 Geddes Avenue, High Line Canal to Lee Gulch Trail
  - ► Construct a multi-use concrete trail along the south side of Geddes between the High Line Canal and Lee Gulch Trail accesses.
- + N24 Horseshoe Park Trail
  - Formalize the existing footpath through Horseshoe Park between Lee Gulch and High Line Canal with crusher fines.
- → N25 Mineral Avenue, Broadway to Lee Gulch Trail
  - ▶ Construct a multi-use detached concrete trail along the south or both sides of Mineral.
- → N26 Pennsylvania Street, Phillips to Mineral
  - ▶ Construct a multi-use concrete trail along the east side of Pennsylvania.
- → N27 Trail Connection, Reynolds Landing to Lee Gulch Overlook
  - ► Construct a trail connection between Lee Gulch Overlook and Reynold's Landing along the east edge of the pond.



- + N28 Trail Connection, Southridge Park to High Line Canal Trail
  - ► Construct an improved trail connection between High Line Canal and Prescott, including replacement of the existing bridge.
- + N29 Trail Connection, Olhson Acres to High Line Canal Trail
  - ► Construct a connection (including a bridge) to the High Line Canal Trail from new planned development off Plum Valley Lane.
- + N30 Littleton Community Trail Extension, Euclid to Mineral
  - ▶ Extend the Littleton Community Trail south from it's current terminus near Euclid to Mineral.



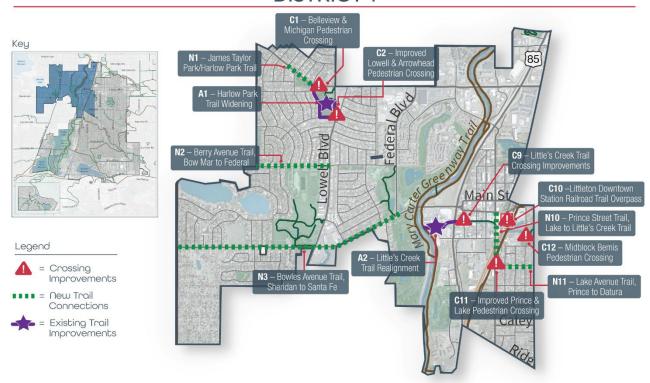
## **Existing Trail Improvements**

- + A1 Harlow Park Trail Widening
  - Widen the sidewalks along the edges of Harlow Park.
- + A2 Little's Creek Trail Realignment
  - Reconstruct the trail alignment south and east of DISH Network to have smoother curvature.
- + A3 Ketring Park Trail Widening & Formalization
  - Replace the existing trail along the south and west sides of Ketring Lake with wider concrete.
- + A4 Littleton Community Trail Trailhead
  - ► Construct a trail head with amenities for Littleton Community Trail users at the west end of Ridge Road.
- ★ A5 Lee Gulch Underpass Improvements
  - ▶ Reconstruct the trail alignment between Lower Ridgewood Park and Lee Gulch Overlook with concrete and make other improvements to the underpass to enhance visibility and comfort.
- + A6 Rangeview Drive Trail Formalization
  - ► Formalize the existing asphalt trail along the north side of Rangeview between Prince and Windermere with concrete.
- + A7 High Line Canal Trail Connection Easement
  - ► Formalize the existing connection to the High Line Canal Trail through Footbridge Park by acquiring an easement.
- A8 Lee Gulch Trail Realignment 1
  - ▶ Reconstruct parts of the trail alignment between Ashbaugh Park and Carbone Park to have smoother curvature.

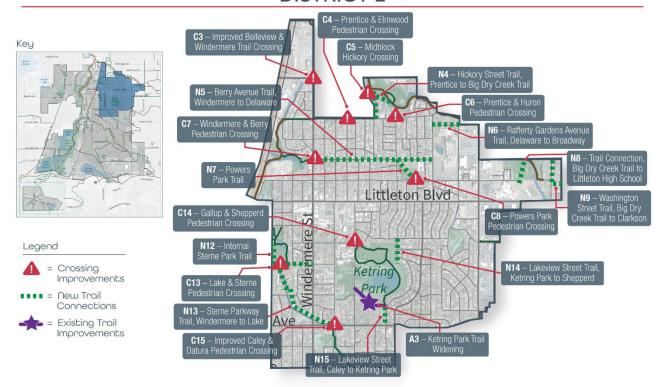


- + A9 Lee Gulch Trail Realignment 2
  - ▶ Reconstruct the trail alignment between Elati Street and the High Line Canal, including the existing drainage crossings, to be smoother.
- + A10 Mineral Avenue Trail Widening & Intersection Improvements
  - ▶ Widen the concrete trail along the north side of Mineral Avenue between High Line Canal and Broadway, and implement pedestrian crossing improvements at the major street crossings.
- + A11 Trailmark Parkway Trail Widening
  - ▶ Widen the trail connection along Trailmark Parkway between Carr Way and Wadsworth Boulevard.

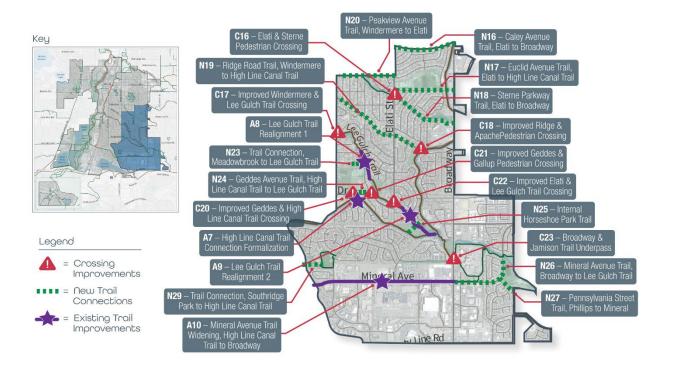




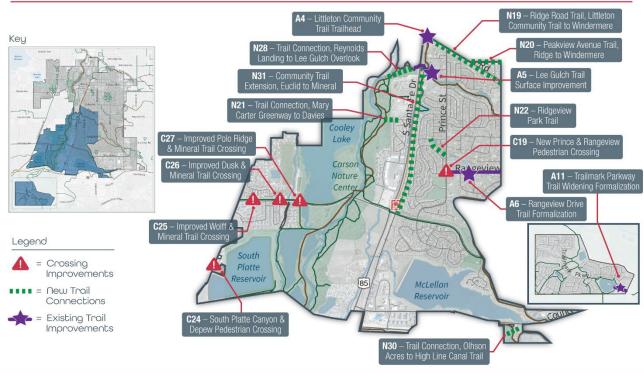














#### Criteria Overview

12 quantifiable evaluation criteria were developed to evaluate and compare each improvement concept. As outlined below, each criterion was associated with one of the five project values and given a unique scoring framework; the total possible score from this evaluation framework was 15 points.

### Connectivity

- + Network Connections Does the concept connect to existing or planned regional trails?
  - Scoring Framework:
    - o 0 = No
    - 1 = Connection to Planned Regional Trail
    - 2 = Connection to Existing Regional Trail

#### Healthy

- **New Trail** Is the concept located on a roadway without existing bike/ped facilities?
  - Scoring Framework (only applied to New Trail Connections & Existing Trail Improvements):
    - o 0 = No
    - o 1 = Yes
- + Crossing Installation Does the concept install a new crossing where one currently doesn't exist?
  - ls the project installing a new crossing at a location where one currently doesn't exist?
  - Scoring Framework (only applied to Trail Crossing Improvement concepts):
    - o 0 = No
    - o 1 = Yes
- **+ Conflict Improvement –** Does the concept improve crossing conditions at a street intersection?
  - Scoring Framework (only applied to Trail Crossing Improvement concepts):
    - $\circ$  0 = No/Inapplicable
    - $\circ$  1 = Yes 25 mph street
    - $\circ$  2 = Yes 30 mph street
    - $\circ$  3 = Yes 35+ mph street



- + Conflict Mitigation Concept widens an existing bike/ped facility or provides a new one
  - ▶ Scoring Framework (only applied to New Trail Connection and Existing Trail Improvement concepts):
    - $\circ$  0 = No/Inapplicable
    - o 1 = Widens Existing Facility
    - o 2 = Provides New Facility

#### **Inclusive**

- + Potential Users How many residents per acre live within ¼ of the concept?
  - Scoring Framework:
    - 1 = Less than 5 people per acre
    - $\circ$  2 = 5 to 10 people per acre
    - o 3 = Over 10 people per acre
- **ADA Issues** How many documented ADA compliance issues could be addressed by implementing the concept?
  - Scoring Framework:
    - $\circ$  1 = 1-2 issues
    - $\circ$  2 = 3-5 issues
    - 3 = Over 5 issues
- **Equity Area** Is the concept located within, or would it demonstrably serve, an equity zone as defined by the State of Colorado's EnviroScreen assessment?
  - Scoring Framework:
    - $0 = N_0$
    - 1 = Serves EnviroScreen block group
    - 2 = Within EnviroScreen block group

#### **Prosperous**

- + Proximity to School/Park How many schools and parks are within ¼ of the concept (1/2 mile for middle and high schools)?
  - Scoring Framework:
    - o 0 = None
    - o 1 = 1-2 schools/parks
    - o 2 = more than 2 schools/parks



- Proximity to Activity Area Is the concept within ½ mile of a major employment and/or commercial area?
  - Scoring Framework:
    - o 0 = No
    - o 1 = Yes

#### Sustainable

- **Sustainable Mobility** Would the concept improve access to existing bus stops and/or rail stations?
  - Scoring Framework:
    - o 0 = No
    - 1 = Yes (Only Bus)
    - o 2 = Yes (Rail or Bus & Rail)
- + Constructability Is the concept located fully within City-owned/managed right-of-way?
  - Scoring Framework:
    - o 0 = No
    - o 1 = Yes

### **Concept Prioritization**

The Littleton Linkages improvement concepts were initially scored based solely on the raw scoring framework. However, doing so did not equally consider each of the project values because they have varying numbers of associated criteria and possible points – *Connected* has only one associated criteria and two possible points, while *Inclusive* has three criteria and eight possible points. It was decided that each value should be weighted equally, so the scoring was normalized to be out of 100, with 20 total points possible for each value.

Table 1. Existing Trail Improvement Scoring

| Existing Trail Improvement Concept                              | Weighted<br>Score | Weighted<br>Ranking |
|-----------------------------------------------------------------|-------------------|---------------------|
| A10 – Mineral Avenue Trail Widening & Intersection Improvements | 70                | 1                   |
| A1 – Harlow Park Trail Widening                                 | 61.67             | 2                   |
| A3 – Ketring Park Trail Widening/Formalization                  | 56.67             | 3                   |
| A7 – High Line Canal Trail Connection Easement                  | 51.67             | 4                   |
| A9 – Lee Gulch Trail Alignment Improvement 2                    | 50                | 5                   |
| A8 – Lee Gulch Trail Alignment Improvement 1                    | 45                | 6                   |



| A5 – Lee Gulch Underpass Improvements    | 38.33 | 7  |
|------------------------------------------|-------|----|
| A2 – Little's Creek Trail Realignment    | 34.17 | 8  |
| A4 – Littleton Community Trail Trailhead | 34.17 | 8  |
| A6 - Rangeview Drive Trail Formalization | 28.33 | 10 |
| A11 – Trailmark Parkway Trail Widening   | 28.33 | 10 |

Table 2. Trail Crossing Improvement Scoring

| Trail Crossing Improvement Concept                       | Weighted | Weighted |
|----------------------------------------------------------|----------|----------|
|                                                          | Score    | Ranking  |
| C11 – Improved Prince & Lake Crossing                    | 71.67    | 1        |
| C2 – Improved Lowell & Arrowhead Crossing                | 65       | 2        |
| C16 – New Elati & Sterne Crossing                        | 62.5     | 3        |
| C14 – New Gallup & Shepperd Crossing                     | 60.83    | 4        |
| C1 – New Belleview & Michigan Crossing                   | 60.83    | 4        |
| C23 – Broadway & Jamison Trail Underpass                 | 60       | 6        |
| C15 – Improved Caley & Datura Crossing                   | 57.5     | 7        |
| C10 – Littleton Downtown Station Railroad Trail Overpass | 55       | 8        |
| C21 – Improved Geddes & Gallup Crossing                  | 55       | 8        |
| C5 – New Midblock Hickory Crossing                       | 54.17    | 10       |
| C13 – New Lake & Sterne Pedestrian Crossing              | 51.67    | 11       |
| C3 – Improved Belleview & Windermere Crossing            | 51.67    | 11       |
| C25 – Improved Wolff & Mineral Trail Crossing            | 51.67    | 11       |
| C18 – Improved Ridge & Apache Crossing                   | 50.83    | 14       |
| C20 – Improved Geddes & HLC Trail Crossing               | 50       | 15       |
| C22 – Improved Elati & Lee Gulch Trail Crossing          | 50       | 15       |
| C26 – Improved Dusk & Mineral Trail Crossing             | 49.17    | 17       |
| C8 – New Powers Park Crossing                            | 48.33    | 18       |
| C7 – New Windermere & Berry Crossing                     | 47.5     | 19       |
| C9 – Improved Littles Creek Trail Crossings              | 45.83    | 20       |
| C17 – Improved Windermere & Lee Gulch Trail Crossing     | 45.83    | 20       |
| C12 – New Midblock Bemis Crossing                        | 43.33    | 22       |
| C27 – Improved Polo Ridge & Mineral Trail Crossing       | 39.17    | 23       |
| C19 – Improved Prince & Rangeview Crossing               | 38.33    | 24       |
| C4 – New Prentice & Elmwood Crossing                     | 36.67    | 25       |
| C6 – New Prentice & Huron Crossing                       | 36.67    | 25       |
| C24 – New South Platte Canyon & Depew Crossing           | 22.5     | 27       |



Table 3. New Trail Connection Scoring

| New Trail Connection Concept                                           | Weighted<br>Score | Weighted<br>Ranking |
|------------------------------------------------------------------------|-------------------|---------------------|
| N11 – Lake Avenue, Prince to Datura                                    | 70.83             | 1                   |
| N16 – Caley Avenue, Prince to Broadway/High Line Canal                 | 70.83             | 1                   |
| N10 – Prince Street, Lake to Little's Creek                            | 68.33             | 3                   |
| N23 – Geddes Avenue, High Line Canal Trail to Lee Gulch Trail          | 65.83             | 4                   |
| N18 – Sterne Parkway, Elati to Broadway                                | 65                | 5                   |
| N19 – Ridge Road, Centennial Link Trail to High Line Canal             | 64.17             | 6                   |
| N1 – James Taylor Park/Harlow Park Trail                               | 63.33             | 7                   |
| N25 – Mineral Avenue, Broadway to Lee Gulch Trail                      | 63.33             | 7                   |
| N12 – Sterne Park Trail                                                | 59.17             | 9                   |
| N17 – Euclid Avenue, Elati to Broadway                                 | 59.17             | 9                   |
| N20 – Peakview Avenue, Ridge to Elati                                  | 59.17             | 9                   |
| N8 – Trail Connection, Big Dry Creek Trail to Littleton High School    | 58.33             | 12                  |
| N13 – Sterne Parkway, Windermere to Lake                               | 57.5              | 13                  |
| N22 – Trail Connection, Meadowbrook to Lee Gulch Trail                 | 55.83             | 14                  |
| N3 – Bowles Avenue, Sheridan to Santa Fe                               | 55                | 15                  |
| N15 – Lakeview Street, Caley to Ketring Park                           | 54.17             | 16                  |
| N5 – Berry Avenue, Windermere to Delaware                              | 53.33             | 17                  |
| N4 – Hickory Street, Prentice to Big Dry Creek Trail                   | 52.5              | 18                  |
| N14 – Lakeview Street, Ketring Park to Shepperd                        | 52.5              | 18                  |
| N7 – Powers Park Trail                                                 | 51.67             | 20                  |
| N24 – Horseshoe Park Trail                                             | 51.67             | 20                  |
| N30 – Littleton Community Trail Extension, Euclid to Mineral           | 49.17             | 22                  |
| N2 – Berry Avenue, Bow Mar to Federal                                  | 45                | 23                  |
| N9 – Washington Street/Littleton Blvd, Big Dry Creek Trail to Clarkson | 45                | 23                  |
| N21 – Trail Connection, Mary Carter Greenway to Davies                 | 45                | 23                  |
| N28 – Trail Connection, Southridge Park to High Line Canal Trail       | 45                | 23                  |
| N26 – Pennsylvania Street, Phillips to Mineral                         | 42.5              | 27                  |
| N27 – Trail Connection, Reynolds Landing to Lee Gulch Overlook         | 42.5              | 27                  |
| N29 – Trail Connection, Olhson Acres to High Line Trail                | 42.5              | 27                  |
| N6 – Rafferty Gardens Avenue, Delaware to Broadway                     | 39.17             | 30                  |