

4949-5255 Heather Street and 657-707 West 37th Avenue (Heather Lands)
SOUTH - CONDITIONS OF APPROVAL

Note: If the application is referred to a Public Hearing, these Conditions of Approval will be referenced in the Summary and Recommendations included in the hearing agenda package. Any changes to the conditions approved by Council will be contained in its decision. Applicants are advised to consult the hearing minutes for any changes or additions to these conditions.

PART 1: CONDITIONS OF APPROVAL OF THE FORM OF DEVELOPMENT

Note: Considerations by Council at the Public Hearing of the proposed form of development is in reference to plans prepared by Dialog Design, stamped received October 2, 2020, and provides that the Director of Planning may allow minor alterations to this form of development when considering the detailed scheme of development submitted with development applications.

THAT, prior to approval by Council of the form of development, the applicant shall obtain approval of a development application by the Director of Planning who shall have particular regard to the following:

Urban Design

1.1 Design development to refine massing of towers and buildings to optimize sunlight on the park, and open spaces by the following:

- (a) Shape tower forms with upper storeys sculpted to minimize shadowing.

Note to Applicant: Access to sunlight is a fundamental principle aligned with connection and access to nature. Optimizing solar access to public parks and open space should be prioritized at the Spring and Fall equinox at 10am, noon, 2pm, and 4pm. Slim tower profiles are anticipated maintaining a 6,500 sq. ft. floor plate. ~~This is particularly relevant for building B3 and B2 to minimize shadowing park west of Heather Street right of way and C1 to overall Park.~~ This may also contribute to a more visually striking and recognizable roof form and skyline.

RHA: Noted – massing has been updated to optimize open space on the site.

- ~~(b) Refine massing of B1 podium to minimize podium bulk/massing and shadowing of shared courtyard.~~

~~Note to Applicant: Due to podium location and orientation, partial 8th storey can be reallocated to reinforcing street framing along 35th Avenue as proposed 20m (65.6 ft) separation between B3 and B1 podiums can be lessened. 7th storey should be setback to read as a partial storey if practical.~~

- (c) Generally limit residential floor to floor height to approximately 3m (10 ft.) with an additional 3m (10 ft.) to encourage a sculpted building top or enhanced ceilings at the upper storey and/or ground level.

RHA: noted

Note to Applicant: This is particularly relevant to buildings parcel B and C1 in terms of reducing shadowing impacts to the Park.

~~(d) Step back upper levels of podiums E1 to minimize impacts to the Park.~~

~~Note to Applicant: Strategies for E1 can include reallocating floor area to a higher podium towards the lane.~~

(e) Step back rooftop amenity pavilions from all building edges to minimize appearance from ground level as well as shadowing impacts.

Note to Applicant: Additional height calculated for amenity spaces should be limited to 3.6m.

RHA: Noted

1.2 Design development to support biodiversity and robust rewilding initiatives in the Pollinator Corridor by minimizing hardscaping and private uses within the 5m setback.

RHA: Noted

Note to Applicant: Private patios should primarily be located inset within the building footprint to minimize hardscaped areas anticipated for the Pollinator Corridor. Note a minimum 50% area dedicated to pollinator planting should be calculated per each parcel and within private property. Additionally balcony projections should be sensitively located to minimize impacts to planted areas and ensure parkade is not encroaching into 5m setback. See also Landscape condition #1.11. **dk Response_2024-06-05: individual entries have been eliminated to minimize the impact of hardscape within these pollinator corridors. As mentioned previously, unsure how the pollinator areas are calculated but we should be able to achieve. The balconies and over hangs play minimal impact on the landscape at ground level.**

1.3 Design development to ensure varied and distinctive buildings which reflect a more fine grained residential scale and proportions as well as integrating passive energy strategies into the architectural expression.

RHA: noted – refer to design rationale.

Note to Applicant: Particular attention should be paid to breaking down the massing of buildings exceeding 150 feet in frontage to mitigate the perceived length and providing varied facades. For future design development, consider mass timber construction and passive energy strategies such as window placement and solar shading devices as an integral part of the building design and façade expression.

~~1.4 Design development to A1 podium massing to ensure a more compatible relationship to the neighbouring buildings, enhance street wall framing along 35th Avenue and add presence to site entry point from Cambie Street.~~

~~Note to Applicant: Strategies should include reducing podium height to a maximum 6 storeys, and redistributing density by extending the podium massing to face W. 35th Ave in light of corner site location. The resulting 4 – 6 storey street wall will reinforce the flowing curvature of 35th Avenue and contribute to the character of the Pollinator Corridor. Additional consideration to relocate entry to offset alignment with building B1 parkade access.~~

1.5 Design development to Building F2 to establish a significant and recognizable benchmark of architectural excellence and enhanced public realm consistent with the Heather Lands Design Guidelines, by the following:

- (a) Tower expression to make a significant contribution to the beauty and visual power of the city's skyline while optimizing solar access.
RHA – noted – refer to design rationale.
- (b) Development of terraced podium form to step down in a more informal, flowing and less rigid pattern.

RHA – noted – refer to design rationale.

Note to Applicant: strategy to include reduced massing at upper levels above 8 storeys, introducing varied setbacks as well as to minimize shadowing to courtyards. Architectural expression to demonstrate excellence independent of planted landscape features.

RHA – noted – refer to design rationale.

- (c) Enhance usability of corner plaza to accommodate small gatherings.
dk Response_2024-06-05: this corner is no longer available and therefore cannot be accommodated.

Note to Applicant: This can be achieved with a widened building setback to allow seating arrangements and introduction of commercial use at grade.

- 1.6 Design development to Parcel F, to enhance the use and animation of the courtyard open spaces.

RHA: noted.

Note to Applicant: This can be accomplished by reducing the number of parkade entries where practical or relocate away from the outer edge of courtyards, to replace with patios that offers more animation and social interaction. Other strategies to minimize negative impacts include enclosure, screening, high-quality finishes and landscaping.

- 1.7 **Provision of an updated master public realm plan with each major Development Permit application to include the following:**

- (a) **A conceptual signage plan;**
- (b) A landscape concept plan;
- (c) A comprehensive circulation and wayfinding plan;
- (d) A public art plan, and;
- (e) A building and site lighting plan.

AQ Comments: Noted, we've spoken with our landscape architect to include this in their scope. This is not specifically relevant to the Parcel F DP submission, this is a sitewide comment.

Note to Applicant: The intent of the Public Realm Plan should be to inform all future development applications of individual site-specific responsibilities, and implementation standards with close adherence to the Heather Lands Design Guidelines.

- 1.8 Design development to provide universally accessible pathways and connections to link transit, park, open space, and amenities as well as providing physical and visual linkages to the surrounding community. **dk Response_2024-06-05: Ok.**
- 1.9 Submission of a bird-friendly strategy for the design of the buildings as part of each development permit application. Note to Applicant: Refer to the *Bird-Friendly Design Guidelines* for examples of built features that may be applicable. For more information, see the guidelines at: <http://guidelines.vancouver.ca/B021.pdf>

dk Response_2024-06-05: OK. Included on the cover sheet.

Crime Prevention through Environmental Design (CPTED)

- 1.10 Design development to respond to CPTED principles, including: **RHA:noted**
- (a) Provide natural surveillance throughout pedestrian realm including underground parking, with glazing into publicly accessible areas such as elevator lobbies, and stairs;
 - (b) Reduce opportunities for theft in the underground parking and mail theft;
 - (c) Reduce opportunities for mischief in alcove and vandalism, such as graffiti; and
 - (d) Reduce opportunities for skateboarding in the open spaces. **dk Response_2024-06-05: Yes.**

Landscape Design

- 1.11 Design development to ensure viability of the Pollinator Corridor by the planting of as much native or ecologically adapted species as possible to this region, including plants which represent biodiversity, are important to native wildlife habitat and conducive to rewilding of the native ecosystem. In order to establish rewilding, this should also include plants of variable sizes and heights including large scale forest dominant trees, smaller understory trees and shrubs, lower native plants, native grasses, perennials and groundcovers. **All planting along the Pollinator Corridor should be on parkade-free grade;** (see also Urban Design condition #1.2). **dk Response_2024-06-05: Yes, the majority of the pollinator corridor sits on grade; other areas that sit over slab will be sloped to ensure soil depths are met. Native, bio-diverse planting will be used throughout project.**

- 1.12 Design development to improve and increase porosity of the pedestrian connections, including semi-private open spaces, to ensure access to all residents and public. **dk Response_2024-06-05: Yes.**

Note to Applicant: Currently it appears the semi-private open spaces are not connected to the rest of the pedestrian open space network.

- 1.13 Design development to ensure smooth transitions between the Park, public open spaces, semi-public open spaces and semi-private open spaces by the use of similar hard and soft landscape materials crossing from one space to another. **dk Response_2024-06-05: Yes.**

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- 1.14 Design development to use water as an integrated, sustainable element into the landscape, in as many open spaces as possible, including interpretive signage describing and demonstrating the naturally occurring water cycle.
dk Response_2024-06-05: Ok, requires further development, under whose scope would the interpretive signage fall to?
- 1.15 Design development to improve the sustainability strategy, by the following:
- (a) Use water as an integrated, sustainable element into the landscape, in as many open spaces as possible, including interpretive signage describing and demonstrating the naturally occurring water cycle; dk Response_2024-06-05: OK. This is being discussed internally and requires further development.
 - (b) Explore opportunities to add intensive or extensive green roofs to all available flat roof surfaces; dk Response_2024-06-05: Green roof assemblies have been included on building F1 and F2.
 - (b) Explore opportunities to add additional trees on rooftops for increased canopy cover, to create shade and alleviate urban heat island effect; dk Response_2024-06-05: Smaller trees have been added to building roof amenity decks on buildings F1 and F2.
 - (c) Add substantially more landscape around all entry areas, to accent and soften them; dk Response_2024-06-05: Ok, entries have been softened.
 - (d) Add vines to any blank wall facades, ensuring the vine support is sturdy and low maintenance (avoid high maintenance modular “green wall” systems).
dk Response_2024-06-05: Internal discussions decided a green wall will not be pursued.
 - (e) Add planters with overarching shrubs to common upper level decks, to be visually accessible from below, softening the edges and consisting of woody evergreen plant material for year-round presence; and
dk Response_2024-06-05: Evergreen, and year round interest planting material will be included. Hanging material may not be achievable with planter setback from guardrail.
 - (f) Add as many edible plants as possible, which can be used as ornamentals as part of the landscape design, in addition to urban agriculture plots; (see also Social Policy condition #1.55). dk Response_2024-06-05: noted.
- 1.16 Design development to ensure the intended landscape design is carried into the future by adequate maintenance, as follows:
- (a) Provide common maintenance access to all planted common areas;
dk Response_2024-06-05: Yes. All amenities and green roofs are accessible for maintenance. Refer to architecture layouts for more information.
 - (b) Provide a high efficiency irrigation system for all planted areas; and
dk Response_2024-06-05: Yes.
 - (c) Provide a Landscape Management Plan as legally binding assurance of maintenance of all planted areas which rely on planting for architectural character and expression into the future, including private terraces.

dk Notes: noted

- 1.17 Design development to ensure all residential buildings incorporate an outdoor pet relief area at grade on private land adjacent to a universally accessible building entrance. The pet relief area should be approximately 9 m², located in well lit areas with connections for water and sanitary sewer lines.

Note to Applicant: shared pet relief areas may be considered for multiple buildings within the same development parcel. dk Notes: will need to find a place for this – hopefully can be shared

- 1.18 Design development to the Integrated Rainwater Management Strategy to explore opportunities for onsite rain water infiltration and soil absorption, as follows:

- (a) Maximize natural landscape best management practises;
dk Response_2024-06-05: Yes.
- (b) Minimize the necessity for hidden mechanical water storage;
dk Response_2024-06-05: Mechanical to comment.
- (c) Increase the amount of planting to the rooftop areas, where possible;
dk Response_2024-06-05: Yes.
- (d) Consider linear infiltration bio-swales along property lines, at lower site areas;
dk Response_2024-06-05: Ok. Civil to provide further comment.
- (e) Use permeable paving;
dk Response_2024-06-05: Where applicable.
- (f) Employ treatment chain systems (gravity fed, wherever possible); and
dk Notes: further development required
- (g) Use grading methods to direct water to soil and storage areas.
dk Response_2024-06-05: Yes.

Note to Applicant: Refer to the City of Vancouver Integrated Rainwater Management Plan (I.R.M.P), Vol.1 & 2 for further information. A consulting engineer (subject matter expert) will need to be engaged and early phase soil analysis will be needed. Further comments may be outstanding at the development permit stage.

- 1.19 Provision of plans, plan details and documentation/calculations that support integrated rainwater management, including absorbent landscapes, soil volumes and detention systems, as follows:

dk Response_2024-06-05: Yes. Refer to Civil's RWMP for further details.

- (a) Detailed storm water report with calculations describing how the various best management practices contribute to the quality and quantity targets;
- (b) A separate soil volume overlay plan with schematic grading indicating intent to direct rainwater to infiltration zones; and
- (c) An overlay plan that shows amount and ratio of vegetative cover (green roof), permeable/impermeable hardscaping and notations describing the storage location of rainwater falling on each surface, including roofs.

Note to Applicant: the sustainable summary water balance calculations assume soil volumes are capable of receiving rainwater are only valid if water is directed from hard surfaces to infiltration zones.

Additional Standard Landscape Conditions at the time of DP Application:

- 1.20 Provision of an updated Arborist Report confirming commitment to tree retention, including but not limited to the following:
- (a) Tree reference numbers on the Tree Management Plan;
 - (b) Current recent health conditions of each tree;
 - (c) Detailed tree retention strategy directives, methods of protection, methods of improvements and mitigation measures of trees with “marginal” designation; and
 - (d) Recommendations for future tree maintenance.
RHA – refer to arborist report.

- 1.21 Provision of coordination between Landscape Plan and architectural Site Plan, for most updated information.
RHA: Noted. refer to architectural and landscape plans.

- 1.22 Provision of a detailed Landscape Plan illustrating soft and hard landscaping.

Note to Applicant: The plans should be at 1/8": 1 ft. scale minimum. The Plant list should include the common and botanical name, size and quantity of all existing/ proposed plant material. Plant material should be clearly illustrated on the Plan and keyed to the Plant List. The landscape plan should include the public realm treatment (to the curb) and all existing or proposed street trees, adjoining walkways, surface materials, PMT/Vista transformers and public utilities such as lamp posts, hydro poles, fire hydrants.

dk Response_2024-06-05: Yes.

- 1.23 Provision of detailed **architectural and landscape** cross sections (minimum 1/4" inch scale) through common open spaces, semi-private patio areas and the public realm.

Note to Applicant: the sections should illustrate, the slab design and location, the soil profile, tree root ball, tree canopy and any associated landscaping. For private patios and amenity areas, illustrate and dimension planters on slab, planter sizes (inside dimension), soil, root ball, retaining walls, steps, patios and portions of the adjacent building, such as residential units or amenity rooms.

dk Response_2024-06-05: Yes - provided.

- 1.24 Provision of a “Tree Management Plan” in coordination with updated Arborist Report.

Note to Applicant: It is preferred that the arborist tree management plan become the primary document for tree removal/ protection related matters.

RHA – refer to arborist report – tree management plan sheet 4.

- 1.25 Provision of an arborist “letter of undertaking” to include signatures by the owner, contractor and arborist.

Note to Applicant: the signatures confirm that all parties are aware of the roles and responsibilities and that the project is on track to satisfy the steps and recommendations

outlined by the arborist. For example, advanced planning will be needed to ensure that certain works, such as site supervision checkpoints, are coordinated.

RHA – letter of undertaking not required as trees on site are within the development footprint and have been noted for removal

- 1.26 Coordination for the removal and replacement of street trees.

Note to Applicant: Any City owned tree removals to be confirmed by Engineering and the Park Board. New street trees to be shown and confirmed on the development permit plans, including referenced on Plant List. Contact Engineering (604.871.6131) to confirm tree planting locations and Park Board (604.257.8587) for tree species selection and planting requirements. Provide a notation on the plan as follows, "*Final spacing, quantity and tree species to the satisfaction of the General Manager of Engineering Services.*

New trees must be of good standard, minimum 6cm caliper, and installed with approved root barriers, tree guards and appropriate soil. Root barriers shall be 8 feet long and 18 inches deep. Planting depth of root ball must be below sidewalk grade. Call Park Board for inspection after tree planting completion".

dk Response_2024-06-05: Refer to landscape set cover sheet

- 1.27 Provision of an outdoor Lighting Plan.

dk Response_2024-06-05: Yes – will be provided.

Engineering Services

- 1.28 **All archaeological sites, whether on Provincial Crown or private land (including land under water) that are known or suspected to predate AD 1846, are automatically protected under the Heritage Conservation Act ("HCA") (S.13). Certain sites, including human burials and rock art sites with heritage value, are automatically protected regardless of their age. Shipwrecks and plane wrecks greater than two years of age are also protected under the HCA. The HCA does not distinguish between those archaeological sites which are "intact," (i.e., those sites which are in a pristine, or undisturbed state) and those which are "disturbed" (i.e., those sites which have been subject to alteration, permitted or otherwise). All archaeological sites, regardless of condition, are protected by the HCA, as described above. HCA-protected archaeological sites or objects cannot be disturbed or altered without a permit issued by the**

Archaeology Branch (Ministry of Forests, Lands Natural Resource Operations and Rural Development). It is the developer's responsibility to exercise due diligence to avoid damage to any unrecorded archaeological sites, which are still protected under the HCA.

AQ Comments: Noted. We have completed a chance finds procedure training and will have trained monitors on site when relevant.

- 1.29 Submission of a Key Plan to the City for review and approval prior to submission of any third party utility drawings is required. The review of third party utility service drawings will not be initiated until the Key Plan is defined and achieves the following objectives:
- (a) The Key Plan shall meet the specifications in the City of Vancouver Engineering Design Manual Section 2.4.4 Key Plan <https://vancouver.ca/files/cov/engineering-design-manual.PDF>; and

- (b) All third party service lines to the development is to be shown on the plan (e.g., BC Hydro, Telus, Shaw, etc.) and the applicant is to provide documented acceptance from the third party utilities prior to submitting to the City.

WEL Response: Noted.

Note to Applicant: Use of street for temporary power (e.g., temporary pole, pole mounted transformer or ducting) is to be coordinated with the city well in advance of construction. Requests will be reviewed on a case by case basis with justification provided substantiating need of street space against other alternatives. If street use for temporary power is not approved, alternate means of providing power will need to be proposed. An electrical permit will be required.

- 1.30 **The owner or representative is advised to contact Engineering to acquire the project's permissible street use. Prepare a mitigation plan to minimize street use during excavation & construction (i.e. consideration to the building design or sourcing adjacent private property to construct from) and be aware that a minimum 60 days lead time for any major crane erection / removal or slab pour that requires additional street use beyond the already identified project street use permissions.**

AQ Comments: Noted.

- 1.31 Provision of any gas service to connect directly to the building without any portion of the service connection above grade within the road Right of Way.

WEL Response: Noted.

- 1.32 Provision of construction details to determine ability to meet municipal design standards for shotcrete removal (Street Restoration Manual section 02596 and Encroachment By-law (#4243) section 3A) and access around existing and future utilities adjacent your site. Current construction practices regarding shotcrete shoring removals have put City utilities at risk during removal of encroaching portions of the shoring systems. **Detailed confirmations of these commitments will be sought at the building permit stage with final design achievements certified and confirmed with survey and photographic evidence of removals and protection of adjacent utilities prior to building occupancy. Provision of written acknowledgement of this condition is required. Please contact Engineering Services for details.**

RHA - Noted

- 1.33 Provision of a finalized Transportation Demand Management ("TDM") Plan to the satisfaction of the General Manager of Engineering Services at each Development Permit stage with consideration of the following:
- (a) For each development permit, a detailed TDM Plan meeting the requirements for Large Sites is required; and
- (b) The TDM Plan shall be provided as a separate package with complete information on TDM measures proposed at each subsequent development permit;

Notes to Applicant:

- i) A single TDM measure may count towards multiple land uses if it is usable by each land use;
- ii) TDM points can only be claimed for Public Bike Share (PBS) station(s) located on private property; and
- iii) Refer to Schedule B of the TDM policy for detailed requirements for each measure and development review requirements.

Bunt: TDM Plans will be confirmed for each parcel at the DP stage. One of TDM Plan A, B, C, or D will be provided as per the January 1st, 2024, Parking By-law amendments.

1.34 Subject to the acceptance of an approved TDM Plan, entry into a TDM agreement, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services, which identifies the following:

- (a) Secures provision of funding towards long-term TDM monitoring fund in the amount of \$2 per square metre of gross floor area;
- (b) Secures the provision of TDM measures on the site;
- (c) Permits the City to access and undertake post occupancy monitoring of the TDM measures proposed; and
- (d) Agrees to make reasonable adjustments to the TDM measures as requested by the City, based on the TDM monitoring results.

Bunt: TDM Plans will be confirmed for each parcel at the DP stage. One of TDM Plan A, B, C, or D will be provided as per the January 1st, 2024, Parking By-law amendments.

1.35 Design development to improve the parkade layout and access design and demonstrate compliance with the Parking and Loading Design Supplement to the satisfaction of the General Manager of Engineering Services, including but not limited to:

- (a) Improved interface of the parkade access and street/lane; and
- (b) Eliminate any proposed off-set driveway configurations.

Note to Applicant: Driveways should be sited to ensure sufficient sight distances (intersection and stopping sight distances). Provision of updated detailed operational and sightline review to support the proposed driveway accesses is required. The sightline analyses in the updated TAMS dated September 2021 did not include intersection sight distance (ISD) review and operational impact of queue overflows to the access point from adjacent intersections. Driveway spacing shall also be considered.

Bunt: Stopping sight distance (SSD) analyses were conducted at each of the driveway accesses to ensure that sufficient sightlines are maintained to avoid collisions. Intersection

Sight Distance (ISD) ensures that vehicles travelling along the main roadway can maintain up to 70% of their original speeds when a vehicle exits the driveway. While meeting ISD is desirable, it is not required to achieve safe operations, which is dictated by SSD. Given its considerable length, ISD is difficult to meet within an urban environment due to sightline restrictions created by parked cars, fencing, power poles, signage, vegetation, etc. As such, SSD is considered the critical parameter for the Rezoning phase. ISD could be reviewed as part of the DP phase for each parcel where appropriate.

Updated sightline exhibits to show 95th percentile queues (total long-term network PM peak queues modelled in SimTraffic) at adjacent intersections. It is anticipated that delays may occur where 95th percentile queues spill back past the driveways; however, this could be mitigated by shifting driveway locations and/or modifying on-site traffic controls at the site accesses, to be reviewed in further detail during the DP design development phase.

A minimum of 6.0 to 7.5 m spacing between driveways will be maintained where parallel parking is desirable between driveways. A minimum spacing of 20 m will be provided between driveways and collector roads. Detailed design and review will occur during the DP phase for each parcel.

~~Proposed access to Parcel B needs additional refinement as the location appears to be too close to the intersection of Manson Street / 37th Avenue.~~

1.36 Design development to improve access and design of loading spaces and demonstrate compliance with the Parking and Loading Design Supplement by performing the following:

(a) Review of the horizontal swept paths of the largest commercial trucks servicing the site accessing to and departing from the loading bays;

Bunt: WB12 turning paths were reviewed after the TAMS submission; however, further design refinement was determined to be required. Loading bays to be designed on-site (i.e., no on-street loading will occur, and vehicles will drive front-in and front-out of the site) and turning paths to be confirmed during the DP phase for each parcel. – refer to BUNT sightlines PDF- 20240617_04-23-0198_HL-ParcelF_SightlineAssessment_V01_RZ CONDITION 1-36.pdf

~~(b) If the proposed loading space(s) is located below grade, the following will be required: and~~

~~(i) Review of the vertical swept paths;~~

~~(ii) Provision of access ramps not exceeding 10% slope; and~~

~~(iii) Provision of the Parking Bylaw required minimum vertical clearance along the access path(s).~~

(c) Provision off-street turnaround space for the largest service vehicles.

Note to Applicant: No vehicle will be allowed to reverse to/from a City street to access a loading area except for a loading bay(s) fronting a lane.

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- 1.37 Provision of the following information as part of the drawing submission at the development permit stage to facilitate a complete Transportation review:
- (a) A complete tech table is required showing the calculations for the minimum required parking, loading, bicycle spaces and the number of spaces being provided;
 - (b) All types of parking and loading spaces individually numbered and labelled;
 - (c) Dimension of any/all column encroachments into parking stalls;
 - (d) Identification of all columns in the parking layouts;
 - (e) Dimensions for typical parking spaces;
 - (f) Dimensions of additional setbacks for parking spaces due to columns and walls;
 - (g) Dimensions of maneuvering aisles and the drive aisles at the parkade entrance and all gates;
 - (h) Section drawings showing elevations and minimum vertical clearances for parking levels, loading bays, ramps, and security gates;

Note to Applicant: These clearances must consider mechanical projections and built obstructions.
 - (i) Details on the ramp/parkade warning and/or signal systems and locations of lights, signs and detection devices to be shown on the plans;
 - (j) Areas of minimum vertical clearances labelled on parking levels;
 - (k) Design elevations on both sides of the ramps and drive aisles at all breakpoints, loading bays, disability spaces, and at all entrances;

Note to Applicant: The slope and length of the ramped sections at all breakpoints to be shown on the submitted drawings.
 - (l) Indication of the stair-free access route from the Class A bicycle spaces to reach the outside;

Note to Applicant: Stair ramps are not generally acceptable.
 - (m) Existing street furniture including bus stops, benches etc. to be shown on plans; and
 - (n) The location of all poles and guy wires to be shown on the site plan.
- 1.38 Confirmation that gates/doors are not to swing more than 0.3 m (1.0 ft.) over the property lines or into the statutory right of way (SRW) area.
- 1.39 **Prior to the issuance** of the first development permit, a draft final **site-wide Rainwater Management Plan ("RWMP")** that details how the onsite rainwater management system meets the volume reduction, release rate and water quality requirements shall be submitted

to the satisfaction of the General Manager of Engineering Services, including and clearly indicating the following:

AQ Comments: RWMP submitted already, waiting for comments from the city. All rainwater comments have been addressed from AQ's perspective.

(a) General requirements:

- (i) Ensure design is coordinated and feasible particularly at locations with multiple proposed uses that may be competing or conflicting;

WEL Response: On-lot RWMP design for Parcel F is coordinated and the measures used (Green Roof and In-situ infiltration) are feasible.

- (ii) Ensure the site wide RWMP meets or exceeds all rainwater management requirements at each proposed phase of development;

Note to Applicant: Interim condition of substandard performance at any phase is not permitted.

WEL Response: The RWMP requirements are met by using Tier 1 measures only (Green Roof and In-situ infiltration). Any Tier 2 or Tier 3 capture measures are not required.

- (iii) Setback requirement: all infiltrating features should provide 5 metres offset from the building foundation and 3 metres offset from the water main. Check the City's Design Guidelines and Construction Standards for offset from other utilities to ensure compliance. Allowing adequate setback minimizes the impact of infiltration to the adjacent utilities and infrastructure;

WEL Response: The location of the infiltration features is 5.0m away from the building foundation and 3.0m offset from the water main.

- (iv) Limits of the Building Foundation for each building should be shown along with the measured offset to the edge of each proposed infiltration practice;

WEL Response: The limits of the Building Foundation will be shown along with the measured offset to the edge of each infiltration feature.

- (v) Maximum drawdown time of 72 hours for subsurface infiltration (rock reservoir layer) practice;

WEL Response: The maximum drawdown time for proposed infiltration feature is 72 hours.

- (vi) Maximum drawdown time shall be 24 hours for surface ponding depth of

proposed best management practices;

WEL Response: N.A.

- (vii) Maximum depth of surface ponding should be limited to 300 mm wherever possible. Depth may increase up to maximum amount of 450 mm if additional considerations are incorporated into the design. These include safety (possible fencing required, reduce maximum side slope to 3:1 or less), erosion and scour (reduce maximum side slides to 3:1 or less), emergency access (not allowed at any potential emergency excavation or access route). See also Parks condition #1.70;

WEL Response: N.A.

- (viii) Modelling parameters and assumptions were not reviewed at Rezoning;

WEL Response: Modelling parameters and assumptions will be provided with the Detailed Design drawings.

- (ix) Proposed culverts and/or sewer crossings between private and public parcels as well as proposed ditches may need to be sized for the major system. Further coordination with the City is required;

WEL Response: N.A.

- (x) Supporting information for the proposed design infiltration rates to be provided by a Qualified Professional. Rates should be supported by percolation testing at the appropriate depth and locations;

WEL Response: Soil profiles and infiltration test results were provided by GeoPacific Consultants dated May 03, 2023 and will be provided with the Detailed Design drawings.

- (xi) Bottom of infiltration practices at private development and civic building parcels shall not be placed directly above compacted engineered fill;

WEL Response: The bottom of the infiltration features will be placed above uncompacted native ground.

- (xii) Consideration for adequate access to various components of the rainwater management systems must be incorporated into the design. Personnel, vehicular or specialized machinery access may be required for maintenance, operation and inspection purposes; and

WEL Response: The components of the rainwater management system which require maintenance and regular inspections will be placed where specialized machinery access is possible.

- (xiii) Design to ensure minimum of one independent storm service connection for direct discharge to the City's system is provided for each parcel. Requests for additional storm service connections for individual parcel may be permitted if necessary due to local site constraints. Proposed number and location of all connections for each parcel shall be clearly shown and summarized in site wide RWMP.

WEL Response: Parcel F requires one storm service connection for direct discharge to City's sewer system.

- (b) Volume reduction requirements:

- (i) Calculation of any detention tank volume to equal the greater of either the pre-development peak flow storage volume or the amount of the 24 mm rainfall not captured in Tier 1 & Tier 2 practices for private development parcels and school parcel;

WEL Response: We do not anticipate the need for any detention tanks. The RWMP requirements are met by using Tier 1 measures only.

- (ii) With the exception of rainwater reuse/harvesting systems, all proposed best management practices should infiltrate, evaporate and/or slowly release the target depth of rainwater within a 24 hour period ; and

WEL Response: The proposed best management practices meet the above requirements.

- (iii) Proposed rainwater management plan shall be consistent with accepted design guidelines.

WEL Response: The proposed rainwater management plan is consistent with City's design guidelines.

- (c) Water quality requirements:

- (i) Runoff from the roof area cannot be considered clean. Treatment up to the first 24 mm of rainfall to remove 80% total suspended solids ("TSS") by mass prior to discharge from the site is still required similar to other low pollutant loading surfaces;

WEL Response: The treatment to remove 80% TSS from the roof runoff will be done by using a Stormceptor.

- (ii) Green roofs are recognized to provide 80% TSS removal if sized to accommodate the full 24 mm of contributing runoff within the soil media. Please use rainfall storage of 8-18% of soil volume as per Volume 2 of the City

of Vancouver's Best Management Practice Toolkit dated March 2016; and

WEL Response: N.A.

- (iii) Depth of soil media and base area of rain gardens should be sized for contributing runoff. Maximum Impervious to Pervious (I/P) ratio shall be 20:1 for all private development parcels.

WEL Response: N.A.

- (d) Release rate requirements:

- (i) Peak flow calculations to use 1:10 year return period. Minimum inlet time = 5 minutes. Ensure that the pre-development calculation uses the 2014 IDF curve values and the post-development calculation uses the 2100 IDF curve value;

WEL Response: The correct IDF curves have been used to determine the peak flow.

- (ii) Minimum inlet time of 5 minutes for each catchment but additional flow travel time may be estimated using an appropriate formula based on the catchment properties (overland vs channel flow, etc.);

WEL Response: Travel time calculated is insignificant and therefore was not added to the time of concentration.

- (iii) Peak flow control is required at every proposed Site Outlet ("storm service connections"). Pre-development and post-development catchments should be provided with respect to the proposed site outlets. For areas where flow attenuation is not feasible for a given Site Outlet, it should be clearly indicated as a sub-catchment in the applicable plan/figure/drawing. More stringent flow attenuation would be required in the remaining sub-catchments to compensate in such circumstances;

WEL Response: The peak flow will be controlled by using a flow control manhole with the size of the orifice determined by the pre-development flows.

- (iv) All rainwater should drain by gravity for capture, treatment and discharge offsite;

WEL Response: Rainwater system used to capture, treat, and discharge to City's sewer is by gravity only.

- (v) Design considerations for emergency overflow/bypass mechanism for events greater than the 1:10 year return period in the design of the each best management practice is necessary; and

WEL Response: The proposed flow control manhole has an emergency overflow.

- (vi) Confirm if there are any external drainage catchments entering the site and if so they should be described and shown in relevant site plans as part of the rainwater management plan. Runoff from external catchments need to be properly accommodated or bypassed as part of the proposed design in post development conditions.

WEL Response: There are no external catchments entering the site.

Note to Applicant: As it is acknowledged that not all design components are advanced fully at this stage, placeholders will be accepted in this resubmission with the expectation the final report will include all relevant details.

The applicant may schedule a meeting with Rainwater Management Review group prior to moving forward with the RWMP to address any concerns or questions related to the conditions or comments prior to resubmission with the DP application. To schedule the meeting, contact rainwater@vancouver.ca.

- 1.40 Provision of Rainwater Management Agreement(s) to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services to restrict the issuance of Development, Building, and Occupancy Permits, describe the Owner's post occupancy requirements, and provide the necessary rights of ways for any Rainwater Management System(s). **AQ Comments: Noted – a RWM Agreement has been circulated by the city for our Presentation Centre project and will work as a template for this DP.**
- 1.41 Provision of cost sharing agreement(s) between private property parcel(s) Owner(s) and the City where rainwater from private property is proposed to be managed within the City's right of way or property boundary to the satisfaction of the General Manager of Engineering Services and Director of Legal Services to describe the appropriate amount and frequency of payment to the City for the long term maintenance and operation of the shared rainwater management system.

AQ Comments: This strategy is no longer being considered. No cost sharing required.

Note to Applicant: There may need to be additional description of contingencies and obligations to continue to meet rainwater performance requirements solely within the Owner's own property boundary should the agreement ever be dissolved in the future. See also Enactment Condition #2.7.

- 1.42 Provision of a draft final RWMP **prior to DP issuance** for any individual parcel.

Note to Applicant: The draft final RWMP submitted at DP stage for any future parcel level submission will, along with achieving the objectives outlined for the site-wide RWMP, achieve the following:

- (a) For any future DPs submitted for individual parcels on this large site, each must demonstrate how that site area or phase contributes to the overall site-wide Rainwater Management Plan. Each subsequent DP submission will also include an updated overall site plan with details provided for that phase or site area. Clearly demonstrate how the proposed Parcel RWM system design is consistent with the site-wide RWMP report and that relevant rainwater management targets have been met;

WEL Response: Noted.

- (b) Provide a servicing plan which includes all routing of rainwater into the proposed systems and out to the municipal system; and

WEL Response: Noted.

- (c) Provide draft final detailed drawings of all proposed rainwater management systems including but not limited to, dimensions, inverts, stage-storage-discharge characteristics, design criteria and all assumptions.

WEL Response: Noted.

- 1.43 Provision of a final RWMP for each Parcel prior to the issuance of any future building permit for the construction of any building, which includes a written report, supporting calculations, computer models and drawings to the satisfaction of the General Manager of Engineering Services.

WEL Response: Noted.

- 1.44 Provision of a final Operation & Maintenance (“O&M”) Manual for each parcel for all rainwater systems to the satisfaction of the General Manager of Engineering Services.

Note to Applicant: The O&M Manual shall be tailored specifically for the rainwater management practices proposed to meet on-site requirements and submitted as a standalone document prior to the issuance of any building permit.

WEL Response: Noted.

Green Infrastructure Rezoning Conditions (Public Realm)

Prior to the issuance of each development permit, the design and construction of green rainwater infrastructure (“GRI”) shall be reviewed and approved to the satisfaction of the General Manager of Engineering Services, unless stated otherwise, clearly indicating:

- 1.45 Provision of the following GRI design target and setback requirements:

- (a) Public Realm Rainwater Management Target: To treat and retain 48 mm of rainwater in any 24hr event (or 90% of average annual rainfall) to the greatest extent practicable, as specified in the Rain City Strategy and Cambie Corridor Public Realm Plan; and
- (b) Setback Requirement: All infiltrating GRI features should provide 5m offset from the building foundation, unless a site-specific geotechnical report proves that the offset can be safely reduced and all infiltrating GRI features should provide 3m offset from the existing and proposed water main.

Note to Applicant: Check the City’s Design Guidelines and Construction Standards for offset from other utilities to ensure compliance. Allowing adequate setback minimizes the impact of infiltration to the adjacent utilities and infrastructure.

WEL Response: WEL design complies with the Rain City Strategy, Cambie Corridor Public Realm Plan and CoV's Engineering Design Manual.

1.46 Confirmation of GRI measures including provision of the following:

- (a) Incorporation of the following for GRI measures located in the Rights of Way ("ROW") and laneway for public realm rainwater management:
- (i) Bioretention (i.e. rain garden) is recommended on W. 35th Ave as a pollinator corridor, and at the north portion of the New Commercial St. near the Cultural Centre;

Note to Applicant: Bioretention can be a linear feature in the street boulevard or in the curb bulges at a road intersection.
 - (ii) On Heather St. (between W. 33rd Ave and W. 35th Ave), New Commercial St. (south portion), Baillie St. and Manson St., and W. 37th Ave, minimize the number of bioretentions where possible;

Note to Applicant: Explore alternative subsurface GRI options, such as stormwater tree trenches, to reduce future maintenance efforts undertaken by the City. Stormwater tree trenches can be designed with soil cells or structural soil placed under the sidewalk or bike lane to manage rainwater and to enhance soil volume in support of healthy trees. Refer to the Engineering Design Manual Section 9.3.3 to meet minimum soil volume requirement for street trees;
 - (iii) For the Heather St. Greenway (section of Heather St. between of W. 35th Ave and W. 37th Ave), use bioretention (i.e. rain garden) to manage rainwater,, where possible;
 - (iv) For sections of W. 33rd and W. 37th Aves where street improvements will be implemented by the City, include provision for 100% funding for future construction of GRI to meet the public realm rainwater management target and for sections of W. 33rd and W. 37th Aves where street improvements will be implemented by the developer, include provision for construction of GRI to meet the public realm rainwater management target;

Note to Applicant: Coordination is required with Transportation Planning Branch.
 - (v) For Cambie St. at the W. 37th Ave intersection where the center median will be closed, provision for the construction of, or full funding for green infrastructure, and green infrastructure themed educational parklet/node with elements, as per the Cambie Corridor Public Realm Plan Figure 3.7.4 a & b, all to the satisfaction of the General Manager of Engineering Services;
 - (vi) Use permeable pavement to manage rainwater in all laneways; and Note to Applicant: The permeable pavement should provide equal performance and design life as the pavement structure specified by City's Street Design Branch.

- (vii) Provision of an infiltration gallery under laneway parcel S2 (refer to Figure 8 of the RWMP).

Note to Applicant: The gallery will be constructed with load bearing modular stormwater system (or equivalent). It receives direct rainfall from the permeable laneway surface, and inflow from proposed storm sewer pipe 3 (refer to Figure 8 of the Rainwater Management Plan). The gallery infiltrates, attenuates and conveys rainwater before overflowing to the downstream drainage system on W. 33rd Ave. The proposed infiltration gallery is a pilot project that supports the vision of sustainable large development by providing innovative infrastructure solutions and technologies. It eliminates the need for the proposed storm sewer pipe 1, and takes advantage of the good infiltration potential of the site to reduce rainwater discharge to the downstream sewer system.

WEL Response: All the above items have been incorporated in the WEL design.

- (b) 48 mm rainwater treatment and retention for W. 37th Ave east of Heather St. (sub-catchment S14) frontage from the property line to the road centreline in addition to the proposed GRI in the RWMP;

WEL Response: Done.

- (c) Updated GRI type, location, and layout design to ensure consistency in the overall frontage design by coordinating the latest geometric design provided by the City's Transportation Design Branch and latest Landscaping Plan and Tree Management Plan mentioned design/plan to ensure consistency in the overall frontage design;

WEL Response: WEL design complies with the latest geometric design, Landscaping Plan and Tree Management Plan.

- (d) Detailed GRI design and supporting documents for each proposed GRI, including catchment delineation, treatment and capture volume calculation, plan and section views, catch basin connection detail, planting plan, etc.;

Note to Applicant: Site specific infiltration test result is required to support the design. Submissions will be reviewed by the City's Green Infrastructure Implementation branch for approval.

WEL Response: WEL will provide supporting documents for each lot.

- (e) A phasing plan for the proposed GRI and Erosion Sediment Control ("ESC") procedures for GRI protection during construction; and

WEL Response: Noted.

Note to Applicant: Operating and maintenance ("O&M") procedures should be submitted to guide City's long term operation and maintenance efforts.

- (f) Acknowledgment that GRI features in the ROW will prioritize managing rainwater from the ROW surface.

Note to Applicant: It is not recommended to direct on-site rainwater to GRI in the ROW due to limited space and capacity. If such an option is proposed, it is subject to the City's review and approval on a case by case basis. The City requires provision of funding to support future operation and maintenance of the GRI.

WEL Response: Rainwater from on-site is not directed to GRI in the ROW.

Note to Applicant: Green Infrastructure Implementation Branch is developing draft standard drawings and specs for bioretention and stormwater tree trenches. They can be made available to the consultants upon request.

- 1.47 Incorporation of the following for GRI measures located in parks and Heather Street Greenway for public realm rainwater management:

- (a) Heather St. Greenway will prioritize managing rainwater from parcel S11;

Note to Applicant: The feasibility of receiving additional on-parcel rainwater from sub-catchments S17 and S19 is to be studied. GRI design should consider the offset requirement for the existing underground water main, sewer main and building foundation. There is an additional proposed water transmission main under Heather St., refer to City water main preliminary design drawing for Heather St – W33rd Ave to W41st Ave. Coordinate with Transportation Design branch to obtain the latest data on street and bike lane alignment.

WEL Response: Done.

- (b) Rainwater from sub-catchments S17 and S19 cannot be directed to GRI features on W. 35th Ave (e.g. S24-1 and S24-2);

WEL Response: Done.

- (c) Management of on-site rainwater in the park south of 35th Ave (Phase 2) to the satisfaction of the General Manager of the Park Board;

WEL Response: Noted.

- (d) Detailed GRI design and supporting documents for each proposed GRI, including catchment delineation, treatment and capture volume calculation, plan and section views, catch basin connection detail, planting plan, etc.;

WEL Response: WEL will provide supporting documents for each GRI.

Note to Applicant: Site specific infiltration test result is required to support the design. Submissions will be reviewed by the City's Green Infrastructure Implementation branch for approval.

-
- (e) Prepare phasing plan and ESC procedures for the proposed GRI protection during construction;
WEL Response: Noted.
 - (f) Provide O&M procedures and clarify ownership and the party responsible for the long term operation and maintenance of the proposed GRI.
WEL Response: Noted.

1.48 Provision of the following updated revisions to the draft RWMP which includes:

- (a) Show horizontal distance from the edge of the proposed rain gardens in parcel S3, S10, and S11 to the adjacent building foundation and ensure adequate offsets (5m) are met; **WEL Response: Noted.**
- (b) Confirmation that permeable laneway design considerations (similar to section 5.1 for rain garden) support capture volumes shown in Table 4; and
WEL Response: Noted.
- (c) Confirmation of no utility conflicts for all proposed GRI.

Note to Applicant: In Figure 5, the detention rain garden in parcel S11 may be in conflict with an existing water main running under Heather Street.

WEL Response: The bioswale on Heather Street Greenway has been shifted west to avoid conflict with the utility corridor.

Note to Applicant: For further information, contact Green Infrastructure Implementation Branch at ESRGGIIDL@vancouver.ca

1.49 Provision of a Final Hydrogeological Study, prior to issuance of each Development Permit, to the satisfaction of the General Manager of Engineering Services, that meets the requirements of the Groundwater Management Bulletin, and includes:

- (a) A Groundwater Management Plan that meets the Bulletin requirements, and outlines how the permanent discharge of groundwater to the sewer system will be avoided;

Note to Applicant the discharge rates provided in Table 1 of the Preliminary Hydrogeological Report (dated Feb, 2021) will not be permitted to enter the City drainage system.

A groundwater management plan consisting of waterproofing and strengthening the portion of the foundations and elevator pits extending below the water table, as proposed in the Preliminary Hydrogeological Report, is acceptable.

A permanent groundwater management plan consisting of the use of a cut off wall for groundwater control may also be acceptable but would result in discharge to the City drainage system. Should this approach be considered, its approval will be contingent on further City review prior to development permit. In this case, the consultant must provide anticipated flow rates for each building.

The impact of proposed cut off walls on regional groundwater flow must also be considered as part of an impact assessment.

Construction-related discharge to the sewer must be measured, and reported to the City. This monitoring must include daily average flow rates, and be submitted monthly to groundwater@vancouver.ca. A hold will be placed on the Building Permit; to lift the hold, provide an anticipated start date for excavation, and the contact details for the professional services that have been retained to conduct this monitoring, to groundwater@vancouver.ca.

GeoPacific Response for section (a):

It should be noted that GeoPacific did not prepare the report discussed above and that the findings of this preliminary report by others will be superseded by phase-specific investigations being completed at the wider Heather Lands Development Site. To-date, GeoPacific have completed geotechnical and hydrogeological investigations for specific development parcels (namely Parcel A, Parcel B and Parcel F), including detailed groundwater management plans. A site-wide summary report, suitable to support a rezoning application, was also completed by GeoPacific. It is likely that the designs discussed in the above report, prepared by Piteau, is outdated.

Additionally, GeoPacific were provided groundwater well and groundwater level data from the Environmental Consultant for the project (PGL Development). The groundwater data, provided by PGL, confirms our groundwater level data for wells installed at Parcel -A, -B and -C. The measured groundwater level is typically 20 m below existing site grades, with shallower wells observed to be dry. Thus, the discussion above pertaining to tanking and groundwater cut-off wall is not relevant to the site conditions observed and the latest design intention. Though, this will be reviewed on a phased basis. We note that tanking would likely be required for any parkade that extends below the static water level.

- (b) A Groundwater Impact Assessment, that meets the requirements of the

Groundwater Management Bulletin, and includes the potential impacts of any low-carbon energy options involving groundwater (e.g. Concept 2), which includes:

- (i) Groundwater modelling that assesses the impacts to the groundwater conditions in the surrounding area. This should include the impacts from low-carbon energy options involving groundwater, as well as the impacts of on-site infiltration;

GeoPacific Response - It is our (GeoPacific) understanding that low-carbon energy options involving groundwater are no longer being considered for the project.

On-site infiltration is proposed across the site, to manage rainwater. A detailed review is required to assess the net change in pervious area from the pre-construction condition. This study will be prepared under a separate cover, with information provided from the wider design team (such as the civil consultant preparing the rainwater management plan).

Note to Applicant: Heather Lands is an important recharge area for the Quadra Sands Aquifer. Additionally, there are several current and future groundwater users in the area (e.g. Oakridge). As a result, a very high level of care is required in the design of Concept 2.

- (ii) Significant green infrastructure is being proposed for the site. The impacts of infiltration local groundwater flow have not been considered. There is significant increase in infiltration on site from pre-development to post-development.

GeoPacific Response - As mentioned above, a separate cover will be prepared to address the potential impacts of increased surface water infiltration at the site.

- (iii) Analysis related to the potential for groundwater contaminant transport; and

RHA – NOTED: This comment will be addressed by the Environmental Consultant

- (iv) An assessment of the potential for thermal impacts to groundwater (e.g. warming of groundwater) offsite due to the low-carbon energy options involving groundwater being considered (e.g. Concept 2), including any associated impacts to down-gradient receptors. This analysis should include recommendations for how such thermal impacts will be monitored and mitigated (if applicable).

Note to Applicant: Concept 2 may require water use authorization from the Province under the *Water Sustainability Act*. The applicant is advised to contact the Province as soon as possible due to the lengthy approval process.

The Piteau report referenced in KWL's August 2020 memo detailing the hydrogeological concerns for Concept 2 is required for a more detailed review. The technical memorandum authored by Piteau (dated February 2, 2021) does not address Concept 2.

GeoPacific Response - As mentioned above, we understand that this concept is not proceeding further.

- 1.50 Provision and confirmation of the following are required in order for Engineering to support plant materials on the street Rights of Way:
- (a) All plant material within the same continuous planting area which is located on street Rights of Way within 10.0 m (32.8 ft.), measured from the corner of an intersection, pedestrian crossing, entrance to a driveway or other conflict areas, shall not exceed a mature height of 0.6 m (2 ft.), measured from the sidewalk;
 - (b) All plant material within the street Right of Way that is located outside of the areas described in the bullet above shall not exceed a mature height of 1.0 m (3.3 ft.), measured from the sidewalk;
 - (c) Plants shall be planted in such a way as to not encroach on the sidewalk, street, lane, and/or bike lane and shall provide a minimum 0.45 m (1.5 ft.) buffer of low groundcover or sod grass for plantings adjacent to sidewalks;
 - (d) No permanent irrigation system shall be installed in the street Right of Way; and
 - (e) All planting on street Rights of Way are to be maintained by the adjacent property owner.
- dk Response_2024-06-05: Yes to all the above**

Note to Applicant: Refer to City of Vancouver Boulevard Gardening Guidelines for more information on boulevard planting.

- 1.51 **Provision of waste minimization and waste diversion as per the *Rezoning Policy for Sustainable Large Developments*. Section F of the Policy outlines a list of zero waste**

requirements which must be met for this site, including the following:

- (a) Adequate space for collection bins and zero waste initiatives in buildings (F.3.1), with mandatory requirements for Zero Waste Initiatives including the following:
 - (i) Solid waste storage amenities must be no more than one storey below grade and must be designed to ensure all waste collection day activities occur onsite, as opposed to placing bins onto City property for collection;
 - (ii) The size of storage rooms must be in compliance with the guidelines set out in the Garbage and Recycling Storage Amenity Design Supplement allowing a sufficient number of carts/containers to meet the needs of the entire building;
 - (iii) The space allotted must exceed the minimum set out in the guidelines to allow for waste diversion programs to ensure items banned from garbage are not put in garbage (e.g. electronics, foam packaging); and
 - (iv) There must be an infrastructure and maintenance plan to maintain a litter-free environment in exterior areas (e.g. public sidewalks and paths).
- (b) Occupant/Public communication and education program required (F.3.2), including a minimum of three items from the Occupant/Public Education and Outreach Actions list under the Sustainable Large Developments Administrative Bulletin;
- (c) Additional Zero Waste Actions: Recycling, Organics and Waste Collection Systems (F.3.3) – Buildings must incorporate zero waste efforts beyond the provision of standard recycling bins; and

Note to Applicant: The applicant must show how they plan to meet this objective by choosing and implementing as least seven initiatives from a list of 18 items under the Bulletin.

- (d) Post Occupancy Plan Implementation Report Plan (F.3.4) – the applicant must acknowledge intent to provide a Plan Implementation Report within 18 months post occupancy, with details regarding who will be responsible for submitting.

Note to Applicant: Staff acknowledge that the applicant has provided a preliminary waste management plan to meet the above requirements 1 to 3. The submission will be further reviewed during the development permit application stage.

- 1.52 Arrangements shall be made to the satisfaction of the General Manager of Engineering Services and Director of Legal Services for a site-wide Solid Waste Reporting Covenant prior to the issuance of the first development permit.

AQ Comments: AQ has engaged in preliminary discussions for waste management services and will submit detailed plans later. Not a Parcel F specific comment.

- 1.53 Provision of the following statement on the landscape plan:

“This plan is NOT FOR CONSTRUCTION and is to be submitted for review to Engineering Services a minimum of 8 weeks prior to the start of any construction proposed for public property. No work on public property may begin until such plans receive “For Construction” approval and related permits are issued. Please contact

Engineering, Development and Major Projects and/or your Engineering, Building Site Inspector for details.” Dk Response 2024-06-05: Yes, see cover sheet.

Childcare

- 1.54 — Design development of any childcare facility associated with the CSF Elementary School on Parcel D to be licensable by Community Care Facilities Licensing and meet the requirements of the City's *Childcare Design Guidelines and Childcare Technical Guidelines*, to the satisfaction of the General Manager of Arts, Culture and Community Services.

Social Policy

- 1.55 Fulfill, to the satisfaction of the Director of Social Policy, the Sustainable Food Systems requirements of the Rezoning Policy for Sustainable Large Developments for sites over 10 acres in size. Specifically, on the south parcel, deliver residential community garden plots. The following is required:

- (a) Residential community garden plots: Design development of all parcels with residential units to include include community garden plots satisfying the *Rezoning Policy for Sustainable Large Developments Administrative Bulletin* and the City's *Urban Agriculture Guidelines for the Private Realm*, or any other applicable policy at the time of development permit, and meeting the following requirements:

- (i) Provide a combination of individual plots and shared growing space to meet the minimum requirement for 24 square feet of gardening space for at least 30% of the residential units with less than 100 square feet of private outdoor space.

Dk Response 2024-06-05: In order to fulfill the minimum requirement of 24 square feet of gardening space for at least 30% of residential units with less than 100 square feet of private outdoor space, we are integrating a combination of individual plots and shared growing spaces. This strategy aims to strike a balance between urban agriculture, children's play areas, open spaces, and other recreational uses for both residents and visitors. Currently, we have allocated around 1200 square feet for urban agriculture, with the remaining 1800 square feet dedicated to edible planting and fruit trees spread throughout the project.

Note to Applicant: as part of each development permit submission, provide calculations to demonstrate adherence to the 30% minimum.

- (ii) Provide support facilities as outlined in the *Urban Agriculture Guidelines for the Private Realm*. Dk Response 2024-06-05: Yes
- (iii) To the extent possible, provide plots in semi-public areas to enable public access through garden pathways. Dk Response 2024-06-05: Yes

- (b) Submission requirements: Food assets to be indicated on all drawings and plans submitted as part of the development permit process. Dk Response 2024-06-05: Yes, the majority of the items have been included in the site plan.

Note to Applicant: Food assets to be delivered within CD-1 North include community kitchen facilities, a community food market, edible plantings (Indigenous plant garden and food forest/orchard), and resident community garden plots.

Housing

- 1.56 The proposed rental housing unit mix including 41 studio units (14.5%), 135 1-bedroom units (48%), 78 two-bedroom units (27.7%), and 27 three-bedroom units (9.6%) located on Parcels B and F combined, is to be included in the Development Permit drawings.

Note to Applicant: Any changes in the unit mix from the rezoning application may only be varied under the discretion of the Director of Planning or Development Permit Board provided that it does not go lower than 35% of the dwelling designed to be suitable for families with children.

Note to Applicant: The family unit mix requirements must each be met within each associated parcel.

- 1.57 **The proposed Below Market Rental housing unit mix, including 13 studio units (14.1%), 44 1-bedroom units (47.8%), 26 two-bedroom units (28%), and 9 three-bedroom units (9.7%) located on Parcels B and F combined, is to be included in the Development Permit drawings.**

Note to Applicant: Any changes in the unit mix from the rezoning application may only be varied under the discretion of the Director of Planning or Development Permit Board provided that it does not go lower than 35% of the dwelling units designed to be suitable for families with children.

Note to Applicant: The family unit mix requirements must each be met within each associated parcel.

AQ Comments: Addressed the unit mix. Use of the building is no longer relevant.

- 1.58 The proposed strata housing unit mix, including 130 studio units (14.7%), 437 1-bedroom units (49%), 217 two-bedroom units (24.6%), and 95 three-bedroom units (10.8%) located on Parcels B and F combined, is to be included in the Development Permit drawings.

Note to Applicant: Any changes in the unit mix from the rezoning application may only be varied under the discretion of the Director of Planning or Development Permit Board provided that it does not go lower than 35% of the dwelling designed to be suitable for families with children.

AQ Comments: Noted.

Note to Applicant: The family unit mix requirements must each be met within each associated parcel.

- ~~1.59 The proposed social housing unit mix, including 84 studio units (20%), 125 1 bedroom units (30%), 125 two bedroom units (30%), and 84 three bedroom units (20%) located on Parcels A~~

and E combined, is to be included in the Development Permit drawings.

Note to Applicant: Any changes in the unit mix from the rezoning application may only be varied under the discretion of the Director of Planning or Development Permit Board provided that it does not go lower than 50% of the dwelling designed to be suitable for families with children.

Note to Applicant: The family unit mix requirements must each be met within each associated parcel.

1.60 Ensure no less than 35% of all strata, market rental and below-market rental residential units, and the buildings containing such units, and no less than 50% of all social housing residential units and the buildings containing such units, are designed in accordance with the *High-Density Housing for Families with Children Guidelines*, including but not limited to the provision of:

- (a) An outdoor amenity area to include areas suitable for a range of children's play activities and urban agriculture, ranging in size from 130 sq. m (1,399 sq. ft.) to 280 sq. m (3,014 sq. ft.) and situated to maximize sunlight access (S. 3.3.2, 3.4.3);

Dk Response 2024-06-05: Yes

- (b) A private outdoor space for each unit with minimum 1.8 by 2.7 m minimum dimensions (S. 4.3.2).

AQ Comments: Noted.

Note to Applicant: The *High-Density Housing for Families with Children Guidelines* is currently under review. Future development permit applications will be expected to respond to the latest version of the guidelines at that time.

~~1.61 Design development of the social housing should reference the *BC Housing Design and Technical Guidelines*, the *City of Vancouver Housing Design and Technical Guidelines*, and other forms of best practices for social housing unit design, including but not limited to unit sizes, outdoor and indoor amenity space, and a minimum of five per cent of units as wheelchair accessible.~~

~~1.62 Integrate 4-8 family oriented units that are suitable to accommodate licensed family childcare, in each social housing building (Parcel A and Parcel E).~~

~~Note to Applicant: Family childcare units are licensed by Vancouver Coastal Health's Community Care and Facilities Licensing (CCFL) post occupancy. The following advice seeks to maximize the ability for purpose-built housing units to be licensable.~~

- ~~(a) Consider developing family housing unit sizes to accommodate more childcare spaces (up to seven children), thereby maximizing the revenue-generating ability for the future childcare operator.~~

- ~~(b) Consider allocating the family childcare units on the ground floor with a secure and contiguous outdoor play area, or easy access to the building's outdoor common area.~~

- ~~(c) Maximize opportunities to integrate additional indoor and outdoor storage.~~

~~Note to Applicant: The applicant is encouraged to work with staff to integrate City indoor and outdoor design considerations for family-oriented units that are suitable to accommodate licensed family childcare.~~

1.63 Provide indoor multi-purpose amenity space, as follows:

- (a) buildings with up to 90 units (excluding townhouse buildings) will provide at least 46.5 sq. m (500 sq. ft.);
- (b) buildings with more than 90 units will provide at least 92.9 sq. m (1,000 sq.ft.);
- (c) each multi-purpose indoor amenity space is to include a wheelchair accessible washroom and kitchenette. Consider positioning this adjacent to the children’s play area to enable parental supervision from the amenity room (S. 3.7.3); and
- (d) the minimum indoor amenity space required per parcel is per the following table:

Parcel	Minimum Required Amenity Space
Parcel A (Social Housing)	369 sq. m (3,975 sq. ft.)
Parcel B	279 sq. m (3,000 sq. ft.)
Parcel C	93 sq. m (1,000 sq. ft.)
Parcel E (Social housing)	307 sq. m (3,300 sq. ft.)
Parcel F	186 sq. m (2,000 sq. ft.)
Total	1,234 sq. m (13,275 sq. ft.)

Note to Applicant: The required amenity space may be provided in each building, for each parcel, or combined for multiple parcels only if made available to all residents of the development.

Note to Applicant: The required amenity space may be excluded from the overall site density, as set out in the CD-1 by-law.

1.64 Ensure that no less than 5% of the units in each development phase of the site, respectively including market housing, rental housing, and social housing tenures, are designed to be wheelchair accessible.

Parks

1.65 **The applicant is responsible for delivering a total minimum of 4.4 acres of park and open space between the North and South parks and the cultural centre plaza.**

Note to Applicant: within the minimum 4.4 acres, the south park will be a minimum of 2.27 acres.

1.66 **The applicant will work collaboratively with Park Board staff to ensure the successful design and delivery of a minimum 2.27 acre south park. The south park will be designed to the approval of the General Manager of Parks and Recreation and the elected Board of Parks and Recreation through a co-design process, coordinated by the applicant.**

- (a) **Park Board staff to oversee the public engagement process to Park Board**

standards.

- (b) MST Nations to set parameters for, and oversee, MST engagement.
- (c) MST Nations to coordinate appropriate MST approvals process, in particular, related to any cultural design aspects of the park.
- (d) MST Nations to lead park naming process.

- 1.67 The applicant will work collaboratively with Park Board staff on the establishment of an intergovernmental working group between the MST Nations and Park Board with terms of reference to the satisfaction of the General Manager of Parks and Recreation prior to the initiation of the co-design process.

Note to Applicant: The purpose of the working group is long term co-management of the south park including high level decision making around park renewals or significant shifts in park programming. This working group could be framed to oversee the south park at Heather Lands as well as other future co-managed parks on land owned by the MST Nations.

- 1.68 The applicant shall enter into a Park Development Agreement for the design and delivery of the south park parcel to the satisfaction of the General Manager of Parks and Recreation to Park Board standards and as per conditions #1.66 and #1.67.

- 1.69 Design development through joint Park Board - MST Nations co-design process to include but not be limited to:

- (a) Park programming
- (b) Planting plan
- (d) Tree retention
- (c) Circulation system within, including through, the park
- (e) Configuration of rainwater management feature(s)
- (d) Alignment, materials, width and other specifications of the forest trail
- (f) Lighting
- (e) Vegetation coverage %
- (g) Expression of pollinator corridor within the park, if any (Policy Statement stipulates requires a 5m enhanced setback on private property, specific requirements not stipulated for the park)
- (f) Site furnishings including park signage.

Note to Applicant: The rezoning application shows a design intent for the south park. While the Park Board will strongly consider the general intent of the rezoning application

as it pertains to the park the design will be further explored through the co-design process and associated public engagement, closer to the time of park development.

- 1.70 Design development to confirm rain water management feature in the south park to accommodate a maximum volume of 59m³ to support rainwater management from Parcel C. The repair, maintenance, replacement, and operation of the rainwater management feature will remain the sole responsibility and expense of the MST Nations as Parcel C landowner.

Note to Applicant: Rainwater management from other parcels into the park is not supported. Rainwater management from parcel C is being accepted given the intent to co-manage the park (see also condition #1.67) and given the rainwater feature supports the general design intent for the south park.

Note to Applicant: Acceptance of rainwater from Parcel C is contingent on Parcel C remaining residential land use at the rezoning approved density.

Note to Applicant: Configuration of rainwater management feature(s) in the south park will be considered through the joint Park Board - MST Nations co-design process. The full size of the rainwater management feature may be larger in order to accommodate rainwater from within the south park, or for programmatic reasons. Any proposed modifications to the rain water management feature(s) to support Parcel C during design development or over the life of the park must remain within the same footprint and be approved by the General Manager of Parks and Recreation.

- 1.71 The south park is to be operated by the Vancouver Board of Parks and Recreation with oversight and input from the intergovernmental working group (see also condition #1.67).

Note to Applicant: Drainage easements will be required on Parcel C to permit the maximum volume of 59 m³ of rainwater to be transferred to the park and confirm that all responsibilities related to the rainwater from Parcel C will remain the sole responsibility and expense of the Parcel C landowner. The lease agreement for the park parcel will also note that the rainwater management feature in the park will remain the sole responsibility of the MST Nations.

- 1.72 Concept design of the north park, cultural centre plaza and Heather St Right-of-Way between 35th and 37th avenue to be closely coordinated with the concept design of the south park.

Note to Applicant: regardless of phasing, these spaces should be conceptually designed at the same time in order to ensure appropriate transitions between spaces and seamless design of the forest trail through the two parks.

- 1.73 Design development of the forest trail through both the north and south parks to occur through Park Board – MST Nations park co-design process.

Note to Applicant: the alignment, dimensioning, surfacing and lighting (if applicable) of the forest trail through the parks through the co-design process to the satisfaction of the General Manager of Parks and Recreation. The trail will be designed to connect to a crosswalk across 35th Avenue, location to be confirmed by City Engineering.

1.74 Design development to improve solar access to the south park to the satisfaction of the General Managers of Parks and Recreation and the General Manager of Planning, Urban Design, and Sustainability. See also Urban Design Condition #1.1.

1.75 No non-park building, non-park subsurface building structure, or non-park infrastructure shall be located within or otherwise encroach upon the south park.

Note to Applicant: use of park space for rainwater management is an exception to this condition. See also conditions #1.70 and #1.71.

1.76 Design development to ensure no direct development parcel or building access into the park, including the Forest Trail where it runs through the park parcel.

Note to Applicant: A collector pathway is required within private property and is required to connect to sidewalks within the rights of way and not directly into internal park pathways, including the forest trail.

1.77 Through the co-design and co-management approach for the south park, the applicant is to consult the Park Board on the siting of any public art proposed within the parcel.

Note to Applicant: Should public art be proposed/located in the south park area, development of a Public Art Plan and implementation must include collaboration with Park Board staff to ensure siting of public art aligns with the advancement of the detailed design of the park and enhances and supports parks and recreation uses.

AQ Comments: Noted on all park's topics, will be addressed at a later parcel DP/BP. This is site-wide parks planning and will not be relevant for the Parcel F submission.

Sustainability

1.78 All new buildings in the development will meet the requirements of the *Green Buildings Policy for Rezonings* (amended May 2, 2018), including all requirements for Near Zero Emissions Buildings (i.e. Passive House certified or alternate near zero emissions standard approved by the Director of Sustainability), or Low Emissions Green Buildings. The requirements for Low Emissions Green Buildings are summarized at <http://guidelines.vancouver.ca/G015.pdf>

Note to Applicant: The applicant will be required to demonstrate that the development is on track to achieve the above requirements at each stage of permit. For phased developments, it is expected that the individual development permits will meet the requirements of the Green Buildings Policy for Rezonings in effect at the time of development permit application. For more detail on the above requirements and what must be submitted at each stage, refer to the most recent bulletin *Green Buildings Policy for Rezonings – Process and Requirements* (amended April 28, 2017 or later).

RJC: Please refer to our Sustainable Design Strategy letter (Appendix A: ZEBP checklist and Appendix B: Energy Report) outlining the achieved energy metrics which align with the energy requirements of GBPR.

1.79 Show how resilience has been incorporated in the building design. Submit a refined resilience

worksheet at time of Development Permit application. Refer to the Sustainable Large Developments Admin Bulletin for an up to date copy of the City's resilience worksheet.

RJC: Please refer to our Sustainable Design Strategy letter (Appendix D: Resilience Worksheet) outlining the incorporated resiliency measures in this development.

PART 2: CONDITIONS OF BY-LAW ENACTMENT

THAT, prior to enactment of the CD-1 By-law, the registered owners shall on terms and conditions satisfactory to the Director of Legal Services, the General Manager of Planning, Urban Design and Sustainability, the General Manager of Engineering Services, the General Manager of Arts, Culture and Community Services, and the General Manager of Parks and Recreation (or successors in function), as necessary, and at the sole cost and expense of the owner/developer, make arrangements for the following:

Engineering Services

- 2.1 Arrangements are to be made to the satisfaction of the Approving Officer for the subdivision of the site to create the contiguous minimum 2.27 acre southern park parcel and the development parcels associated with the CD-1 South enactment, generally as described on Figure 14, and to dedicate to the City:

West 35th Avenue

- (a) A 20 m wide dedication for an extension of W. 35th Ave from the lane east of Willow St. to the lane west of Ash St.;

Note to Applicant: The alignment of this dedication should meet the existing W. 35th Ave street Right of Way at the west side of the site and the future W. 35th Ave street Right of Way at the east side of the site.

New Street from the lane east of Willow Street to Baillie Street

- (b) A 15.0 m wide dedication for a new street from the lane east of Willow St. to the new Baillie St. extension (south of the W. 35th Ave extension and north of W. 37th Ave);

Baillie Street

- (c) A 20 m wide dedication for an extension of Baillie St. from W. 37th Ave to the W. 35th Ave extension;

Manson Street

- (d) A 20 m wide dedication for an extension of Manson St. from W. 37th Ave to the W. 35th Ave extension;

Intersection of W 35th Avenue / Heather Street

- (e) An additional dedication on the northwest corner at the intersection of Heather St. and W. 35th Ave to provide an arc with a minimum radius of 38 m where Heather St. meets W. 35th Ave at a right angle;

Note to Applicant: This is required in order to provide a minimum radius of 50 m for the painted centerline of the road.

- (f) A 2.0 m wide dedication on the north side of W. 37th Ave adjacent to the site from the lane west of Ash St. to the Baillie St. extension; and
- (g) A 2.5 m wide dedication on the west side of Heather St. from W. 35th Ave to the northern boundary of the area being rezoned.

Note to Applicant: A phased approach to subdivision may be supportable subject to legal arrangements. It may be preferable to leave the development site in whole blocks subject to further subdivision prior to development permit issuance. A no-development covenant may be required to secure the future subdivision.

Any new streets will be named in consultation with the MST Nations. Refer to the Civic Asset Naming Committee (CIAN) for approval of street names for the proposed public streets. Upon dedication of the roads to the City CIAN will advance recommendations to Council for the formal amendment to the Street Name Bylaw.

Pedestrian SRW

- 2.2 Provision of an encroachment agreement to secure ongoing maintenance by the applicant of proposed unique landscape treatment on Heather St. Right of Way between W. 35th Ave and W. 37th Ave.
- 2.3 Arrangements are to be made to the satisfaction of the General Manager of Engineering Services for the physical closure of the southerly portion of Heather St. to vehicle traffic and for the appropriate allocation of any agreements related to the maintenance responsibilities associated with this area.
- 2.4 Arrangements shall be made to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services for registration of a Statutory Right of Way over the site for the pedestrian access routes (semi-public paths).

Note to Applicant: The SRWs may initially be blanket charges (defined by sketch plan), to be modified to a defined survey area based on the as-built conditions and registered prior to occupancy of each of the phased parcels.

- 2.5 Arrangements shall be made to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services to validate all private rainwater management drainage piping that is proposed to cross a dedicated City street.

Note to Applicant: This includes underground crossings on 35th Ave and Baillie Street.

- 2.6 Provision of private legal agreement(s) between the Owners of land parcels where rainwater is proposed to cross between property boundaries to the satisfaction of the General Manager of Engineering Services and Director of Legal Services to confirm the responsibilities and rights of each property owner.

Note to Applicant: This includes description of easements, cost sharing, and long-term maintenance of any shared rainwater management system(s) as well as contingencies and obligations to continue to meet rainwater performance requirements solely within the Owner's own property boundary should the agreement ever be dissolved in the future.

- 2.7 Provision of a Section 219 Covenant restricting the issuance of a Development Permit until such time as the developer provides a cost sharing agreement(s), with terms to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services, between private property parcel(s) Owner(s) and the City where rainwater from private property is proposed to be managed within the City's right of way or property boundary.

Note to Applicant: See also Engineering condition #1.41.

- 2.8 Arrangements shall be made to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services for release of Easement & Indemnity Agreements 530425M & 475080M (commercial crossings); Easement & Indemnity Agreements BR35493, 177898M & 200430M (pertaining to a steam line & electrical conduit under Heather St.); and associated charges (Covenant BR35494, SRW BR35495 and Equitable Charge BR37695) prior to building occupancy.

Note to Applicant: Arrangements are to be secured prior to zoning enactment, with release to occur prior to issuance of an occupancy permit for the adjacent sites.
Provision of a letter of commitment will satisfactorily address this condition for zoning enactment.

- 2.9 Provision of a Section 219 Covenant to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services to place a hold on the issuance of any Development Permit for the site, and such agreement shall include, without limitation, the following provisions:
- (a) That no Development Permit for the site or any improvements or building thereon shall be issued until the following have been satisfied:
 - (i) Provision of a detailed Transportation Demand Management (TDM) Plan for each development permit, meeting the requirements for large sites as described in the *Transportation Demand Management for Developments in Vancouver Administrative Bulletin*, to the approval of the General Manager of Engineering Services;
 - (ii) Provision of further legal agreements, including without limitation a TDM Agreement, to ensure that the owner of the lands will construct, install, operate and continuously maintain the TDM measures set out in the approved TDM Plan, with the following provisions:
 - i. Permit the City to access and undertake post occupancy monitoring of the TDM measures proposed; and
 - ii. Require the owner of the lands to make reasonable adjustments to the TDM measures as requested by the City, based on the TDM monitoring results.

Note to Applicant: These agreements would include but not be limited to a Section 219 Covenant and Statutory Right-of-Way, subject to additional details being formalized through detailed design.

- (b) Financial security in the form of a Letter of Credit or alternate forms of security to the satisfaction of the Director of Legal Services to secure the obligations set out in the TDM Agreement;
- (c) Funding towards long-term TDM monitoring fund in the amount of \$2 per square metre of gross floor area; and
- (d) Such other terms and conditions as the Director of Legal Services, in consultation with the General Manager of Engineering Services, may in their sole discretion require.

2.10 Prior to enactment, provision of a Preliminary Hydrogeological Study, to the satisfaction of the General Manager of Engineering Services, that meets the requirements of the Groundwater Management Bulletin, and includes:

- (a) A Groundwater Impact Assessment, that meets the requirements of the Groundwater Management Bulletin, and includes the potential impacts of any low-carbon energy options involving groundwater (e.g. Concept 2), which includes:
 - i. Groundwater modelling that assesses the impacts to the groundwater conditions in the surrounding area. This should include the impacts from low-carbon energy options involving groundwater, as well as the impacts of on-site infiltration;

Note to Applicant: Heather Lands is an important recharge area for the Quadra Sands Aquifer. Additionally, there are several current and future groundwater users in the area (e.g. Oakridge). As a result, a very high level of care is required in the design of Concept 2.

Significant green infrastructure is being proposed for the site. The impacts of infiltration on local groundwater flow have not been considered. There is significant increase in infiltration on site from pre-development to post-development.
 - ii. Analysis related to the potential for groundwater contaminant transport; and
 - iii. An assessment of the potential for thermal impacts to groundwater (i.e. significant warming or cooling of groundwater) offsite due to the low-carbon energy options involving groundwater being considered (e.g. Concept 2), including any associated impacts to down-gradient receptors. This analysis should include recommendations for how such thermal impacts will be monitored and mitigated (if applicable).

Note to Applicant: Concept 2 may require water use authorization from the Province under the *Water Sustainability Act*. The applicant is advised to contact the Province as soon as possible due to the lengthy approval process.

The Piteau report referenced in KWL's August 2020 memo detailing the hydrogeological concerns for Concept 2 is required for a more detailed review. The technical memorandum authored by Piteau (dated February 2, 2021) does not address Concept 2.

An updated Groundwater Impact Assessment may be requested prior to issuance of the first Development Permit for the site.

2.11 Provision of a Services Agreement to detail the on- and off-site works and services necessary or incidental to the servicing of the site (collectively called the "Services") such that they are designed, constructed and installed at no cost to the City and all necessary street dedications and rights-of-way for the Services are provided all to the satisfaction of the General Manager of Engineering Services. No development permit for the site, or any portion thereof, or for any building or improvements thereon will be issued until the Letter of Credit, as security for the Services, is provided. The timing for the delivery of the Services shall be determined by the General Manager of Engineering Services in his sole discretion and holds shall be placed on such permits as deemed necessary in his sole discretion. Except as explicitly provided for in condition #2.12, the Services are not excess and/or extended services and the applicant is not entitled to a Latecomer Agreement.

(a) Provision of adequate water service to meet the fire flow demands of the project.

(i) All proposed new and upgraded water mains and required associated appurtenances as contemplated on *Figure 2 – Proposed Site Servicing Plan* of the Site Servicing Report with the following notes and modifications:

i. Construct water mains on Heather Street from McGuigan Ave to 35th Ave;

Note to Applicant: These mains are expected to be upgraded by the City of Vancouver as part of the Utility Development Cost Levy (UDCL) Program. The City is targeting the completion of this upgrade prior to the Heather Lands development requiring this upgrade (prior to Phase 1 occupancy and as contemplated by the Site Servicing Report). Should the City's timeline change and these assets are not upgraded in time to meet each Phases' occupancy, the applicant would be responsible for delivering this asset and the City and the applicant will enter into a Front Ender Agreement.

ii. Construct water mains on Heather Street from 35th Ave to 37th Ave; and

Note to Applicant: These mains are expected to be upgraded by the City of Vancouver as part of the Utility Development Cost Levy (UDCL) Program. The City is targeting the completion of this

upgrade prior to the Heather Lands development requiring this upgrade (prior to Phase 4 and 5 occupancy as contemplated by the Site Servicing Report). Should the City's timeline change and these assets are not upgraded in time to meet each Phases' occupancy, the applicant would be responsible for delivering this asset and the City and the applicant will enter into a Front Ender Agreement.

- iii. Construct water mains on 37th Ave from Willow Street to Manson Street.

Note to Applicant: These mains are expected to be upgraded by the City of Vancouver as part of the Utility Development Cost Levy (UDCL) Program. The City is targeting the completion of this upgrade prior to the Heather Lands development requiring this upgrade (prior to Phase 2 occupancy as contemplated by the Site Servicing Report). Should the City's timeline change and these assets are not upgraded in time to meet each Phases' occupancy, the applicant would be responsible for delivering this asset and the City and the applicant will enter into a Front Ender Agreement.

Note to Applicant: the extent of this upgrade is greater than what is shown in the submitted KWL Site Servicing Report; it is required that the scope be extended.

- (ii) The timing for delivering these water main assets need to follow what is presented in the "Development Phasing Plan" section of the Site Servicing Report. Each Phases' noted upgrades must be completed prior to occupancy of the first building within the phase.
- (b) Provision of adequate sewer (storm and sanitary) service to meet the demands of the project.
 - (i) Provision of internal site (onsite) sewer system upgrades which includes:
 - i. Provision of sewer mains on Baillie St. & W. 35th Ave tie to W. 35th Ave & Willow Street:
 - a. construct 101 m of 375 mm SAN main and 525 mm STM main on W. 35th Ave from the intersection of W. 35th Ave and Willow St. to the intersection of W. 35th Ave and Baillie St.;
 - b. construct 103 m of 300 mm SAN main and 450 mm STM main on Baillie St. from the intersection of W. 35th Ave and Baillie St. to the Right of Way between Parcel E and D;

- c. construct 58 m of 250 mm SAN main and 375 mm STM main on Baillie St. from the Right of Way between Parcel E and D to fronting Parcel D and C;
 - d. construct 45 m of 375 mm STM main on W. 35th Ave from the intersection of W. 35th Ave and Baillie St. to fronting Parcel G1; and
 - e. construct 50 m of 200 mm STM main on W. 35th Ave from fronting Parcel G1 to the intersection of W. 35th Ave and Heather St.
- ii. Provision of sewer mains on Heather St. (Storm only) tie to Heather St. & 37th Ave:
- a. construct 91 m of 250 mm STM main on Heather St. from fronting Parcel G1 and F2 to the intersection of W. 35th Ave and Heather St.; and
 - b. construct 113 m of 300 mm STM main on Heather St. from the intersection of W. 35th Ave and Heather St. to intersection of W. 37th Ave and Heather St.
- iii. Provision of sewer mains on 35th Ave & Manson St. & 37th Ave tie to Heather St. & 37th Ave:
- a. construct 72 m of 300 mm SAN main and 375 mm STM main on W 35th Ave from the intersection of W. 35th Ave and Heather St. to fronting Parcel B3 and F1;
 - b. construct 37 m of 375 mm SAN main and 375 mm STM main on W. 35th Ave from fronting Parcel B3 and F1 to the intersection of Manson St. and W. 35th Ave;
 - c. construct 57 m of 375 mm STM main on W. 35th Ave from the lane east of Manson St. to the intersection of Manson St. and W. 35th Ave;
 - d. construct 75 m of 375 mm SAN main and 450 mm STM main on Manson St. from the intersection of Manson St. and W. 35th Ave to the intersection of W. 37th Ave and Manson St.; and
 - e. construct 109 m of 375 mm SAN main and 450 mm STM main on W. 37th Ave from the intersection of W. 37th Ave and Manson St. to the intersection of W. 37th Ave and Heather St.

- (ii) Provision of offsite sewer system upgrades which includes:
- i. Provision of Heather St. offsite upgrades:
 - a. separate and upgrade 11 m of 250 mm COMB main to 375 mm SAN main and 450 mm STM main on Heather St. from MH FJCQ42 to MH__FJCQ41;
 - b. separate and upgrade 97 m of 375 mm COMB main to 375 mm SAN main and 525 mm STM main on Heather St. from MH FJCQ41 to MH__FJCQ43;
 - c. separate and upgrade 100 m of 375 mm COMB main to 375 mm SAN main and 525 mm STM main on Heather St. from MH__FJCQ43 to MH__FJCP6C;
 - d. separate and upgrade 110 m of 375 mm COMB main to 375 mm SAN main and 525 mm STM main on Heather St. from MH _FJCP6C to MH __FJCP6O;
 - e. separate and upgrade 89 m of 450 mm COMB main to 450 mm SAN main and 675 mm STM main on Heather St. from MH FJCP6O to MH__FJCP6K;
 - f. separate and upgrade 48 m of 600 mm COMB main to 525 mm SAN main and 900 mm STM main on W. 41st Ave from MH FJCP6K to MH __FJCP6M;
 - g. separate and upgrade 11 m of 600 mm COMB main to 675 mm SAN main and 900 mm STM main on W 41st Ave from MH FJCP6M to MH __FJCP6N; and
 - h. separate and upgrade 25 m of 750 mm COMB main to 675 mm SAN main and 1050 mm STM main on W. 41st Ave from MH __FJCP6N to MH __FJCP6L.

Note to Applicant: The applicant may enter to a Front Ender Agreement (FEA) with City. For further information, please contact the Development Water Resources Management (DWRM) branch at utilities.servicing@vancouver.ca.

- ii. Provision of Willow St. offsite upgrades:
- a. separate and upgrade 61 m of 200 mm COMB main to 375 mm SAN main and 525 mm STM main on Willow St. from W. 35th Ave to MH__FJCQ4C. (Split 91 m of 200 COMB main to 61m and 30 m);
 - b. Separate and upgrade 92 m of 200 mm COMB main to 375 mm SAN main and 525 mm STM main on Willow St. from MH__FJCQ4C to MH__FJCR4K; and
 - c. Separate and upgrade 50 m of 250 mm COMB main to 375 mm SAN main and 525 mm STM main on Willow St. from MH__FJCR4K to MH__FJCR4N.

Note to Applicant: These works constitute excess and/or extended services and will be subject to a latecomer agreement, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services.

- iii. Provision of 33rd Ave & Laurel St. & 32nd Ave offsite upgrades:
- a. upgrade 51 m of 200 mm SAN main to 375 mm SAN main from MH__FJCR4P to MH__FJCR4N and 375 mm STM main to 450 mm STM main on W. 33rd Ave from MH__FJCR4Q to MH__FJCR4M;
 - b. upgrade 85 m of 250 mm SAN main to 375 mm SAN main from MH__FJCR4N to MH__FJCR4F and 450 mm STM main to 525 mm STM main on W. 33rd Ave from MH__FJCR4M to MH__FJCR4G;
 - c. upgrade 21 m of 250 mm SAN main to 375 mm SAN main from MH__FJCR4F to MH__FJCR4J and 450 mm STM main to 525 mm STM main on W. 33rd Ave from MH__FJCR4G to MH__FJCR3J;
 - d. separate and upgrade 60 m of 450 mm COMB main to 375 mm SAN main and 600 mm STM main on Laurel St. from MH__FJCR3J and MH__FJCR4J to MH__FJCR36;
 - e. separate and upgrade 49 m of 450 mm COMB main to 375 mm SAN main and 600 mm STM main on Laurel St. from MH__FJCR36 to MH__FJCR4A; and
 - f. separate and upgrade 11 m of 450 mm COMB main to 375 mm SAN main and 600 mm STM main on Laurel St. from MH__FJCR4A to MH__FJCR4B.

Note to Applicant: These works constitute excess and/or extended services and will be subject to a latecomer agreement, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services.

The City may decide to deliver the off-site servicing upgrade along Heather St. as per the provisions under the Services Agreement at the applicant's cost.

The applicant is to inform the Development Water Resources Management (DWRM) Branch (utilities.servicing@vancouver.ca) of any updates to the on-site stormwater servicing strategy as the development progresses as it may impact the servicing plan.

The lengths and diameters of these improvements are approximate and subject to detailed design by Developer's Engineer.

- (c) The post-development 10-year flow rate discharged to the storm sewer shall be no greater than the 10-year pre-development flow rate. The pre-development estimate shall utilize the 2014 IDF curves, whereas the post-development estimate shall utilize the 2100 IDF curves to account for climate change;
- (d) Provision of design brief, calculations and/or model, and design drawings by the applicant's Engineer to include issued for construction (IFC) drawings;

Note to Applicant: Issued for Construction (IFC) drawings are required to be reviewed and accepted by the City Engineer prior to building permit issuance.

- (e) Development to be serviced to the proposed SAN and STM sewers which includes:
 - (i) Parcel A is to be serviced to the proposed 375 mm SAN sewer and 450 mm STM sewer on Manson St.;
 - (ii) Parcel B is to be serviced to the proposed 375 mm SAN and 375 mm STM sewers on W. 35th Ave;
 - (iii) Parcel C is to be serviced to the proposed 250 mm SAN and 375 mm STM sewers on Baillie St.;
 - (iv) Parcel D is to be serviced to the proposed 250 mm SAN and 375 mm STM sewers on Baillie St.;
 - (v) Parcel E is to be serviced to the proposed 300 mm SAN and 450 mm STM sewers on Baillie St St.;
 - (vi) Parcel F is to be serviced to the proposed 300 mm SAN and 375 mm STM sewers on W. 35th Ave;

- (vii) Parcel G is to be serviced to the proposed 300 mm SAN and 300 mm STM sewers on New Commercial St.;
 - (viii) Parcel H is to be serviced to the proposed 375 mm SAN and 525 mm STM sewers on W. 35th Ave.;
 - (ix) Parcel I is to be serviced to the proposed 375 mm SAN and 450 mm STM sewers on New Commercial St.; and
 - (x) Parcel J is to be serviced to the proposed 375 mm SAN and 450 mm STM sewers on New Commercial Street.
- (f) Provision of a sewer abandonment plan to the City that details the following:
- (i) The abandonment or removal of all existing storm, sanitary, and combined connections to the development site; and
 - (ii) The abandonment or removal of all existing storm, sanitary, and combined sewer mains that are no longer in use due to the development of the site.

Note to Applicant: The abandonment plan is required to be reviewed and accepted by the City Engineer prior to issuance of the Sewer Permit.

W 35th Avenue

- (g) Provision for the construction of street improvements from property line to property line on W. 35th Ave from Willow St. to the lane east of Willow St. including any transition areas to connect existing and new curb alignments, all to the satisfaction of the General Manager of Engineering Services. These improvements will generally include, but not be limited to, the following:
- (i) New concrete curb and gutter;
 - (ii) Concrete sidewalks;
 - (iii) Curb ramps;
 - (iv) Green rainwater infrastructure;
 - (v) Improved street lighting including adjustment to all existing infrastructure; and
 - (vi) Road reconstruction as required to accommodate the proposed street improvements.

Note to Applicant: These works constitute excess and/or extended services and will be subject to a latecomer agreement, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services.

W 37th Avenue

- (h) Provision for the construction of, or full funding for, street improvements from property line to property line on W. 37th Ave from Willow St. to the lane west of Ash St. including any transition areas to connect existing and new curb alignments in order to provide an AAA Greenway, all to the satisfaction of the General Manager of Engineering Services. These improvements will generally include, but not be limited to, the following:
- (i) New concrete curb and gutter;
 - (ii) Raised protected bike lanes;
 - (iii) Concrete sidewalks;
 - (iv) Protected intersection corners;
 - (v) Curb ramps;
 - (vi) Green rainwater infrastructure;
 - (vii) Partial street closure to restrict vehicle through movements at a location to be determined;
 - (viii) Improved street lighting and additional pedestrian scale lighting including adjustment to all existing infrastructure; and
 - (ix) Road reconstruction as required to accommodate the proposed street improvements.

Note to Applicant: These works constitute excess and/or extended services and will be subject to a latecomer agreement, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services.

- (i) Provision for the construction of, or full funding for, street improvements from property line to property line on W. 37th Ave from the lane west of Ash St. to the lane west of Cambie St. including any transition areas to connect existing and new curb alignments in order to provide an AAA Greenway, all to the satisfaction of the General Manager of Engineering Services. These improvements will generally include the following:
- (i) New concrete curb and gutter;
 - (ii) Raised protected bike lanes;
 - (iii) Concrete sidewalks;
 - (iv) Curb ramps;
 - (v) Green rainwater infrastructure;

- (vi) Improved street lighting and additional pedestrian scale lighting including adjustment to all existing infrastructure; and
- (vii) Road reconstruction as required to accommodate the proposed street improvements.

Note to Applicant: These works constitute excess and/or extended services and will be subject to a latecomer agreement, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services.

Heather Street

- (j) Provision for the construction of street improvements from property line to property line on Heather St. from the lane south of McGuigan Ave to W. 35th Ave including any transition areas to connect existing and new curb alignments, all to the satisfaction of the General Manager of Engineering Services. These improvements will generally include, but not be limited to, the following:
 - (i) New concrete curb and gutter;
 - (ii) Raised protected bike lanes;
 - (iii) 50mm mill and pave full width of Heather St. along the development site's frontage;
 - (iv) Concrete sidewalks;
 - (v) Protected intersection corners;
 - (vi) Curb ramps;
 - (vii) Green rainwater infrastructure;
 - (viii) Relocation of the existing utility poles;
 - (ix) Improved street lighting and additional pedestrian scale lighting including adjustment to all existing infrastructure; and
 - (x) Road reconstruction as required to accommodate the proposed street improvements.
- (k) Provision for the construction of street improvements from property line to property line on Heather St. from W. 35th Ave to W. 37th Ave including any transition areas to connect existing and new curb alignments, all to the satisfaction of the General Manager of Engineering Services. These improvements will generally include, but not be limited to, the following:
 - (i) Removal of the existing street infrastructure such as vehicular travel lanes and curbs;

- (ii) New bike paths;
- (iii) Concrete hard surfaces within the Public Bike Share (PBS) station footprint and supporting electrical service for PBS;
- (iv) Concrete sidewalks;
- (v) Green rainwater infrastructure;
- (vi) Curb ramps; and
- (vii) Improved pedestrian and cyclist lighting including adjustment to all existing infrastructure to accommodate the proposed street improvements.

Note to Applicant: The concept design of this section of Heather Street should be closely coordinated with the concept design of the south park, to the satisfaction of the General Manager of Parks and Recreation, including, but not limited to the landscape and planting design.

Any portion of the Right of Way that falls under a future maintenance agreement with the Vancouver Park Board to be designed to the satisfaction of the General Manager of Parks and Recreation.

Willow Street, Ballie Street, Manson Street

- (l) Provision of the construction of the following new streets and associated infrastructure to current City standards:
 - (i) 35th Ave from the lane east of Willow St. to the lane west of Ash St.;
 - (ii) Baillie St. from 35th Ave to 37th Ave;
 - (iii) Manson St. from 35th Ave to 37th Ave; and
 - (iv) New street from the lane east of Willow St. to Baillie St.

Note to Applicant: Pavement structure for all proposed internal streets and laneways within the development site to meet current City “Higher-Zoned Street” specifications at time of construction and incorporating green rainwater infrastructure where conditioned.

Intersection of W 33rd Avenue / Oak Street

- (m) Provision for the construction of improvements at the intersection of W. 33rd Ave and Oak St. to provide eastbound and westbound painted left turn bays on W. 33rd Ave, all to the satisfaction of the General Manager of Engineering Services. These improvements will generally include, but not be limited to, the following:

- (i) New concrete curb and gutter;
- (ii) Curb ramps;
- (iii) Green rainwater infrastructure;
- (iv) Installation of eastbound and westbound left turn arrows;
- (v) Relocation and/or replacement of the existing catch basins; and
- (vi) Adjustment to all existing infrastructure and road reconstruction as required to accommodate the proposed street improvements as well as provision for future bike lanes on W. 33rd Ave.

Note to Applicant: These works constitute excess and/or extended services and will be subject to a latecomer agreement, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services.

Intersection of W 33rd Avenue / Heather Street

- (n) Provision for the construction of, or full funding for, improvements at the intersection of W. 33rd Ave and Heather St., all to the satisfaction of the General Manager of Engineering Services. These improvements will generally include, but not be limited to, the following:
 - (i) New concrete curb and gutter;
 - (ii) Protected bike lanes with protected intersection corners;
 - (iii) Curb ramps;
 - (iv) Green rainwater infrastructure;
 - (v) Left turn bays;
 - (vi) Design and installation of a new traffic signal;
 - (vii) Installation of eastbound and westbound left turn arrows;
 - (viii) Relocation and/or replacement of the existing catch basins and utility poles;
 - (ix) 50mm mill and pave where the existing asphalt has deteriorated;
 - (x) Entire intersection lighting upgrade to current City standards and IESNA recommendations; and
 - (xi) Adjustment to all existing infrastructure and road reconstruction as required to accommodate the proposed street improvements.

Note to Applicant: These works constitute excess and/or extended services and will be subject to a latecomer agreement, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services.

Intersection of W 33rd Avenue / Cambie Street

- (o) Provision for the construction of improvements at the intersection of W. 33rd Ave and Cambie St., all to the satisfaction of the General Manager of Engineering Services. These improvements will generally include, but not be limited to, the following:
 - (i) New concrete curb and gutter;
 - (ii) Protected bike lanes with protected intersection corners;
 - (iii) Curb ramps;
 - (iv) Green rainwater infrastructure;
 - (v) Left turn bays;
 - (vi) Design and installation of a new traffic signal;
 - (vii) Installation of eastbound and westbound left turn arrows;
 - (viii) Relocation and/or replacement of the existing catch basins;
 - (ix) Entire intersection lighting upgrade to current City standards and IESNA recommendations; and
 - (x) Adjustment to all existing infrastructure and road reconstruction as required to accommodate the proposed street improvements as well as provision for future bike lanes on W. 33rd Ave.

Note to Applicant: These works constitute excess and/or extended services and will be subject to a latecomer agreement, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services.

Intersection of W 35th Avenue / Cambie Street

- (p) Provision for the construction of improvements at the intersection of W. 35th Ave and Cambie St. to the satisfaction of the General Manager of Engineering Services. These improvements will generally include, but not be limited to, the the following:
 - (i) Modification of the existing center median to provide northbound and southbound turn bays;
 - (ii) Design and installation of a new traffic signal;

- (iii) Installation of northbound and southbound left turn arrows;
- (iv) New concrete curb and gutter;
- (v) Curb ramps;
- (vi) Green rainwater infrastructure;
- (vii) Relocation and/or replacement of the existing catch basins;
- (viii) Entire intersection lighting upgrade to current City standards and IESNA recommendations;
- (ix) Adjustment to all existing infrastructure; and
- (x) Road reconstruction as required to accommodate the proposed street improvements.

Note to Applicant: These works constitute excess and/or extended services and will be subject to a latecomer agreement, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services.

Intersection of W 37th Avenue / Cambie Street

- (q) Provision for the construction of, or full funding for, improvements at the intersection of Cambie St. and W. 37th Ave as required to provide a closure of the center median to motor vehicles on Cambie St. at W. 37th Ave, all to the satisfaction of the General Manager of Engineering Services. This is required to reduce through traffic on the Ridgeway Greenway and will generally include the following:
 - (i) New concrete curb and gutter;
 - (ii) Green infrastructure elements;
 - (iii) Adjustment to all existing infrastructure; and
 - (iv) Road reconstruction as required to accommodate the proposed street improvements.
- (r) Provision of new or replacement duct banks adjacent the development site that meet current City standards. Duct banks are to consist of electrical and communication ducts sized to meet City needs in a configuration acceptable by the General Manager of Engineering Services and in conformance with applicable electrical codes and regulations. A detailed design will be required prior to the start of any associated street work;

Note to Applicant: As-constructed documentation will be required that includes photographic and measured evidence of the installed number of conduits, their final locations and depths.

- (s) Provision of upgraded street lighting (roadway and sidewalk) adjacent to the site to current City standards and IESNA recommendations;
- (t) Provision of new street lighting (roadway and sidewalk), new intersection lighting, and forest trail, bicycle and pedestrian paths lighting on on rights of way;
- (u) Provision of entire intersection lighting upgrade at all existing intersections adjacent to the site to current City standards and IESNA recommendations;
- (v) Provision of lane lighting on standalone poles connecting to underground ducts. The ducts should be connected to the existing City Street Lighting infrastructure;
- (w) Provision of two pad mounted service cabinets/kiosks;

Note to Applicant: The detailed Electrical Design will be required prior to the start of any associated electrical work to the satisfaction of the General Manager of Engineering Services, and, in conformance with Standard Specification of the City of Vancouver for Street Lighting (draft), Canadian Electrical Code (the latest edition) and the Master Municipal Construction Documents (the latest edition).

- (x) Provision to rebuild existing lane between W. 33rd Ave and W. 37th Ave (on the western side of the development site) as per City “Higher Zoned Laneway” pavement structure. Relocate existing catch basins or install new catch basins as required;

Note to Applicant: Use permeable pavement to manage rainwater in all the laneways.

- (y) Provision to rebuild existing lane between Heather St. and W. 37th Ave as per City “Higher Zoned Laneway” pavement structure. Relocate existing catch basins or install new catch basins as required;

Note to Applicant: Use permeable pavement to manage rainwater in all the laneways.

- (z) Provision of new standard concrete pedestrian lane crossings, new curb returns and curb ramps at all existing lane crossings and all new lane crossings adjacent to the site; and
- (aa) Provision for the installation of parking regulatory signage on streets adjacent to the site to the satisfaction of the General Manager of Engineering Services.

- 2.12 Provision of a legal agreement to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services whereby the applicant is entitled to receive latecomer charges for a period of 24 hours following completion of the works contemplated by the following condition(s), which require(s) the applicant to provide

excess or extended services:

- (a) Willow St. offsite sewer upgrades per condition #2.11.(b).(ii).(ii);

Note to Applicant: The benefiting area for these works is under review.

- (b) W. 33rd Ave & Laurel St. & W. 32nd Ave offsite sewer upgrades per condition #2.11.(b).(ii).(iii).;

Note to Applicant: The benefiting area for these works is under review.

- (c) Provision for the construction of street improvements from property line to property line on W. 35th Ave from Willow St. to the lane east of Willow St. per condition #2.11.(g).; -

Note to Applicant: The benefiting area for these works is under review.

- (d) Provision for the construction of street improvements from property line to property line on 37th Ave from Willow St. to the lane west of Ash St. including any transition areas to connect existing and new curb alignments in order to provide an AAA Greenway per condition #2.11.(h).;

Note to Applicant: The benefiting area for these works is under review.

- (e) Provision for the construction of, or full funding for, street improvements from property line to property line on W. 37th Ave from the lane west of Ash St. to the lane west of Cambie St. including any transition areas to connect existing and new curb alignments in order to provide an AAA Greenway per condition #2.11.(i).;

Note to Applicant: The benefiting area for these works is under review.

- (f) Improvements at the intersection of 35th Ave and Cambie St. per condition #2.11.(p).

Note to Applicant: The benefiting area for these works is under review.

Note to Applicant: An administrative recovery charge will be required from the applicant in order to settle the latecomer agreement. The amount, which will be commensurate with the costs incurred by the City to administer the latecomer scheme, will be provided by the City and specified in the agreement.

For general Latecomer Policy information refer to the website at <https://vancouver.ca/home-property-development/latecomer-policy.aspx#redirect>.

- 2.13 Provision of all third party utility services (e.g., BC Hydro, Telus and Shaw) to be underground. BC Hydro service to the site shall be primary.

Note to Applicant: BC Hydro System Vista, Vista switchgear, pad mounted transformers, low profile transformers and kiosks as well as telecommunications kiosks are to be

located on private property with no reliance on public property for placement of these features. Submission of a written confirmation from BC Hydro that all these items will be located on the development property.

For questions on this requirement, please contact Utilities Management Branch at 604- 829-9447 or at umb@vancouver.ca.

Housing

Secured Market Rental Housing and Below Market Rental Housing

- 2.14 Make arrangements to the satisfaction of the General Manager of Planning, Urban Design and Sustainability and the Director of Legal Services to enter into one or more Housing Agreements and/or Section 219 **Covenants to secure a minimum of 373 residential units as secured market rental housing units, located on Parcels B and F combined, for the longer of 60 years or the life of the respective buildings**, subject to no- separate-sales covenants and a no-stratification covenants, and such other terms and conditions as the General Manager of Planning, Urban Design and Sustainability and the Director of Legal Services may require.

Note to Applicant: This condition will be secured by one or more Housing Agreements to be entered into by the City at by-law enactment pursuant to Section 565.2 of the Vancouver Charter and/or Section 219 Covenants.

AQ Comments: Negotiations are still ongoing. Potentially changing the use on-site and rendering this not applicable. We have noted the comment.

- 2.15 Make arrangements to the satisfaction of the General Manager of Planning, Urban Design and Sustainability and the Director of Legal Services to enter into one or more Housing Agreements and/or Section 219 Covenants to secure a minimum of **33,543 sq. m. (361,059 sq. ft.) of residential floor space, and approximately 373 residential units located on Parcels B and F combined, as secured rental housing, including at least 25 per cent of the residential floor area that is counted in the calculation of the market rental dwelling unit area per the CD-1 By-law (at least 8,385 sq. m. [90,265] sq. ft.) as below- market rental units ("below-market rental units")**. The below-market rental units are to be rented at 25% below the CMHC average market rents for the area, and the remaining units to be secured as market rental units, subject to the conditions set out below for such units, for a term equal to the longer of 60 years and the life of the respective building. The agreement or agreements will include, but not be limited to, the following conditions, and requirements:

AQ Comments: Negotiations are still ongoing. Potentially changing the use on-site and rendering this not applicable. We have noted the comment.

- (a) A no separate sales covenant;
- (b) A no stratification covenant;
- (c) A provision that not of such units will be rented for less than one month at a time;
- (d) A provision that none of such units will be Seniors Supportive or Assisted

Housing;

- (e) That a rent roll will be provided indicating the agreed initial monthly rents for each below market rental unit at time of the respective occupancy permit application;
- (f) That the average initial starting monthly rents for all below market rental housing units in the project will be at or below 25% below the CMHC city-wide average market rent;
- (g) That rent increases for the below market rental units will be capped at the Residential Tenancy Act maximum annual allowable increase, as published by the Province of British Columbia, regardless of a change in occupancy;
- (h) That the below-market rental units referenced in (f) are applicable only to households earning between \$30,000- \$80,000 per year, and where the rent level does not exceed 30 per cent of the household's gross monthly income;
 - (i) The applicant will verify the ongoing eligibility of existing tenants in the units secured at below-market rental rates as referenced in (f) every five (5) years after initial occupancy;
- (i) On an annual basis, or at the request of the City, the applicant will report to the City of Vancouver on the operation of the below market rental units which will ensure that the City can confirm that the units are being operated as agreed, and will include a rent roll for the below market rental units, and a summary of the results of eligibility testing for these units;
 - (i) For such tenants, rent control cannot exceed 30 per cent of the households gross monthly income;
- (j) Such other terms and conditions as the General Manager of Planning, Urban Design and Sustainability and the Director of Legal Services may require in their sole discretion.

Note to Applicant: This condition will be secured by one or more Housing Agreements to be entered into by the City at by-law enactment pursuant to Section 565.2 of the Vancouver Charter and/or Section 219 Covenants.

Social Housing

2.16 Make arrangements to the satisfaction of the General Manager of Planning, Urban Design and Sustainability (or successor in function) and the Director of Legal Service to enter into one or more Housing Agreements and Section 219 Covenants securing a minimum of 32,327 sq. m. (347,972 sq. ft.), equivalent to approximately 418 residential units, located on Parcels A and E combined, as social housing for 60 years or life of the respective building, whichever is greater, which will contain the following terms and conditions:

- (a) A no separate-sales covenant;
- (b) A no stratification covenant;
- (c) That the social housing units will be legally and beneficially owned by a non-profit corporation created by the MST Nations, or by or on behalf of the city, the Province of

British Columbia, or Canada as a single legal entity and used only to

provide rental housing for terms of not less than one month at a time and prohibiting the separate sale or transfer of legal or beneficial ownership of any such units;

- (d) Requiring such units to be used for "social housing", as that term is defined in the Vancouver Development Cost Levy By-law No. 9755;
- (e) Not less than 70 per cent of the social housing units will be occupied only by households with incomes below the then current applicable Housing Income Limits, as set out in the current "Housing Income Limits" table published by the British Columbia Housing Management Commission, or equivalent publication, and each rented at a rate no higher than 30 per cent of the aggregate household income of the members of the household occupying such social housing unit;
- (f) The remaining social housing units (30 per cent or less) are to be rented at affordable market rents. "Affordable Market Rents" means the average market rents posted by CMHC applicable to the location of the Lands, provided that such rents do not exceed 90% of:
 - (i) CMHC's Rental Survey for Vancouver for the applicable area, and by year of construction, (currently the 2005+ category), or an equivalent publication as may be approved by the City; or the appraised market rent for a comparable unit in the local area (where a "comparable unit" means a unit of the same type, similar size and in a building with a similar age and quality of construction).
- (g) Such other terms and conditions as the General Manager of Planning Urban Design and Sustainability and the Director of Legal Services may in their sole discretion require.

Note to Applicant: This condition will be secured by one or more Housing Agreements to be entered into by the City by by-law enacted pursuant to section 565.2 of the Vancouver Charter.

- 2.17 The City's requirement is that the social housing remains owned by a non-profit corporation, by a non-profit co-operative association, or by or on behalf of the City, the Province of British Columbia, or Canada for the duration of the Housing Agreement and is continuously operated as social housing as will be required by the Housing Agreement.

In addition to the Housing Agreement, the City's requirements are to be secured on title as a Right of First Refusal, Option to Purchase agreement, and Option to Lease agreement, with an assignment clause, on terms and conditions satisfactory to the Director of Legal Services.

The Right of First Refusal and Option to Purchase agreement will provide that if the owner or operator of the social housing parcel chooses to not continue ownership of the social housing parcel and intends to sell the social housing to an entity other than: 1) a non profit organization controlled or owned but the Musqueam, Squamish and/or Tsleil- Waututh Nation or 2) another non-profit or government entity acceptable to the City, then

the City will have the option to purchase the social housing at a nominal purchase price, noting that an air space subdivision to effect such transfer may also be required. The Option to Purchase will include an assignment and assumption of any necessary rights of access and support as may be required, including with respect to any associated parking for the social housing.

The Option to Lease agreement will provide that if the owner or operator of the social housing parcel chooses to not continue operation of the social housing parcel as required under the Housing Agreement and the Owner does not seek arrangement for a substitute operator including: 1) a non profit organization controlled or owned but the Musqueam, Squamish and/or Tsleil-Waututh Nation, or 2) another non-profit or government entity acceptable to the City, then the City will have the option to lease the social housing, as the case may be, at a nominal lease rate, and may retain, but shall not be obligated to, a substitute operator for the social housing. The Option to Lease will include an assignment and assumption of any necessary rights of access and support as may be required, including with respect to any associated parking for the social housing.

- 2.18 The owner is responsible for demonstrating that they will create, implement and comply with a Building Maintenance Plan (“Plan”) for the social housing floor space, to the satisfaction of the General Manager of Planning, Urban Design, and Sustainability. The Plan will include, at a minimum, the following elements:
- (a) A commitment to plan and carry out effective and efficient property management, maintenance and capital replacement of the building;
 - (b) Ensure financial viability and sustainability of the property ensuring adequate income/ funds to meet costs over the life of the building;
 - (c) Require the owner to maintain a capital replacement reserve that is adequately funded from the operating budget (i.e. does not rely on government funding); and
 - (d) The owner/operator is responsible for the ongoing maintenance of the building over its full operational life.

Note to Applicant: The final Plan is to be submitted by the non-profit housing operator and will be required prior to the issuance of the occupancy permit(s) for the applicable building. At the request of the City, from time to time, the Owner will make the Plan including the capital maintenance plan available to the City.

- 2.19 Make arrangements to the satisfaction of the General Manager of Planning, Urban Design and Sustainability, the Director of Finance, and the Director of Legal Services for the delivery of social housing units in Phases 1 and 3. To secure this condition the applicant will enter into agreements with the City which include, but may not be limited to the following requirements, all to be satisfied at no cost to the City:
- (a) Construction and delivery of Building A1 with no less than 15,305 sq. m (164,739 sq. ft.), equivalent to approximately 196 social housing units, in Phase 1 along with required parking, storage and amenity spaces:

- (i) Prior to the issuance of any occupancy permit for any building on Parcel F (Phase 1), and
 - (ii) Prior to the issuance of any development permit or building permit for any building on Parcel C (Phase 2).
- (b) Construction and delivery of Building E1 with no less than 17,023 sq. m (183,233 sq. ft.), equivalent to approximately 220 social housing units, in Phase 3 along with required parking, storage and amenity spaces by the earlier of:
- (i) Prior to the issuance of any occupancy permit for any building in Parcel G (Phase 3), and
 - (ii) Prior to the issuance of any development or building permits for any building in Parcel I (Phase 4) or Parcel H (Phase 5).

Parks

- 2.20 Make arrangements to the satisfaction of the General Manager of Parks and Recreation, in consultation with the General Manager of Planning, Urban Design and Sustainability, and the Director of Legal Services, for the delivery of a minimum 2.27 acre permanent park which shall be leased for park purposes by the City of Vancouver for a term of 99 years at a nominal lease rate of \$1.00 for the term, with an option to renew. To secure this condition, the applicant will enter into agreements with the City, including a Park Development Agreement, which will include, but may not be limited to, the following requirements, all to be satisfied at no cost to the City:
- a) Subdivision to create a contiguous minimum 2.27 acre permanent park parcel, with ownership to be retained by the MST Nations;
 - b) Enter into a 219 covenant to be registered on the park parcel restricting the use of the land to park use in perpetuity;
 - c) The design and construction of all the improvements on the minimum 2.27 acre park parcel are to be constructed at the sole cost of the applicant;
 - d) Design, public engagement, and delivery of the finished park will be undertaken at the sole cost of the applicant;
 - e) The applicant will be responsible for servicing the park parcel, which shall include without limitation, providing power and storm services to the Lands, and provision of water, sewer and other site services contingent on the future park design;
 - f) The applicant will be responsible, at its sole cost, for satisfying all Environmental Management Act requirements and completing any remediation required to ensure the park parcel meets numeric standards of remediation for park use, prior to completion of the park development. The Applicant shall be required to deliver to the City a separate Certificate of Compliance that meets these standards to the City's satisfaction;

- g) Enter into a nominal lease with the City pursuant to which the park lands will be leased to the City for a term of 99 years for the purposes of public park. The lease must be entered into prior to acceptance of the park by the City, with the effective date of the lease being the date of acceptance of the completed park by the City. The lease will contemplate that the park is to be operated by the City, through the Vancouver Board of Parks and Recreation, with oversight and input from the intergovernmental working group established in accordance with condition #1.67. The Vancouver Board of Parks and Recreation will be responsible for the day to day maintenance of the park, as well as any park renewals during the lease term.
- h) Prior to the effective date of the lease, the park parcel shall be free and clear of any financial charges, liens, and other encumbrances.
- i) The applicant will be responsible for any increase or escalation in costs to build the turnkey park.
- j) If the applicant is otherwise in default in completing any or all of the 2.27 acre park, the City and Park Board may commence the design, construction and completion of any or all of the remaining park works all at the Applicant's sole cost and expense, details of which are to be outlined in the Park Development Agreement;

Note to Applicant: Costs to cover remaining work will be at the sole cost of the applicant, will be lodged as a cash deposit by the applicant, and will be estimated by the Park Board.

- k) The foregoing agreements will provide occupancy permit holds, as required by the City in its sole discretion, to ensure that the construction and delivery of the park with no less than 2.27 acres, and execution of the lease is completed in Phase 2 by the earlier of:
- (i) Prior to the issuance of any occupancy permit for any building in Parcel C (Phase 2), and
 - (ii) Provision of a surety bond for the full value of park construction if turnkey delivery is not completed prior to issuance of any occupancy permit for any building in Parcel C (Phase 2).

- 2.21 To reflect the applicant's wishes that the park lands remain owned by the MST Nations, the continuous ownership of the park lands will be further secured by a Right of First Refusal and Option to Purchase agreement which will provide that if the owner of the park lands chooses to not continue ownership of the park lands and intends to sell the park lands, or any portion thereof, then the City will have the option to purchase the park lands, or any portion thereof being sold, for a nominal purchase price.

Social Policy

- 2.22 Fulfill, to the satisfaction of the Director of Social Policy, the Sustainable Food Systems requirements of the Rezoning Policy for Sustainable Large Developments for sites over

10 acres in size. Specifically, deliver resident community garden plots on all residential parcels as noted in condition #1.55. To secure this condition, the applicant will enter into one or more agreements with the City which include, but may not be limited to, the following requirements:

- a) Permit holds subject to the completion of the design, construction, and satisfactory acceptance of the food assets if required.
- b) Such other terms and conditions as the Director of Legal Services, in consultation with the General Manager of Real Estate and Facilities Management and the General Manager of Arts, Culture and Community Services may in their sole discretion require.

Sustainability

- 2.23 The applicant will enter into an agreement with the City, on terms and conditions acceptable to the Director of Sustainability and the Director of Legal Services, that requires the future owner of each building constructed in CD-1 South to report energy use data, on an aggregated basis, for each applicable building as a whole and certain common areas and building systems. Such an agreement will further provide for the hiring of a qualified service provider to assist the building owner for a minimum of three years in collecting and submitting energy use data to the City.

Community Benefits Agreement

- 2.24 Enter into a Community Benefits Agreement as per the City of Vancouver's Community Benefits Agreement ("CBA") Policy on terms and conditions satisfactory to the General Manager of Arts, Culture and Community Services and the Director of Legal Services, which will require the applicant and its development partners to:
- a. Participate in a First Source Hiring program, in consultation and partnership with community stakeholder groups and the City, making new entry level jobs available to equity seeking community members in Vancouver first, and striving for an overall target of 10% of labour (including for contractors, subcontractors and other possible vendors) sourced from adjacent low-income communities and equity seeking groups across the city; including women in trades, Indigenous people, racialized communities, and others facing barriers to opportunity due to discrimination, exclusion and stigmatization;
 - (b) Demonstrate Best Efforts to procure a minimum of 10% of material goods and services from third party certified social impact and/or equity seeking businesses and social enterprises, across the entire lifecycle of the development site, prioritizing Vancouver-based ventures but extending through supply chains regionally and outside the Province and the Country where and when required. This includes, where applicable, post-occupancy and ongoing service needs;
 - (c) Demonstrate Best Efforts to attain 10% procurement of materials, goods and services from Vancouver companies or companies located in Metro Vancouver or British Columbia. These may or may not also be equity seeking 3rd party certified businesses as defined in the policy;

- (d) Retain the services of an independent third party to the satisfaction of the City in order to assist in monitoring and reporting on the progress towards reaching these goals on an agreed upon timeline with the City of Vancouver during and upon completion of the project and its various development phases. This may include, where applicable and where possible, post-occupancy and ongoing service needs;
- (e) Participate in a Project Specific Implementation and Monitoring Working Group with City staff, industry and training and skill development bodies, employment services organizations, and community representatives with knowledge of social procurement, social hiring, and community economic development, which commitments will be secured by Section 219 covenants and permit holds; and
- (f) Section 219 is applicable to the entirety of the CBA Policy insofar as they:
 - (i) Participate in the city-wide CBA working group community of practice:
 - (ii) Retain the services of an independent third party to assist with achieving the targets established in the policy and monitoring and reporting on them and by doing so; and
 - (iii) Demonstrate Best Efforts to achieve the targets in the CBA Policy to the satisfaction of the General Manager of Arts Culture and Community Services.

Note to Applicant: Agreeing to these conditions as per the CBA Policy does not preclude the applicant from entering into any additional agreements with communities including ones geographically located nearby the development site, or sites, or with First Nations.

Environmental Contamination

2.25 If applicable:

- (a) Submit a site disclosure statement to Environmental Services (Environmental Protection);
- (b) As required by the Manager of Environmental Services and the Director of Legal Services, in their discretion, do all things and/or enter into such agreements deemed necessary to fulfill the requirements of Section 571(B) of the Vancouver Charter; and
- (c) If required by the Manager of Environmental Services and the Director of Legal Services, in their discretion, enter into a remediation agreement for the remediation of the site and any contaminants which have migrated from the site on terms and conditions satisfactory to the Manager of Environmental Services, the General Manager of Engineering Services and Director of Legal Services, including a Section 219 Covenant that there will be no occupancy of any buildings or improvements constructed on the site pursuant to this rezoning until separate Certificates of Compliance, satisfactory to the City, for the on-site and

off-site contamination, issued by the BC Ministry of Environment and Climate Change Strategy, have been provided to the City.

Public Art

- 2.26 Execute a Public Art Agreement satisfactory to the Director of Legal Services and the Director of Cultural Services for the provision of public art in accordance with the City's Public Art Policy, such agreement to cover all requirements for the site density and to provide for security in a form and amount satisfactory to the aforesaid officials; and provide the Public Art Checklist with development details to the satisfaction of the Head of Public Art. The public art requirement will apply at each Building Permit and require that public art be provided along with each building approval at a budget commensurate with the floor area in the permit. However, subject to the guidance of the public art master plan (see next paragraph) and with the agreement of the Director of Legal Services and the Director of Cultural Services, funds from individual buildings may be pooled to create larger art opportunities for the Heather Lands' public spaces.

Given the significance and scale of the site, the applicant should develop a public art master plan, in consultation with the City, for Heather Lands. The master plan will guide commissioning of public art for Heather Lands and can be developed alongside art plans required for the first Development Permit within CD-1 South.

Note to Applicant: Please contact Eric Fredericksen, Head of Public Art (604-871-6002), to discuss your application.

CD-1 (52A) and CD-1 (80) Amendment

- 2.27 That the by-laws to amend the boundaries and uses for CD-1 (52A) and CD-1 (80) are enacted prior to enactment of the by-law for this CD-1 (South), as per Recommendation A of this report.

Community Amenity Contributions

- 2.28 Make arrangements to the satisfaction of the General Manager of Planning, Urban Design and Sustainability, the Director of Legal Services, and the General Manager of Finance to ensure the conditions for the ownership of in-kind amenities as set out in the Community Amenity Contribution Policy for Rezoning (2020) are met, including but not limited to:
- (a) Securing the ongoing long-term use and availability of the in-kind amenities through legal agreements, including Section 219 covenants and/or statutory rights of way;
 - (b) Options to purchase the in-kind amenities if the MST Nations, or designate, intend to sell all or a portion of the in-kind amenity, as further set out in the preceding conditions of by-law enactment;
 - (c) Options to lease the in-kind amenities for a nominal amount if the MST Nations, or designate are unable to continue operation of all or a portion of the in-kind amenity, as further set out in the preceding conditions of by-law enactment;

- (d) Securing the provision of affordable community access to the in-kind amenities equivalent to the value of the CAC credit secured through the rezoning;
- (e) Payment of all costs to construct, finish, furnish and equip the amenity, including all applicable up-front development costs; and
- (f) Selection of a non-profit operator for each in-kind amenity to be to the satisfaction of the City.

2.29 Pay to the City the Community Amenity Contribution of \$13,000,000.00, to be allocated towards public realm improvements including, but not limited to, acquisition and construction of 35th Avenue and 37th Avenue between Willow Street and Oak Street, which the applicant has offered to the City. Payment is to be made prior to issuance of the first Development Permit within the CD-1 by-law area, at no cost to the City and on terms and conditions satisfactory to the Director of Legal Services.

Note to Applicant: Where the Director of Legal Services deems appropriate, the preceding agreements are to be drawn, not only as personal covenants of the property owners, but also as Covenants pursuant to Section 219 of the Land Title Act.

The preceding agreements are to be registered in the appropriate Land Title Office, with priority over such other liens, charges and encumbrances affecting the subject site as is considered advisable by the Director of Legal Services, and otherwise to the satisfaction of the Director of Legal Services prior to enactment of the by-laws.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable charges, letters of credit and withholding of permits, as deemed necessary by and in a form satisfactory to the Director of Legal Services. The timing of all required payments, if any, shall be determined by the appropriate City official having responsibility for each particular agreement, who may consult other City officials and City Council.

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