



PUBLIC WORKS DEPARTMENT
MEMORANDUM #09-42

DATE: September 24, 2009

TO: Honorable Mayor Kathleen M. Novak and City Council Members

FROM: William A. Simmons, City Manager 
David Willett, P.E., Public Works Director 

SUBJECT: Authorization for Expenditure
Standing Water I-25 Pedestrian Underpass (CDOT Right-of-Way)

BACKGROUND:

The existing I-25 pedestrian underpass just south of 120th Avenue was originally an 8 foot by 8 foot concrete box that was constructed in conjunction with I-25 for the purpose of getting cattle from one side of I-25 to the other. As urbanization of this area took place, the cattle pass was abandoned and the entrances to it were plugged with dirt. When the City's Greenway/Trail System Plan was prepared in 1974, it was proposed that the former cattle pass be refurbished and utilized as a safe and convenient crossing of I-25 for pedestrians and bicyclists.

Through the combined efforts of RTD, the Colorado Department of Highways (CDOT), DRCOG and the City of Northglenn, an Urban Systems grant from DRCOG was awarded to RTD to pay for 75% of the design and construction costs for this facility with RTD putting up the remaining 25%. The City of Northglenn acquired all right of way needed for the approaches to this facility. The box was cleaned, extended, and reopened in 1979 by CDOT. Trail connections to the box from the east and west side of I-25 were also constructed.

On June 17, 2009, City staff contacted CDOT regarding standing water on the walkway of the I-25 Pedestrian Underpass. In response to the City's query, CDOT personnel visited the site to investigate the situation. On July 7, 2009, CDOT sent an email to the City of Northglenn notifying staff that the standing water in the underpass is due to seepage and that CDOT had no plans for any corrective actions.

On August 17, 2009, City staff again contacted CDOT regarding the standing water on the walkway of the I-25 Pedestrian Underpass in response to the comments made by a citizen at the August 13th City Council meeting. Staff requested a meeting with CDOT staff to visit the site and discuss the situation.

On September 3, 2009, City staff met with Justin Werdel of CDOT Drainage and Roy Smith of CDOT Maintenance on site to discuss the drainage issue. It was agreed between the parties in attendance that the City of Northglenn has maintenance responsibility for the lights inside the underpass and the connecting trails. CDOT has maintenance responsibility for the concrete box structure. City staff ran water down the underpass, on September 4, 2009, to observe the reported ponding issues. While on site, City staff cleaned the existing drain on the east end of the box.

Trail and Box Structure Drainage and Maintenance:

After reviewing the history of the underpass, discussing drainage issues with CDOT, and observing water flows through the underpass, City staff has determined the following:

1. The existing drain on the east end of the box has capacity to handle small to moderate stormwater flows. In extremely heavy rain events, stormwater may bypass the existing drain on the east side and enter the concrete box structure. During these events water will pond on a short section of the box floor just inside the east entrance. Any modifications of the box fall within CDOT's maintenance responsibility.

2. On occasion, minor seepage may occur within the box structure. Any modifications inside the box fall within CDOT's maintenance responsibility.
3. The trail just west of the concrete box slopes toward the east (back to the box) rather than the west (away from the box) as it was originally designed. The trail, therefore, contributes to drainage problems on the west end by trapping stormwater inside the concrete box. Trail modifications fall within the City of Northglenn's maintenance responsibility.

Recommendation:

Staff recommends that Council authorize using contingency funds to replace approximately 100 feet of the aging asphalt trail west of the pedestrian underpass. The new concrete trail will be graded to drain westward with an ADA compliant cross slope to the north to promote drainage. The trail modification will drain water from the west side and help the overall drainage characteristics.

The drainage improvements will cost **\$6,970.80**. Funding in the amount of \$6,384.32 is available in the Conservation Trust Fund contingency that was approved by city council on May 14, 2009 for Greenway Trail Concrete replacement. The remaining amount can be funded through the Capital Projects Fund contingency.

Contingency – Conservation Trust Fund

Original Contingency:	\$6,384.32
Proposed Change Order for	
Underpass Modifications:	\$6,384.32
Remaining Contingency:	<u>\$ 0.00</u>

Contingency – Capital Projects Fund

Original Contingency:	\$235,068.12
Change Order No. 1:	\$144,372.10
Change Order No. 2:	\$38,970.00
In House Drainage Work:	\$6,000.00
Underpass Trail Modifications:	\$586.48
Remaining Contingency:	<u>\$ 45,139.54</u>

STAFF REFERENCE:

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Pedestrian Underpass - East End Drain



Pedestrian Underpass - East End Ponding



Pedestrian Underpass Ponding



Pedestrian Underpass - West End Ponding