

CITY OF RAMSEY LAND USE APPLICATION
TECHNICAL REVIEW FILE

DATE	FEBRUARY 24, 2017	PROJECT ADDRESS	WEST OF OLIVINE STREET, SOUTH OF TROTT BROOK
PROJECT. TITLE	BROOKFIELD 8 TH ADDITION FINAL PLAT & EASEMENT VACATION		
ESCROW #			
DEPARTMENT:	Community Development: Planning Division (Zoning Code)		
TECHNICAL REVIEWER:	Name: Eric Maass, Consultant City Planner Phone: (763) 576-4306 Email: EMAass@wsbeng.com		

Final Plat Review

We offer the following comments regarding the Final Plat submittal for Brookfield 8th Addition as it relates to the City’s Zoning Code. Final Plat submittal consists of two (2) sheets, prepared by E.G. Rud & Sons, Inc. and twelve (twelve) sheets, prepared by Plowe Engineering, both dated January 27, 2017. The proposal includes a request for a Final Plat and Easement Vacation.

Planning Staff provides the following comments that require revision:

Preliminary Plat Sheet

1. The wetland setback is identified as “wetland buffer”. Please revise so that is reads as “Wetland Setback”.

Staff provides the following comments for general review of applications:

General. The Preliminary Plat proposes re-platting Outlot A, Brookfield 2nd Addition and the adjacent parcel to the south (PID No. 09-32-25-44-0017) into twenty-five (25) single family residential lots. All twenty-five (25) of the new lots would be accessed by the extension of 168th Circle NW.

Lot Sizes. The minimum lot size in the R-1 Residential District (MUSA) is 10,800 square feet with a minimum lot width of 80 feet (90 feet for corner lots), measured at the building setback line. City ordinance now also requires that each lot have an area sixty (60) feet wide by one hundred (100) feet deep not encumbered by wetland, wetland setback area, floodway, or other unbuildable areas. Note that lot width is measured at the property line abutting a street at the minimum setback line of the applicable zoning district. The Planning Commission approved variances for lot depth, and a front yard setback of 25 feet.

Setbacks and Dimensional Standards.

MUSA	
Required	Proposed
Front yard: 30 feet	Front yard: 25 feet and 30 feet. Variance granted.
Side yard uninhabitable: 6 feet	Side yard uninhabitable: 6 feet
Side yard habitable: 10 feet	10 feet
Side yard corner lot: 30 feet	Side yard corner lot: 30 feet
Rear yard: 30 feet	Rear yard: 30 feet
Minimum lot width*: 80 feet/corner lot 90 feet	Minimum lot width*: 80 feet

Review File: Brookfield 8th Addition Trail Easement Vacation, and Drainage and Utility Easement Vacation, and Final Plat.
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Lot depth**: 100 feet with a minimum width of 60 feet	Variance granted for substandard lots
Wetland: 16.5 feet	Wetland: 16.5 feet

**Note: Minimum Lot Width is measured at front yard setback line, property must abut built street.*

*** Lot depth required is 100 feet for a width of 60 feet that is not encumbered by wetland, wetland setback area, floodway, or other unbuildable areas.*

Density. The R-1 Residential regulations for the MUSA area allows a net density of 3 units per acre (excluding wetlands and major road rights-of-way). The proposed density is 2.39 units per acre.

Floodplains. There are floodplains within the boundaries of the project area, including both Floodway and Floodfringe. There shall be no fill placed within the Floodway.

The Flood Insurance Study indicates that the flood elevation is 871.5 feet. The lowest floor of any proposed home will need to be at or above the Regulatory Flood Protection Elevation (RFPE), which is one (1) foot above 871.5 feet.

There is floodplain across portions of this site. According to the Flood Profile for Trott Brook, the Floodway elevation is approximately 871.5 feet. An Elevation Certificate will be required for Lots 1-5, Block 1 and Lots 7-12, Block 2, prior to the issuance of a Certificate of Occupancy, to ensure that the lowest floor elevation is at or above the Regulatory Flood Protection Elevation, which is the base flood elevation (871.5 ft) plus one foot of freeboard (State of Minnesota requirement).

Please be advised that individual lot surveys will be required to include the following information above and beyond what is typically shown: Floodplain boundary (with note of no grading within floodway), wetland, and wetland setback.

Wetlands. All wetlands and land within the (16.5) Sixteen and a half foot wetland setback must be encumbered within a drainage and utility easement. This area is shown within such an easement on the Final Plat sheet; however the Preliminary Plat Sheet refers to the Wetland Setback as a Wetland Buffer. *Ensure that all wetland setbacks are identified as "Wetland Setback" rather than "Wetland Buffer".*

Trott Brook. A portion of the lots will back up to Trott Brook, which is a tributary of the Rum River. Thus, the project is subject to the Scenic River Overlay District, which includes a 100 foot setback from the OHW of Trott Brook and has controlled vegetative cutting standards as well. Additionally, lands within 300 feet of the OHW of Trott Brook are subject to Shoreland Management requirements. There is a Conservation and Trail Easement encumbering significant portions of the rear yards of Lots 1-12, Block 2 that will prevent any impervious surfaces or tree/vegetation removal in proximity to Trott Brook.

Tree Preservation. A Tree Inventory and Preservation Plan was submitted and approved as part of the Preliminary Plat. Due to the presence of larger stands of oak trees, the Applicant has added a note regarding tree clearing activities shall occur prior to April 15 or after July 15 to minimize the potential introduction of Oak Wilt to the site on the Grading, Drainage, and Erosion Control Plan as well as the Tree Inventory and Protection Plan. *Provide exhibits for Lots 4-8 & 16, Block 2 and Lot 1, Block 1 (in CAD format or equivalent, but send over as pdf) to illustrate what trees can be removed by a future homeowner.*

Landscaping. Each lot is required to have two (2) front yard trees installed. The plan currently shows the required two (2) front yard trees for each lot. The proposed trees are positioned in the boulevard area to serve as street trees (as spacing permits). Deciduous trees shall be at least one (1) inch in diameter and coniferous trees shall be at least five (5) feet in height. Each lot is subject to the City's topsoil requirement.

Density Transitioning. Lots 1-5, Block 1 are subject to the density transitioning standards found in City Code [Section 117-110](#). It appears that the wetland area in the rear of these lots creates a natural buffer of more than 300 feet between the existing homes in the R-1 Residential (Rural Developing) district. This would satisfy the density transitioning requirements.

Streets and Access. The Preliminary Plat indicates that 168th Circle would be extended to the south and west to serve the twenty-five (25) lots. The Applicant submitted for and received a variance to cul-de-sac length.

Trails. The plans currently show a portion of the existing trail that would run between lots 11 and 12 of Block 2 to be removed and that a replacement trail access is proposed to run between Lots 7 and 8 of Block 2. It will be required that that proposed trail connection be ADA compliant.

Development Fees. Development Fees will be due with the Plat including, but not limited to, Park Dedication, Trail Development, and Stormwater Management. These fees are collected at the time the Final Plat is recorded and at the rate in effect when the plat is recorded. Note that the lots are subject to the Water Main and Sanitary Sewer Cost Contribution/Reimbursement Agreement.

Development Agreement(s): Due to the desire to commence grading and tree clearing activities prior to recording the Plat, there will need to be two (2) separate agreements executed. First, a Grading and Tree Clearing Agreement to address the initial activities. Then, an executed Development Agreement will be required prior to releasing the plat for recording. Each will require a separate surety for the applicable improvements. Each Agreement is still subject to review and approval as to legal form by the City Attorney and review and approval of the Engineer's Estimate for the Stage I Improvements by the City Engineer.

**CITY OF RAMSEY LAND USE APPLICATION
TECHNICAL REVIEW FILE**

DATE	FEBRUARY 24, 2017	PROJECT ADDRESS	WEST OF OLIVINE STREET AT 168 TH CIRCLE
PROJECT. TITLE	BROOKFIELD 8 TH ADDITION		
ESCROW #	115267		
DEPARTMENT:	Engineering		
TECHNICAL REVIEWER:	Name: Leonard Linton Phone: 763 433-9834 Email: llinton@ci.ramsey.mn.us		

The Engineering Department offers the following comments regarding the Final Plat Exhibits for Brookfield 8th Addition. The submittal consists of 23 sheets prepared by E. G. Rud & Sons, Inc. and Plowe Engineering, Inc. dated November 22, 2016, revised January 27, 2017.

General comments:

1. A legend is shown on all sheets. All symbols used on that sheet must be added to the legend for the sheet.
2. Ramsey City Details are included in the set. Some details can be removed from the set as noted below.
3. All sidewalks in public right-of-way must be shown as 6 feet wide and 6 inches thick.
4. Class 5 shall meet the Ramsey modified gradation. This gradation must be included in the details.
5. Plan readability – Proposed sanitary sewer lines and symbols, and watermain lines and symbols must be the most prominent items on the sewer and water sheets. Proposed storm sewer lines and symbols must be the most prominent on the storm sewer sheets. Proposed curb lines, sidewalks and pedestrian ramps must be the most prominent lines on the street sheets. All other lines on the sheet must be screened so the lines and symbols for proposed features stand out. This includes the symbols in the legends which must match the plan view in size, pattern, weight, and color.
6. Underlying lines must be broken where they are under text boxes to enhance readability. Underlying text must be moved so there is not text on text. See Sheet C1.1, Block 2, lots 3 and 4 for example.
7. The 100 year flood elevation for Trott Brook adjacent to the site is 871.5 per the Flood Insurance Study Effective December 15, 2015. All references to FEMA 100 year elevation must be updated.
8. This project will require a stormwater permit from the Lower Rum River Watershed Management Organization (LRRWMO).

9. The LRRWMO requirements are presented at the end of this memo.
10. Add a cover sheet to the plan set with a location map, sheet index and general project information.
11. Add Street/ Storm Sheets to the plan set that show the center line profile, horizontal and vertical curve information. The street width must be dimensioned on these sheets.
12. Move the typical street section to one of the Street/ Storm Sheets.
13. A Demolition Plan must be added to the set showing the removal of the existing bituminous trail. The Surface removals detail on sheet C1.1 must be moved to this sheet.
14. Add match lines and continuation notes to all sheets where part of the street is shown on a different page. Station numbers must be darker in plan view.
15. Each pedestrian ramp requires a specific detail with walk/ trail width, ramp slope, landing pad slope, spot elevations and number of truncated domes.

Sheet Specific Comments:

Final Plat:

Existing easements will need to be vacated and some will need to be rededicated. There is a letter sized sheet stating all easements in Outlot A, Brookfield 2nd Addition will need to be vacated. It is our opinion that the vacation description needs to call out the actual easements to be vacated individually. There is an existing trail that crosses the site that must remain in an easement, and there is a conservation easement that must be maintained.

Lot 1, Block 2 must have a wider drainage easement along the east property line to provide positive drainage away from the existing lift station.

Existing Conditions

1. The existing trail must be shown across the entire lot.

Preliminary Plat

1. The back drainage and utility easements must be adjusted to be above the FEMA 100 year elevation on all lots.

Grading Drainage and Erosion Control Plan

1. As noted above, the FEMA 100 year flood plain elevations must be updated.
2. The typical lot information and the elevations on each house pad must be revised as follows:
 - The elevation at the front of the pad is the actual garage floor elevation.
 - The Elevation of the back of the pad is the floor elevation.
3. Turn off the tree symbols and elevations on this sheet.

4. All floor elevations must be revised to be at least 3 feet above the highest anticipated ground water table, 2 feet above the designated or designed 100-year flood elevation or 1 foot above the nearest emergency overflow, whichever is higher.
5. The Lot Elevation Table must be revised.
6. Positive drainage must be provided across Lot 1, Block 1 from the existing lift station.
7. The bottom of the proposed infiltration basin must be lower than the inlet from the stormwater pond to retain the volume to be infiltrated.
8. Revised notes to state tree protection fence must be hand installed and approved prior to installing silt fence.
9. Add a second sheet for the notes and tables, turn the plan view so that it aligns with the utility plans.
10. The grading sheets must be included with the street and utility plans.
11. Revise General Note 4 to read "City Engineering Department".

C 1.1

1. Check clearance between water services under storm sewer and specify insulation if needed.
2. Add note: "All DIP 6" and smaller shall be Class 53."

C 1.2

1. Existing grade did not plot in profile.
2. Verify dark line at station 11+00 in profile.
3. Break lines under text.
4. Label shaded area on lot 12.
5. Extend MH 5 further south so that sanitary line for lot 16 can be shortened.
6. Connect 8" watermain to watermain under 166th Avenue.
7. Add hydrant at end of line. Add access road to hydrant.

C 1.3

1. Show centerline profiles, existing and proposed.
2. Align plan view of OCS 202 to FES 201 with profile.
3. Revise access drive to existing lift station. Provide minimum 16 foot wide paved access drives to both east and west sides of lift station with 10 foot clearance from infrastructure.
4. Show elevation of trail over proposed storm line between FES 201 and OCS 202.
5. The lift station detail does not provide positive drainage away from the structure. The slabs must be raised to provide positive drainage to the street or a larger easement must be provided on Lot 1, Block 1 so that drainage will flow to the north.

C 1.4

1. Show centerline profiles, existing and proposed.
2. The lift station detail needs to be enlarged to show the proposed drainage matching the grading plan and show where the discharge point is.

C 2.1

1. Correct the plat name in all instances in this sheet. The plat name is “**Brookfield 8th Addition**”.
2. Revise paragraph “... or as directed by the City.” to read “ The City requires a sweeper on site or the ability to have one on site within 3 hours after notification by the City that sweeping is required”

C 2.2

1. The MPCA will be assigning a TMDL for dissolved oxygen to Trott Brook. Information in the SWPPP will need to be revised to reflect this change.

Detail Sheets

1. Add typical section for 168th Circle with dimensions, grades, and pavement section.
2. Remove detail SEW-6.

Stormwater Calculations

A stormwater summary report was provided. The stormwater modeling identifies 3 existing drainage areas and 4 proposed drainage areas. The model routes all flows to a central point for comparison of the flows. The report indicates that the volume reduction required by the LRRWMO for the 10 and 100 year events is achieved. Our review indicates the volume control is not achieved as shown below.

Existing

Area	Description	2 yr.	10 yr.	100 yr.
A1	SE Side	0.48	2.13	6.66
A2	Trott Brook Side	2.18	7.72	22.3
A3	Mitigation Area	0.86	2.24	5.65

Proposed

Area	Description	2 yr.	10 yr.	100 yr.
1	SE Side	0.88	2.56	6.69
2	Trott Brook Back yards	2.68	6.5	15.62
X	"Pond 1 Front Yards and Street"	3.79	6.54	13.42
	Total to Trott Brook	6.47	13.04	29.04
3	Mitigation Area	0.67	1.63	3.91

Difference

Area	Description	2 yr.	10 yr.	100 yr.
1	SE Side	0.4	0.43	0.03
2	Trott Brook Side	4.29	5.32	6.74
3	Mitigation Area	-0.19	-0.61	-1.74
	Net Change in Runoff	4.5	5.14	5.03

The table in the report neglected backyard runoff from Area 2 to Trott Brook. The live storage volume of the pond must be increased and the outlet size decreased to retain more water on site to account for the back roof runoff that is not routed to the pond. The Net Change in Runoff line must be 0 or negative.

The LRRWMO requires volume reduction (infiltration) on all projects. The report states onsite soils in the mitigation area will be removed and replaced with more permeable soils to promote infiltration. Details for the soil replacement must be included in the plans. The Minnesota Pollution Control Agency has produced the free MIDS calculator for evaluating stormwater practices like infiltration. The pond and infiltration basin should be evaluated with the MIDS calculator. The bottom of the infiltration basin must be lower than the elevation of the weir from the pond so that the volume to be infiltrated is retained in the infiltration basin.

The summaries for the 1" rainfall must be added to the Hydrocad report.

Pipe sizing calculations for the 10-year storm have been provided and are approved.

A project manual which includes the bid form, contract and specifications must be submitted with the final plat.

Revised plans which address **all** of these changes must be submitted.