



WILMINGTON URBAN AREA
Metropolitan Planning Organization

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Traffic Impact Analysis: Scoping

01.02.14

The purpose of this document is to outline and streamline the Traffic Impact Analysis (TIA) scoping process. The process is as follows:

- 1** Contact the Wilmington Metropolitan Planning Organization (WMPO) to determine if a TIA will be required for the development you are proposing within the WMPO Planning Area Boundary. If a TIA is required, the WMPO will coordinate with the Applicant, NCDOT and the governing planning department to set a scoping meeting.
- 2** The Applicants Traffic Engineer shall fill out the checklist below in its entirety in as much detail as possible, include all exhibits and documentation as noted in the checklist and provide it to the WMPO representative no later than 3 business days prior to the date of the scoping meeting.
- 3** The Applicant's Traffic Engineer (and other interested representatives from the Applicants Design Team) shall attend the scoping meeting.
- 4** Once the scope has been established and agreed upon, the WMPO will coordinate with NCDOT and the governing Planning department to finalize a formal scoping letter. If the checklist is completed in sufficient detail, the scoping letter should be issued within 10 business days of the date of the scoping meeting.
- 5** The Applicant shall submit the TIA to the WMPO, NCDOT, and governing planning agency for review. Once the TIA has been received, an estimated review schedule will be provided based on caseload of the reviewing agencies and the complexity of the TIA.

TIA Scoping Checklist:

1. Engineering Firm of Record: _____
2. Contact information: Applicant _____
Email _____
Address _____
Phone Number _____
3. Development Name: _____
4. Tax Parcel ID #: _____
5. Site Address(s): _____

6. Development Concept:

- a. Provide a site plan or conceptual bubble diagram (include road circulation pattern and access points).

7. Is the development proposed to be built in a single or multiple phases? SINGLE MULTIPLE

8. What is the proposed build out year(s)? _____

9. Proposed Intersections to be studied:

- _____
- _____
- _____
- _____
- _____

10. Site Trip Generation:

- a. Provide a trip generation estimate using the ITE Trip Generation Manual.
- b. Provide pass-by and internal capture reduction calculations if applicable.

11. Check all that apply:

- A proposed school
- Estimated average daily trips equal or exceed 10,000/day
- Within the area of a known Transportation Improvement Project (TIP)
www.NCDOT.org/planning/development/TIP/Tip

12. Site Trip Distribution: TBD with traffic counts

- a. Provide an exhibit to illustrate proposed site trip distribution patterns. Please see the attached example indicating the level of detail needed.
- b. Provide an exhibit to illustrate proposed pass-by site trip distribution patterns. Please see the attached example indicating the level of detail needed.

13. Approved Adjacent Developments: None?

- a. Contact the local jurisdiction's planning department to obtain information on all development that has been approved yet not granted certificates of occupancy within a five mile radius of the proposed development boundary
- b. Provide supporting documentation (email is acceptable) from the governing authority.

14. Roadway or Intersection improvements (planned and funded or required by others based on an approved TIA) within the General Study Area:

- _____
- _____
- _____

15. Growth Factor: _____ % (provide supporting methodology/reasoning)

16. Hours of Study: Weekday (7:00 AM – 9:00 AM) and (4:00 PM – 6:00 PM)
 Other _____ (provide supporting methodology/reasoning)

17. Data Collection: While traditional school is in session
 Other _____ (provide supporting methodology/reasoning)
Schools are out; can adjust AM peak hour counts if necessary

18. Methods of Study: (to be performed using the NCDOT approved version of SYNCHRO/SimTraffic)
- a. Existing Conditions
 - b. Background Future No-Build Conditions [existing + background growth + approved developments + committed improvements]
 - c. Combined Future Build Conditions [background + site trips]
 - d. Combined [Future Build Conditions/Traffic with Improvements to mitigate the proposed development's impacts]
 - e. Additional Scenarios as warranted;
 - A request for a control of access break or modification
 - A request for a median modification or break
 - TIP design year analysis

19. Include Traffic Signal Warrant Analysis: YES NO

List locations: _____

20. Note:
- a. The TIA report shall be prepared following NCDOT Congestion Management guidelines and signed and sealed by a Professional Engineer. Any deviations must be approved prior to submitting the TIA. Failure to do so will result in an invalid submittal.
<https://connect.ncdot.gov/resources/safety/Pages/Congestion-Management.aspx>
 - b. Unless proposed by the project developer, any improvements shown as needed for the background no-build condition shall reflect programmed and funded State/Municipal projects or those required as mitigation for surrounding approved development. Should improvements outside those listed above be included, the TIA is considered invalid and will not be reviewed.
 - c. If the developer wishes to phase recommended/required improvements, the TIA shall be phased accordingly.
 - d. If any changes occur (including but not limited to; land use, intensity and/or site access) additional scoping and analysis may be required.
 - e. Data collected or analysis performed prior to an official scoping letter is issued may be considered invalid.
 - f. Scoping letters typically remain valid for three months from the date of issuance.

Attachments: WMPO Planning Area Boundary Map
NCDOT Congestion Management Capacity Analysis Guidelines
Trip Distribution/Pass-by Trip Distribution Exhibits

Summary of Multi-Use Trip Generation
Average Weekday Driveway Volumes (Unadjusted for Internal Trips)

Project: Hampstead Commons
Phase:

Open Date:
Analysis Date:

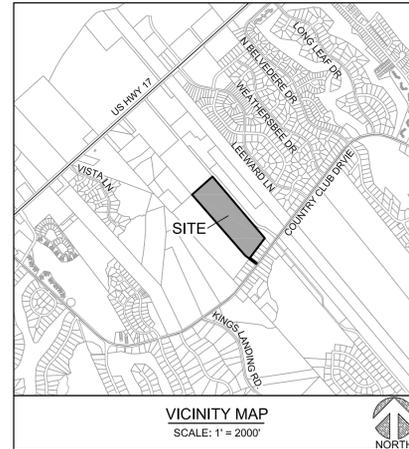
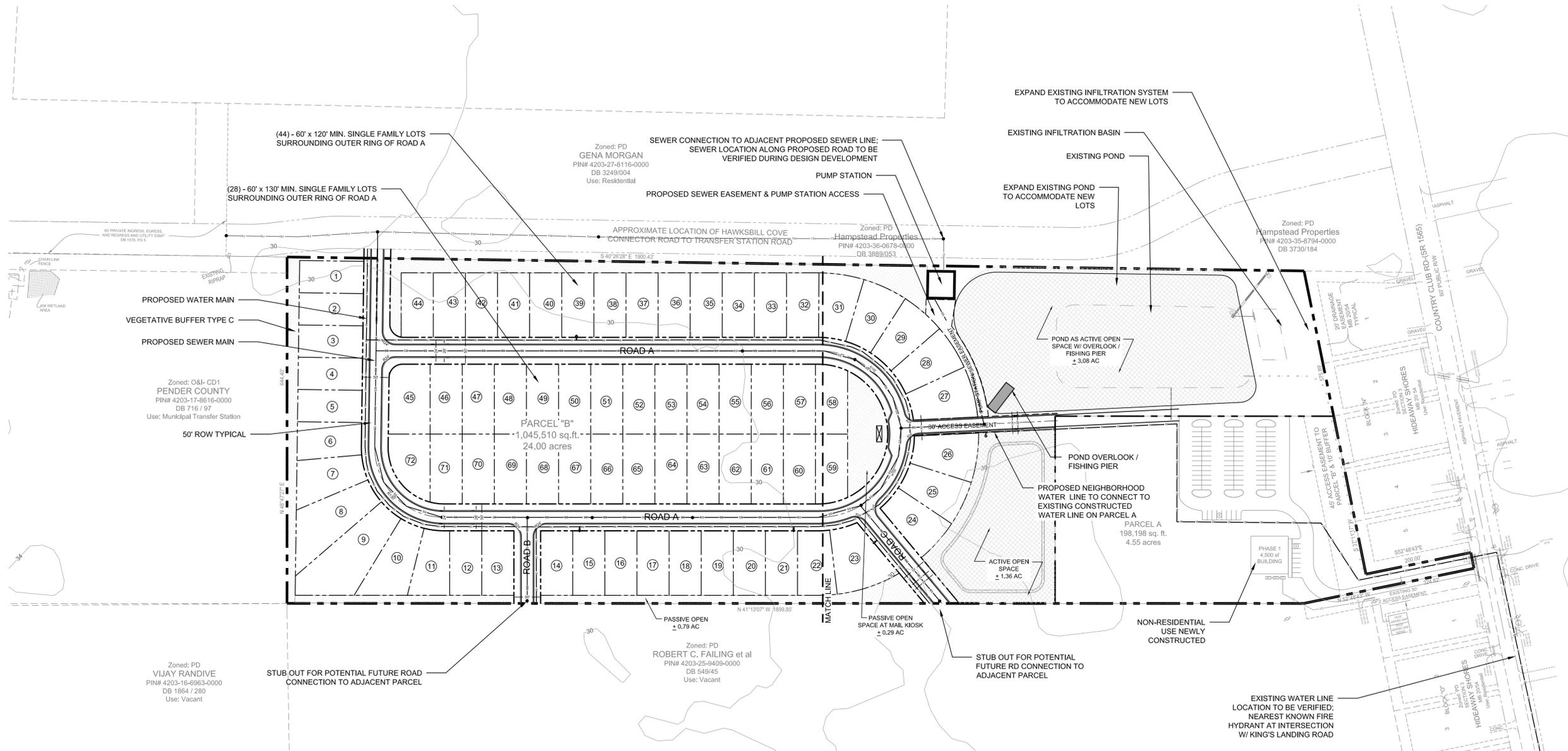
Description: 72 Homes and Day Care with 40 students

ITE:Land Use	24 Hour Two-Way Volume	AM Pk Hour		PM Pk Hour	
		Enter	Exit	Enter	Exit
210: Single Family Detached Housing 72 Dwelling Units [E]	776	15	45	49	29
565: Day Care Center 40 Students [R]	175	17	15	15	17
Total Driveway Volume	951	32	60	64	46
Total Peak Hour Pass-By Trips		0	0	0	0
Total Peak Hour Vol. Added to Adjacent Streets		32	60	64	46

Note: A zero indicates no data available.

Source: Institute of Transportation Engineers
Trip Generation Manual, 9th Edition, 2012

TRIP GENERATION 2013, TRAFFICWARE, LLC



SITE INFORMATION

CURRENT LAND USE: VACANT LAND
 ZONING: PD
 PIN: 4203-36-1126-0000
 PROPOSED USE: RESIDENTIAL
 TOTAL SITE AREA: 28.55 ACRES
 OWNER INFORMATION: KSADE VENTURES

SINGLE FAMILY DIMENSION REQUIREMENTS

MINIMUM LOT SIZE: 6,600 SF
 FRONT YARD SETBACK: 5' MINIMUM
 SIDEYARD SETBACK: 5' MINIMUM
 CORNER SIDEYARD SETBACK: 5' MINIMUM
 REAR SETBACK: 10' MINIMUM
 ZERO LOT LINE: ALLOWED IF 10' MIN. BETWEEN HOMES
 CHORD: 40' MINIMUM
 MAXIMUM HEIGHT: 35'
 DENSITY: NOT TO EXCEED 5 DU/AC

UNIT TOTALS

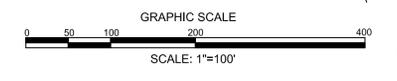
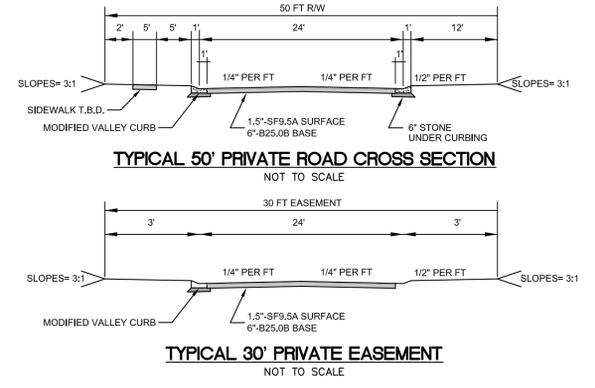
SINGLE FAMILY: 72 UNITS

NUMBER OF DWELLING UNITS (DENSITY)
 FROM PENDER COUNTY DEVELOPABLE AREA FORMULA PER SECTION 4.8.1(C)

TOTAL SITE ACREAGE: ± 28.55 ACRES
 Subtract the following:
 NON-RESIDENTIAL DEVELOPMENT: ± 4.55 ACRES
 WETLANDS: NO WETLANDS EXIST ON SITE
 RIGHT OF WAY: ± 3.16 ACRES
 OPEN SPACE:
 (ACTIVE & PASSIVE): ± 5.46 ACRES (4.43 AC ACTIVE; 1.08 AC PASSIVE)

REMAINING DEVELOPABLE AREA: ± 15.38 ACRES
 TOTAL PROPOSED PROJECT DENSITY: 4.7 UNITS/ACRE (72 UNITS)
 TOTAL ALLOWABLE DENSITY: 5 UNITS/ACRE (77 UNITS)

- OPEN SPACE REQUIREMENTS**
- REQUIRED: 0.03 ACRES X 72 UNITS = 2.16 ACRES
 (NO MORE THAN 50% OF THE OPEN SPACE CAN BE PASSIVE)
- PROVIDED: 5.46 ACRES
 ACTIVE SPACE: 4.43 ACRES
 PASSIVE SPACE: 1.08 ACRES
- UTILITIES**
- ALL WATER UTILITIES WILL BE COORDINATED WITH PENDER COUNTY ENGINEERING; AND SEWER UTILITIES WILL BE COORDINATED WITH PLURIS.
 - WATER PROVIDED BY PENDER COUNTY ENGINEERING.
 - SANITARY SEWER TO BE PROVIDED BY PLURIS
 - STORMWATER WILL BE HANDLED ON SITE IN COMPLIANCE WITH ALL STATE STORMWATER STANDARDS.
- BUFFER NOTES**
- ALL SURROUNDING ADJACENT PROPERTIES ARE ZONED PD WITH THE EXCEPTION OF THE TRANSFER STATION TO THE WEST OF THE SITE. NO BUFFERS ARE REQUIRED IN ANY LOCATION OTHER THAN THE PROPOSED BUFFER AGAINST THE TRANSFER STATION PROPERTY.
- RECREATION UNIT NOTES**
- 72 LOTS REQUIRE 1 RECREATION UNIT TOTALING \$10,000 OR MORE. INSTALLATION OF THE PROPOSED ACTIVE RECREATION AREAS WILL FAR EXCEED THE \$10,000. 1 UNIT REQUIREMENT
- PHASING**
- THE NEIGHBORHOOD WILL BE BUILT AS ONE PHASE.
 - ALL AMENITIES WILL BE CONSTRUCTED WITH THE INITIAL PHASE OF NEIGHBORHOOD DEVELOPMENT.
- PROJECT ROAD NOTES**
- ALL ROADS WILL BE PRIVATE.
 - ALL PROPOSED INTERNAL ROADWAY INTERSECTIONS AND CONNECTIONS TO EXISTING ROADWAYS WILL HAVE A 26' RADIUS MINIMUM.
 - STREET NAME SIGNS SHALL BE INSTALLED AS SOON AS ROADWAYS ARE ACCESSIBLE BY VEHICLE TRAFFIC TO INCLUDE DURING CONSTRUCTION AND MEET PENDER COUNTY STREET SIGN SPECIFICATIONS.
 - SIDEWALKS WILL BE LOCATED ON ONE SIDE OF ROAD A. LOCATION TO BE DETERMINED DURING DESIGN DEVELOPMENT FOR ALL OTHER STREETS.
 - NO PROPOSED ROAD EXCEEDS 1 MILE IN LENGTH OR ACCESSES MORE THAN 200 LOTS. ALL ROADS WILL COMPLY WITH SECTION 7.5.3 OF THE PENDER COUNTY UDO.



PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

PARAMOUNT ENGINEERING
 5011 Olander Drive, Suite 201
 Wilmington, North Carolina 28403
 (910) 791-6707 (O) (910) 791-6700 (F)
 NC License #: C-2846

PRELIMINARY PLAN
 HAMPSTEAD COMMONS
 PENDER COUNTY
 NORTH CAROLINA

PROJECT STATUS
 CONCEPTUAL LAYOUT:
 PRELIMINARY LAYOUT:
 FINAL DESIGN:
 RELEASED FOR CONSTRUCTION:
 DATE:
 SCALE:
 DESIGNED:
 CHECKED:

SEAL

C-2.0

PEJ JOB#: 16191.PE