

**To:** Richard Collier, McKim & Creed  
**From:** Brian Chambers, Senior Planner; 910.342.2782  
**CC:** File;  
**Date:** 6/1/2021  
**Re:** Center Point TRC Rev 1

The following is a list of comments for review from planning regarding the project. Please provide your corrections as listed below. A staff summary of comments:

Staff	Department	Notes
Brian Chambers	Planning, Plan Review	Comments below
Eric Seidel	Engineering	Comments attached
Chris Walker	Fire	Comments attached
Mitesh Baxi	Traffic Engineering	Comments attached
Bill McDow	Transportation	Comments attached
Anna Reh-Gingerich	Stormwater	Comments attached

### Planning Review

Brian Chambers, [brian.chambers@wilmingtonnc.gov](mailto:brian.chambers@wilmingtonnc.gov), 910.342.2782

#### Comments:

- Include Special Use Permit conditions on plan set (SU-4-917-M420).
- Confirm compliance with Landscape & Streetscape Plan, Condition #6 (CD-5-917-M320). We may need to discuss how best to demonstrate, narrative and/or illustration.
- Provide building elevations that show compliance with UMX standards and Condition #8 (CD-5-917-M320).
- Confirm compliance with Condition #10 (CD-5-917-M320), in consultation with Engineering staff.
- Confirm compliance with Condition #11 (CD-5-917-M320). Provide any documentation available.
- Include required setback from adjacent residential in site data table.
- Provide building heights in site data table.
- Provide number of stories and square-feet per floor for all buildings.
- Provide dumpster/compactor screening detail.
- Confirm compliance with utility and equipment screening, confirm location
- Provide bicycle parking calculations and location on plan set.
- Tree credits may only be used for retained trees that are not otherwise required to be protected (regulated/significant trees are required to be protected).
- Identify Pine species to determine whether they are significant or not.

- Tree permit table identifies 208 regulated trees and three significant trees being removed outside of essential site improvements. We will need to discuss justification for the removal of these trees.
- Tree permit table identifies 60-inch Oak and plan set identifies a 63-inch Oak, this the same tree? Is it being preserved?
- Confirm tree species and sizes in tree permit table and on plan set match.
- Tree protection fencing must be provided at a rate of 1-foot per 1-inch DBH.
- Provide wetland determination.
- Provide wetland impact permit.
- Provide exceptional design narrative to achieve the proposed impervious coverage (72.3%) within Watershed Resource Protection area.
- All single planting islands must have at least one (1) tree. Island on west side of Parking Deck A does not have a tree. Please add or explain conflict.
- Landscape island missing on southeast corner of Parking Deck A.
- Street trees are missing along south side of Calypso Drive in front of Parking Deck B.

Project Name: Center Point  
Formal TRC Date: 6/03/2021  
Reviewer: Eric Seidel, PE  
Department: Engineering – Plan Review Section

**Plans:**

1. Stormwater Services has requested that headwall HW1 be adjusted to align perpendicular with proposed stream centerline.
2. Existing Conditions / Demo: There look to be two existing culverts within the stream alignment. Are these proposed to be removed? If any culverts are to remain please provide sizing analysis to show they can handle additional flow from proposed upstream improvements.
3. Existing Conditions: Provide existing public steam easement shown on MB:56 PG:162
4. Provide Note: Contractor shall assure existing stream section remains free from any vegetative debris and/or appurtenances during construction. Stream will be inspected prior to the issuance of any temporary or final CO.
5. CB-140 looks to drain to SCM #1 while drainage area map shows it as DA2 drainage area. Please adjust Drainage Area Map and/or calculations, application...ect.
6. CB 1-52 & 1-53 look to be capturing runoff from Eastwood Road. Is this offsite runoff proposed for Filterra treatment? Please update drainage area map.
7. SDMH 1-51: How is SCM#1 Outfall coordinated with Filterra treatment? How does piping from CB-152 get back to Filterra system while also being part of the outfall?
8. CB-1-35 & CB-2-31 look to be capturing offsite runoff from Drysdale Drive. Update Drainage Area map and calculations.
9. Provide stormwater on profiles.
10. Forward Wetland & Stream disturbance permits along with current JD Map to City Engineering once received/completed. All State stream buffer requirements must be met.
11. Identify Vegetative Buffer on Site / Grading plans with all proposed BUA encroachments clearly labeled. Provide pervious material type with labels and references to details. If permeable materials are proposed to be pervious concrete, asphalt, and/or pavers they will have to meet DEQ MDC requirements to qualify as pervious. Provide MDC calculations.
12. Provide details for pedestrian bridge crossing.
13. There looks to be a pedestrian connection adjacent to SCM#3. Is there a stream crossing proposed to adjacent property for this connection?

14. Provide Bottomless Culvert & Stream reconfiguration details and cross sections. Have structural drawings been completed for the Head / End Wall?
15. Additional Detail is needed for SCM#2, 6 & 7 outfalls. Coordinate grading outfall tie-ins with NCDOT plans.
16. Add Note: All public drainage maintenance will terminate at right-of-way.
17. CG-103: Assure the buildings (with FFE 25.50') along Drysdale Drive Extension are adequately setback from the proposed stormwater outfall located within the right-of-way. Coordination with NCDOT is needed to alleviate any concern for maintenance and/or foundation encroachment onto the pipe. Please identify the size of piping on the plans.
18. Provide standard cross-sections along Streets A & B, & Calypso Drive.
19. Provide design for Multi-Use Path extension along Eastwood Road & sidewalk along Military Road, assuring clear recovery and all ADA cross & longitudinal slope requirements are met. Provide spot elevations and reference to standard cross section.
20. Eastwood Driveway Connection and Widening need to provide spot elevations.
21. CG-503: Storm Data / Details did not show up on this sheet.
22. Per technical standard (Chapter V; Section D.3.f) a public drainage easement of 20' & 5' is required on either side of stream top of bank. Please Note: if there are any encroachments into the proposed easement, we will work with you on adjusting easement limits during the review process.
23. Grading Plan – provide rip-rap symbol and reference to detail for each FES outlet.
24. How is the Filtra Drainage being captured? Are there any roof drain connections?
25. Have permeable paver parking areas been subtracted out for each SCM? Please clarify if credit is being taken. If credit is being taken, please update drainage area map and provide calculations and supplements. An additional DA Map will be needed showing that the 1:1 drainage ratio is being met. However, based on geotechnical infiltration rates it does not look like pervious pavers are to be used for credit and will be used for passive infiltration only – please clarify.
26. Provide permeable paver cross section details.
27. SCM#4 outfall within Calypso Drive is considered an encroachment. Design solutions to reduce/remove piping from right-of-way can be discussed during the TRC meeting.

28. Provide additional details and labeling for proposed SCM weir plates. Are these weirs proposed within the Stormfilter Vault or is there a separate offline weir box? Based on the routing it looks like weir crest lengths range between 3.72' – 6'.

**Application:**

29. IV. Project Information Line Item 8: Where is the area for proposed pervious sidewalk located within vegetative buffer?
30. IV. Project Information Line Item 12: Provide Offsite Impervious surface data such as Multi-Use Path and Street connections outside of the right-of-way.
31. IV. Project Information Line Item 13: If permeable paver credit is being taken, each area will need to be broken out and quantified in this section. If only being used for passive infiltration, then this does not need to be filled out.

**Operation & Maintenance Agreement:**

32. Provide Filterra Operation & Maintenance Agreement.

**Calculations:**

33. Provide Contech Filtra Sizing calculations for SCMs 8 – 11.
34. Provide Bottomless Culvert sizing calculations and analysis.
35. SCM# 1 & 7: Calculations & Supplement DA do not match application.
36. Pervious paver areas have been taken out of total Impervious area on calculations and application. Pervious pavers must meet MDC to take credit reduction. Please provide calculations and drainage area map for pervious paver areas.
37. Please provide Pre / Post Routing Summary Table within Narrative.
38. Routing: Orifice size look to vary amongst SCM's. Where is this reflected on the plans? Where are these orifices located?

Project Name: **Center Point**

Formal TRC Date: June 3, 2021

Reviewer Name: Chris Walker

Reviewer Department/Division: Fire

Please address the following:

- A hydrant must be within 150' of the FDC. The FDC located on the rear of the Parking Deck of the Apartments over retail do not appear to meet the code requirement. Is there a hydrant on Calypso I'm missing?
- The type of Building Construction according to the International Building Code must be present on the plans. (Preferably the site data table) The table on sheets CS-100 do not reflect the IBC construction types. TYPE I-V

Please add the Following Fire & Life Safety Notes to the Plan:

- Contractor shall submit a Radio Signal Strength Study for all commercial buildings that demonstrates that existing emergency responder radio signal levels meet the requirements of Section 510 of the 2018 NC Fire Code.

Project Name: **CENTERPOINT**

Formal TRC Date: **06.03.2021**

Reviewer Name: **Mitesh Baxi**

Reviewer Department/Division: **PDT/Traffic Engineering**

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**BASE INFORMATION:**

- All the technical variances listed in Pre-TRC review pertaining to this development are applicable.
- Coordinate with Engineering division for any variance to the technical standards.

**ROADWAY IMPROVEMENTS PLAN:**

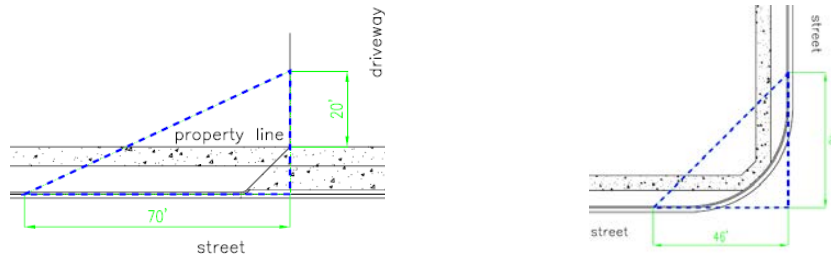
- Drawing number 38 shows proposed roundabout at the intersection of Calypso Dr and Cavalier Dr. If this roundabout is a part of this project, please provide all the relevant details as mentioned in the roundabout section of these review.
- Dimension the storage and taper for westbound right turn lane for access off Eastwood Rd.

**TECHNICAL STANDARDS – NEW ROADS:**

1. Clearly identify the boundary for public and private ROWs on the plans.
2. Show and install wheelchair ramps at corner of all the streets and street type driveways per NCDOT and/or City standards. Connect sidewalk with ramp. [Chapter II (E) (6) of CofWTSSM]. Label and provide the standard details of the type of ramps proposed.
3. Streetlights are required to be installed on all the ROWs in accordance with City Street Lighting policy. A standard street lighting layout, with the minimum required street lighting standards in accordance with City streetlighting policy, will be provided once the boundary for public/private ROWs are identified on the plans and we receive a photometric analysis for the streetlights arrangement for roundabout. Please coordinate with Duke Energy for such.
4. Provide a signage and pavement marking plan for all the proposed ROWs showing all proposed traffic control signs, lane configuration, street name signs, and related pavement markings locations and types for further comments.  
<https://www.wilmingtonnc.gov/home/showdocument?id=3940>
5. **ROUNDAABOUT:** Provide full details for the proposed roundabout/s including dimensions of all the relevant elements, lane configuration, sectional view and streetlighting arrangement with photometric analysis. Refer City, FHA, MUTCD. Provide details as per below.
  - Entry angle and offset to center.
  - Entry, Circulating and exit speed-radius relationships.
  - Inscribed diameter consistent with design vehicle (Provide autoturn analysis)
  - Truck apron, if any, consistent with design vehicle.
  - Consideration for Splitter Island with pedestrian refuge for all the intersection legs.
  - Appropriate signing and markings plan
  - Show a stopping sight distance on approach, stopping sight distance on circulatory roadway (across the island), intersection, and to crosswalk on exit. Show on site/landscape plans.
6. Plan shows mid-block crosswalk/refuge island across Street B. Crosswalk for the roundabout shall be placed from the entrance line at the distance equal to approximately increments of vehicle lengths so that it reduces the chance of queued vehicles stopped on the crosswalk while blocking movements by pedestrians. Consider moving this crosswalk as close as possible to the roundabout to avoid it considering as mid-block crosswalk. [Roundabout: FHA standards]

**TECHNICAL STANDARDS – DRIVEWAY/STREET ACCESS:**

7. Show and apply the City's 20'x70' sight distance triangle at each driveway and the City's 46'x46' sight distance triangle at each street corner intersection on the site plan and landscaping plan. Revise appropriately at relevant locations on all applicable plan sheets. [Sec.18-529(c) (3) CofW LDC] [Sec. 18-812 CofW LDC].



**SIGHT DISTANCE TRIANGLE FOR ANY STREET/DRIVEWAY INTERSECTIONS WITH THOROUGHFARES**

Eastwood Rd and Military Cutoff Rd are major thoroughfares [Chap VII (C) (2) (a) of CofW Tech Stds]. In accordance with the City Code, sight distances along thoroughfares must be calculated in compliance with the AASHTO requirements. [Chap VII (C) (1) of CofW Tech Stds] [Sec.18-556 CofW LDC]. Please revise to show an appropriate sight distance triangle at the street intersections of Calypso Dr and Street A with major thoroughfares. Show AASHTO in addition to 20'x70' SDT for any driveways accessing major thoroughfare.

**TECHNICAL STANDARDS – PARKING:**

8. The recommended minimum and standard on-street parking space measured from the face of curb shall be eight feet (8 ft.) wide and twenty-three feet (23 ft.), measured parallel with the edge of roadway. [Chapter VII (D) page 7-16 of CofWTSSM] Subject to variance.
9. Dimension the angle, width, and length of angled parking spaces. Angled parking spaces must meet minimum requirements for parking from City Technical Standard, [Chapter VII, Table 6, page 7-19 CofW TSSM]. Please demonstrate the successful maneuvering of the largest vehicle expected for these spaces.
10. The first angled parking space north of the roundabout off Street A is too close to the proposed crosswalk. Revise to ensure the crosswalk is not blocked while backing from this space.
11. Dimension length and width for drop off spaces on site plan. Provide appropriate signage/pavement markings to restrict parking for these spaces. [MUTCD]
12. A traffic regulatory signage shall be installed to restrict the traffic approaching one-way driveway off Street B. [MUTCD]
13. Provide a turning movement analysis of fire truck, trash truck and any trailer/s that are expected to access these streets and parking facilities.
14. Note the proposed number of handicapped spaces in the development data. [Sec. 18-529(b)(2) CofW LDC]
15. An allowance for a 2.5' vehicle overhang must be considered for all the perpendicular parking spaces to avoid damage to the handicap signs, landscape areas and/or tree well. [Chapter VII, Detail SD 3-07 & SD 15-13 CofWTSSM] [Page 7-20 of CofWTSSM]

**TECHNICAL STANDARDS DETAILS:**

- Please provide the updated SD 15-03 on drawing number 43.

Please let me know if you have any questions or if I can be of further assistance.



**PROJECT NAME:** CENTER POINT TRC PLAN

**PRE-TRC DATE:** 02.04.2021

**REVIEWER NAME:** Bill McDow

**REVIEWER DEPARTMENT/DIVISION:** PDT/ Transportation Planning

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**TRAFFIC IMPACT:**

- ❖ The TIA required right turn lanes for the two site access points on Eastwood Road, (Drysdale Drive Extension and Street A). Please show the right turn lane for Eastwood Road and Drysdale Drive Extension and Eastwood Road and Street A.
- ❖ Please label storage lengths and taper lengths on each turn lane per the TIA.

**TECHNICAL STANDARDS – NEW ROADS:**

1. Previously approved variances may remain in effect for this project. Please contact Engineering to verify status of these variances.
2. The site plans reference TIP U-5710 and TIP U-5710-A. Please show the improvements associated with CenterPoint on the Site Plan.
3. The existing portion of Drysdale Drive Extension and Military Cutoff Road is not shown on the site plans. Please show the full intersection and all relevant site data within 500' of any signalized intersections.
4. Please show the proposed 10' MUP (Center Point and U-5701 Project portion) along the entire length of Eastwood Road.
5. The proposed Street A and Street B does not show proposed pedestrian improvements, (such as cross walks, curb ramps, pedestrian signals, etc.) at the Roundabout and driveway entrances. Please revise.
6. Please label the storage lengths and tapers for the intersection of Drysdale Drive Extension and Military Cutoff Road.
7. The lane configurations, (ingress and egress lanes) for Calypso Drive and Military Cutoff Road are not shown the site plan. Please show the lane configuration and full length of right turn lane and taper.
8. Street B is required to meet TIA requirements for lane configuration, number of right and left turn lanes, and number of ingress and egress lanes. Please revise the site plans for Street B to show lane configuration as specified in the TIA.

**TECHNICAL STANDARDS – ACCESS (driveway, sidewalk, and sight distance):**

9. The proposed crossing for the 10' Multi-use Path at the intersection of Drysdale Drive Extension and Eastwood Road appears to be offset from the stop bar for the traffic signal. Please align the crossing locations for the path along Eastwood Road at the back of the ROW and aligned to the Curb ramps near the Hotel.
10. The required sidewalk along Military Cutoff, between Calypso Drive and Drysdale Drive Extension appears to be incomplete. Please show the full length of the sidewalk.
11. The required sidewalk and pedestrian improvements along Drysdale Drive Extension, (such as cross walks, curb ramps, pedestrian signals, etc.), appear to be missing. Please revise.
12. Please show sidewalk, and pedestrian improvements, (such as cross walks, curb ramps, pedestrian signals, etc.), at Eastport Connection and Mayfaire Connections.

Please let me know if you have any questions or if I can be of further assistance as this development moves through the review process.

**Project:** CenterPoint  
**TRC Meeting Date:** 6/3/21  
**Reviewers:** Anna Reh-Gingerich  
**Department:** Stormwater Services

To Whom It May Concern:

The CenterPoint project falls within the Bradley Creek Watershed, which has high levels of fecal coliform bacteria and contributes to swimming advisories and shellfish closures in the area. Bradley Creek is part of a City Council-approved watershed restoration plan in place to encourage practices that will reduce the volume of stormwater that can transport bacteria and other pollutants into Bradley Creek.

Link to the plan: [Bradley and Hewletts Creeks Watershed Restoration Plan](#)

My Comments:

1. Thank you for incorporating pervious pavers, Filterra boxes, and underground storage to reduce the amount of stormwater runoff being generated and promote infiltration, where soils and groundwater levels allow!
2. Just a thought – could the underground stormwater storage areas be used for irrigation to help with water conservation?
3. Please continue to investigate all opportunities for tree save. Citizens have been very vocal over tree loss and the Wilmington Tree Initiative was specifically created to improve the tree canopy within City limits. Trees are helpful for improving erosion control, stormwater management, the heat island effect, air quality, and energy efficiency.
4. Thank you for incorporating many native plants! Native plants require less maintenance than non-native plants to grow successfully since they are already acclimated to local conditions. I just have a few additional suggestions:
  - a. Consider native tree alternatives to the proposed Crape Myrtles (crape myrtles provide no nectar for pollinators), Allee elm, and Zelkova serrata. Alternatives include native species (some of which you have already included!) such as serviceberry, American persimmon, American hophornbeam, redbuds, dogwoods, Carolina cherry laurel, varieties of Magnolia grandiflora, red maple (Acer rubrum), or cherrybark oak (Quercus pagoda), to name a few. A full list is available here, but keep space and height in mind:  
[https://plants.ces.ncsu.edu/find\\_a\\_plant/?plant\\_type\\_id=11&plant\\_type\\_id=18&nc\\_region\\_id=1](https://plants.ces.ncsu.edu/find_a_plant/?plant_type_id=11&plant_type_id=18&nc_region_id=1)
  - b. Consider incorporating more of the hollies in place of the pittosporum or Indian hawthorn. The North Carolina Extension Gardener Plant Toolbox is also a great resource for more ideas. This link leads to a search of native, flowering, coastal shrubs:  
[https://plants.ces.ncsu.edu/find\\_a\\_plant/?plant\\_type\\_id=17&nc\\_region\\_id=1&flower\\_value\\_to\\_gardener\\_id=1&landscape\\_theme\\_id=7](https://plants.ces.ncsu.edu/find_a_plant/?plant_type_id=17&nc_region_id=1&flower_value_to_gardener_id=1&landscape_theme_id=7)

Thank you for the opportunity to review! Please do not hesitate to reach out to me if you have any other questions or would like to explore other ways to incorporate green infrastructure.

Thank you,

**Anna Reh-Gingerich**

Interim Watershed Coordinator - Heal Our Waterways  
Program

City of Wilmington Stormwater Services

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