



PUBLIC WORKS DEPARTMENT
MEMORANDUM #2015 – 34

DATE: July 6, 2015
TO: Honorable Mayor Joyce Downing and City Council Members
FROM: John Pick, City Manager 
David Willett, Director of Public Works 
SUBJECT: Council Study Session
RTD FasTracks-Grange Hall Creek Drainage Update

BACKGROUND

Improvements to drainage structures under the rail lines as a result of RTD improvements to rail track alignment and widening of the embankment are necessary to accommodate dual tracks and bring the infrastructure up to RTD standards for weight and vibration impacts. Staff is working with the Urban Drainage & Flood Control District, Thornton and RTD to minimize the impacts to our creek system. Below is a summary update on the current proposed improvements. Please see the attached concept-level plan sheet for illustration of the channel improvements.

North Tributary of Grange Hall Creek

West side – minor re-grading of existing area that detains stormwater. This may result in a minor reduction of floodplain limits. New pipe will connect with existing pipe from west, pass under the rail embankment (as a replacement for the existing pipes) and exit on the east side into the existing sedimentation basin.

East side – minor modifications to the connection point with the existing sedimentation basin, new headwall and wing walls for the replacement pipe under the embankment. No improvements or changes to the existing sedimentation basin or the water quality area upstream of the pedestrian bridge. Energy dissipation structures may need to be added. Floodplain limits do not change.

Main Stem of Grange Hall Creek

West side – excavation & grading to allow for more stormwater storage volume upstream of the rail track embankment. Replacement of existing pipe (108” dia.) under the rail embankment with ~ 96” pipe. Expansion of floodplain limits, but most impacts will be to properties that are in Thornton.

East side– minor modifications to the connection point with the existing drop structure, new headwall and wing walls for the replacement pipe under the embankment. Floodplain limits do not change. Energy dissipation structures may need to be added.

Area between the North Tributary and Main Stem, parallel to the rail alignment

West side – addition of an overflow channel, parallel to the rail alignment, to move stormwater from the N. Tributary to the Main Stem channel. A box culvert will be installed under the existing greenway trail to carry the storm flows to the south. Energy dissipation structures may need to be added.

Private property owner impacts

Temporary construction easements will be needed. Additional right-of-way for RTD may or may not be needed (based on final design). RTD has asked the City for assistance in making contact with the impacted property owners.

After the construction is completed, permanent drainage and maintenance easements will need to be in place for specific locations (based on final design). These are necessary to ensure there are no future impacts to the floodplain in this area and to allow for Urban Drainage & Flood Control District to assist Northglenn in the maintenance of the improvements. The permanent easements will be similar to the existing maintenance agreements currently in place.

Potential for maintenance access for both UDFCD & RTD

RTD is attempting to combine their rail maintenance needs with the needs for Urban Drainage, Northglenn and Thornton to access the storm detention areas and infrastructure improvements. Preferred access would be within the existing RTD ROW from either the north (at 112th) or the south (at 104th) but may include utilization of our Greenway trail from the west side only with an approved access agreement that could include compensation. The attached aerial shows this potential option. RTD indicates they typically access their signal houses associated with the light rail lines about once a month for routine maintenance and testing. Staff is working on verifying ownerships and researching potential conditions that may be necessary for this in the event that RTD makes this request.

STAFF REFERENCE

Kent Kisselman, PE, Engineering Manager
Pam Acre, Stormwater Coordinator

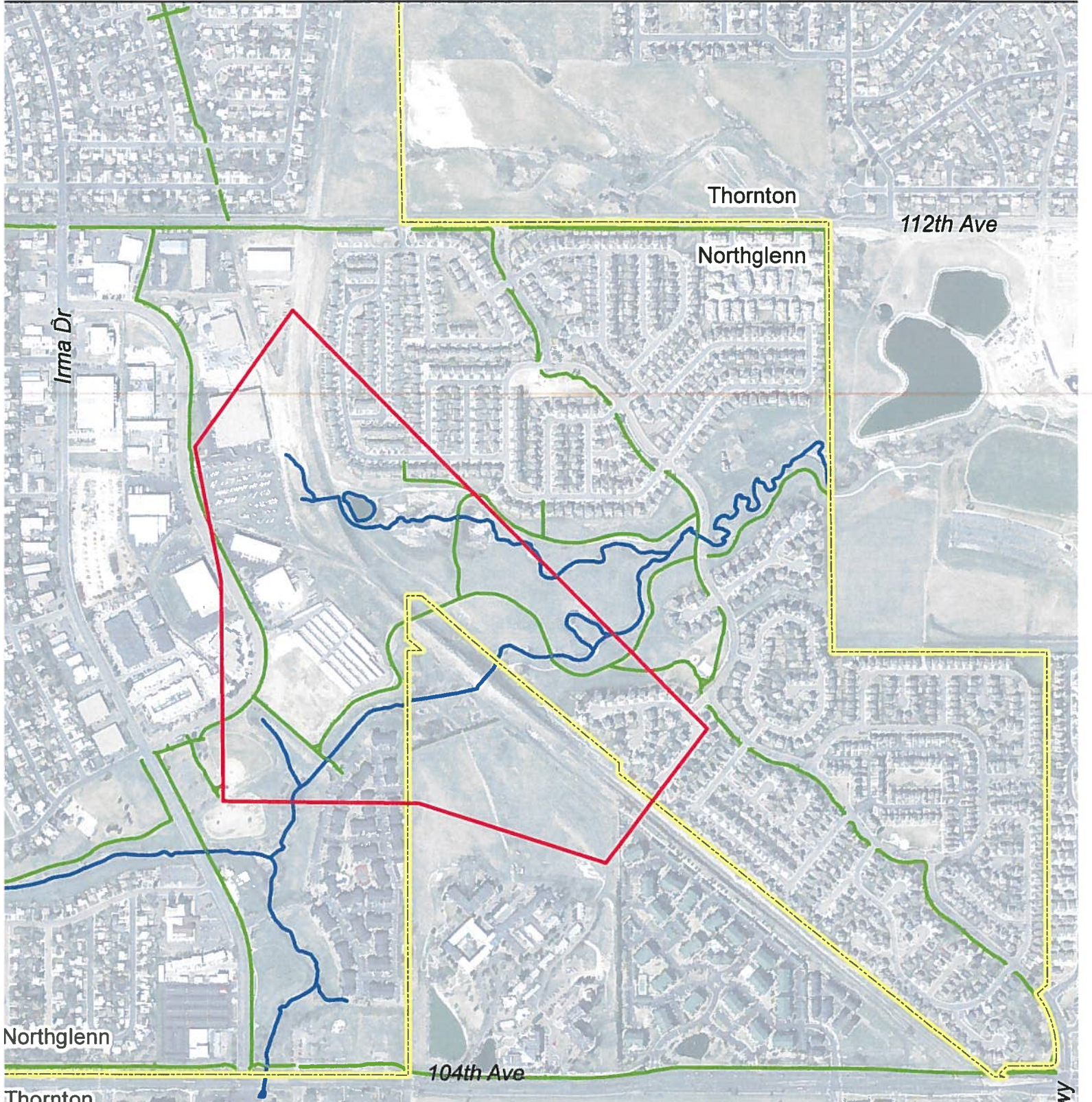
kkisselman@northglenn.org or 303.450.4005
pacre@northglenn.org or 303.450.8792

ATTACHMENTS

- Locus – Grange Hal Creek Project Area
- Concept Plan sheet – RTD FasTracks at Grange Hall Creek crossings
- Aerial – Potential Access Location



PW 15-34 RTD-Grange Hall Creek Drainage Update



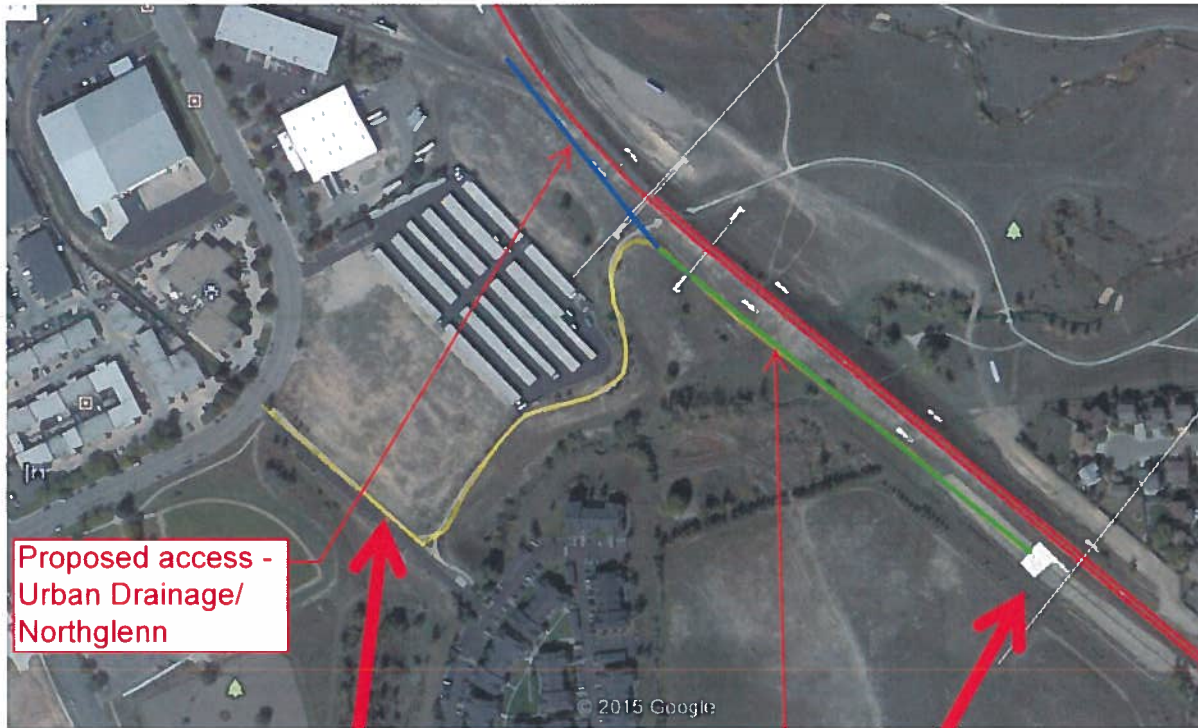
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	Trails
	Drainage
	Northglenn City Limits
	Area of Interest

Fox Run Pkwy

ALTERNATE ACCESS ROUTE TO SIGNAL HOUSE NEAR STA 717



Proposed access -
Urban Drainage/
Northglenn

Proposed Access -
RTD/Urban Drainage/
Northglenn

Move Signal House to West side of tracks.

Access route to be verified with RTD
and Northglenn