

CITY OF WEST KELOWNA DEVELOPMENT VARIANCE PERMIT DVP 19-16

- To: Richard Gravelle and Eva Gravelle 1350 Parkinson Road West Kelowna, BC V1Z 3M6
- 1. This Development Variance Permit is issued subject to compliance with all of the Bylaws of the City of West Kelowna applicable thereto, except as specifically varied or supplemented by this Permit.
- 2. This Permit applies to and only to those lands within the City of West Kelowna described below, and any and all buildings, structures and other developments thereon:

Lot A, DL 3866, ODYD, Plan 32198

- 3. This Permit allows for the construction of a carriage house in a two storey building where the carriage house is permitted to be higher than the peak of the roof of the principle detached dwelling and where the gross floor area is permitted to be greater than 75% of the main floor area of the building as shown on attached Schedule 'A'. Specifically, this Permit varies the following sections of Zoning Bylaw No. 0154:
 - a. S.3.26.5 to allow the roof of the carriage house to be higher than the peak of the roof of the principle detached dwelling;
 - b. S.3.26.6 to allow the gross floor area of the carriage house to be greater than 75% of the main floor area and within a two storey building; and
 - c. S.10.4.5(f).3 to allow a carriage house height of 6.5 m (21.3 ft) to a maximum of 2 storeys where at least one parking stall is provided in the same building.
- 4. This Permit is subject to the following conditions:
 - a. A solid screen consisting of either fencing or hedging with a minimum height of 2.0 m (6.6 ft) must be maintained along the rear and interior side parcel boundaries adjacent to the carriage house and its outdoor amenity space as the subject property maintaining the carriage house abuts a residential and rural area.
 - b. All required parking shall be provided within the legal parcel boundary of the subject property maintaining the carriage house.
 - c. All development must be in accordance with the Structural Foundation Review completed by ROV Consulting Ltd., and dated October 15, 2019. If any retaining walls over 1.2 m in height are required to support the proposed carriage house, the applicant must provide additional drawings to determine if the walls will trigger additional Development Permit or Building Permit requirements.
- 5. The land described herein shall be developed strictly in accordance with the terms and conditions of this Permit and any plans and specifications attached to this Permit, which shall form a part hereof.
- 6. This Permit is not a Building Permit.

AUTHORIZING RESOLUTION NO.			_ PASSED BY THE MUNICIPAL COUNCIL
	,2020.		
ISSUED ON, 2020		, 2020	
			Signed on,
3. F 4. S	ite Plan levation Plan loor Plans olid Barrier Plan tructural Foundation Review		City Clerk











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Structural & Building Energy Engineering



MEMORANDUM

To: Eva Lynn 1350 Parkinson Road West Kelowna BC V1Z 3M6 evalynnfossen@gmail.com Date: Tuesday, 2019-October-15 Project: #7954 Delivered Via: Email

From: Kyle Turnbull

kyle@rovconsulting.ca Subject: Review of Existing Shop Foundation for Proposed Carriage House - 1350 Parkinson Road, West Kelowna

ROV Consulting completed a structural consultation of the existing shop structure at 1350 Parkinson Road on September 25th, 2019. It is our understanding that the owners wish to demolish the existing timber framed component of the structure and to build a new shop with carriage house above on the existing foundation along with an attached covered carport. The building designer plans (by others) are attached. The purpose of the field review was to review the existing foundation and determine if it is adequate for the proposed project. The following report summarizes the findings from the consultation.

1 Observations

From the consultation we were able to determine the following foundation conditions:

- Rear (West) Foundation Wall
 - o footings were not exposed at the time of site visit (assumed to be same as exposed)
 - o foundation Wall 8" wide concrete wall, full height to roof
 - o backfill fully backfilled exterior
 - o frost cover- adequate exterior but unknown interior
- Side (North & South) Foundation Walls
 - o footings were only exposed on south side, assumed to be 16" wide x 6" deep
 - foundation Wall- 8" wide concrete wall, partial height (over 4'-0") with wood pony wall above to roof
 - o backfill- Fully backfilled exterior, 44" deep pool min 4ft from wall (north wall only)
 - o frost cover- Adequate exterior but unknown interior
- Front (East) Foundation Wall
 - footing- was not fully exposed at the time of the site visit (assumed to be same as exposed)
 - foundation Wall- 8" wide concrete wall partial height (less than 4'-0") with wood wall above to roof.

- o backfill- exterior backfill to slab height
- o frost cover- Adequate exterior but unknown interior
- Exterior Retaining Wall extending off the Rear (West Wall) on the South Side of the Building
 - o footing- 10"-12" wide with unknown depth
 - foundation wall- 8" wide concrete, 5'-0" high, no top support, top of wall at approximately same elevation as rear west wall of building
 - o backfill- fully backfilled
 - o frost Cover- no frost cover



Figure 1- Site Plan (Curtesy of Google Maps)

2 Conclusions

The following conclusions have been determined based on the building designer drawings provided. It is important to note that these drawings are preliminary and that the following conclusions made should also be relied on as being preliminary as well.

With the findings from the initial consult described above in mind, the following has been determined:

• Regarding the existing shop foundation walls, it is feasible for the existing foundation to resist the gravity (downward) loads for the new proposed development however due to the limitation of not being able to see the reinforcement (if any exists), we are unable to determine if the rear and side (West, North and South) foundation walls have been designed to adequately resist the exterior soil pressure (and fluid pressure from pool where applicable). In addition, the assumed





size of the footing; based on the exposed footing seen during the site visit, appears to be undersized for the height of the two side (north and south) "unsupported at top" foundation walls.

• Regarding the exterior retaining wall at the south side of the building, we have come to the same conclusion as the three walls discussed above. In addition, if the wall was to be used as part of the storage/stairwell to carriage house, the low side would have to be frost covered to meet the requirements of the authority having jurisdiction (herein referred to as AHJ).

Furthermore, regarding the proposed carport and storage/stairwell to carriage house it is likely that multiple new retaining wall designs will be required. If the proposed project proceeds, ROV can provide retaining wall design and drawing specifications as required.

3 Recommendations

ROV Consulting recommends presenting this letter to the AHJ and determining what requirements they have regarding the proposed project based on this letter. If the requirements of the AHJ result in the proposed development being feasible to proceed, we recommend the following:

- retain roof and floor layouts from a truss/joist supplier
- finalize floor plans based on the requirements of the Authority Having Jurisdiction as well as the roof and floor layouts
- confirm the height of slab relative to footings to determine the frost cover. If frost cover is less than required by the AHJ, discuss alternative methods to frost cover (ex. rigid insulation)
- Retain advice from a qualified builder/surveyor to determine if and where any exterior retaining walls will be required for the proposed attached carport.

If you have any comments or questions, please give us a call.

Sincerely,

Kyle Turnbull, AScT, C.E.T. Structural Engineering Technologist

Reviewed by: Mahdi Yazdinezhad, P.Eng September 12th, 2019





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