

Project	Aadland West	Date	2-5-2020
To	Mike Kinney	Contact Info	CLFLWD
Cc	Board of Managers	Contact Info	CLFLWD
From	Greg D. Graske, P.E.	Contact Info	EOR
Regarding	Permit Application #19-036, City of Wyoming		

Applicant

PPP Aadland LLC
 Attn: Perry Aadland
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 Lindstrom, MN 55045
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 perryaadland@gmail.com

Authorized Agent

Project Purpose: The proposed project is a 15-lot single-family home development on a 35 acre site, presently unimproved site, resulting in 3.3 acres impervious cover.

Project Location: North of the intersection of Pioneer Road and Hunter Avenue (PIN# 21.10387.00). Site drains to Comfort Lake.

Applicable District Rules: 1.0, 2.0, 3.0, 4.0, 9.0, & 10.0

Recommendation: Approval, with issuance on receipt of the following:

1. Execution of a maintenance instrument satisfactory to the CLFLWD addressing the ongoing operation and maintenance of the proposed stormwater management features. The proposed instrument shall be provided to the District for review prior to execution, and documentation of recording with the County must be provided before permit issuance. [Draft has been received from Applicant and is currently under review by District]
2. Proof of recording of buffer protection instrument with County after District review and approval.
3. Financial Assurance in the amount of \$19,200 for grading and alteration.
4. Financial Assurance in the amount of \$225,000 for stormwater management or demonstration that the applicant has provided the municipality with a financial assurance of equal or greater value.

Stipulations of Permit:

5. Buffer markers placed per rule 4.2.3.
6. Submittal of as-built survey for all stormwater features and pipe.
7. This permit covers erosion control for the construction of the roads, stormwater facilities, and associated site grading along the road corridor. Additional erosion control permitting will be required for the grading of the individual lots for driveways and house pads associated with building of homes on the individual lots. On sale of a building lot, permittee must present buyer

a written notice that lot grading for construction will require a District erosion control permit, and must retain a copy of the notice, signed by buyer, for its records.

Rule 2.0: Stormwater Management

The proposed project will construct a new road and stormwater infrastructure for a new 15-lot development to be known as Aadland West. The stormwater management rule is triggered for residential subdivision of a tract into three or more lots and this permit will include stormwater management for full buildout of the entire subdivision including hard surface from the roads, driveways and homes within the indicated hard surface foot print. Flow from the site is generally routed to adjacent wetlands.

Under proposed conditions the majority of the proposed street, driveways and house frontages are routed to ponds with biofiltration benches. Biofiltration is proposed based on clay soils identified in the provided soil borings. Pre-treatment will be provided by the open water portion of the ponds. For new development the volumes at the point of discharge must not increase from pre-development conditions for the 24-hour precipitation event with a return frequency of two years. The required infiltration volume for the drainage areas routed to the BMPs was calculated to be 0.42 acre-feet. The volume conversion factor of 0.65 applies, resulting in 0.65 acre-feet treatment volume required. The basins provide 1.49 acre -feet of treatment volume. The basins are also each designed to capture the volume of stormwater runoff from the 2-year event. The three basins meets District volume and water quality requirements. The filter medium is a mixture of sand (80-90%) and MnDOT Grade 2 compost (10-20%). This design is consistent with the Stormwater manual guidance to promote plant growth while minimizing the potential for phosphorous leaching.

A fraction of site hard surface, consisting of rooftop that drains to backyards and similar disconnected surface, is not feasible or cost-effective to treat with constructed stormwater practices. Runoff from these surfaces will sheet flow through turf areas and particularly through the protected wetland buffers, so most or all of the regulated volume will be captured for the 24-hour precipitation event with a return frequency of two years, and that suspended solids will be removed from this runoff to the maximum extent practicable.

Hydrologic modeling was performed and demonstrated no increase in rates from the pre-development condition at each point of discharge. Overall the proposed project provides a decrease in rates compared to pre-development conditions. A summary table of rates leaving the site is summarized below.

Rate Control Summary

Conditions	2-year	10-year	100-year
Pre-development (cfs)	32.3	57.0	120
Proposed (cfs)	17.1	39.8	115

A detailed Storm Water Pollution Prevention Plan (SWPPP) has been submitted indicating that the the proposed basins shall be constructed concurrent with the work authorized by the permit.

Flows and volumes to the two onsite wetlands are negligible compared to the size of the basins, therefore the project will not exceed the wetland bounce or inundation periods per rule 2.3.4 thereby satisfying District standards.

The proposed low floors and low openings meet District freeboard requirements.

Rule 3.0: Erosion Control

The proposed plans includes inlet protection, rip rap at stormwater outfalls, a rock construction entrance, silt fence, revegetation specifications and an implementation schedule. A detailed SWPPP has also been submitted. The proposed plan meets District Erosion Control requirements.

Erosion control details are not provided for the individual home sites. The applicator has indicated that each individual lot owner/builder will be responsible for erosion control on their lot. Therefore additional erosion control permitting will be required for each individual lot.

Rule 4.0: Lake, Stream, and Wetland Buffer Requirements

A wetland delineation and MnRAM has been submitted. Two wetlands exist onsite. Based on the submitted MnRAM the wetland in the northwest corner of the site is classified as a Manage 3 wetland and requires a 25-foot buffer. The large wetland centrally located along the eastern portion of the property is classified as Manage 1 wetland and requires a 75-foot buffer. The existing buffers contain large areas of buckthorn and prickly-ash. The applicant has submitted a wetland buffer plan that includes slashing and chemical treatment of invasive species within the buffers on both wetlands, along with a revegetation plan with a buckthorn replacement seed mix. The proposed wetland buffer areas and management plan meets District buffer requirements.

Rule 5.0: Shoreline and Streambank Alterations

The proposed project does not trigger this rule; a DNR general permit applicable to owners who hold a District permit is not in effect.

Rule 6.0: Watercourse and Basin Crossings

The proposed project does not trigger this rule; no roadways, utilities, or water control structures are proposed in the bed of District waterbodies.

Rule 7.0: Floodplain and Drainage Alterations

The proposed project does not trigger this rule; the City of Wyoming has a state-approved floodplain ordinance.

Rule 8.0: Wetland Management

The proposed project does not trigger this rule; the District is not the LGU for wetland impacts.

Rule 9.0: Fees

The fees required for the proposed project are the \$10 Application Fee, \$3,200 deposit for stormwater management, \$1,500 deposit for Erosion Control, and \$1,500 deposit for wetland buffer requirements. The \$10 Application fee has been submitted. A \$9,200 review and inspection deposit has been

submitted. This exceeds the required \$6,200 review and inspection deposit. The applicant may request a refund of \$3,000 if desired at this time, or wait until the end of the project and any unused review and inspection deposit will be returned.

Rule 10.0: Financial Assurances

The financial assurance required for grading and alteration is \$19,200. The financial assurances required for stormwater management is \$225,000. A financial assurance to CLFLWD for stormwater management facilities is not needed if it is demonstrated that the applicant has provided the municipality with a financial assurance for the facility of equal or greater value.

Rule 11.0: Variances

The proposed project does not require a variance.

Submittals Received

The following submittals were received and reviewed as the basis for this permit application review:

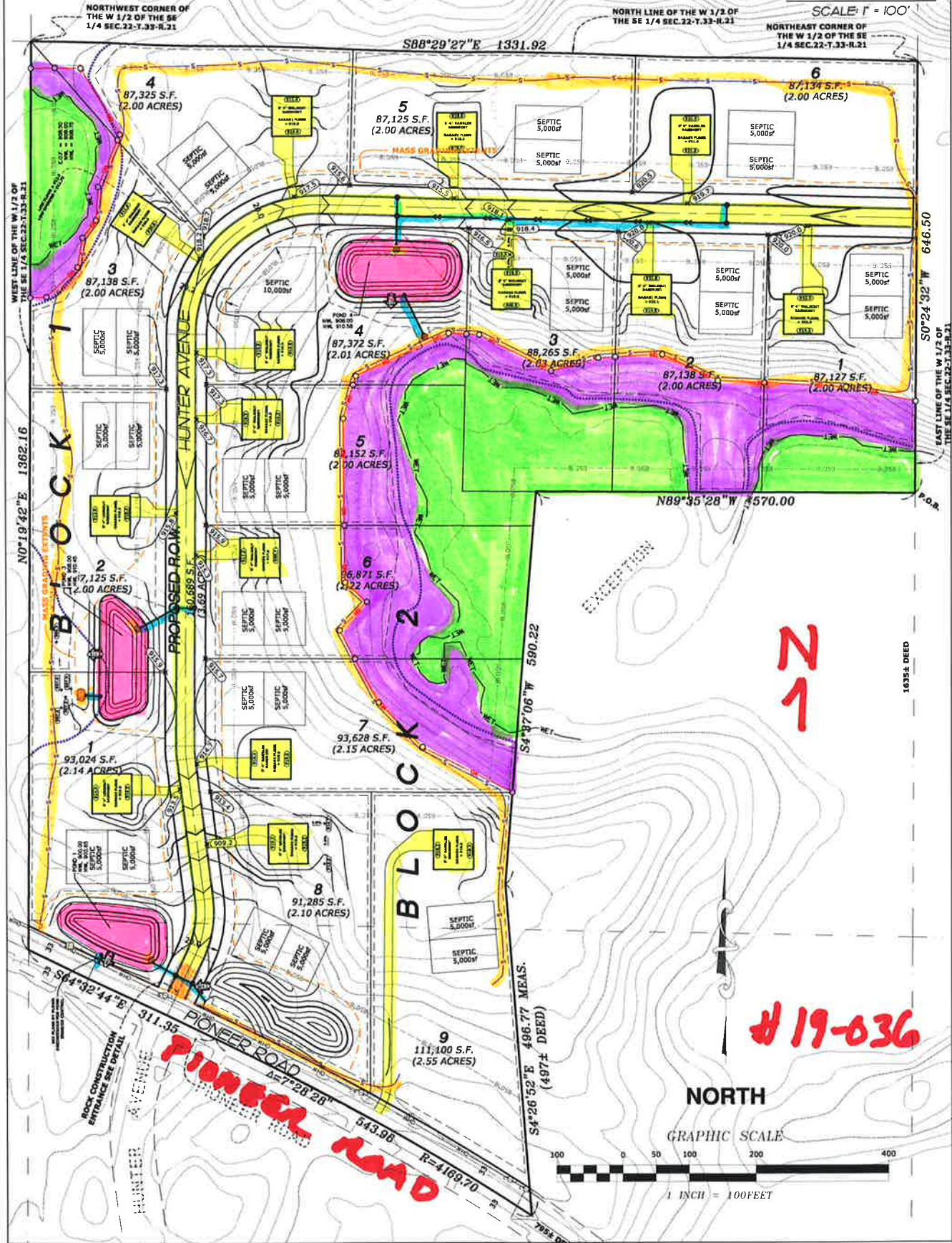
1. Application, received November 4, 2019, prepared October 31, 2019, prepared by Applicant.
2. Application fee in the amount of \$10, received November 4, 2019.
3. Review and inspection deposit in the amount of \$9,200.
4. Preliminary Grading Plan (3 Sheets), received December 23, 2019, dated December 20, 2019, prepared by E.G. Rud & Sons, Inc.
5. Hydraulic Report and Calculations, received December 23, 2019, dated December 19, 2019, prepared by Plowe Engineering, Inc.
6. Wetland Delineation Report, received November 4, 2019, dated June 3, 2019, prepared by Jacobson Environmental, PLLC.
7. Wetland Conservation Act Notice of Decision, received November 4, 2019, dated July 18, 2019.
8. WCA Notice of Decision, received August 27, 2019, dated July 22, 2019.
9. Soil Boring Test Report, received November 4, 2019, dated August 15, 2019, prepared by Tradewell Soil Testing.
10. Preliminary Plat, received December 23, 2019, dated December 20, 2019, prepared by E.G. Rud & Sons, Inc.
11. Aadland West Preliminary Plan Set with SWPPP, received December 23, 2019, dated December 20, 2019, prepared by Plowe Engineering, Inc.
12. Response to Engineer's Report (11-15-2019), received December 23, 2019, undated, prepared by Plowe Engineering, Inc.
13. Wetland Buffer Plan & Analysis, received December 23, 2019, dated December 9, 2019, prepared by Jacobson Environmental, PLLC.
14. Draft Maintenance Declaration, received December 23, 2019, undated, prepared by Applicant.
15. Engineer's Estimate, received February 5, 2020, dated February 5, 2020, prepared by Plowe Engineering, Inc.

PRELIMINARY GRADING PLAN

~for~ PERRY AADLAND
~of~ AADLAND WEST

SITE OVERVIEW

SCALE 1" = 100'



N
#19-036