

Paws & Claws Veterinary Clinic & Kennel
Preliminary Exceptional Design Project Narrative

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Project Description

This project proposes three (3) commercial buildings. Additional site improvements include the associated vehicular & pedestrian circulation and credit parking for all uses.

The project is located in the CAMA Land Use Plan – Watershed Resource Protection land classification, thereby limiting surface coverage to 25% of the total buildable area of the project. The Wilmington Land Development Code Article 10 provides that mitigation for coverage in excess of the limitation can be accomplished by meeting certain requirements that qualify as “exceptional design.”

Site Assessment

A site inventory has been made of the development tract. It is currently vacant and clear of any regulated vegetation. The underlying soil, shown as Leon sand in the County Soils Survey, is classified as well-drained. Actual soils testing for seasonal groundwater depth and infiltration rate will be performed prior to detailed stormwater management design and calculations. No wetlands have been identified within the project boundaries.

Development Plan

The proposed improvements described in the project description above include approximately 35,353 s.f., or 51.9% of coverage. All of the parking spaces and a portion of the drives will be constructed with a pervious pavement. This allows for 75% credit against the impervious surfaces and reduces the overall impact to the site by over 10%, or a total of 41.8%. This reduction in impervious surface will contribute directly to a Low Impact Development (LID) technique and will aid to minimize stormwater runoff.

Low Impact Development (LID) Techniques

The project seeks to maintain the hydrological function of the site and mimic the pre-development runoff patterns by maximizing infiltration and stormwater retention. This can be accomplished by:

- The small scale techniques of managing precipitation as close as possible to where it hits the ground will include pervious pavement within the parking lots and potential bio-retention basins.
- Linked lot-level controls. Stormwater management facilities will be strategically located to reduce long pipe runs and promote treatment throughout the system.

- Devices that allow infiltrating rainfall water into the groundwater system will include pervious pavement, decorative infiltration facilities at the front of the project, and bio-retention basins throughout the open space areas.
- Site “fingerprinting” is achieved by providing adequate landscape buffer yards and streetyards around the periphery of the project, preserving or mitigation the existing trees, clearly delineation tree protection areas of not only the regulated trees, but also those less than the standard requirement, and using pervious pavement.
- Incorporating “amended” soils. Sub-base material for the pervious pavement will be engineered for maximum infiltration capacity and soil compaction will be avoided or minimized in natural areas by flagging limits of disturbance to restrict movement of equipment or temporary storage of materials.

Exceptional Design Criteria Points Summary

Points required for 50% base impervious area = 60

Points claimed = 60

- Stormwater Retention for the 5/10/25 year event = 10
- 90% TSS removal = 10
- Post-development Tc mimics pre-development Tc for 10-year event = 15
- >25% Pervious Surfaces = 10
- 50% Xeric landscaping = 15

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