



Planning, Development and Transportation

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DATE: 07.11.2018
TO: ProTrak
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Traffic Engineering

■ **WOODLANDS AT ECHO FARMS TRACT 3A [TRC Plan Review]**

↻ Initial Review Note ↻

All comments are based on adopted policy documents, specific City of Wilmington Land Development Code (CofW LDC) and City of Wilmington Technical Standards and Specifications Manual (CofWTSSM) requirements in effect at the time of this review. These have been noted after the comment as appropriate for your ease in further research.

The City Engineer may administratively approve dimensional variance requests per LDC Sec. 18-348. If the Applicant feels further interpretation is in order, please contact Transportation Planning directly to discuss in additional detail. Please apply for all administrative variances in writing, an email is acceptable or this may be included on the plan set. Please see Sec. 18-348 of the Land Development Code for the information required to process a variance request.



BASE INFORMATION:

- Accurately illustrate the existing conditions on and surrounding this parcel. Show all adjacent traffic signs, lane configurations, traffic control devices and pavement markings for the roundabout at the intersection of Belfairs Dr and Echo Farms Blv on the site inventory plan. Please refer to the Technical Standards and Specifications Manual (link is below) Ch. VII C.1.a.2.for specific information and distance requirements. Contact Traffic Engineering at 341-7888 if you need assistance locating these elements.
- The site is within 500’ of a signalized intersection. Accurately show all adjacent traffic signs, lane configurations, traffic control devices and pavement markings for the intersection Carolina Beach Rd and Echo Farms Blv on the site plan. Please refer to the Technical Standards and Specifications Manual (link is below) Ch. VII C.1.a.2.for specific information and distance requirements. Contact Traffic Engineering at 341-7888 if you need assistance locating these elements.
<https://www.wilmingtonnc.gov/home/showdocument?id=1910>
- Show the intersection details for the connection of Woodlands at Echo Farm Tract 3A with Tract 3B. The proposed standard street light plan may vary based on these details.

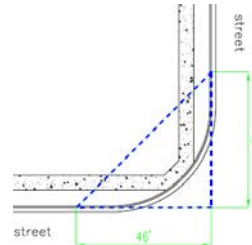
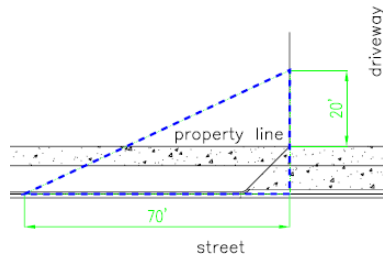
TECHNICAL STANDARDS – NEW ROADS:

1. Please revise the plans to show the proposed section of the roundabout and ROW design, traffic signs and pavement markings as per [SD 11-14 CofWTSSM](#). Include SD 11-14 on the plans.
2. Proposed wheelchair ramp at the roundabout must be per NCDOT and/or City standards. Show the details [SD 3-08 CofWTSSM](#).

3. 4.5' wide sidewalk is shown for the on-street parking cross section. Minimum sidewalk width is to be 6', if placed at back of curb. Please revise. [SD 3-10 CofWTSSM]
4. A pedestrian crossing is shown towards the southern end of public ROW. Since it is very close to the curve please assure that adequate sight distance is provided to the crossing, or move the crossing to where adequate sight distance is available.
5. A raised center median/pedestrian refuge with In-street Pedestrian Crossing Signs (R1-6) and Pedestrian Crossing (W11-2 and W16-7P) are recommended as per MUTCD.
6. If the crossing is to stay at the proposed location, an enhanced advanced warning of the crossing for southbound traffic, in addition to the standard MUTCD will be required.
7. If the developer cannot move the crossing, then sight distance easements and the landscaping plan will be required to provide AASHTO safe stopping distance to the crosswalk.

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

8. Proposed driveway shall be City-standard ramp-type. Show appropriate City standard detail(s) on plan. [SD 3-03.1 & 3-03.2 CofWTSSM]
9. Dimension all driveway widths and tapers off the ROW. [Sec.18-530 CofW LDC]
10. The minimum two-lane driveway width is 23'. [7-9 CofW Tech Stds]
11. Driveways are to intersect the street at a 90 degree angle. Driveway accessing Clubhouse on the western side does not fulfill this requirement. [7-11 #3 CofW Tech Stds]
12. Provide sidewalk detail SD 3-10 on the plan.
13. Provide curbing detail SD 3-11 on the plan.
14. Show and apply the City's 20'x70' sight distance triangle at each driveway accessing parking facilities and the City's 46'x46' sight distance triangle at the roundabout street intersection. [Sec.18-529(c)(3)CofW LDC] Add a note indicating that all proposed vegetation within sight triangles shall not interfere with clear visual sight lines from 30"-10'. [Sec.18-556 CofW LDC]



TECHNICAL STANDARDS – PARKING:

15. Dimension the on-street parking spaces. 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]
16. The minimum radius is 25' for any portion of a parking lot adjacent to a travel way (i.e. islands at the end of a parking bay) for parking that is open to the public. If the travel way will not be used for emergency service vehicles or truck traffic, you may request a tighter radius, the minimum is 15'. This request must be made in writing (an email message is acceptable). Otherwise revise. [Chapter VII, Detail SD 15-13 CofWTSSM]
17. Please show all the traffic control devices and pavement marking showing the traffic flow for all the parking facilities within this development.
18. The backing stub is to be 10' deep by 15' wide. Please revise and dimension where applicable. [Chapter VII, Detail SD 15-12 CofWTSSM]
19. The minimum vehicle parking space size must be 15.5' in length before wheel stop or curb functioning as a wheel stop. Please verify and revise if required. [Page 7-20 of CofWTSSM]

TECHNICAL STANDARDS – Barrier Free Design:

20. Handicap parking signs are missing for few stalls. Please verify and amend.

21. Show the typical handicap sign detail on the plan as per ADA and City standards. [[Sheets A1 of 5 and A2 of 5, CofW Sign Specification](#)]
<https://www.wilmingtonnc.gov/home/showdocument?id=3940>
22. Please show the accessible ramp(s) for all the handicap parking spaces.
23. Install the handicap ramps at the end of the sidewalk and show the pavement marking for the crosswalk connecting these ADA ramps within the parking facility.

STREET LIGHTING [[City of Wilmington Street Lighting Policy](#)]:

1. The standard streetlight shall be a DEP enclosed cutoff (Cobra type), high pressure sodium vapor (HPSV) or 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.
2. A layout for the Standard street lighting has been provided with the review. Minimum of *five* street lights are required for this sub-division. Although, 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 has to conform to the City's non-standard street lighting procedure as per the policy.
3. 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.
4. The Planning, Development and Transportation Director or designee and the City Landscape Designer will coordinate plaza plantings and streetlight locations to minimize the obstruction of light by vegetation.

MISCELLANEOUS:

- ❖ Contact Traffic Engineering at (910) 341-7888 to discuss street lighting options.
- ❖ We will reserve comments on the parking lot, driveway geometry and other technical issues until a full construction drawing is submitted.

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.

GENERAL NOTES:

- 1.) INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.
- 2.) IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- 3.) ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
- 4.) CONTACT TRAFFIC ENGINEERING FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY. 910-341-3258

PARKING (PROPOSED)

MINIMUM REQUIRED:	329 (SEE CALCULATIONS BELOW)
MAXIMUM ALLOWED:	440 (2.5 PER UNIT)
MINIMUM HANDICAP:	8 (2% OF TOTAL SPACES PROVIDED)
	1 HANDICAP VAN (1 PER EVERY 8 HANDICAP SPACES)
HANDICAP PROVIDED:	16 (INCLUDING 2 VAN)
MINIMUM BICYCLE:	20 SPACES
BICYCLE PROVIDED:	20 SPACES
TOTAL PROVIDED:	354 SPACES (332 SURFACE SPACES + 22 GARAGES)

REQUIRED PARKING SPACES CALCULATIONS

- 1 BDRM = # OF UNITS X 1.5 SPACES
- 2 BDRM = # OF UNITS X 2.5 SPACES

INFORMATION & REQUIRED PARKING CALCULATIONS

STORIES	PROPOSED BLDG. HEIGHT	# OF UNITS/BLDG	# OF BDRMS/UNIT	# OF REQ'D PARKING SPACES/BLDG
2	32' - 10 3/4"	8	2	20
2	39' - 7 1/2"	20	1	30
2	32' - 10 3/4"	6	2	15
2	32' - 10 3/4"	10	2	25
3	43' - 4 1/4"	6	3	SELF-PARKED WITH GARAGES & DRIVEWAYS
2	39' - 7 1/2"	16	1	24
2	32' - 10 3/4"	8	2	20
3	43' - 4 1/4"	8	3	SELF-PARKED WITH GARAGES & DRIVEWAYS
TOTAL PARKING SPACES REQUIRED (MINIMUM) =				329

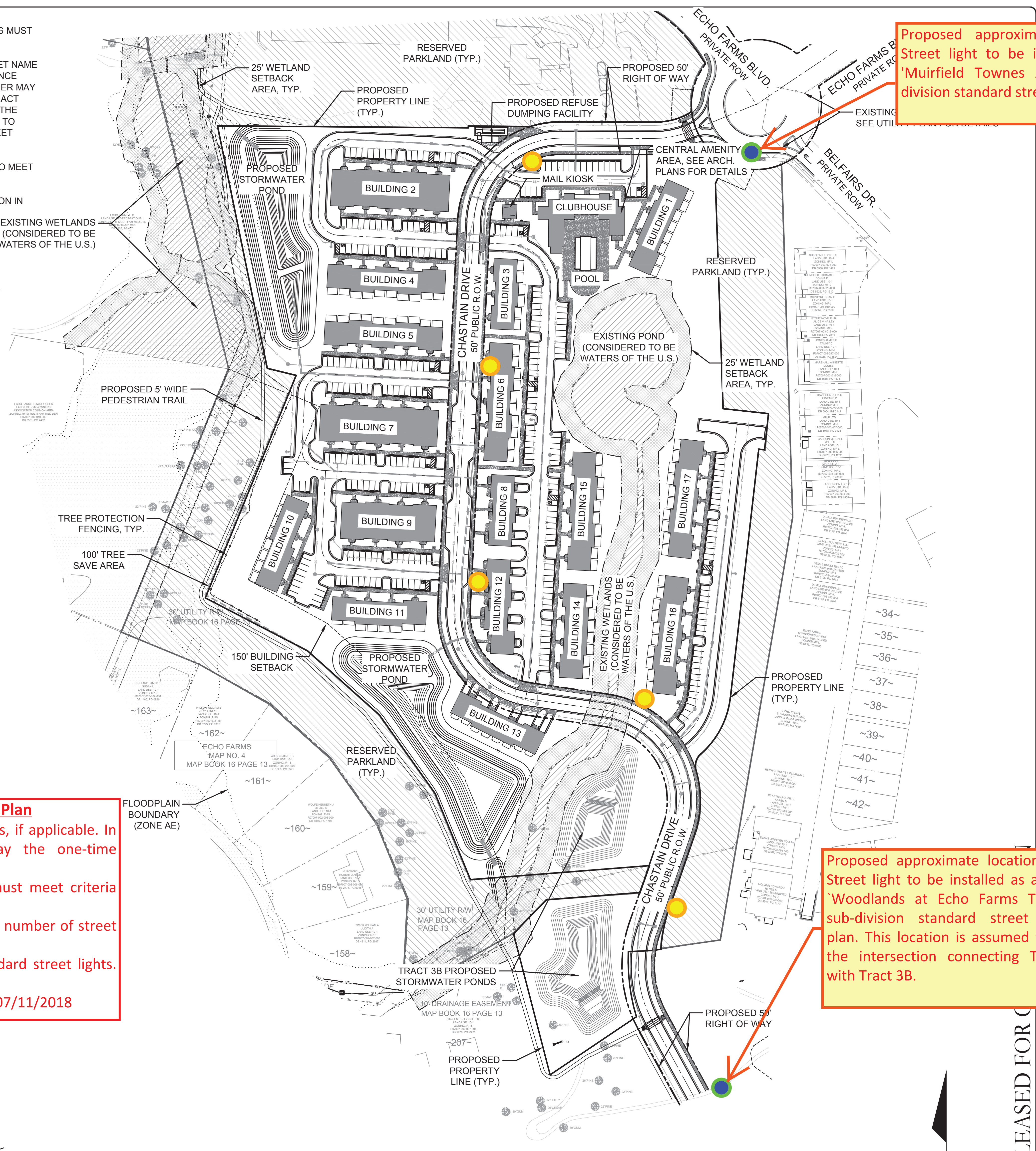
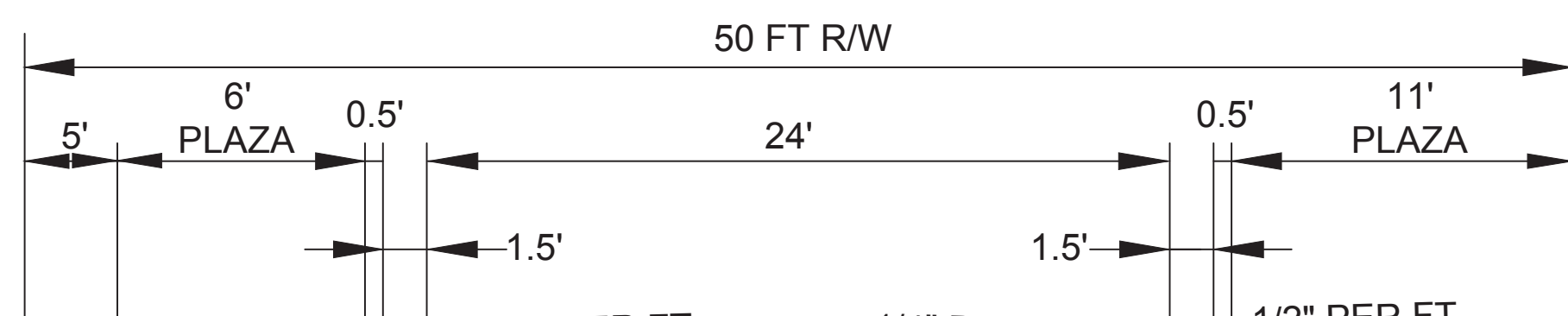
Woodlands at Echo Farms Tract 3A Standard Street Lighting Plan

1. 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.
2. Streetlights will be reviewed through the subdivision process and must meet criteria established in City's Street Lighting Policy.
3. If any of the existing street lights coincide with the proposed, required number of street lights must be amended to comply with the street lighting policy.

● Suggested approximate locations of minimum required five standard street lights. Locations may vary as per the field survey by DEP.

07/11/2018

NOT TO SCALE



Proposed approximate location of the Street light to be installed as a part of 'Muirfield Townes At Echo Farms' sub-division standard street lighting plan.

Proposed approximate location of the Street light to be installed as a part of 'Woodlands at Echo Farms Tract 3B' sub-division standard street lighting plan. This location is assumed to be at the intersection connecting Tract 3A with Tract 3B.

REVISIONS:

CLIENT INFORMATION:
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 c/o MATRIX DEVELOPMENT GROUP
 CN 4000 FORSGATE DRIVE
 CRANBURY, NJ 08512

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WOODLANDS LANDING
 AT ECHO FARMS
 WILMINGTON, NORTH CAROLINA

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