

To: Richard Collier, McKim & Creed
From: Brian Chambers, Senior Planner; 910.342.2782
CC: File;
Date: 4/5/2022
Re: Center Point TRC Rev 3

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	No further comments
Mitesh Baxi	Traffic Engineering	Comments attached
Bill McDow	Transportation	Comments attached

Planning Review

Brian Chambers, brian.chambers@wilmingtonnc.gov, 910.342.2782

Comments:

- 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. *Previous comment*
- Provide building heights for parking decks. *Previous comment*
- Provide number of stories and square-feet per floor for all buildings. *Previous comment.*
- For EDN, please provide information/narrative on how wetland preservation/enhancement is achieved and how all landscaping meets xeric landscaping standard.

Project Name: Center Point
Response Date: 04/04/2022
Reviewer: Eric Seidel, PE
Department: Engineering – Plan Review Section

Plans:

1. *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. Repeat Comment. Show Vegetative Buffer on Sheet CS-102 and hatch all encroachments.*
2. CS-102: Show proposed 20' public drainage easement from steam top of bank, beginning at Private Road A Right-of-Way and ending at Eastwood Road right-of-way. This easement should mirror the public drainage easement already platted for Cambridge Village MB:56 PG:162.

An access easement is needed from the public right-of-way to proposed drainage easement. Schedule a meeting with Engineering to assure easement is appropriately located prior to next submittal.

3. CG-100: Add a Note stating, "Contractor shall maintain un-named tributary cross section, assuring its free from all vegetative debris, sediment, and encumbrances throughout construction".
4. Provide Stream Culvert Head / End Wall structural drawings when completed. How do these tie to the Arched Culvert? Are there Structural drawings for the culvert?
5. Has coordination been made with Architectural plans to assure roof drain connections for SCMs #4, 8, & 9? Provide clarity on how the contractor is to assure these connections are made per intentions of the drainage area map.
6. Assure SCM #9 is not in conflict with the proposed swimming pool. Is there additional detail for the pool & courtyard areas?
7. CU-701 shows waterline to cross under the arched culvert with 40' DIP while response to comments stated it will cross over. Please clarify.
8. Please Note: There is still concern about the setback distance from the building shown on CG-103 (with FFE 25.00') along Drysdale Drive Extension and the NCDOT stormwater outfall located within the right-of-way. We recommend coordination with NCDOT to alleviate maintenance concerns and/or foundation encroachment onto the pipe. With this being NCDOT right-of-way this is merely a recommendation to coordinate additional easement and/or pipe realignment.
9. CG-102: Check the grading around the northwest corner of SCM#3. Adjust the 20' contour to assure the system has appropriate cover.

10. CM-101: Label CB & JB adjacent to SDMH1-36. Label COs & SDMHs along SCM#2 outfall.
11. CM-102: Consider rotating SCM#10 outfall pipe away from Cambridge Village property corner.
12. CM-103: There looks to be a structure turned off between SDMH-6-35 to SDMH-5-37.
13. CS-505 Street B Section: adjust right-of-way dimension to not be inclusive of the pedestrian easements. Is the sidewalk proposed at 5' or 6'? The other Street B section shows 5'.
14. *CS-504 – Pervious Paver Detail: Will the underdrain section be used? If so, please label on plan view accordingly. If not, please remove detail to avoid any confusion. Repeat Comment.*
15. Add CG-002 to the Sheet Index to assure it is included with the Issued for Construction Set.
16. CN-505: Check SCM #4 outfall pipe slope.
17. Stormfilter Details CN501 - 508: Provide weir plate profile with orifice invert and overflow height for each Stormfilter SCM. Only SCM#2 weir section was provided (Sheet CN 503), however, it only shows Water Quality Volume elevation and not actual weir height.

Calculations:

18. SCM-10 Sizing calculation: Pervious sidewalk has been included as impervious. Please update.
19. Provide Stormfilter Supplements with Contech design worksheets. They were provided with original TRC submittal, but it is unclear if any revisions have been made. Please provide complete calculations package with next submittal inclusive of riprap and pervious concrete calculations.
20. Provide Pervious Paver DEQ Supplements.

- Callout street names on Overall site plan sheets.

TECHNICAL STANDARDS:

1. Dimension the roadway improvement sections for right turn, storage, decel/taper off Eastwood Rd and Military Cutoff Rd appropriately as per TIA.
2. Callout the Access numbering on plans as per TIA.
3. City's 20'x70' sight distance triangle shall be applied and called out on the site as well as landscape plans for the driveway intersecting streets. [Sec.18-529(c) (3) CofW LDC] [Sec. 18-812 CofW LDC]. [Sec. 18-667 Figure 18-667 CofW Updated LDC: Vision clearance].
4. City's 20'x70' sight distance triangle is not required at the street intersections. Instead show 46'x46'.
5. Clarify the requirement of 30'x70' sight distance triangle shown on sheet CR-102.

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] [Sec. 18-667 CofW Updated LDC]. Please revise to show an appropriate sight distance triangle at the street intersection of Street A with Eastwood Rd.

6. Angled parking spaces dimensions must meet minimum requirements for parking from City Technical Standard, [Chapter VII, Table 6, page 7-19 CofW TSSM].
7. Site plans show proposed mid-block crosswalk within angle parking aisle north of roundabout (Street A/Street B). Consider designing this crossing as perpendicular as possible to travel lane for pedestrian safety and better judgement for drivers.

STREET LIGHTING [City of Wilmington Street Lighting Policy]:

8. The standard streetlight shall be a DEP designated LED equivalent fixture installed within the recommended range of mounting heights for the specific fixture. The standard streetlight shall be installed on a wooden pole in areas served from overhead facilities and on a fiberglass pole in areas served from underground facilities.
9. A layout for the Standard Street lighting on proposed City maintained public ROWs has been provided with this review. Minimum of 14 (Fourteen) LED50 streetlights are required for this sub-division and roundabout at Calypso Dr/Cavalier Dr. Subject to change based on the study by DEP.
10. Any Streetlights requirements on NCDOT/state-maintained ROW shall be coordinated with NCDOT.
11. As per City streetlighting policy all streets will have a light at each intersection. Ideal location is in advance of the crosswalk at the distance in accordance with AASHTO standards.
12. Developers may choose to provide any extra lights or ornamental. Any installations above the criteria of Standard Street lighting, will be considered as non-standard and must conform to the City's non-standard street lighting procedure as per the policy.
13. Please contact Duke Energy and request a photometric analysis of the non-standard streetlights preferred for this sub-division. City does not currently address roundabout lighting standards or requirements in the City Streetlighting policy, so the streetlighting photometric for the roundabout shall be based on AASHTO standards.
14. Roundabout streetlighting arrangement shall be in accordance with AASHTO standards. Light poles are recommended to be placed at approximately 10' in advance of the crosswalk.

15. Developers shall bear any installation costs associated with streetlights, if applicable. In areas served from underground facilities, the developers shall pay the one-time underground contribution charge, if applicable.
16. Each HOA/PME also shall provide the City a copy of its agreement with DEP for street lighting.
17. If non-standard streetlights are desired, this layout may be used for reimbursement purpose.
18. Street trees must be located a minimum of 15 feet from streetlights. [CofW SD 15-17]
19. All the streetlights shall be installed within the public ROW.
20. Streetlights are required to be installed on ROWs prior to the streets accepted by City for maintenance.
21. Please provide the streetlight plan for the roundabout at Calypso Dr/Cavalier Dr.

ROUNDABOUT 1 (Street A/Street B):

- These plans do not provide all the required details for the roundabouts. Please provide any missing details based on AASHTO, MUTCD roundabout standards.
- As the City does not currently address roundabout designs in the technical standards, the design should be prepared by an engineer experienced with such and should consider geometric controls.
- The entry alignment of the roundabout off Street B is a right to center alignment. This creates wide entry width at the north-east corner. Please revise the entry and exit geometry and roundabout diameter, to allow only potentially only one traffic lane at the entry/exit.
- One of the legs of the roundabout on Street B is proposed as 25' wide. This creates the possibility of multi lane configuration at the entry width. The width of each entry is dictated by the needs of the design vehicle. Please revise this to one-lane width and then widen it to multi lane. Or justify the configuration.
- Dimension all the approach lane widths, entry/exit widths and truck apron width, if any.
- Dimension all the crosswalk widths and maintain the symmetry and verify the minimum width requirements.
- Provide stopping sight distance on approach, stopping sight distance on circulatory roadway (across the island), intersection, and to crosswalk on exit with dimensions. Refer AASHTO standards.
- The driveway off a roundabout should be designed with the same geometrics of a roundabout leg having a splitter island (semi-mountable or mountable may be designed based on maneuvering of designed vehicle) and deflection to reinforce proper traffic direction.
- The proposed central island shall provide adequate deflection to achieve slow entry speeds and consistent speeds through the roundabout. Inscribed diameter and truck apron shall be consistent with design vehicle.
- Regardless of pedestrian refuge island, the length of the raised splitter island should be extended to provide a cut-through crosswalk and provide sufficient protection for the pedestrian. Verify the desirable standards as per AASHTO.
- Verify the minimum radius required for the end of the raised splitter island.

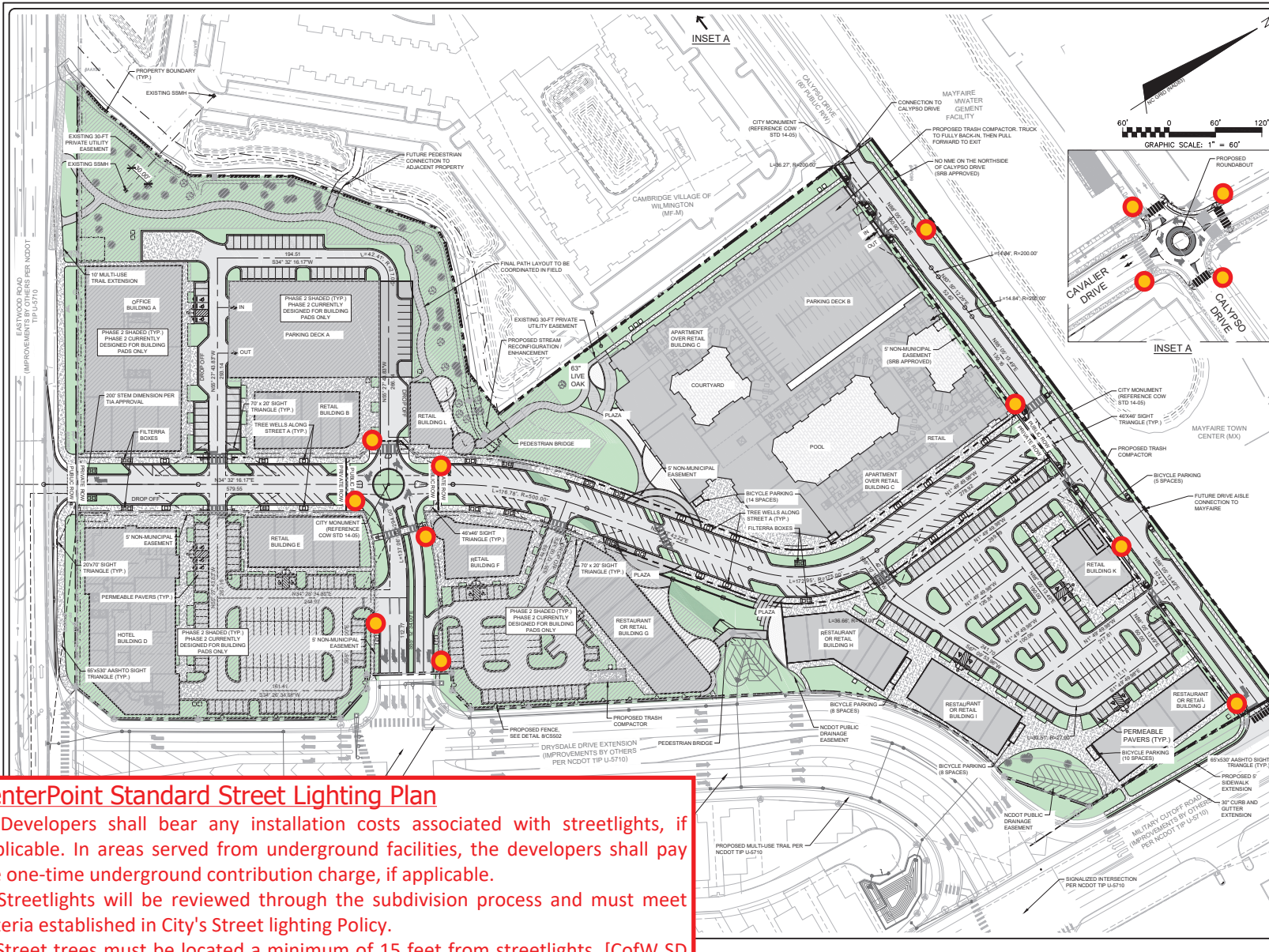
ROUNDABOUT 2 (Calypso Dr/Cavalier Dr):

- Please follow the comments for roundabout 1 as a reference and provide all the details. Provide auto-turns for all the vehicles expected to maneuver.

SIGNAGE AND PAVEMENT MARKINGS:

- Show all details and locations of all the traffic signs and full pavement markings pertaining to the roundabouts. Refer AASHTO and MUTCD roundabout details.
- Once full details are received from Signs & Markings Engineer Manager will review for further comment.

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



SITE DATA TABLE		CenterPoint
PARCEL ADDRESS	1541 EASTWOOD ROAD	
BUILDING SETBACKS	REQUIRED	PROPOSED
FRONT	5-10	5-10
REAR	5	5
SIDE (INTERIOR)	5	5
SIDE (CORNER)	5	5
TAX PARCEL IDENTIFICATION NUMBER	R5600-00-100-000 R0600-00-000-000	
ZONING	UMS (CDS)	
CENTROPOINT - ACRES	19.50 ACRES (851,876 SF)	
DRYSDALE DR. - ACRES	3.41 ACRES (147,415 SF)	
TOTAL ACRESAGE SUBJECT TO CHANGE PERIODIC RECEIPT OF FINAL NCDOT (DRYSDALE DRIVE PLANS)		

PROJECT USE DATA		CenterPoint
PROPOSED USE	AREA	MAX HEIGHT
RESTAURANTS AND RETAIL	121,180 SF	SEE CS-100A
OFFICE	102,300 SF	50'
MULTI-FAMILY RESIDENTIAL	360 UNITS	60'
HOTEL	200-KEYS	50'

BUILDING INFORMATION	
RESIDENTIAL - BUILDING CONSTRUCTION TYPE	TYPE IV
OFFICE - BUILDING CONSTRUCTION TYPE	TYPE IV
RETAIL - BUILDING CONSTRUCTION TYPE	TYPE IV
HOTEL - BUILDING CONSTRUCTION TYPE	TYPE IV
PARKING DECKS - BUILDING CONSTRUCTION TYPE	TYPE IV
BUILDING LOT COVERAGE PERCENTAGE	72.30%
IMPERVIOUS COVER - EXISTING	25,088 SF (0.57 AC)
IMPERVIOUS COVER - PROPOSED	616,700 SF (14.14 AC)
AMOUNT OF DISTURBED AREA	851,876 SF (19.50 AC)

PARKING SUMMARY		SPACES PROVIDED*
SURFACE PARKING A ON STREET SPACES	(NONADA)	471
DECK 'A'		494
DECK 'B'		400
BICYCLE	450 (SEE CS-105A)	
ADA		17
TOTAL		1,862

USE	PARKING MINIMUM	PARKING MAXIMUM
APARTMENTS	Name in UMS	2.5 SPACES/UNIT (325)
HOTEL	Name in UMS	150% OF MIN. (330)
OFFICE	Name in UMS	1 SPACE/200 SF (512)
RETAIL	Name in UMS	1 SPACE/200 SF (451)
RESTAURANT	Name in UMS	1 SPACE/50 SF (475)
TOTAL	N/A	2,883

* THERE IS NO PARKING REQUIREMENT PER THE UMS ZONING DISTRICT. THEREFORE ANY CHANGES IN PARKING SHALL BE REVIEWED AND APPROVED ADMINISTRATIVELY.

SURFACE MATERIAL LEGEND		
BUILDING	PERVIOUS PAVERS	
CONCRETE PAVING	PERVIOUS PAVEMENT BANDS	
ASPHALT PAVING	PERMEABLE PATH	
POOL DECK	LANDSCAPED AREAS	

- GENERAL NOTES:**
- PORTIONS OF MILITARY CUTOFF ROAD AND ALL DRYSDALE DRIVE EXTENSION AND EASTWOOD ROAD IMPROVEMENTS ARE TO BE COMPLETED BY OTHERS (NCDOT TP U5170); INFORMATION SHOWN WITHIN THE RIGHT-OF-WAY AREAS OF EASTWOOD ROAD AND DRYSDALE DRIVE EXTENSION ARE ILLUSTRATED BASED ON PLANS PROVIDED BY MICHAEL BASS, NCDOT, ON 2-26-2020 VIA EMAIL. SUBJECT TO CHANGE AS FINAL PLANS ARE DEVELOPED BY NCDOT.
 - LOCATION OF MULTILANE TRAIL IS DETERMINED BY MILITARY CUTOFF ROAD, EASTWOOD ROAD, AND DRYSDALE DRIVE EXTENSION IMPROVEMENTS (NCDOT TP U4710).
 - CURB RETURN RADIUS ARE THE FOLLOWING:
 - 35 FT RADIUS FOR MAJOR THROUGHFARE CONNECTIONS
 - 25 FT RADIUS FOR INTERNAL STREET CONNECTIONS
 - 15 FT RADIUS FOR PARKING LOT ISLANDS NOT ADJACENT TO EMERGENCY VEHICLE TRAVEL WAYS
 - PLAN IN COMPLIANCE WITH 5070.807 REQUIREMENT. CITY OF WILMINGTON VARIANCE REQUEST LETTER APPROVED ON 06/01/2020.
 - FIRE HYDRANTS TO BE INSTALLED PER CITY OF WILMINGTON ORDINANCE AND CFPMA STANDARDS.
 - ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' TO 50'.
 - STREET LIGHTS TO BE INSTALLED AS PER CITY OF WILMINGTON STREET LIGHTING POLICY.
 - STANDARD STREET LIGHTING LAYOUT WILL BE PROVIDED FOR THE PROPOSED PUBLIC STREETS ONCE A DETAILED SITE PLAN IS PREPARED FOR REVIEW.
 - STREET TREES TO BE LOCATED A MINIMUM OF 15 FEET FROM STREET LIGHTS.
 - 811 TO BE CONTACTED PRIOR TO CITY OF WILMINGTON REGARDING UTILITIES IN RIGHT OF WAY.
 - PLACEMENT OF DEPRESSED CURBS AND RAMPS IN CONFORMANCE WITH ADA REQUIREMENTS WILL BE DETERMINED AT TIME OF DETAILED SITE PLAN REVIEW.

CenterPoint Standard Street Lighting Plan

- Developers shall bear any installation costs associated with streetlights, if applicable. In areas served from underground facilities, the developers shall pay the one-time underground contribution charge, if applicable.
- Streetlights will be reviewed through the subdivision process and must meet criteria established in City's Street lighting Policy.
- Street trees must be located a minimum of 15 feet from streetlights. [CofW SD 15-17]
- All the streetlight shall be installed within City maintained public ROW but outside NCDOT ROW for City to take over or reimburse.

● Proposed locations of required 14 LED 50.
Locations may vary as per the field survey by DEP.

03/22/2022

	CENTERPOINT PARTNERS OF WILMINGTON, LLC 320 BROAD STREET, SUITE 600 CHARLESTON, SC 29401	CENTERPOINT EASTWOOD ROAD TOWNSHIP OF WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA	DATE: 04/28/2021 USER PROJ #: 01421-2012 DESIGNER: GEMARSH CHECKED: HCB PROJ MGR: HCB	SCALE: HORIZONTAL: 1"=60' VERTICAL: N/A	SHEET NUMBER: CS-100 DRAWING: 12
	OVERALL SITE PLAN		STATUS: FINAL DESIGN NOT FOR CONSTRUCTION	REVISION: M	

PROJECT NAME: CENTER POINT TRC PLAN

PRE-TRC DATE: 04.04.2022

REVIEWER NAME: Bill McDow

REVIEWER DEPARTMENT/DIVISION: PDT/ Transportation Planning

TRAFFIC IMPACT:

- ❖ The TIA required triple left turn lanes for the intersection of Drysdale Drive Extension and Military Cutoff Road. The site plans only show dual left turns at this location. Please revise.
- ❖ Please show the right turn lane for Eastwood Road and Drysdale Drive Extension.
- ❖ Please label storage lengths and taper lengths on each turn lane per the TIA requirements.

TECHNICAL STANDARDS – NEW ROADS:

1. The insert of Cavalier Drive and Calypso Drive shows two (2) thru lanes going SB from the Roundabout toward Eastwood Road. The street has 1 SB thru lane and a center turn lane. Please revise.
2. For sheet CR-102, please clarify the location, pavement width, and pavement markings for the second WB thru lane for Eastwood Road. The plans appear to show the second thru lane becoming the right turn lane. Please revise.
3. The TIA specifies a right turn lane with 100' full storage and 150' minimum Taper and Deceleration length at the intersection of Calypso Drive and Military Cutoff Road. However, the site plans only show a 45' full storage lane. Please revise.
4. On the site plans, please show right turn arrows for the right turn lanes.
5. At the intersection of Eastwood Road and Street A, the 200' driveway stem for Street A shall be measured from the ROW line and not the edge line or centerline of Eastwood Road. Please revise.
6. The roundabout exit at Street A and Street B shows 2 egress lanes at the crosswalk. Please start the second egress lane after the crosswalk to limit pedestrian and vehicle confusion over which lane exiting vehicles will use and prevent vehicles from switching lanes and not having adequate visual sight distance to see pedestrians within the crosswalk.

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.