

## FLOOD REVIEW BOARD

**Date: January 28, 2021**

**Time: 8:30 AM, MST**

**Locations: Lake Estes Conference Room, 200 W. Oak St., Fort Collins, CO 80521 and remote via Zoom**

**Contact: Devin Traff, Larimer County Engineering Department**

## MEETING MINUTES

**Staff Present:** Devin Traff, Tina Kurtz, Amy White

**Board Members:** Bets Ervin-Blankenheim [left meeting at 10:15 am] , John Hunt, Chad Morris, Mike Oberlander, Greg Koch

**Applicant Present:** Beck Anderson (City of Fort Collins), Brendan Carroll (Kraemer IHC Joint Venture), Brian Varrella (CDOT Region 4), Corey Stewart (CDOT Region 4), David Pizzi (Tetra Tech), Heidi Hanson (City of Fort Collins), Lyle Zevenbergen (Tetra Tech), Michael Brown (Tetra Tech), Nathan Corbin (Kraemer IHC Joint Venture), Paul Sterling (Public), Robert Cort (Applicant) Sheila Evans (Applicant)

Mr. Koch opened the meeting at 8:35 a.m., MST

### Introductions

#### **Item #1: Review CLOMR for reach of Cache La Poudre River**

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Mr. Morris stated that he would participate in the discussion for this item but would recuse himself from voting because Tetra Tech is involved in the project. Mr. Morris works for Tetra Tech.

Mr. Traff gave an overview of the project.

This item is a petition on behalf of Kraemer-Interstate Highway Construction Joint Venture for Board review of a Conditional Letter of Map Revision (CLOMR) and recommendation to the County Engineer whether to sign the FEMA MT-2 form for the CLOMR application. The project is located along the Cache La Poudre River near the intersection of I-25 and Kechter Road. The parcels surrounding Kechter Road and I-25 are within the county except the NW Harmony McMurray parcel.

This project has previously been before the Board in April 2019, where the Board approved a recommendation to the County Engineer to sign the MT-2 form for a CLOMR on the condition that any changes in the Base Flood Elevations (BFEs) gain concurrence from Larimer County. The County required that all impacted property owners be notified of the changes prior to approval. Since then, design has changed and a new CLOMR has now been submitted for review by the Board.



The new design includes construction of a bridge for Kechter Road over I-25, construction of a new bridge and culvert for I-25, addition of a tolled express lane in each direction with a four (4) foot buffer to separate express lane from general traffic, a 32' grass-lined median, and realignment of the frontage road east of I-25.

The floodplain impacts of the project are varied. A comparison of the proposed and existing conditions shows that the BFEs increase between 0.2' and 1.5' primarily along the main reach of the Poudre River SE of the interchange. The increases do not appear to impact any structures. Floodplain and floodway limits are impacted but are somewhat variable. One of the more distinct changes is that the floodway will move further south on the Island Lake Marina property, SW of the interchange. However, this change does not appear to impact the marina or other structures. In preparation for this meeting, the County sent notifications to impacted property owners and a second round of notifications will be sent per FEMA rules pending Board approval to recommend the County Engineer sign the MT-2 form for the CLOMR.

Mr. Pizzi gave an overview of the project.

The project has proposed encroachment within the FEMA floodway, changes to the BFEs and floodplain and floodway boundaries. The applicants are seeking concurrence from the County on these proposed map changes.

This project is for the construction of a tolled I-25 express lane between Fort Collins and Johnstown. It is located near the I-25 and Kechter Road overpass area, which is referred to as the Kechter Inundation Area (KIA). During a 100-yr flood event there is a flow split, pushing water down the west side of I-25, referred to as the I-25 divided flow path. When this flow gets to Kechter Road, there is a 3-way flow split, with one flow path going to the north, one going underneath the overpass and one that loops down to the south. It is in this area where the proposed floodway impacts will necessitate the map changes.

In the 2019 proposed project, I-25 would have been overtopped by the 100-yr flood event. The 2021 proposed project will include construction of new bridges to elevate I-25 and a new culvert so I-25 will no longer overtop. Due to the 3-way flow split and proposed project changes to the flow distribution, a hydraulic control on the south side of Kechter Road will be regraded and new scour countermeasures will be designed to prevent increases in the overtopping depth and extent along Kechter Rd.

A major concern for the applicant had to do with property owner notifications. The City and County agreed to distribute the notifications after FEMA has completed their initial review and provided comments. However, prior to this meeting, the County distributed notification in a more understandable format than the language used in formal FEMA notices.

Mr. Pizzi then compared the changes between the 2019 and 2021 projects. One such change is a 0.2' increase in the BFE between several effective cross-sections (corresponding to the Island Lake Marina property) in the 2021 proposed project, largely due to the position of added downstream cross-sections



due to inclusion of a bridge, and so the resulting profile changes the backwater. However, the proposed 2020 project results in a lower water surface profile than existing conditions. The 2019 project had an increase in the water surface elevation between the corrected effective model and the existing conditions model of 1.5' which has now dropped to 1.2' in the 2021 project. There is information to document 1' of that difference. He noted that this change has nothing to do with the proposed project.

A difference between the 2019 and 2021 designs is the proposed bridged and culvert under 1-25 which are changing the water surface profile. The BFEs for the proposed conditions drop relative to the existing BFEs except to the southeast of the overpass which is the Colorado Youth Outdoors property. However, the increases in BFEs and the proposed floodway boundary changes do not affect any insurable structures.

There was a discussion regarding the reasons for the increases in BFEs, such as the proposed rerouting of flow paths causing more flow going into the property and the resulting expansion zone in that area from the proposed I-25 bridge.

Mr. Hunt pointed out that there appeared to be a reduction in the proposed BFE compared to the existing BFE through the Island Lake Marina property. Mr. Pizzi responded that there is approximately a 0.3' drop through the property. They ensured the proposed BFE was lower than the existing BFE due to the insurable structures on the property.

There was a question on Kechter Road overtopping and new drainage structures. Mr. Pizzi responded that the road will still overtop on the east side of I-25, however under the proposed conditions, it will be less severe than in the existing conditions. It was determined that the native vegetation provides sufficient resistance to the expected shear, so there are no proposed culverts, no grading and no scour protection along this stretch of road.

On Kechter Road west of I-25, there will be grading on the high ground just south of the road to get the additional flow rerouted into Island Lake without increasing the existing overtopping depth or width. There will be scour protection, a reinforced matting, from Kechter Rd down into Island Lake. The matting can be covered by gravel to maintain access on the ring road around the lake.

Mr. Koch asked about the reason for the 1.2' difference between the existing and effective BFEs. Mr. Pizzi said that they were able to document a previous roadway project done between the effective mapping data collection and map publication which accounted for 0.8' feet of the rise and another 0.2' of rise is attributed to the City's more accurate datum correction when going from NGVD28 to NAVD88. They do not have documentation on the remaining 0.2' of rise. Mr. Pizzi did mention that there were other projects in this area permitted as a no-rise and the post-project certification confirmed there was not a change in the BFE.

Mr. Pizzi then discussed scour considerations for the proposed project, including sizing of the revetment at the I-25 bridge abutments for stability during the 500-yr flood event. They looked at scour depth for the I-25 bridge piers which will be founded on drilled shafts so there's not a countermeasure design, but the piers are designed to accommodate the projected scour. Downstream of the bridge from the



downstream termination of the revetment there will be turf reinforcement mats (TRM) through the rest of the ROW to protect the existing soil. TRM would also be used along Kechter Rd west of 1-25. The native vegetation is sufficient for protection along Kechter Rd east of I-25.

Mr. Anderson was asked if the City had additional comments on this submittal. He stated that they did a detailed review and found that all comments from their first-round review were addressed and that they have no further comments at this time.

Mr. Pizzi responded to a question regarding the cross-drainage structures under I-25. He said that the northern culverts on I-25 were 3, 3' diameter concrete pipes. The length of the bridges to the south are sized to prevent there being excessive backwater on the Island Lake property. He mentioned that the flow split does not activate until somewhere between the 10-yr and 25-yr flood. The channel bed is revetted from toe of abutment to toe of abutment.

There was a question as to whether the property owner on the downstream side of the bridge is aware that the proposed project will result in discharging flow onto their property. Mr. Pizzi said that the project team has been in close coordination with the landowner throughout the project.

There was a discussion regarding the adequacy of riprap protection at the outlet of the north culvert on I-25 going into a groundwater recharge pond. Mr. Koch asked about the reliability of the water level in the pond and the potential undermining of the downstream flared end sections. Mr. Pizzi said it is a nearly flat-water surface profile that is relatively constant. He noted that the revetment at the culvert outlets will go below that water surface elevation so that during a flood event the slope face will be protected. Mr. Koch noted that extra thickness of the riprap would provide additional protection if something happens with water cascading over the edge as you can't be sure that the pond will be full. He said this is a design detail the applicants can take under advisement. Mr. Hunt agreed with the thought of reviewing the riprap thickness at the culvert outlets. Mr. Pizzi said they will relook at this item.

There was a discussion about maintaining the floodway only through the main flow path, with it to the south of the intersection. Mr. Pizzi mentioned this was an agreed upon concept by all entities.

Mr. Koch asked about the differences in the floodway comparison map regarding the floodway extents between the corrected effective model and the existing conditions. Mr. Pizzi said that there was a change in topography in this area between the effective mapping from 1984 and the existing conditions, where there are now many more ponds. Mr. Koch wanted to make sure the floodway was optimized in this area so as to not create additional hardship for the property owner.

There was a discussion about whether RiskMAP or effective flows were used for the project design. Mr. Pizzi responded that the effective flow that was used. He noted that the effective and RiskMAP flows do not provide discharges through the I-25 divided flow path. The RiskMAP hydrology was approved as the best available information, but there is not a similarly approved hydraulic model to use for obtaining the flow splits through the divided flow path. In coordination with FEMA, the County and the City it was determined that the effective discharge of 4,725 cfs would be used for the divided flow path discharges.



Mr. Hunt asked if the RiskMAP discharge is higher or lower than the effective discharge. Mr. Pizzi said the last information he saw was that the RiskMAP discharge was slightly lower. Mr. Hunt said he wanted to make sure this design would still work with the RiskMAP discharges. Mr. Pizzi said they made sure to stay coordinated with the RiskMAP team, so the models developed for the project were shared with the RiskMAP team from early on.

Mr. Koch asked Mr. Traff and Mr. Beck if RiskMAP has a lower discharge. Mr. Traff responded that the base discharge through this area on the main stem was a bit lower than the effective discharge, so it would make sense that the split flow discharge is also somewhat lower.

Mr. Pizzi responded to the previous discussion regarding culvert outlet scour protection to say that the design includes a 3' toe wall. Mr. Koch noted that the submitted designs do not show this toe wall, so it would be helpful to have a sheet showing the design.

**Motion:**

Mr. Hunt motioned to recommend the signing the acknowledgement form for this Conditional Letter of Map Revision application. Ms. Ervin-Blankenheim seconded the motion. The motion passed 4-0, 1 abstention.

**Item #2: A petition filed by Robert Cort for a variance to allow a short-term rental use within the Fall River Floodway Zoning District at 2760 #228 Fall River Road, Estes Park**

Mr. Traff introduced the project.

The applicant (property owner) is seeking a variance from the allowed use in a floodway regulation to allow short-term rental (STR) use of their condo located within the Colorado Hazard Mapping Program (CHAMP) floodway. This reach does not have a mapped FEMA floodway; however, the County regulates to best available data, which in this case is the CHAMP data. The property is a condo within the Fawn Valley Resort Complex along Fall River, northwest of the Town of Estes Park.

The applicant provided information regarding the historic rental of this property from 1990. This unit can host up to ten guests per visit and is used year-round. The condo is rented through the Resort with staff on-site 24/7. There is a landline available in the office which can be reached in emergency situations. This property is accessed from Hwy 34 (Fall River Road) and there does not appear to be any significant safety issues from flooding for access out of the property.

According to the applicant, no damage occurred to the structure during the September 2013 flood or since December 1989, when he bought the property. Bank stabilization work was done in the area immediately following the 2013 flood but there does not appear to be significant alterations to the channel per an aerial image from October 2013.



The owner has indicated that there is an emergency plan in place for the Resort in event of flooding but it has not yet been submitted. Staff have recommended posting flood notices and documentation including information from [www.ready.gov/floods](http://www.ready.gov/floods).

Mr. Traff mentioned that he included a cross-section from the CHAMP model at the upstream end of the structure which shows the approximate location of the structure at the cross section. The modeling indicates flooding depth of 1.12' and overbank velocity of 1.59 fps at the condo.

Mr. Cort and Ms. Evans discussed the item.

They purchased the condo in December 1989 and have rented it out since then. There are three levels and four bedrooms. Mr. Cort said there was no water in the condo or any damage from the 2013 flood or any time since December 1989. They received vacation home rental licenses from the Town of Estes Park since the Town initiated licenses in 2017. Now they need a STR license from the County to continue renting the condo.

Mr. Cort sent a flood safety plan to Mr. Traff and Ms. White that they will post inside the condo.

Ms. White said that the Town permitted use of the structure as a vacation home but didn't look at floodplain issues as part of their review. The County looks at floodplain compliance as part of the licensing process. She said that there are no building violations on the property and the next step, pending variance approval, is a building life safety inspection.

There was a question on whether signage would be posted regarding flood risk. Mr. Traff stated that Mr. Cort provided a notice document to be posted in the application packet. He said that could be used, pending any modifications from the Board, or the standard language provided on [www.ready.gov/floods](http://www.ready.gov/floods) could be used.

There was a question on egress routes and Mr. Cort mentioned that the condo is located between the river and Hwy. 34 with a curved driveway up to the highway.

Ms. Ervin-Blankenheim left at 10:15 am, MST

There was a discussion of the possible reasons why the floodway encroaches into the property and the impacts of the 2013 flood in this reach.

Mr. Oberlander mentioned that it seems like there is safe access to Hwy 34 which is different than previous STR applications. He said the issue is occupancy in the floodway, but with the access and the management company onsite, he does not see any huge issues with this application. He mentioned that it would be different if this was a new structure to be built in this location.

Mr. Koch mentioned that there are several items that need to be addressed for these types of variances to be approved, such as flood elevation, access/egress capabilities, emergency notifications and how they should work, and stability of structure and slopes. He noted that the access for this condo is better



than others the Board has seen and that it looks relatively easy to get out and away from the structure. He said there is some erosion potential along the bank, although there is rock that has been placed there. In a 2019 photo, there are higher flows and it looks like the rocks are inundated or have moved around a bit. He said erosion protection could be discussed, he's not terribly concerned about it based on the way it's reacted in the past.

Mr. Morris noted that erosion wouldn't be rapid, and the structure is almost a channel width back from the bank. He does not have concerns about the erosion aspects.

Mr. Hunt asked whether there was an Elevation Certificate for the property. Mr. Traff and Mr. Cort answered that there was not.

Mr. Koch noted that the Board had been fairly adamant on the other STR variance requests that an Elevation Certificate be submitted demonstrating that the lowest floor is 18" above the base flood elevation (BFE). Both Mr. Morris and Mr. Koch noted that it would be unlikely for this structure to meet this criterion.

There was a question regarding the lowest floor of the structure. Mr. Cort said the lowest floor is above ground level and that there is a crawlspace below the building. There are 3-4 steps that go to a deck on the first floor on the river side of the condo. He was told that during the 2013 flood water came up to the bottom of the steps, but not into the unit.

There was discussion on the need for an Elevation Certificate for this application and that a variance from the 18" freeboard requirement may be needed.

Mr. Traff asked if the historic date of use in relation to the date of the floodway would play a role for discussion of the Elevation Certificate. Mr. Morris responded that it does for him, especially in looking at hardship for the applicant from the decision. He said that looking at the historic use and timing of the floodway and that there's no floodway there now has a bearing on it.

There was a review of previous STR variance applications the Board had considered.

Mr. Hunt discussed precedent regarding consistency in requirements for STR variances or needing to have a good justification for a deviation for what the Board has required in the past.

Mr. Koch said that the Board has asked for an Elevation Certificate in the past. It would be consistent with what Board has previously asked for if it shows the lowest floor is 18" above the BFE. If it's less than 18", the Board could consider a deviation to that freeboard requirement.

Mr. Morris said knowing the elevation would be good. He he had less concerns with erosion potential and access for this case versus some of the other STR variance applications where there are greater concerns about these issues which makes maintaining the 18" freeboard more critical. This point gives him more confidence to provide a variance from the 18" requirement for this application.





Mr. Koch noted that the Board has previously discussed public notice language postings, signing up for cell phone emergency alerts and having a landline in the unit. Mr. Cort said there is a landline in the unit but it is not currently being used. He also mentioned there is a landline in the main office building that is always staffed.

Mr. Hunt said he has a high level of comfort in terms of emergency notification because this is part of a larger rental complex. He wondered if the Board could ask for resort management to provide a letter that states their commitment to respond as emergency notifiers if they get a warning about the flood. He wanted to know what form of commitment there is from resort management to carry out an actual process of evacuations.

Mr. Koch mentioned having an option for the applicant of getting a commitment letter from management as Mr. Hunt outlined or installing a landline and getting it tied to the emergency alert system, whichever is easier. Mr. Cort responded that a landline would likely be easier.

There was a discussion on how to go forward with the variance request related to what amount of freeboard would be acceptable for approval or whether the Board should table it. There was a consensus that an Elevation Certificate would be necessary to determine the existing amount of freeboard.

Ms. White mentioned that if the Board wanted to table it until they saw the Elevation Certificate, it should be no later than March 31 because that is the STR application deadline.

Mr. Hunt said he felt like the Board would be on solid ground for a freeboard variance. He said that Mr. Morris listed reasons a variance would be appropriate in this case. He mentioned in other STR variance application situations, they have been concerned about freeboard because of concerns over egress routes during a flood event. In this case, the egress route does not appear to be an issue.

Mr. Hunt pointed out that since the 18" freeboard for STR variances has not been in an Ordinance yet, it gives the Board more latitude for a freeboard variance. However, he noted that the Board needs to maintain consistency in the precedents that have been set on how STR variances are being handled.

Mr. Koch said it appears to him that in this case the channel banks and bank stability are not really a large concern as the reach has been well protected and the access is readily available, which is better than a lot of cases the Board has previously seen. He said he would be comfortable with lower freeboard requirement given these items along with a letter from the Resort management regarding emergency alerts related to evacuation or providing a landline that's tied to the alert system.

Ms. White mentioned that the County will not allow condos to be used as an STR due to a variety of factors. However, this condo was previously licensed by the Town as a vacation home, so the County will allow it to be licensed, provided it gets the proper approvals.

Mr. Koch made the following motion based on the reasons stated during the discussion.





Mr. Koch, motioned to approve the variance subject to staff review of the following conditions: 1) either a landline that is attached to the notification system be provided or verification that the complex will be providing emergency evacuation notices to the occupants and ; (2) that an Elevation Certificate be prepared and if that shows that the finished floor is elevated not less than twelve (12) inches above the base flood elevation that we would approve that variance, if it showed less than twelve (12) inches then the item would come back to the Board for further discussion. Mr. Hunt seconded the motion. The motion passed 4-0.

**Item #3: Election of Chair and discussion of administrative items for the year**

Mr. Oberlander made a motion to nominate Mr. Koch for Board Chair. Mr. Morris seconded the motion. Motion passed 3-0 with 1 abstention.

Mr. Traff reviewed the February meeting items.

Mr. Traff reviewed administrative changes for upcoming Board meetings. Ms. Kurtz will be taking a lead role with the Board. At the February Board mtg, Mr. Traff and Ms. Kurtz will share the application presentations. In March, Ms. Kurtz will be doing most of the work related to the Board with Mr. Traff doing the technical reviews and participating in the meetings.

Meeting adjourned at 11:15 am, MST.