

North Shore Subdivision

Letter of Intent

The proposed subdivision consists of 76 lots to be developed for single family use, 2 lots for use as multi family use, 1 outlot for amenities for use by residents of the subdivision, 3 outlots for common use of the subdivision and 3 outlots to serve as alley access to the single family residences.

The general theme of the development will be prairie style.

The entrance road will be 1st Avenue and will begin at the intersection of S. 11th Street and Wright Road and extend west into the subdivision. A second entrance road will be 13th Street and will tie into this main entrance road. Once in the subdivision four streets branch off from the main entrance road.

The development will be served by an 8" sanitary sewer line running beneath the pavement. Service connections will be made part of the project and will be extended from the proposed sewer to the proposed right-of-way. A pump station will be constructed and a force main will be constructed from the pump station east to 11th street where it will tie into the existing sanitary sewer system. A system of storm sewer pipes and intakes will also be constructed to convey storm water runoff to the proposed detention system.

The streets within the development will be centered in a 50 foot wide right of way which will subsequently be dedicated to the City of Council Bluffs. Pavement will be 26 feet wide (curb-to-curb) and constructed as shown on the typical section (sheet A.01 of the Preliminary Plan). Paved alleys will be located in outlots behind the residential lots to provide rear garage access.

This development will be served by an extension of water main from a location to be determined by Council Bluffs Water Works. Water main currently exists on 11th Street located to the east of the development. Another water main currently exists along the north side of West Shore Drive and serves the Pelican Cove subdivision to the south.

Installation of street lights, electric and gas services and communication utilities are also planned for the subdivision. Sidewalks will be installed as individual lots are developed.

The proposed subdivision is currently zoned R-1 and R-3 and was previously used as a mobile home park. The mobile homes have been removed and the development is currently being cleared. The proposed zoning is a mix of R-1 and R-4 zoning. The subdivision has been laid out containing 76 conventional lots for single family residences. The development also consists of 2 larger lots to be used for apartments, and another large outlot for the residential amenities area.

The area to the north of the subdivision is currently zoned as C-2, the area to the east is zoned R-1, the area to the west is bounded by Indian Creek. Directly south of the subdivision the land is zoned R-1 and a portion along the southeasterly portion of the subdivision abuts Lake Manawa.

A section of the subdivision in the southeasterly portion of the development abuts West Shore Drive and there is no planned access from the development to West Shore Drive. An existing water main easement is located along the southeasterly edge of the property abutting Lake Manawa. This easement is for the water main that serves the Pelican Cove subdivision. The north property line of the current subdivision is the north section line of Section 14.

The proposed subdivision will be developed in two phases, with the apartments, residential amenities area, and a few single family residential lots being part of Phase I. Phase II would include the remaining residential lots.

**PRELIMINARY DRAINAGE STUDY
AND
PCSMP CALCULATIONS
North Shore
Council Bluffs, IA**

EXECUTIVE SUMMARY

This preliminary drainage study was prepared for the construction of a residential subdivision in Council Bluffs, IA. The proposed subdivision will contain single-family lots, apartments, and a resident amenities area. Drainage calculations have been completed to determine the impact of the development to the downstream drainage areas. The calculations noted below were done utilizing the SCS Method.

I. Existing Conditions

This site is currently an abandoned trailer park. The existing site is 25.93 acres with 9.98 acres of impervious area and 15.95 acres of pervious area. Based on the USDA Custom Soil Resource Report, the soil in the project area is Haynie silt loam, which is in the Hydrologic Soil Group B. The Curve Numbers used for these areas were 98 and 61, respectively. The composite Curve Number used for the existing site conditions is 75.

II. Proposed Conditions

The proposed site drainage has 16.35 acres of residential lots (1/8 acre or smaller), 4.02 acres of resident amenities area, 3.66 acres of pavement area, and 1.91 acres of apartments. The Curve Numbers used were 85, 61, 98, and 88, respectively. The composite Curve Number used for the proposed site conditions is 83. The majority of the runoff from the proposed site will be collected by curb inlets and conveyed to detention basins, which will treat and detain the 100-year post-construction runoff to discharge at the 5-year pre-construction runoff rate. In order to discharge the 100-year post-construction storm water volume at the 5-year pre-construction runoff rate, the detention pond(s) will have an estimated volume of 420,000 cubic feet.

III. Runoff Summary

Hydraflow Hydrographs Extension for AutoCAD Civil 3D 2014 was used to calculate the pre- and post-development runoff rates for the 2-year, 5-year, and 100-year storm events. The pre- and post-development runoff rates are as follows:

	2 Year	5 Year	100 Year
Pre-Development	39.45	60.36	187.20
Post-Development	59.59	83.91	216.41