

Happy Canyon Bridge

SP16-107

eTRAKiT referral comments as of 10-6-17

COMCAST – Scott Moore

NO COMMENTS UPLOADED

CONSTRUCTION PLANS – CIVIL - Jim Swanson

NO COMMENTS UPLOADED

CONSTRUCTION PLANS – CIVIL – Alex Mestdagh

REVISIONS REQUIRED

Please see updated Comment Resolution Form from third-party reviewer

- Comment Resolution Form revised per comments – see attached.

CONSTRUCTION PLANS – ENVIRONMENTAL – Kurt Patrick

REVISIONS REQUIRED

1) Include all Town of Parker standard notes and details.

- Town of Parker standard notes and details added to plans.

2) Show the ratio of all slopes greater than 4:1.

- Slopes greater than 4:1 shown on the GESC plans.

3) Add a note on all land adjacent to the project stating that no work shall occur in these areas.

- Note added to GESC plans.

4) A clean water diversion will be required for this project to complete the work in the channel, please show this on the plans.

- The note on ET-1 under Water Control Notes – Temporary Stream Control was updated to include a clean water diversion. The Contractor is responsible for developing a water control plan (including a clean water diversion) for review and approval by the Town two weeks prior to beginning construction.

5) Show erosion control blanket on all slopes steeper than 4:1.

- Erosion Control Blanket has been included on all slopes steeper than 4:1.

6) Show portable toilet protection.

- Portable Toilet Protection has been included and shown on the plans.

7) Ensure SCL or SF are in place in all areas between Happy Canyon Creek and any up-gradient disturbance.

- GESC Plans updated and revised to include areas in between Happy Canyon Creek and up-gradient disturbance areas.

CONSTRUCTION PLANS – STORMWATER – Jacob James

REVISIONS REQUIRED

1. Please provide riprap and boulder gradations matching UDFCD requirements on the drawing sheets.

- Riprap and boulder gradations matching UDFCD requirements have been updated in a table in the Happy Canyon Creek detail plan sheets.

2. The soil riprap and riprap on the downstream side of the pedestrian trail may not be adequate for the flows and velocities of the water overtopping the trail. Please provide analysis showing how this riprap was sized and the associated flows and velocities of the water at the point of overtopping up to the 100-year event. It is likely that the flows and velocities are the highest with 6" to 2 feet of water overtopping the trail.

- Soil riprap was sized according to the National Cooperative Highway Research Program (NCHRP) Report 568, Riprap Design Criteria, Recommended Specifications, and Quality Control which includes riprap sizing for overtopping flow with side slopes of 4:1 or less. The average velocities and shear stress according to the hydraulic model indicate that the future 2yr FHAD have the highest values. An analysis was completed utilizing the future 2yr, 5yr and 10yr FHAD storm events. The 2yr resulted in a d_{50} of 9 inch, 5yr = d_{50} of 15 inch and the 10yr = d_{50} of 18 inch. Assuming the worst-case scenario, with the tailwater being low relative to the crest of the structure, the future 10yr storm event was selected for the riprap sizing design and consideration of protecting the embankment and trail crossing.
- The low-water crossing RCBC structure itself has been sized to pass less than the future FHAD 2yr storm event. Riprap outlet protection has been sized accordingly.

3. Additional comments from Urban Drainage will need to be coordinated once those review comments are submitted.

- Noted and response to comments completed in UDFCD comment/response letter.

POLICE – Sherry Corcoran

NO COMMENTS UPLOADED

IREA – Brooks Kaufman

NO COMMENT

SITE PLAN CIVIL – Alex Mestdagh

REVISIONS REQUIRED

SITE PLAN – Carolyn Washee-Freeland

NO COMMENTS UPLOADED

SITE PLAN EXTENSION – Carolyn Washee-Freeland

REVISIONS REQUIRED

Revisions required. Please address all Town engineering and referral agency comments listed in Trakit as well as the "attachments" section of Trakit.

PUBLIC SERVICE COMPANY OF COLORADO – Donna George

REVISIONS REQUIRED

In addition to what has already been stated in the first review, PSCo requests the existing gas distribution main at the very south end of the project to be shown on the plans so that it can be seen in relation to the proposed work area(s). Comment response requested.

- The approximate existing gas line has been included in the topography and shown on the plans sheets for information.

STONEGATE VILLAGE METRO DISTRICT – Sarah Sjobakken

NO COMMENTS UPLOADED

URBAN DRAINAGE AND FLOOD CONTROL – Morgan Lynch

REVISIONS REQUIRED- SEE LETTER

- Response to comments completed in UDFCD comment/response letter.

TRAFFIC IMPACT STUDY – David Aden

NO COMMENTS UPLOADED

CHERRY CREEK BASIN WATER QUALITY AUTHORITY – Jim Swanson

No exceptions taken as submitted

URBAN DRAINAGE AND FLOOD CONTROL DISTRICT – Morgan Lynch

REVISIONS REQUIRED

See separate letter

- Response to comments completed in UDFCD comment/response letter.

DRAINAGE REPORT – STORMWATER – Jacob James

1. Please submit a revised drainage report with all major drainage calculations for review.

- Revised CLOMR Report submitted that includes all major drainage calculations for review.

ENVIRONMENTAL IMPACT STUDY – Kurt Patrick

NOT APPLICABLE

FLOODPLAIN DEVELOPMENT PLAN– Jacob James

1. Please submit a revised CLOMR-Drainage Report for review.

- Revised CLOMR Report submitted that includes all major drainage calculations for review.