

54th and Pecos OSP – Selected Plan Discussion

ATTENDEES: Shea Thomas / UDFCD Danny Elsner / CH2M
 Brook Seymour / UDFCD Dan Hill / CH2M
 Anna Sparks / Adams County Myles Gardner / CH2M
 Russel Nelson / Adams County
PROJECT: 683292
MEETING DATE: October 16, 2017
MEETING TIME: 1:00 pm
LOCATION: UDFCD

Agenda Items

1. Selected Plan Discussion

Danny gave a brief overview of the following alternatives. Brook clarified that although some of the previous alternatives were eliminated, Top alternatives 1-3 and Bottom Alternatives 1-4 will still be reported in the OSP.

a. Current/New Alternatives

- i. ~~Strike out indicate alternatives not available anymore,~~ Red Alternatives (plus Washington Street and Base) go together, Blue Alternatives (plus Washington Street and Base) go together.

- ii. Base Alternatives – No change – \$2.1M

iii. Top Alternatives

Russel mentioned that he expects any of the top alternatives that utilize Broadway will have a higher cost associated with them due to traffic control measures needed during construction. Danny noted that CH2M did look at the cost implications of using Broadway but easement acquisition for Top Alternative 1 greatly exceed those implications. Anna noted that it would be safe to estimate the acquisition by assuming \$25.00 / sf of easement area.

- 1. Top Alternative 1 – large pipe down I-25 – \$4.0M
- 2. Top Alternative 2 – pipes in Broadway and large pipe for half of I-25 – \$2.1M
- 3. ~~Top Alternative 3 – pipes in Broadway and discharge into Copeland Lake – \$1.2M – Washington improvements~~

Top Alternative 3 was eliminated since Copeland Lake is assumed to have no storage capacity.

- 4. Top Alternative 4 – Top Alt 1 + flow from 62nd and Washington – deeper pipes – \$7.2M
Danny noted that Top Alternatives 4 and 5 are more expensive than the Bottom Alternatives discussed later as the system will need to buck grade to the west, therefore increasing construction costs. This alternative is still feasible since the CDOT pond is low enough to discharge to.
- 5. Top Alternative 5 – Top Alt 2 + flow from 62nd and Washington – deeper pipes – \$5.3M (est. by using the delta from Top Alternative 4 to Top Alternative 1)

- iv. Washington Street Alternatives (Middle Alternatives)

- ~~1. Middle Alternative 1 – what is shown in Bot Alt 1-4 – \$3.2M~~
 2. Middle Alternative 0 – improvements north of 62nd Avenue – only good with Top Alt 4-5 or Bot Alt 5 - \$0.5M
- v. Bottom Alternatives
1. Bottom Alternative 1 – pipes down Franklin/RR to Clear Creek – \$6.3M
 2. Bottom Alternative 2 – pipes down Franklin/RR but then down 68th to I-270 –\$7.5M
 3. Bottom Alternative 3 – pipes down Franklin/RR but then down 66th to York Street – \$7.9M
 4. Bottom Alternative 4 – pipes down Franklin then parallel pipes down 64th and 66th to York Street - \$5.6M
 5. Bottom Alternative 5 – Bot Alt 4 + flow from 62nd and Washington – only should upsize to Franklin & 66th - \$7.8M
- Danny noted that the Bottom Alternative 5 works the best as existing pipes under 66th Avenue (and downstream) were already planned to be upsized with Bottom Alternatives 1 - 4. Additional pipe sizes required to convey the additional flow are less than adding a new section of pipe.*
6. No other alternatives have flow from Washington as they have much larger pipes going along Franklin & 66th
- b. Possible Combinations
- i. Flow from 62nd and Washington goes west
 1. Base + Top Alt 4 + Mid 0 + Bot Alt 1 = \$2.1 + 7.2 + 0.5 + 6.3 = \$16.1M
 2. Base + Top Alt 4 + Mid 0 + Bot Alt 2 = \$2.1 + 7.2 + 0.5 + 7.5 = \$17.3M
 3. Base + Top Alt 4 + Mid 0 + Bot Alt 3 = \$2.1 + 7.2 + 0.5 + 7.9 = \$17.7M
 4. Base + Top Alt 4 + Mid 0 + Bot Alt 4 = \$2.1 + 7.2 + 0.5 + 5.6 = \$15.4M
 5. Base + Top Alt 5 + Mid 0 + Bot Alt 1 = \$2.1 + 5.3 + 0.5 + 6.3 = \$14.2M
 6. Base + Top Alt 5 + Mid 0 + Bot Alt 2 = \$2.1 + 5.3 + 0.5 + 7.5 = \$15.4M
 7. Base + Top Alt 5 + Mid 0 + Bot Alt 3 = \$2.1 + 5.3 + 0.5 + 7.9 = \$15.8M
 8. Base + Top Alt 5 + Mid 0 + Bot Alt 4 = \$2.1 + 5.3 + 0.5 + 5.6 = \$13.5M
 - ii. Flow from 62nd and Washington goes east
 1. Base + Top Alt 1 + Mid 0 + Bot Alt 5 = \$2.1 + 4.0 + 0.5 + 7.8 = \$14.4M
 2. Base + Top Alt 2 + Mid 0 + Bot Alt 5 = \$2.1 + 2.1 + 0.5 + 7.8 = \$12.5M

The project team discussed the outfall of Bottom Alternative 5. While the GIS linework does not show the exact outfall location, the sponsors agree that then South Platte trail does need to be protected. Anna noted that the outfall location may interfere with Metro Wastewater discharge location and it is something to be aware of.
- c. Discussion
- As a side note, regarding the development negotiation that is occurring at 62nd and Washington, Russel is working toward adding in easement language for a 100-yr overflow that is occurring at 62nd and Washington. Currently, just south of 62nd and Washington there is a low spot for flooding which then flows north-east until it intercepts 62nd Avenue and Downing Street. The selected plan may utilize the future drainage easement to help convey the 100-YR storm downstream.*
- After a bit of discussion, Anna noted that the sponsors would like to select the Top Alternative 2, Middle Alternative 0 and Bottom Alternative 5 as the selected plan due to the projected costs. There is an additional benefit that the selected alternative will also investigate if there are any*

insurmountable barriers that prevent a new subsurface drainage system down Broadway. Russel would also like to include language in the report regarding the need for further localized drainage studies.

Shea added that these alternatives will be added to the OSP for future reference. If any opportunities arise in the future that change the assumptions noted in the OSP, future studies may utilize portions of any of the unselected alternatives.

Anna mentioned that Adams County is looking forward to getting the conceptual design to help inform a potential CIP project near 66th and Broadway. Currently, the open channel to the south of 66th is fully vegetated with cattails and wetland plants, subsequently causing adjacent roadway failures. CH2M will investigate the local drainage in the area with regard to the associated problems and provide sufficient pipe and open channel (trapezoidal) sizing recommendations as well as the potential culvert improvements at Broadway.

2. Schedule

a. Next Steps

- i. Select Best Alternatives Plan – week of October 30th

The project sponsors have tentatively chosen Top Alternative 2, Middle Alternative 0 and Bottom Alternative 5 as the selected plan to be converted to Dynamic Wave. The project sponsors will take the next two weeks to fully consider all the alternatives and provide a formal letter stating what they would like to see further developed. The NTP letter is expected 10/30/2017.

- ii. Submit Draft Conceptual Design Analysis - week of January 1st
- iii. Public Meeting – mid to late January
- iv. Submit Final Conceptual Design – week of February 12th