

Merin Road Community

Special Use Permit Planned Development

Response to Ms. Alena Callimanis concerns addressed to the
Stormwater Advisory Board

Burch Kove nearing completion - December 30, 2015
flooding event



Burch Kove runoff December 30, 2015



- The picture shown in Slide #2 above is looking upstream at the principal spillway pipe for the pond. According to Ms. Callimanis this picture was taken during the storm event on December 30, 2015. The flow leaving the basin is minimal. The silt fence is in good working order. The dam is not being over topped.
- The picture shown in Slide #3 above is looking along a section of silt fence installed along the perimeter of the project. The water leaving the silt fence is passing through a silt fence outlet that are typically installed at low points and include 57 stone to filter the runoff. The stormwater leaving the fence above the outlet doesn't appear to have an outlet. Weekly walks would help to identify required adjustments to resolve areas like these.

Stormwater video immediately behind
1804 Homestead Road on Dec. 30, 2015
at the culvert at Rogers Road
downstream from Merin Road project
Note: Resident at 1804 Homestead said
water was at top of the culvert



<https://www.youtube.com/watch?v=VuxvQm3P4B8>

Rogers Road culvert at Homestead Road with no floodwaters on Feb. 5, 2016



Culvert under Rogers Road



View back towards flooding video
location behind 1804 Homestead



View from Rogers Road culvert to
house at 1804 Homestead
(Jan. 26, 2015)

- In the video attached to Slide #5 above states the culvert at Rogers Road was surcharged. There is no evidence in the video that proves the claim that the culvert in Rogers road is backing up or being blocked.
- The home at 1804 Homestead Road was recently purchased in September of 2015 and the buyers were fully aware of their proximity of the creek.

Winmore flooding Sept. 6, 2008 at the initial walking bridge over Bolin Creek that was replaced by developer (shown on the next slide). **Note** the shallow and narrow creek at that original bridge and lack of erosion of the banks of Bolin Creek



Dec. 30, 2015 flooding at replacement walking bridge at same location as pictures on prior page. (**Note** Feb. 11, 2016 pictures show the erosion to the Bolin Creek banks from increased and more frequent stormwater runoff)



Winmore walking bridge over Bolin Creek Feb. 12, 2016 – **Note** significant undercutting of the bridge support. Bridge is 30 feet long and 6 to 7 feet to bottom of creek



Yard stick is between the arrow points, with top even with bottom of red girder

Four corners of the Winmore Pedestrian bridge showing potential support compromise – **Note:** Carrboro should not take ownership of this bridge until it is fixed or ideally replaced by a longer bridge by the developer



- The Winmore pedestrian bridge was constructed long before large scale development in the area yet we have accounts of it flooding 50 years ago. Recently with the development of Winmore the bridge was redesigned to handle large scale construction equipment capable of supporting over 70,000 lbs. With the Winmore construction completed its intended use is a pedestrian bridge owned and maintained by the Winmore Homeowners Association.

Homestead Road bridge Dec. 30, 2015 Flooding

North Side



South Side



youtube videos of flooding at these locations. **Note:** Carrboro is planning to put a greenway along Bolin Creek, under this bridge.

North Side Homestead Road bridge:

<https://www.youtube.com/watch?v=5dcrhEsDkBc&feature=youtu.be>

South Side Homestead Road bridge:

<https://www.youtube.com/watch?v=yvFHhfZEwbk&feature=youtu.be>

February 11, 2016 post flooding pictures at Homestead Road bridge

North Side



North Side



South Side



Homestead Bridge additional views on Feb. 16, 2016



Water in Dec. 30 video was within 39 inches of bottom of bridge (at time video was taken.)



Urgent note: Erosion and water on east side of Homestead Bridge extends behind the steel bridge supports

- Response: Bridges that handle vehicular traffic have standard design requirements that require solid foundation supports, which are typically keyed into bedrock, and are designed to account for seasonal flooding and scouring.

While impervious surface significantly contributes to stormwater runoff, clear cutting also reduces the amount of rainfall absorption of non-impervious surfaces. **Note:** See Winmore pre-construction photos below. The developer for Winmore is the applicant for the Merin Road project.



- The photo referenced above is a picture of Philip Square, a public open green, and will not be used for future single family home construction. Since this is a green area for recreational use it was graded with minimal slope. The green area was graded and cleared with the infrastructure.
- Since this is a green area the developer was required to clear it.
- Looking beyond the green area one can see tree stands that have not been cleared and were saved for future single family lots.