2017 Work Plan – Transportation and Mobility
INC January 12, 2017
Challenge: Congestion, Safety, Limited Options

**Congestion**

**Safety**

**Limited Options**

3 year Average (2013-2015)

- 2013: 14,800 (47)
- 2014: 15,810 (49)
- 2015: 16,928 (57)

**Number of Crashes (Fatalities)**

- 2013: 14,800 (47)
- 2014: 15,810 (49)
- 2015: 16,928 (57)

**Percentage of Crashes Resulting in a Fatality by Mode**

- Motorist: 31%
- Pedestrian: 5%
- Bike: 64%

Pie chart showing the distribution of fatalities by mode over the 3 year average (2013-2015).
Challenge: More People

Need to move more people in a fixed amount of space.
Challenge: Regional Travel

Denver grows by 23% on a daily basis from ~ 685K to 865K
Moving People
Resident Commute Mode Share

Grow the bike, pedestrian and transit mode share in Denver for commute trips
2016
Accomplishments: Bicycles

• Completed 16.5 miles of bike lanes and buffered bike lanes
• Protected bike lanes installed on Stout and Broadway
• 14th Street delayed until next year to coordinate with Repaving
• Integrating Water Quality features into 21st/Broadway neighborhood bikeway projects which has delayed construction until Summer 2017, Knox Court also shifted
• In final design phase for 35th Avenue and Garfield neighborhood bikeways, to be installed in 2017
• Updated bicycle route signage - Design is 100% on 2 routes for 60% on 2 routes – install 2017
• Established internal monthly coordination meetings with wastewater, and street maintenance to discuss and formalize maintenance policies for cycle tracks, bike lanes, etc.
2017
Denver Moves: Bicycles

• Broadway Corridor Design: $470,000
• Denver Moves Bicycles Implementation: $2.2 million
  • Design and Construction of Protected Bike Lanes and Neighborhood Bikeways
• Pavement Markings: $500,000
  • Design and Construction of Bike Lanes
• Signs: $300,000
  • Bicycle Wayfinding Signage
## 2017 Denver Moves: Bicycles

### Protected Bike Lane/Neighborhood Bikeway Design
- Broadway Full Corridor: VISSIM/Design
- Kentucky/Lowell/Tejon Neighborhood Bikeway (NBW)
- 13th/14th Avenue PBL: Concept Design
- 19th Street PBL: Concept/Final Design
- 18th Street PBL: Concept/Final Design (inc Glenarm)

### Protected Bike Lane/Neighborhood Bikeway Construction
- 14th Street PBL Implementation
- 14th Avenue PBL Implementation
- Wynkoop Design and Implementation
- Knox Court NBW Construction
- 21st & Broadway: Construction
- Garfield NBW: Construction
- W35th NBW: Construction

### Bike Lane Design
- Cedar Bike Lane Design
- MLK Bike Lane Design
- 31st Ave Bike Lane Design

### Bike Lane Construction
- Ulster Bike Lane
- Union Bike Lane
- Tamarac Bike Lane
- 50th Bike Lane
- Zuni Sharrows
- 28th Bike Lane
- 25th Bike Lane
- W 2nd Bike Lane

### Bike Signage
- D-11 install
- D-6 install
- D-9 install
- D-1 install
2016 Accomplishments: Pedestrians

- Launched the **Denver Moves: Pedestrian and Trails** planning effort to prioritize implementation of short and long-term improvements, develop funding strategies, and deliver a safe, cohesive, and connected system for people on foot.
- Launched **Vision Zero Action Plan** which aims to reduce serious traffic injuries and deaths
- Install enhanced crosswalks at eight (8) more Denver intersections, for a total of 11 intersections citywide install early 2017
- Submitted a Safe Routes to Schools infrastructure application for pedestrian improvements (curb extensions) at two intersections adjacent to Cole Middle School.
2017
Denver Moves: Pedestrians

- Hampden Corridor Multimodal Study: $300,000
  - Pedestrian Safety Focus
- Colfax Pedestrian Mobility Improvements: $500,000
  - Feasibility and Design of Crossing Improvements
- Sidewalk Gaps and Safety Repair: $2.5m
  - Construction of Sidewalks along City ROW
- Denver Moves Ped/Transit Facilities: $750,000
  - Operational Crossing Improvements and transit enhancements
- Signs Program: $250,000
  - New Rapid Flashing Beacon crossings
Hampden Corridor Multimodal Study
Colfax Pedestrian Mobility Improvements
Sidewalk Gaps and Safety Repair: Citywide
Denver Moves Ped/Transit Facilities
RRFBs
Cherry Creek Drive South and Steele
Lowell and 41st
33rd and Downing
W Florida and Sanderson Gulch
26th and Newton
TBD
TBD
TBD
2016 Enhanced Crosswalks
29th & Downing
E 33rd & Holly Street
Louisiana & Buchtel
High Street & Buchtel
West Florida & Platte River Drive
38th & Tennyson
1st & Knox
5 Monaco Pkwy & Magnolia

2017 Denver Moves: Pedestrians
2016
Accomplishments: Signs and Pavement Markings

- Produce and install traffic control, warning, guide and street name signs in 8 neighborhoods per year due to wear and tear and/or graffiti.

- Respond to approximately 18,000 sign maintenance requests to replace missing or damaged signs. 14,500 thru 3rd quarter and expect to exceed 18,000 by end of Q4.
2017 Pavement Marking Program

- Pavement Marking Maintenance Contract – $1,500,000
  Contractor – Crosswalks and Long Lines

- Support of Street Maintenance Paving - $450,000
  *including new additional crew
  *Replace all markings in half of downtown
  Contractor - Backfill other work in neighborhoods.

- In house Materials - $750,000
2017 Sign Program

- Bicycle Route Signage Program* $300,000
  *Task Orders will be tracked on 2015 Bike Ped WP
- Wayfinding Signage Program $500,000
  design and construction (2017-2018)
- Mobility and Area Management Support $250,000
  Walnut corridor improvements
- *Ped Xing/ Trail Sign Program $300,000
- Neighborhood Signage $1,500,000
  Neighborhood Sign Maintenance - 10-12 Neighborhoods
- In house Materials $750,000
2017 Neighborhood Sign Sweeps
Neighborhood and Safety

- Intersection Safety Program  $410,000
- Pedestrian Crossings/Traffic Calming at Trails, Schools, Transit  $500,000
- Vision Zero Implementation - $400,000
2017 Safety Projects
2016 Accomplishments:
Parking Operations

- Area Management Plans- 2016 – W. Highlands & Baker Broadway $100,000
- General Neighborhood Studies & Inventories - 12 areas studied $50,000
- Transportation Planning – Combine with 2017 work program $60,000
- Communications & Marketing - Combine with 2017 work program $30,000
- Parking Business Center - Started design work with Real Estate $10,000
- Garage Equipment Upgrades – Installed count system at DPAC $100,000
- Bike Corral Program Implemented 6 Corals, 60 Locations (124 total racks) $50,000
- Camera Upgrades & Installs – Purchased system for JS Garage $50,000
- Access System Upgrade- Amano Network – installed Judges Garage $40,000
- General Repairs to Garages & Surface Lots – as needed $25,000
2017 Parking Operations

- Area Management Plans (Planning) – Capital Hill, S Pearl, Lincoln Park $100,000
- Area Management Plans (Implementation) – Cap Hill, S Pearl, Lin Park $100,000
- General Neighborhood Studies & Inventories – Determined in 2017 $30,000
- Transportation Planning – Parking restriction mapping & Car Share $50,000
- Communications & Marketing - Determined in 2017 $30,000
- Marketing ParkSmart Denver – Determined in 2017 $25,000
- Garage Equipment Upgrades – count system at CCG. EV Stations $100,000
- Bike Corral Program - Implement locations per 2017 applications $50,000
- Transportation Demand Mgmt – Implement per TDM plan $25,000
- General Repairs to Garages & Lots – N Elati lot gate equipment $100,000
2017 Parking Area Management Plans
2016
Accomplishments: Signals

- Install 480 pedestrian countdown indicators over two years, 60% complete
- (6) Rebuilds and (4) new signals with in-house forces. (9) Rebuilds with Federal contracts
- Manage approximately 1100 annual emergency signal calls to repair and re-time traffic signals as necessary at signalized intersections city-wide, including the repair and replacement when major damage is caused by accidents (through Q3)
- Added 58 signals to the city’s central traffic control system this year. 1179 to date with 106 remaining. The remaining all require some form of reconstruction effort to complete.
- Retimed over 160 traffic signals to improve travel times and improve air quality
2017 Signal Program

- In-House Traffic Signal Builds: $3,500,000
- Signal Builds Designs (HSIP): $360,000
- Mill Levy Designs: $2,376,000
- Analog PTZ Camera Replacement: $700,000
- Video Detection Upgrade: $400,000
- Traffic Signal Timing: $500,000
- Mast Arm/ Base Inspections: $200,000
- Consultant Support: $400,000
- Materials Purchased: $850,000
2017
TMC and Signal System ITS

- ATCMTD Match $1,500,000
- ITS Grant Match $150,000
- Traffic Management Center $100,000
- COOP $100,000
- Signal System & Conduit $425,000
- Vehicle & Multi-Modal Detection $150,000