SECOND CREEK PIPELINE

Metro Wastewater Reclamation District
August 4, 2020

Commerce City Planning Commission

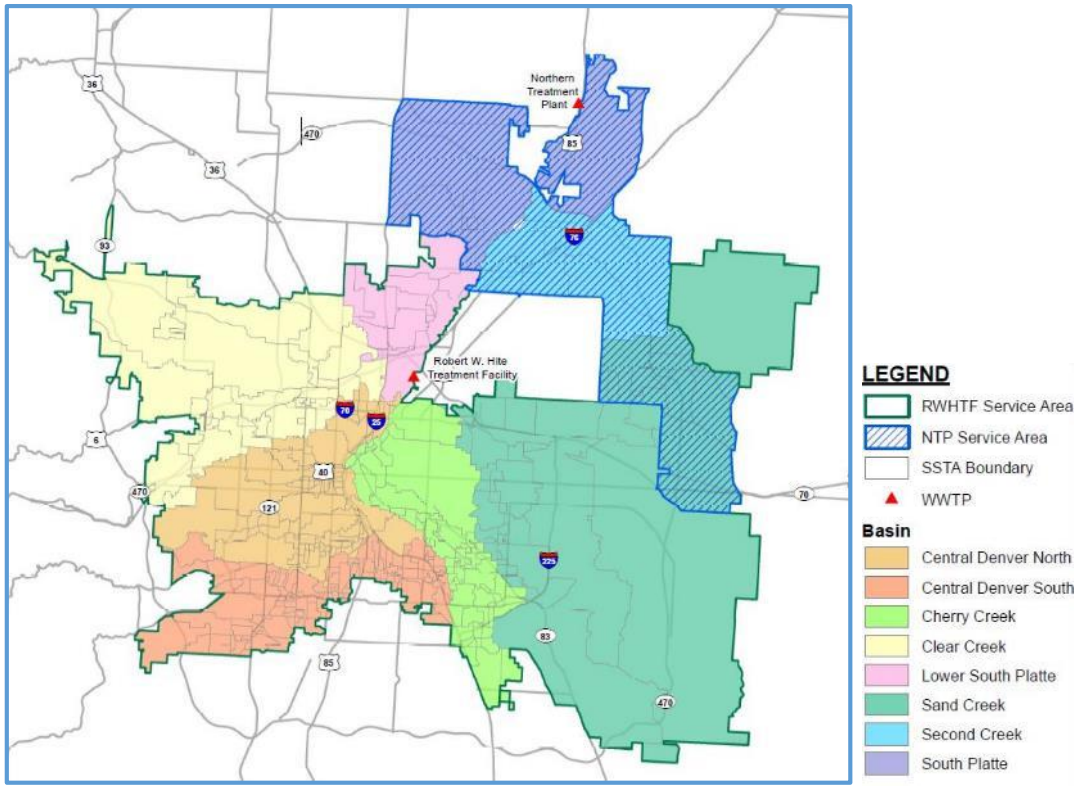
Meeting Agenda

- Introductions
- Project overview
- C3 alignment/design
- Community benefits
- Ongoing coordination
- Next steps

Tertiary Complex at the Northern Treatment Plant

Metro Wastewater Reclamation District: Who We Are

- Largest water reclamation provider in the Rocky Mountain West, operating 2 facilities:
  - Robert W. Hite Treatment Facility (220 mgd)
  - Northern Treatment Plant (28.8 mgd)
- Provides service to 60 local governments
- Serves 2 million people across a 715 square mile service area
- Formed in 1961 to protect public health and the South Platte River



Metro District Service Area

Commerce City Wastewater Treatment Service

- C3 service is provided by South Adams County Water and Sanitation District (SACWSD)
- SACWSD is a member of the Metro District
- This project will serve C3 to support economic growth and community development

Part of the region's plans for more than four decades, the Northern Treatment Plant provides advanced, cost-effective water reclamation for surrounding communities

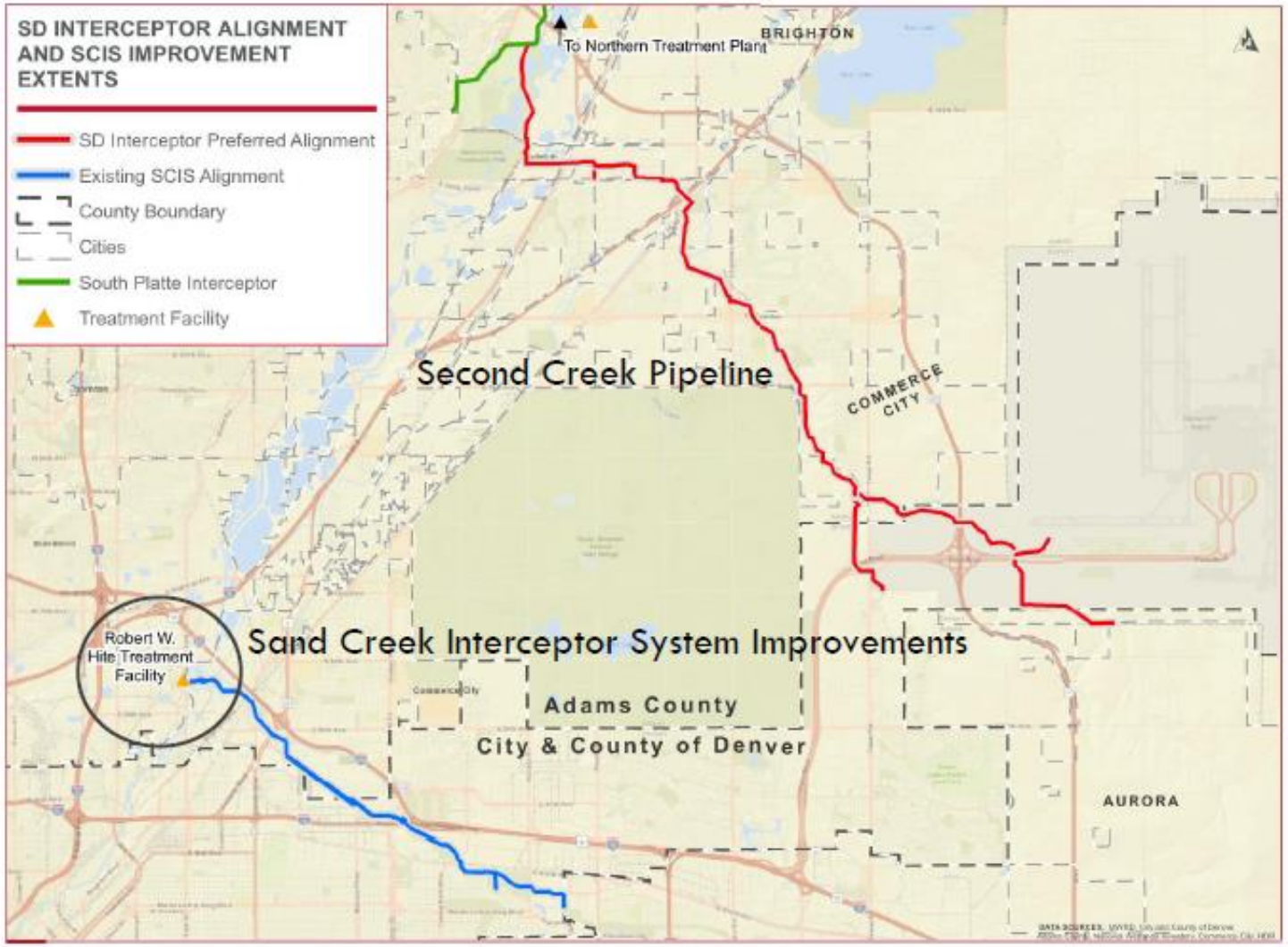
Project Overview

The Metro District is designing the Second Creek Interceptor to:

- Convey flow to Northern Treatment Plant and preserve capacity at Robert W. Hite Treatment Facility
- Expand gravity-powered transmission system
  - Reduce energy use and carbon footprint by initially decommissioning up to 5 existing lift stations
  - Decrease long-term maintenance/operating costs

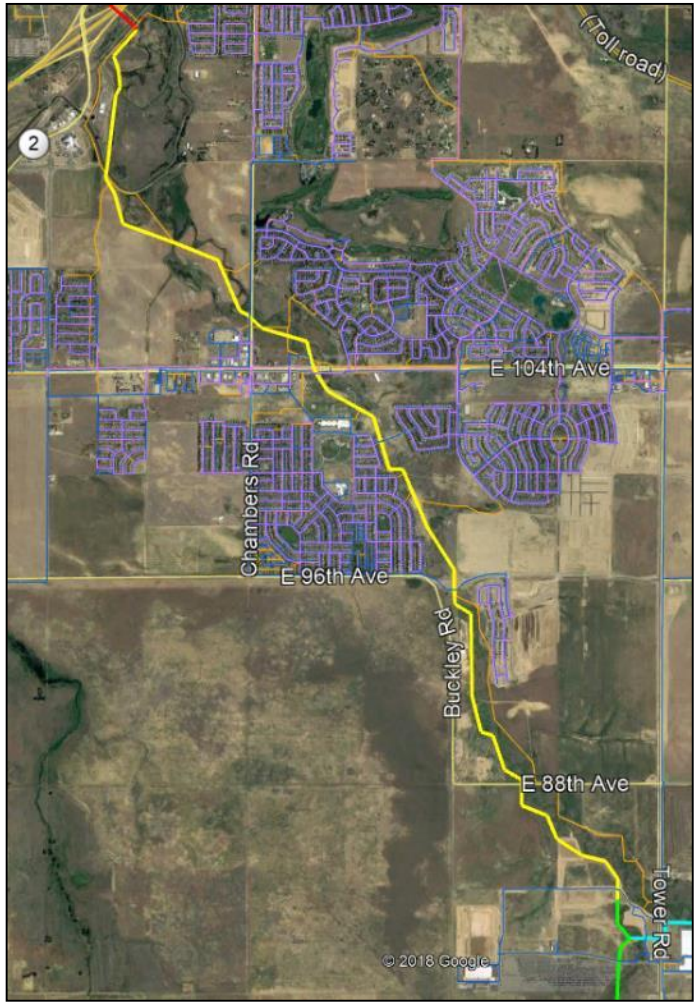
Sand Creek Interceptor System Improvements

- Second Creek Interceptor will divert a portion of flow from the District's existing Sand Creek Interceptor System (SCIS)
- Timing and sizing of planned improvements to the SCIS are under consideration
- SCIS Phases 1 and 3: Approximately 0.5 miles of pipe improvements at the Robert W. Hite Treatment Facility and 0.3 miles on the adjacent Suncor refinery property



Commerce City Alignment

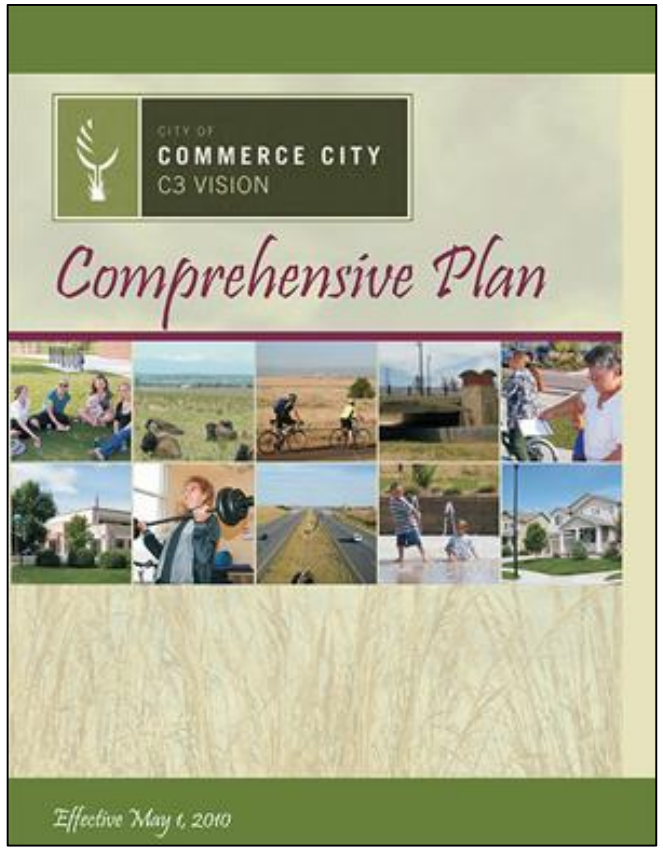
- Approximately 7-miles (out of 17) in C3
- Diameter ranges from 36 to 48-inches
- Constructed 7 to 30-feet underground
- Avoids developed areas/traffic corridors when possible



Current alignment in Commerce City

Compatible with Commerce City Comprehensive Plan

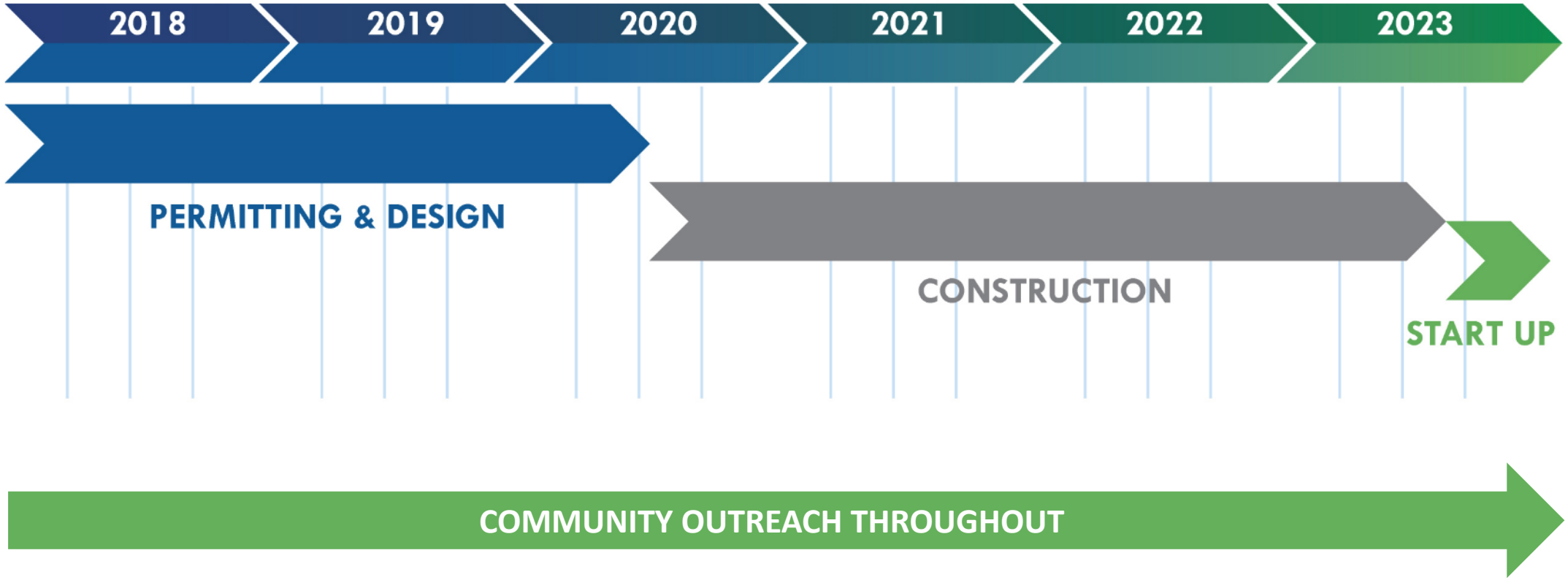
- **Commerce and Economy:** Supports existing and planned development
- **Context and Environment:** Preserves the natural character and landscape of the surrounding community
- **Community and Social Well-Being:** Sustainable design of a long-term regional solution



METRO WASTEWATER RECLAMATION DISTRICT

SECOND CREEK PIPELINE

PROJECT SCHEDULE



Construction Contractor

- Contractor: Garney Construction
- Colorado Office: Littleton
- Long history with Metro District
  - Northern Treatment Plant
  - North Secondary Improvements (RWHTF)
  - Digester Complex Upgrades (RWHTF)

Tertiary complex at the Northern Treatment Plant

Open-Cut Construction Methods

- 120-foot wide construction corridor
  - Narrower in constrained areas
  - 40-foot permanent easements
- Groundwater dewatering
- Erosion control
- Traffic control

Examples of open-cut construction method.
Photo source: HDR

Trenchless Construction Methods

- Trenchless installation required at:
  - Major roadways
  - Irrigation ditches and canals
  - Railroads
  - Environmentally sensitive areas
  - Deep installations
- Anticipated 14 trenchless installations pending final alignment evaluations

Example of trenchless construction method. Photo source: HDR

Facilities

- Pipe
  - PVC or FRP (fiberglass reinforced pipe) for corrosion resistance
- Manholes
  - Corrosion resistant materials
  - Located at pipe deflection points
  - Spaced as needed for maintenance
- Connection structures
- Metering facilities
- Odor control facility

Examples of potential pipe materials. Photo source: HDR

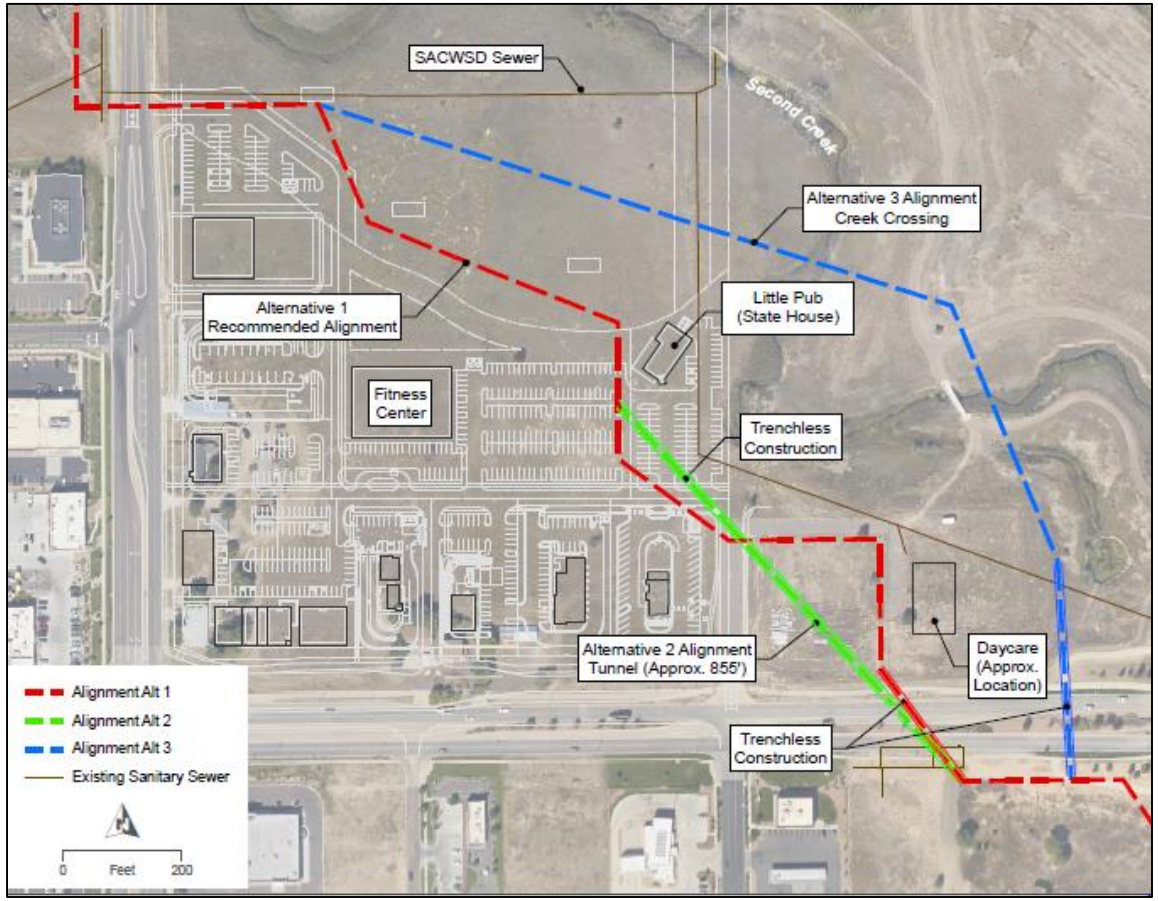
Regional Benefits

- Long-term infrastructure solution
- Regional collaboration
- Reflection of the Metro District's commitment to environmental stewardship
  - Sustainable gravity flow
  - Restoration or improvement of existing land conditions
- Expansion of regional water reclamation service
- Economic development and community growth

Part of the region's plans for more than four decades, the Northern Treatment Plant provides advanced, cost-effective water reclamation for surrounding communities.

Design Modification: Second Creek Village/Little Pub

- Several alignments evaluated
- Selected alignment (Alt. 3/blue):
  - Accommodates existing and planned development
  - Minimizes impacts to traffic and existing businesses
  - Increases tunnel length and construction/capital cost

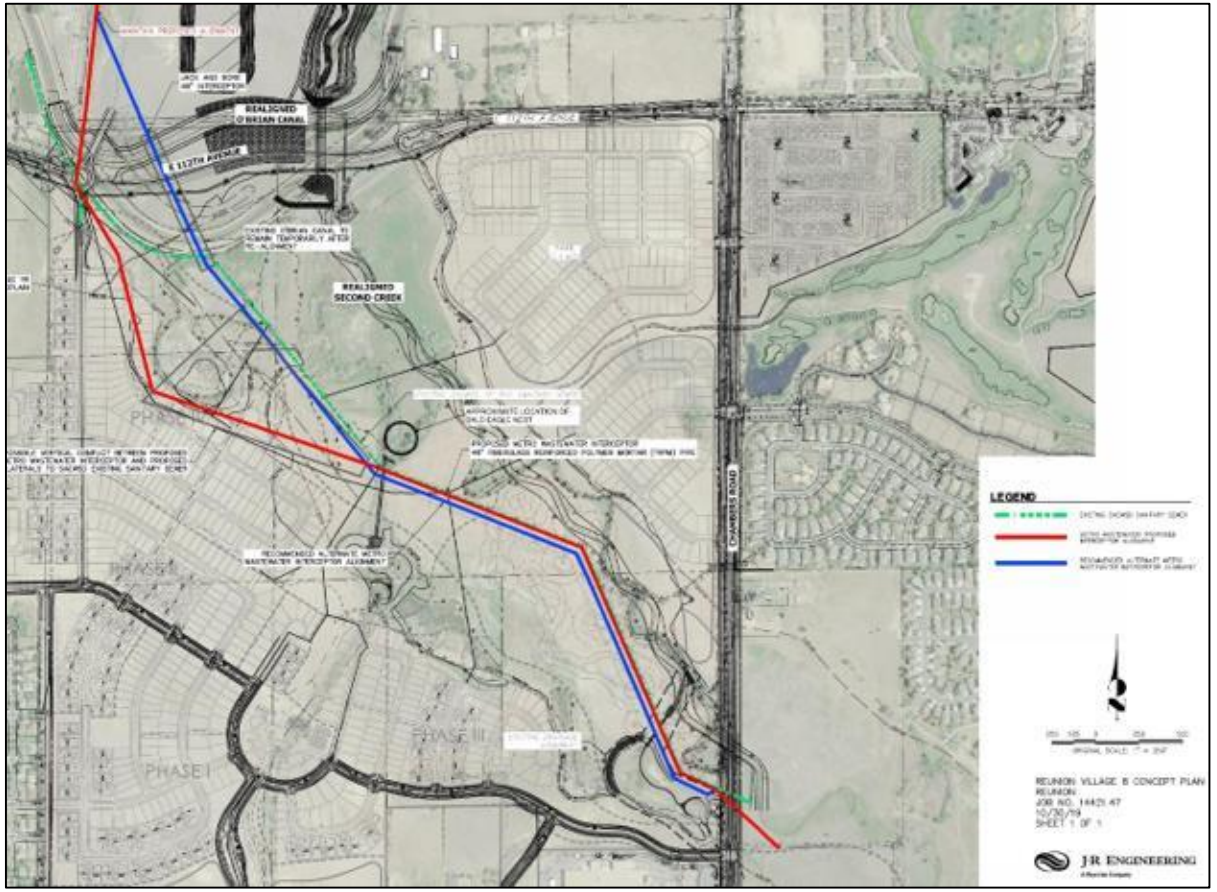


Second Creek Village alignment alternatives

Design Modification: Reunion Village 8 Area

Metro District alignment revised to:

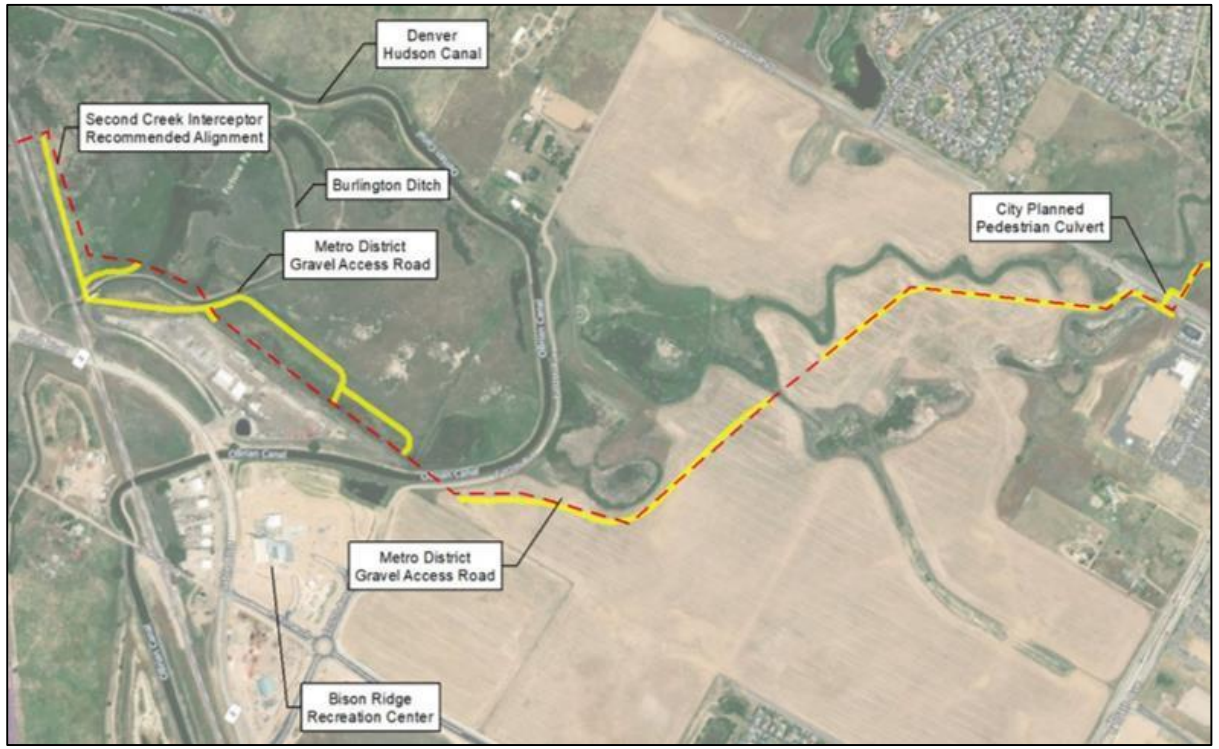
- Accommodate conceptual plans for area development and irrigation canal
- Maintain project schedule and maintenance access
- Preserve wetlands; avoid floodplain
- Protect sensitive (raptor) habitat
- Ensure efficient operations and meet future regional service demands



Conceptual Reunion Village 8 plans (provided by JR Engineering).

Community Benefits and Amenities

- Compatible with future Second Creek Park and Master-Planned Trail System
- Approximately 4-miles of gravel access roads integrate with trail plans
- Improves neighborhood connectivity
- Complements MHFD planning
- Tunneling at Chambers Rd. to minimize traffic impacts



Next Steps

- C3 Conditional Use Permit: Upcoming Hearing Dates
  - August 4: Planning Commission
  - August 18: Metro District Board Meeting
  - September 21: C3 City Council
  - Easements concurrent with CUP process
- Additional Permits and Agreements
  - Adams County
  - City of Brighton
  - CDPHE/other agencies

QUESTIONS?