BAPTIST HOUSING
SENIORS LIVING

Inglewood Redevelopment
QUESTIONS & ANSWERS

How many residents will be living at Inglewood once complete?

- The following numbers represent those who will be living at Inglewood, including projected spouses in the Life Lease/Independent Living building and the Affordable Housing building. There are no patients or caregivers. There are no condos planned for the Inglewood redevelopment.
  - Long Term Care – 240 residents
  - Assisted Living / Long Term Care – 106 residents
  - Affordable Housing – 269 residents
  - Independent Living / Life Lease – 258 residents

How many people will work at Inglewood each day?

- The following numbers represent those team members who will work at Inglewood each day in various roles to support daily operations. It is possible that some may also choose to live in the Affordable Housing building in suites designated for workers. BC Housing and Vancouver Coastal Health employees will not work at Inglewood. Outside providers are not projected in our submission as they will not be on site daily and will be present on a need's basis (i.e. ambulance)
  - Long Term Care – 87 Team Members (day shift - peak)
  - Assisted Living / Long Term Care – 28 Team Members (day shift - peak)
  - Affordable Housing – 2 Team Members (day shift - peak)
  - Independent Living / Life Lease – 25 Team Members (day shift - peak)

How many visitors per month or per day are expected?

- Estimates:
  - Long Term Care – 600 per month
  - Assisted Living – 450 per month
  - Independent Living / Life Lease – 400 per month

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What is the planned sanitary sewer volume discharge per day?

- ± 310k litres/day

What is the planned water consumption volume per day for the quarter Oct, Nov, Dec?

- 240k litres/day (plus irrigation demand for months specified, yet to be confirmed)

What is the planned water consumption volume per day for the quarter Jun, Jul, Aug?

- 240k litres/day (plus irrigation demand for months specified, yet to be confirmed)

NOTE: the design outflow is greater than the design inflow due to allowance for infiltration. These are design values based off historical averages for the purpose of sizing infrastructure; the results of the sizing calculations don't necessarily perfectly match the site specific demand/discharge profiles.
Source criteria: *Master Municipal Construction Documents Design Guidelines*

- Average Water Demand for design = 300L/capita/day
- Average Sanitary Discharge for design = 286L/capita/day + infiltration allowance

Has District of West Vancouver asked for the volumes of sanitary sewer, storm sewer and water estimates associatedwith the new development prior to today (25 May 2021)?

Yes.

When completed, what will the gross revenue per year be?

Neither have been set yet as the proforma for the project is still being worked on.

How many passenger vehicles will "live" on site? How many other vehicles will "live" on site?

- Total resident parking stalls = 269 resident, 68 staff, 39 visitor
- Bike parking = 281 bike stalls (217 resident, 64 visitor)
- BH minibus = 2 stalls

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How many passenger vehicles will visit site per day and their average stay in hours?

- Traffic study estimates 170 passenger vehicle trips (inbound and w = 2.83/minute)
- Team members work 8-hour shifts

How many other vehicles (trucks, semi-trailers, service, food delivery, maintenance etc.) will visit site per day and their average stay in hours?

Estimated deliveries/pick up per week typical:

- Garbage – 10
- Medical supplies – 7
- Food trucks – 15
- Recycling – 4
- Organics – 5
- Other - 2

How many passenger vehicles will be parking on the street?

There will be no on-street parking permitted adjacent to the site.

How many passenger plus other vehicles that come to site after construction is completed will originate in:

- **Squamish and north,**
- **Arrive via Lions Gate Bridge,**
- **Arrive via Second Narrows bridge?**
- **Will originate within WestVan**

Based on regional survey data, we would expect around the following:

- 80% originating in West Vancouver or North Vancouver
- 15% via the Lions Gate Bridge
- 5% via the second Narrows Bridge
- <1% from Squamish and other areas to the north.

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What is the plan for transporting residents to various functions and have these excursions been included in vehicle count above?

- BH minibus will transport groups and individuals.
- Yes, ride share & taxi have been included. The forecasted number of peak hour vehicle trips were based on trip generation data collected at similar sites.

What is the total expected assessed value of all space associates with this development? And what would the incremental assessed value be (new development - current Inglewood); and to put in perspective what is the total assessed value of all property tax paying properties in WestVan

Not available until completion.

What is the total budget cost that must be paid to DWV for connecting storm, sanitary and water to existing DWV systems?

To be determined.

Has anyone associated with Baptist Housing donated (as defined by Elections BC) to any DWV council member or to any DWV staff member or consultant? (including family members, charitable organizations or non-arm's length companies or organizations controlled directly or indirectly by council members)

Not to our knowledge.

How many times have employees or consultants engaged by Baptist Housing met with the Mayor, any councilor or DWV staff or DWV consultant in the last 2 years.

Baptist Housing has had periodic meetings with all Councilors and Mayor.

Baptist Housing and its consultant team has had various meetings with DWV staff related to planning discussions, preliminary proposal, community outreach and public information sessions.

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QUESTIONS & ANSWERS

How many loads of concrete will be needed to construct the development, including origin, round trip mileage and estimated total transportation carbon footprint?

- Phase 1, there are 23,000 m^3 of concrete which would equate to 2,211 concrete trucks (10.4 m^3/truck). It is too early to tell which supplier will be providing concrete to the development; at this point this question cannot be answered to the detail being requested.

How many loads of steel will be needed to construct the development/origin of the steel in the GVRD, where it was manufactured, and estimated total transportation carbon footprint?

- One of our Construction Manager's suppliers stated: 25% originates in Canada, 25% originates in the United States and the remaining 50% comes from Eastern Europe (The specific country in Eastern Europe depends on tariffs at the time of purchase). Accurate quantities of steel are not yet available for the project and the number of trucks will be dependent on the weight of the steel and amount of steel that is prefabricated off site.

How many other truckloads of material (excavation, gravel, asphalt, trees, equipment delivery, and what is the estimated total transportation carbon footprint?

- For Phase 1, there are 66,384 m^3 of Excavation and 7018 m^3 of fill which would equate to 9,175 dump trucks (8 m^3/truck).
- Carbon footprint not known and is dependent on a number of variables.

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What is the embodied carbon; embodied construction carbon includes the raw materials of construction (concrete, piping, roofing material etc, plus the carbon footprint of transportation to and from the site of construction workers and construction suppliers) https://www.carboncure.com/concrete-corner/what-is-embodied-carbon/

- **Of construction carbon associated with both the demolition and construction of new facilities?**
- **What is the embodied carbon of equipment (beds, tables, fridges, computers, removableflooring etc.) needed to 'fill the various rooms and functions?)**

- The operational carbon associated with energy consumption of the facility has currently been quantified as required by DoWV, to ensure compliance with max GHGI rates. Embodied carbon andindirect emissions from transportation and waste handling have not been quantified for the project.

Operational Carbon: what is the annual total energy requirements? What is the source of the energy?Electrical, carbon based. In short what is the annual carbon footprint of operations (lighting, heating, air conditioning, pumping, cleaning, etc.) And as a % how does total annual carbon footprint of operations compare to the total carbon footprint of WestVan?

- Total annual energy req't = Sitewide all buildings ~7,000 MWh, or average TEUI 108 kWh/m^2
- Source = electricity, solar PV and gas for backup/top up and kitchen cooking only.
- Annual CO_2e? or GHGI? = Sitewide all buildings combined GHGI 3.7 $kgCO_2e/m^2$
- NOTE: Unclear what total carbon footprint of West Van is intended to compare to. After a quick searchonline, the District of West Vancouver has a GHG inventory report from 2008 of their municipal buildings, but the total carbon footprint of West Vancouver would be very different.

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Over and above the statutory requirements imposed, what additional steps are taken to reduce the carbon footprint of this development? And please quantify the carbon amount.

The project is complying with the BCBC and BC Energy Step Codes. Additional steps being taken to reduce carbon footprint include:

- High performing envelope, including:
  1. high thermal performance of all assemblies,
  2. careful consideration of glazing location and window to wall ratio in design to minimizeheat loss from windows,
  3. focus on air tightness to limit infiltration rates be two times better than code,
- Locally sourced materials and products preference to reduce embodied carbon,
- Reduce commute times and transportation emissions by providing on-site accommodation forteam members,
- Potential photovoltaic arrays on the roofs to generate carbon neutral power,
- High efficiency lighting system and controls, resulting in much lower power requirements than building code,
- Passive strategies for the HVAC systems beyond code, including:
  1. Air intakes are integrated with landscape design to improve air quality and to providenatural cooling of ventilation air,
  2. Earth tube systems using the ground to pre-temper all incoming ventilation air providing free heating and cooling reducing system loads. The earth tube system also pre-heat andpre-cool makeup ventilation air for the commercial size kitchen that per code has no heatrecovery requirement in place, this reduces heating and cooling demands on high ventilation rates.
  3. Central air source heat pumps with heat recovery capabilities able to recover heat from simultaneous heating and cooling. This system has the capability to provide additional domestic hot water preheat with low carbon source during summer time, and as the climate warms and cooling load increase more low carbon heat will be available for DHW.

- High efficiency on all mechanical systems beyond code, including:
  1. High efficiency enthalpy wheels heat recovery on ventilation, which reduce humidification and ventilation heating and cooling load.
  2. Radiant heating/cooling in suites using low carbon heating source and reduce need for fan power whilst at the same time providing safe and comfortable environment for building occupants,
  3. Specified low flow fixtures beyond code maximums on faucets/fixtures to reduce hot water heating demand,
  4. Central air source heat pump low carbon heating source for domestic hot water heating, also including kitchen and laundry,
  5. Heat recovery off electrical substation and associated switchgear,
  6. Heat recovery off kitchen freezer condensing units,
  7. Ozone system in central laundry significantly reducing hot water demand.
- Quantification of Operational Carbon reductions beyond code requirement include: For long term care facilities preliminary GHGI targets are presented for the Step Code:
  - BCBC Energy Step Code 1 (NECB): 19.1 $kgCO_2e/m^2$
  - LTC/AL Proposed Design: ~5-7 $kgCO_2e/m^2$, ~63% to 73% over BCBC Step 1 and NECB

  BCBC and the Energy Step Code does not currently have carbon targets in place for the residential typologies (RRS and AH), however the energy consumption reduction over code is as per the following:
  - Residential Energy Step Code Step 3: TEUI Max 120 kWh/m^2
  - RRS Proposed Design: ~90 kWh/m^2, 25% reduction over Step 3
  - AH Proposed Design: ~75 kWh/m^2, 38% reduction over Step 3

  District of West Vancouver has additional requirements as part of their rezoning requirements as per the following:
  - District of West Vancouver GHGI rezoning: GHGI Max 3 $kgCO_2e/m^2$
  - RRS Proposed Design: ~3 $kgCO_2e/m^2$, including commercial kitchen
  - AH Proposed Design: ~2 $kgCO_2e/m^2$