# NORTH SHORE SUBDIVISION

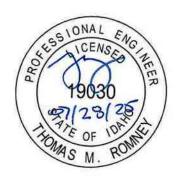
07/08/2025

Prepared for:

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#### I. GENERAL LOCATION AND DESCRIPTION

The proposed project is located at 1 North Shore Drive, Lowman, ID, 83637 and is 13.81 acres, with the adjacent right-of-way being disturbed with construction. The current use is residential and the proposed use will be residential. The property slopes from northeast to southwest at approximately 6.5%

Existing waterways flow towards the floodplain area on site.

A soils report has not been prepared.

### II. DRAINAGE BASIN

There is an existing roadway swale that water from the site drains into.

The property resides in flood zones X and AE per FEMA FIRM panel number 16015C0168B.

The previous standards to which the site was designed to are unknown.

#### III. PROPOSED DRAINAGE PLAN

A drainage plan has been developed per Boise County standards. The onsite system will consist of a retention swale sized to hold the 100-year storm event. The storm drain system will improve the existing roadway swale to retain water on site.

The rational method and NOAA Atlas 14 data were used to design the storm drain system.

# IV. STORMWATER QUALITY

A storm water pollution prevention plan will be developed for the construction of the project and submitted for review.

#### V. ANALYSIS

Hydrology:

The design storm required is the 100-year, 60-minute event for retention and the rainfall intensity information was obtained from the NOAA Atlas 14 website for the state of Idaho.

\*The rational method (Q=CIA) was used to determine storm drain runoff flows. A weighted "C" value of 0.40, a variable rainfall intensity (from NOAA Atlas 14 data), and the project area of 0.37 acres, were used to size the retention swale. The runoff calculations resulted in a maximum retention volume of 1,100 cubic feet. See the appendix for retention swale sizing calculations.

The retention swale will have a 4:1 slope and a depth of 1 foot.

# Hydraulics:

No piping or inlets are required for the proposed storm drain system.

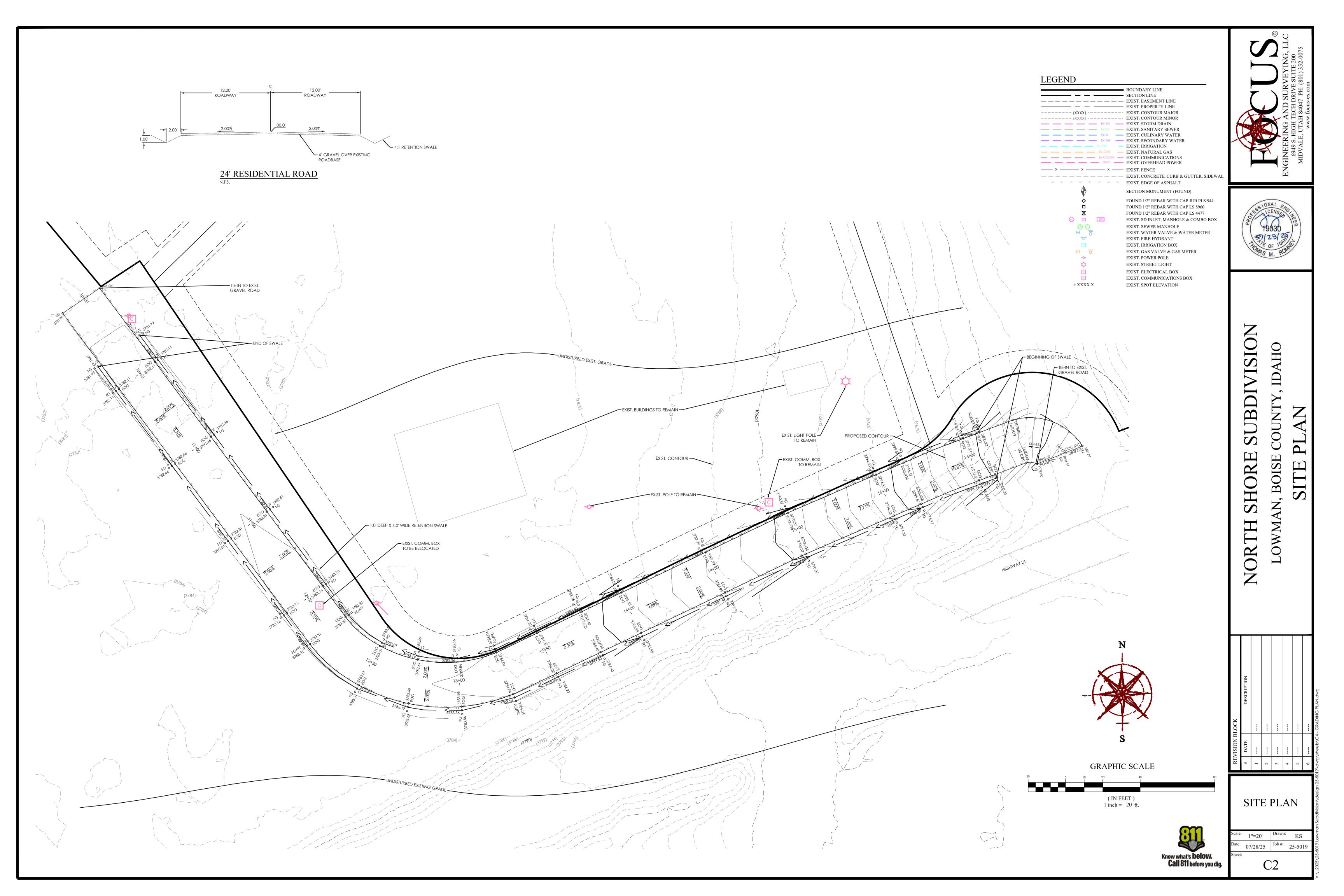
The 100-year overflow path will flow through existing waterways on site into South Fork Payette River to the west of the site.

## VI. CONCLUSION

It is concluded that the project is in compliance with county standards and design guidelines.

Sincerely,

Kinley Seabaugh FOCUS Engineering & Surveying



# **Retention Pond**

Project: 25-5019 North Shore Subdivision

Location Lowman, Idaho Date: 7/8/2025

Designer: KS

100-Year Retention Sizing

Design Criteria

Intensity Table: Per NOAA Atlas 14

Return Period: 100 year Storm Duration: 60 min
Allowable Discharge: 0.00 cfs/acre Per Boise County Standards

**Allowable Discharges** 

Storm Drain Discharge: 0.00 cfs
Other Discharge: 0.00 cfs

Total Discharge: 0 cfs

Weighted "C" Value

 Surface Type
 Area (sf)
 "C" Value
 C\*A

 Gravel Roadway
 16,320
 0.40
 6,528

 Totals
 16,320
 6,528.00

Weighted "C" Value 0.40

**Drainage Calculations** 

Duration	Intensity	Runoff C	Area	Rainfall	Accumulated	Allowable	Discharge	Required
					Flow	Discharge		Storage
min	in/hr		Ac	cfs	cf	cfs	cf	cf
5.0	6.26	0.40	0.37	0.94	281	0.00	0	281
10.0	4.34	0.40	0.37	0.65	390	0.00	0	390
15.0	3.36	0.40	0.37	0.50	453	0.00	0	453
30.0	2.05	0.40	0.37	0.31	553	0.00	0	553
60.0	1.22	0.40	0.37	0.18	658	0.00	0	658
120.0		0.40	0.37	0.00	0	0.00	0	0
180.0		0.40	0.37	0.00		0.00	0	0
360.0		0.40	0.37	0.00	0	0.00	0	0

Maximum Storage Requirement:658Maximum Storage Requirement (ac-ft):0.02

Retention Basin Design

Storage Requirement: 658 cf

Retention Pond Volume: 1,100 cf of a Trapezoidal Trench

Total Storage 1,100 RETENTION ADEQUATE

