

# Meeting Minutes

<b>Project Name:</b>	Chapel Hill Municipal Services Building	<b>Location:</b>	Chapel Hill, NC
<b>Project No:</b>	514-4864-00	<b>Date:</b>	12/13/17
<b>Issue Date:</b>	12/18/17	<b>Time:</b>	6:30 pm
<b>Author:</b>	Eric Schoenagel, AIA		

The purpose of the community workshop meeting is to engage the community of Chapel Hill and exchange information with the project design team about the Storm Water Control Measures (SCM). The meeting was held in the Phillips Middle School cafeteria in Chapel Hill.

- A. Project overview and introduction – Andy Sachs gave an introductory statement and community members to asked brief questions regarding the project, the site, and the general format for the meeting.
- B. Attendees gave a brief update on the progress in creating the “principles of development”.
  - 1. The Community has met and developed an initial list of Principles. These are being circulated amongst a smaller group for initial development and review. Once the initial development has been completed they will be shared with the entire neighborhood. The Principles will be shared with the Town when they are distributed to the neighborhood. The Town will share the Principles with the University for their review.
- C. Community Concerns and Comments – Below is a summarized list of the attendees concerns and comments shared throughout the meeting in reaction to the SCM shown. Items in italics indicate responses provided to the group during recap at the conclusion of the meeting.
  - 1. Storm water runoff and site drainage is one of the biggest concerns noted by the neighbors. Attendees requested improvements to storm drainage system to help prevent storm flooding. Several property owners living adjacent to the southeast corner of the site asked if downstream improvement to upgrade pipe sizes and drainage swales could be considered. Chris Jensen (ToCH Storm) noted that many of the problems experienced were due to the original (neighborhood) development and how the storm drainage was routed through the neighborhood’s properties. Existing soils may be exacerbating runoff based on limited permeability.
  - 2. To help address the existing storm runoff, the project team will consider the flow from a 50-year storm in the design of the site drainage system. Attendees also suggested that the development of the site be limited to 50% of the site. Attendees asked if control measures could be added to the north side of Estes Drive to help address the run off experienced.
  - 3. Fred Stang noted that there is storm drainage that joins the main north/south flow from the east. This likely contributes to some of the excessive storm runoff observed in the area.
  - 4. Craig Moore asked if relocation of the ditch between his property and Fred Stang’s could be relocated to the western side of his property which shares a boundary with Ronald Parks. This would straighten the ditch out and potentially reduce impacts.
  - 5. The project team discussed Storm Water Control Measures (SCM’s). Most attendees preferred the Bio-retention type storm water controls as opposed to a wet pond. Attendees

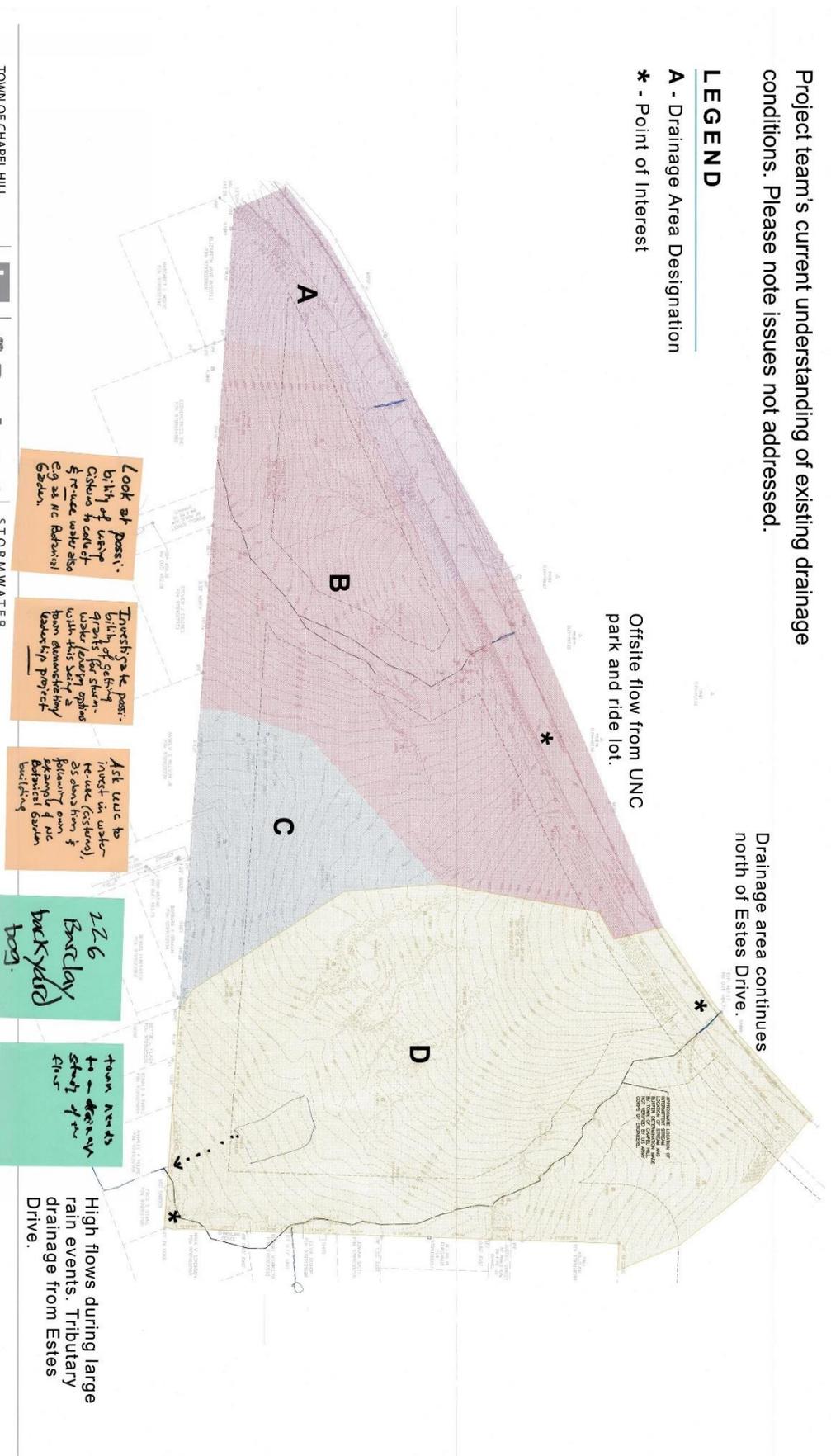
- also preferred a landscaped cell, however, a grassed cell could be considered. Some attendees liked the idea of using the lawn surface of the grassed cell for recreation or a mulched trail around a landscaped cell as a site amenity.
6. Permeable pavers were discussed as an option to help with storm water runoff and were well received by the attendees. The effective benefits of the use of permeable pavers is dependent on existing soil conditions. Attendees asked if the design team could also consider permeable paving and permeable concrete.
  7. The design team noted that a subsurface geotechnical exploration was being coordinated and should be complete in the spring. The subsurface geotechnical exploration will detail the soil conditions and provide recommendations which will be used to design the SCM's. An initial number of borings will be used for preliminary geotechnical exploration. A preliminary evaluation will be performed to gain initial information on soils, rock, and seasonal high-water table. The number of borings has not been determined, but will be confirmed as the site plan develops. Neighbors were concerned with tree clearing for geotechnical work and the type of equipment used. Minimally invasive drilling equipment can be used to reduce the impact to the site. Attendees requested that proper notification be given prior to commencing the drilling activities.
  8. The attendees discussed the site layout and how the development of the site might create an amenity for the neighborhood. Attendees shared that they felt it was OK to connect a greenway type trail from the subdivision to the South and continue through the site to Estes. Attendees asked to improve pedestrian and bicycle movements on Estes Drive. If that is done, attendees said it was not necessary to construct an on-site paved walking trail around the perimeter of the site. A mulched surface trail would be nice where possible. They asked to keep noisy dumpster pads away from residences. Attendees recommend using a central parking deck with tight cluster of 3 to 5 story buildings around the deck to limit the overall impervious surfaces on the site.
  9. Attendees suggested an overall Master Plan be prepared and approved before the "Phase One" begins so everyone will know what will happen on the site – total number of buildings in development agreement.
- D. Below are scans of the site plan sketches the design team displayed at the meeting with comments from the community pasted to the plans.

# EXISTING CONDITIONS

Project team's current understanding of existing drainage conditions. Please note issues not addressed.

## LEGEND

- A - Drainage Area Designation
- \* - Point of Interest

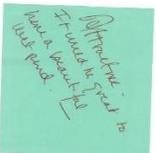


## WET POND

## ADVANTAGES

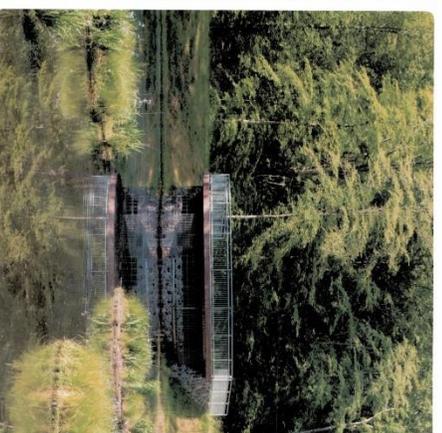
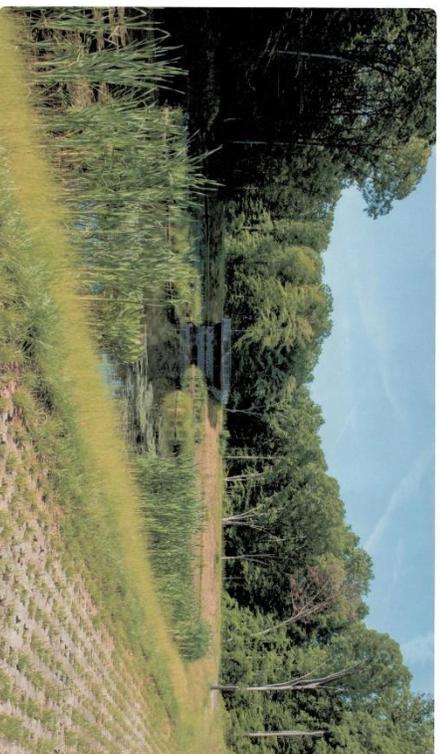
Wet ponds hold a permanent pool of water that fluctuates in response to precipitation and runoff from contributing areas. Wet ponds assist with flood management, improve water quality, and can assist in improving water quality nutrients.

Size the wetpond to support aquatic life for mosquito control.



## DISADVANTAGES

- Works with shallow water table and poorly drained soils
- Drawdown time to normal pool two to five days
- Requires regular cleaning of sediment to maintain volume
- Retains water at all times
- Requires security fence
- Not compatible with steep slopes
- Wildlife intrusion

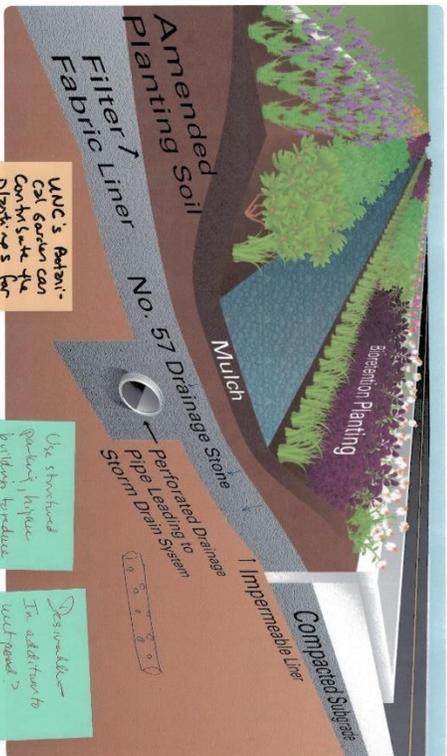
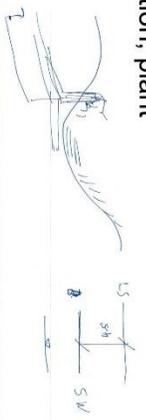


## BIORETENTION CELL

A bioretention cell is an excavation that is filled with a sandy media and plants. It is designed to temporarily hold and filter stormwater. Bioretention cells are one of the most versatile SCMs. They can be installed in a variety of soil types from clay to sand and in a wide variety of sites. They are also one of the most effective SCMs for removing pollutants, because they use many different pollutant removal mechanisms, including infiltration, adsorption, adsorption, microbial action, plant uptake, sedimentation, and filtration.

## ADVANTAGES

- Versatile device and effective in removing pollutants (sediment and nutrients)
- Landscape or grassing
- Works with steep slopes
- Maximum ponding depth of 12 inches above the planting surface
- Does not retain water at all times
- Pretreatment should be provided
- Specific media mix required to achieve treatment
- Requires long-term maintenance



This option seems really preferable to the pond. And water plants.

WUC's Brian Cal Gordon can contact the plants for plus!

Use structural parking, impact building to reduce impervious surface.

Desirable. In addition to wetland?



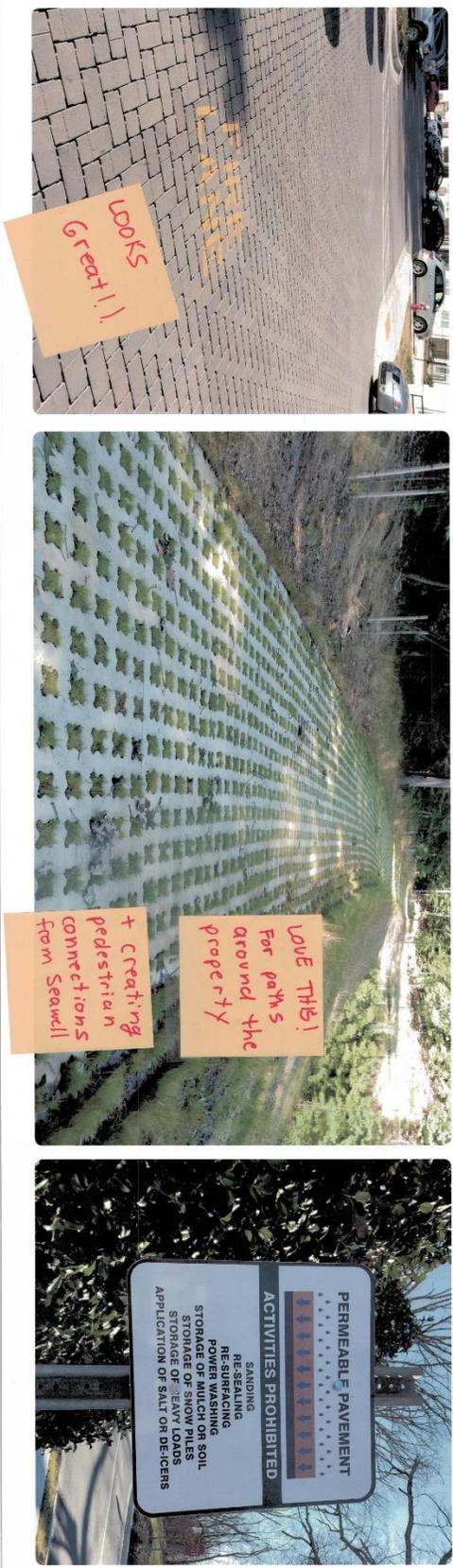
## PERMEABLE PAVEMENT

Permeable pavement captures stormwater through voids in the pavement surface and filters water through an underlying aggregate reservoir. The reservoir typically allows the water to infiltrate into the soil subgrade. The reservoir can also be designed to detain and release the water to a surface conveyance system if the underlying soil is not suitable for infiltration.

## ADVANTAGES

- Variety of materials (porous concrete and asphalt, interlocking concrete pavers)
- Must drawdown subgrade in 72 hours
- No above ground water retention
- Not compatible with steep slopes
- Observation well required at low point of the system
- Requires extensive maintenance

## DISADVANTAGES



Meeting was adjourned at 8:10pm

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The above listed items constitute Little Diversified Architectural Consulting's understanding of the items discussed. Unless notified within five (5) business days, all items are considered to be correct and therefore become record of the proceedings of the meeting.

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Respectfully Submitted By,

Little Diversified Architectural Consulting

A handwritten signature in black ink that reads "Eric M. Schoenagel". The signature is written in a cursive, flowing style.

Eric Schoenagel, AIA  
Senior Project Manager