

Staff Report to Council

Engineering Department

FILE: 11-5240-01/22

REPORT DATE: February 28, 2022

MEETING DATE:

March 08, 2022

TO: Mayor and Council

FROM: Alina Torres, Manager of Engineering and Facilities

SUBJECT: **Soil Removal and Fill Deposit Application- 19831 McNeil Road
(ENV00026)**

CHIEF ADMINISTRATIVE OFFICER REVIEW/APPROVAL:



RECOMMENDATION(S):

THAT Council:

- A. Approve the issuance of a Soil Removal and Fill Deposit Permit for 19831 McNeil Road to import 5271 m³ of fill, with the following conditions:
 - A.1 Issuance of a Highway Use Permit for hauling of fill, prohibiting roadside parking or staging; AND
 - A.2 Prohibiting filling activities on Saturdays, Sundays and statutory holidays and restricting operations to the hours between 7:00 a.m. and 5:00 p.m. any other day of the week; AND
 - A.3 Execution and monitoring of Erosion and Sediment Control (ESC) measures as prescribed by Braun Geotechnical Ltd. and as required per provincial best management practices; AND
 - A.4 Implementation of all geotechnical recommendations for site preparation, foundation design and field review as recommended by Braun Geotechnical Ltd.; AND
 - A.5 Approval of the Agricultural Land Commission reconsideration request for ALC Application 61049; AND
 - A.6 Compliance with all relevant legislation and permitting requirements, including municipal, regional, provincial and federal jurisdictions; OR
- B. Other.

PURPOSE

The City has received a Soil Removal and Fill Deposit application to implement geotechnical design recommendations to sufficiently prepare the subgrade soil prior to the construction of a Single Family Dwelling and two Auxiliary Structures.

☐ Information Report

☒ Decision Report

☐ Direction Report

DISCUSSION

Background:

Owner: Balram and Kulwinder Chung

Applicant: Kirat Chung

Civic Address: 19831 McNeil Rd

Property Size: 20238 m² (2.02 ha)

OCP Designation: Agricultural

Zoning: A-1 (General Ag)

The subject property fronts McNeil Road and is located within the Agricultural Land Reserve, situated approximately 50 meters from Fenton Road Slough. The property was purchased by its current owner in June 2020 and does not currently have farm status from B.C. Assessment. An existing dwelling and garage occupy the site; historical imagery data indicates the property has not been farmed since 2014. The current site elevation varies, but averages approximately 1.8m geodetic and is within the City of Pitt Meadows designated flood plain. In August 2020, 818 m³ of fill was deposited on the site without authorization, City staff have worked with the property owner to bring the site into compliance.



Soil Removal and Fill Deposit Proposal:

The purpose of the Proposed Fill Placement Activities is to provide permanent imported structural fill to achieve the required Flood Construction Level (FCL) of 2.45 m, geodetic. A geotechnical investigation concluded that the existing underlying soils on the site are considered compressible; therefore, preloading will be required to pre-compress the soils prior to construction of the dwelling. The following is a summary of the application data:

Application Summary	
Fill Volume	Preload Fill: 2,387 m ³ Structural Fill: 2,884* m ³
Fill Area	2352 m ²
Fill Depth	Preload Fill: 1.9 m Structural Fill: 1 m
Fill type	clean, free draining sand and/or sand and gravel or equivalent with less than 5% fines
Preload Duration	~8 to 12 weeks

* Includes 818 m³ of structural fill that has already been placed- retroactive approval required. If approved, the fill would remain in place.

Qualified Professional reports and plans submitted with the application include:

- Geotechnical Report, Braun Geotechnical Ltd.
- Preload Plan, Braun Geotechnical Ltd.
- Erosion and Sediment control plan, Braun Geotechnical Ltd.
- Riparian Areas Assessment, AquaTerra Environmental Ltd.
- Architectural Plans, I Design Inc

Flood protection:

In accordance with the City's *Floodplain Designation and Construction Control Bylaw No. 2384, 2008*, the designated floodplain for rural areas is 1.85m geodetic datum and the associated FCL is 2.45m geodetic datum.

Agricultural Land Commission (ALC):

The applicant submitted a Non-adhering Residential Use Application to the Agricultural Land Commission (ALC) to retain an existing dwelling to live in while a new dwelling is being constructed; the ALC requires approval from the Municipality having jurisdiction prior to their review. On September 29, 2020, City staff provided Council an overview of the ALC Non-Adhering Residential Use Application for 19831 McNeil Road. The following motion was carried:

That Council:

- Receive for information the Staff Report titled "Agricultural Land Commission Non-Adhering Residential Use Application for 19831 McNeil Road" dated September 11, 2020; and

- B. Direct Staff to forward to the ALC, with a recommendation of support, the application for a non-adhering residential use at 19831 McNeil Road to retain the existing dwelling while a new dwelling is being constructed, subject to:
- B.1 The existing dwelling and detached garage being demolished within 60 days upon completion of the new dwelling; and
 - B.2 Receipt of a \$50,000 bond and a registered second dwelling agreement.

On December 16, 2020, City staff received a decision package from the ALC which permitted the Non-adhering Residential Use; the decision package also captured soil deposit requirements to construct the new dwelling (including retroactive approval of the 818m³ of fill previously deposited). Following the ALC approval on December 16, 2020, there have been adjustments to the purposed area and volume of fill to be imported for the project. As required, the applicant submitted a request for reconsideration from the ALC to allow the additional area and volume of fill. The reconsideration package from the ALC is expected in the coming weeks and will be a condition prior to issuance of the City's Fill Deposit Permit.

Agricultural Advisory Committee (AAC):

The intent of the soil removal and fill deposit works was presented to the Agricultural Advisory Committee with specifics of the application on February 10, 2022. No recommendations were made by the Committee as quorum was not achieved. Committee members participated in a discussion, with the following main themes noted:

- Clarification was requested around the details on the two other structures (Staff noted these are auxiliary structures to the house for the intention of farm use with one being a garage and the other a workshop);
- Confirmation that the applicant does not have farm status (Staff stated that the applicant has confirmed they intend to farm in the future; however, do not currently hold farm status);
- Concerns were raised around the lack of farmable land remaining after the proposed structures have been built;
- Concerns were raised around the site plan and the City's requirement to only have one legal access on the property making it a challenge to access farmland in the rear of the property;
- Concerns were raised around the property remaining residential with no long term intention of farming; and
- Recommendation was made for the owners to consider farming a lighter product such as hay where farm equipment could use the main driveway as an access point without damage.

The applicant attended the ACC meeting and provided a follow up email to address comments made by the committee. See Attachment D.

Archaeological Sites:

According to mapping data made available by the Ministry of Forests, Lands, and Natural Resource Operations, no archaeological sites are identified on the site. It is expected that, if archaeological artifact finds are discovered during the fill process, the contractor would report these finds directly to appropriate provincial authorities.

Relevant Policy, Bylaw or Legislation:

The Soil Removal and Fill Deposit Regulation Bylaw No. 2593, 2013 regulates the placement of fill or the removal of soil or other material on land in the City. If the permit application meets the terms of the Bylaw, Council's authority generally involves modifications of specific conditions (timing, duration, etc).

Note that this Bylaw is currently under review and staff intend to bring proposed amendments to Council for consideration in the next few months. These amendments are likely to include clarity around authority of permit issuance and renewals, exemptions and process, review volume thresholds and levies/fees, requirements for dust mitigation plans and review export of cultivable soil from the City.

The Highway and Traffic Bylaw No. 2836, 2020 regulates traffic and the use of highways and other areas in the City.

Council Policy C030, Geotechnical Report Guidelines, provides information to prospective applicants and their engineering professionals on when geotechnical reports are required and set out the standards and requirements to be addressed in those reports.

Analysis:

Geotechnical:

The following will be undertaken based on the recommendations by the Geotechnical Engineer of Record:

Site Stripping: removal of vegetation, organic soils, and any existing fills to at least 1.5 m horizontally beyond the proposed building footprint areas to expose the underlying natural silt. These materials should also be removed below sidewalks, areas to be paved, and any other settlement sensitive structures. The exposed subgrade should be reviewed by the Geotechnical Engineer prior to placing structural fills.

Structural Fill: Structural fill should consist of clean, free draining sand and/or sand and gravel or equivalent with less than 5% fines (percent passing the #200 sieve). Structural fill should typically be placed and compacted in maximum 300 mm (1 ft) loose lifts with each lift compacted to at least 95% Modified Proctor Density (MPD). Structural fills placed under foundations should extend beyond the edges of the foundations a distance equal to the thickness of confined structural fill.

Preload: Prior to construction, the proposed residential home footprint areas should be preload-surcharged to reduce anticipated settlements resulting from the compression and consolidation due to extra loading. It is understood that the proposed top of slab elevation for the proposed home is El. 3.0 m. For the proposed structures, the preload surcharge should extend to at least 1.3 m above the proposed top of slab elevation (1.9 m above footing level) and should typically extend horizontally to at least 1.5 m beyond the building footprint at this level. During structural fill and preload preparation for the proposed rural home, stripped material should be placed over the accessory buildings' footprints for a nominal preload-surcharge of 1.0 m above existing grade.

Prior to commencing fill placement, a minimum of 5 settlement gauges should be installed for the home. The settlement gauges should then be read at 0, 3, 5, 7, and 14 days after preload placement, and once every two weeks thereafter. A preload duration of 8 to 12 weeks is anticipated. However, the actual preloading duration will be determined based on review and assessment of the settlement gauge data.

Erosion and Sediment Control:

Erosion and Sediment Control measures will be implemented during fill placement and excavation. The implementation and maintenance of erosion and sediment control measures will be monitored and reported on an ongoing basis by the Registered Qualified Professional.

Road and Site Access:

Adequate measures, as described by the Erosion and Sediment Control Qualified Professional of record, must be taken to mitigate tracking of material off the site onto the adjacent roads. Any debris that is conveyed onto the roads must be expeditiously removed.

Access to the subject property is via McNeil Road, which must be approached from the east via Neaves Road. No hauling is permitted on Harris Road between Old Dewdney Trunk Road and McNeil Road as this is not part of the City's truck route.

The applicant is hopeful to complete the hauling activities during the spring of 2022, with hauling estimated to be complete within 1 month. This totals approximately 23 trucks a day (2-3 trucks an hour), based on an average 10m³ truck load. Staff do not foresee an issue with the capacity of our road network, although the City retains the right to monitor and revise the conditions, as needed.

Operations Hours:

The filling would be prohibited on Saturdays, Sundays and statutory holidays and restricted to the hours between 7:00 a.m. to 5:00 p.m. on weekdays.

COUNCIL STRATEGIC PLAN ALIGNMENT

- ☐ Principled Governance ☐ Balanced Economic Prosperity ☐ Corporate Excellence
☐ Community Spirit & Wellbeing ☐ Transportation & Infrastructure Initiatives
☒ Not Applicable
-

FINANCIAL IMPLICATIONS

- ☐ None ☐ Budget Previously Approved ☐ Referral to Business Planning
☒ Other

The City would receive a levy of \$0.50/m³ for the material being exported and imported onto the site. Should the permit be approved, to deposit 4453m³ of structural and preload fill and export 2387 m³ of preload once surcharge is complete, levies of \$3420.00 would be collected into the Transportation Road Levies Reserve. Note that levies have already been received for the initial 818m³ amount deposited.

PUBLIC PARTICIPATION

- ☒ Inform ☐ Consult ☐ Involve ☐ Collaborate ☐ Empower
-

KATZIE FIRST NATION CONSIDERATIONS

Referral ☐ Yes ☒ No

SIGN-OFFS

Written by:

Ashley Seed,
Engineering Technologist

Reviewed by:

Samantha Maki,
Director of Engineering and Operations

ATTACHMENT(S):

- A. Aerial Photo Map
- B. Neighbourhood OCP Map
- C. Preload Plan, Braun Geotechnical Ltd.
- D. Applicant Statement- AAC