

24 May 2021

To: The Independent Planning Commission
Attention: Casey Joshua

GLEBE ISLAND CONCRETE BATCHING PLANT AND AGGREGATE HANDLING FACILITY (SSD 8544) QUESTIONS ON NOTICE

This submission has been prepared by Ethos Urban on behalf of Hanson, to provide additional information to the Independent Planning Commission's request for information dated 18/5/2021 in relation to the proposed Glebe Island Concrete Batching Plant and Aggregate Handling Facility (SSD 8544).

1. Aggregate Storage Silos:

a) Clarification of the total storage capacity (in both tonnes and cubic metres) of the aggregate storage silos depicted on the plans before the Commission for determination;

The storage capacity will be approximately 16,000m³ or 26,000 tonnes.

b) Confirmation on whether the aggregate storage silos are proposed for storage of aggregate only or if other materials (such as sand) will also be stored;

It is important to highlight that the term 'aggregates' includes both coarse aggregates (such as gravel) and fine aggregates (such as sand). There is an entire spectrum of aggregates, all of which serve different purposes in achieving the varying technical specifications for different types of concrete. Hanson therefore has a network of a range of different aggregate (i.e. gravel and sand) quarries that produce different types of aggregates, as well as processing plant that can crush rock material into different sizes. Hanson confirms that the silos proposed aggregate storage silos would only be used for the storage of aggregates (including coarse aggregates (i.e. gravel) and fine aggregates (i.e. sands of different gradings)).

In the case of Glebe Island, it is expected that Hanson's Bass Point Quarry (located at Shell Harbour) would supply most of the coarse aggregates for the proposed concrete batching plant, as well as some of the fine aggregates. Shell Harbour has shipping capability and Hanson intends to deliver the aggregates from Bass Point to Glebe Island via ship. These coarse and fine aggregates would be offloaded from the ships and stored in the proposed aggregate storage silos at the site.

Some of the coarse and fine aggregates (i.e. including gravels and sands of different gradings) would not be able to be delivered by ship as the quarries are located inland or do not have associated shipping infrastructure. Rather these materials would need to be delivered to the site via truck. Trucked in aggregates would also need to be stored in the proposed aggregate storage silos at the site.

To be clear, all of the aggregate materials (including coarse aggregates (i.e. gravel) and fine aggregates (i.e. sands of different gradings)) would need to be stored at the proposed aggregate storage silos at the site so that the material can be accessed for use in the proposed concrete batching plant, irrespective of whether it is delivered to the site via ship or truck.

c) In the event that other materials will be stored in the aggregate storage silos, please provide a breakdown of the total storage capacity into the different material components (in both tonnes and cubic metres) and whether this material will be used on site or elsewhere;

The proposed aggregate storage silos are expected to be filled as follows:

- Coarse aggregates delivered by ship = 13,000 tonnes => 8,125m³
- Fine aggregates delivered by ship = 4,333 tonnes => 2,708m³
- Fine aggregates delivered by road = 4,333 tonnes => 2,708m³
- Coarse aggregates delivered by road = 4,333 tonnes => 2,708m³

This is however subject to the material demands of the numerous concrete designs, meaning that flexibility is required in the storage capacity to cater for changing market products. For example, No Fines Drainage Concrete for road drainage requires only coarse aggregates predominantly 20mm in size, whereas Shotcrete, which is sprayed on tunnel walls requires, 10mm and sand aggregates and no 20mm.

It is intended that the vast majority of the aggregates shipped to Glebe Island would be used directly in the proposed Glebe Island concrete batching plant. However, if the market demand for concrete is required to be met from other concrete batching plants, or if the technical specifications for the concrete required throughout the Hanson network dictates, then the aggregates delivered by ship to Glebe Island may be transported by truck to other concrete batching plants. The breakdown of how much of the shipped-in aggregates are used on-site or taken off-site is not possible to know at this point in time, as it will vary according to market demand and the technical specification of the concrete orders that arise at the time. This also applies for customers who require aggregates for asphalt plants, nurseries, civil projects, and general building.

Similarly, the vast majority of any aggregate material that is trucked into the site will be used on-site in the proposed Glebe Island concrete batching plant. Any aggregates that are trucked in, stored in the proposed aggregate storage silos at the site, and then trucked off-site for use in another concrete batching plant clearly involves double handling of the material, and represents an obvious inefficiency – this would add unnecessary cost to Hanson’s supply chain and would be avoided to the extent practicable for obvious commercial reasons.

d) A breakdown of the amount of the total aggregate storage capacity that will be used on-site for the purpose of concrete batching and the amount that is intended to be transported for off-site use;

It is intended that the vast majority (if not all) of the aggregates delivered to the site via ship would be used on-site at the proposed Glebe Island concrete batching plant. However, if the market demand for concrete is required to be met from other concrete batching plants (for example due to the location of major construction projects generating the demand), or if the technical specifications for the concrete required throughout the Hanson network dictates, then the aggregates delivered by ship to Glebe Island may be transported by truck to other concrete batching plants. The breakdown of how much of the shipped-in aggregates are used on-site or taken off-site is not possible to know at this point in time, as it will vary according to market demand and the technical specification of the concrete orders that arise at the time. This also applies for customers who require aggregates for asphalt plants, nurseries, civil projects, and general building. Either way, the importation of aggregates via ship to Glebe Island will result in an improvement to the efficiency and sustainability of Hanson’s concrete supply chain and would reduce truck movements across the inter-city and Sydney metropolitan road networks.

Without knowing the exact payload of the shipping vessel at the time of preparing the EIS and RTS, the aggregate silos storage capacity has been sized to contain a few days of aggregate consumption should the deliveries by ship be unavailable due to repairs or other downtime. Historically, the Bass Point Quarry has dispatched up to 9,000 tonnes per day of aggregates that could be delivered by ship. On this basis the aggregate silos, when full, would store around 2.5 days’ worth of consumption. These daily volumes are expected to increase with population growth and demand over time.

It is our intention to keep the aggregate silos as full as possible at all times to ensure the plant has an appropriate amount of surge capacity.

e) For the aggregate or other materials being transported off-site, confirmation of where those materials are generally expected to be delivered to;

Hanson has a number of batch plants in this area where aggregates could potentially be delivered to. However, there are also numerous other consumers of aggregates such as other batch plants, asphalt plants, nurseries, civil projects and general building sites. Aggregates from the proposed aggregate storage silos would generally support building and infrastructure projects throughout the surrounding local government areas, such as the City of Sydney, Willoughby, Mosman, North Sydney, Woollahra, Waverly, Randwick, Botany Bay, Inner West, Burwood, Canada Bay, Hunters Hill, Lane Cove.

f) Confirmation of the total amount of aggregate to be delivered to the site (via ship and truck) per annum and also the amount per ship delivery and per truck delivery (in tonnes and cubic metres); and

Hanson expects to deliver 1 million tonnes (625,000m³) of aggregates by ship and up to 500,000 tonnes (312,500 m³) of other aggregates (both coarse and fine) by road per annum. The road component is largely governed by concrete mix specifications for government infrastructure projects.

Hanson attempted to have Condition F3 (a) amended by DPIE to clearly state that the 1,000,000 tonnes of aggregates delivered per annum is by ship only, but DPIE had already referred the project onto the IPC. Hanson would like this conditioned amended, so it clearly states that the 1,000,000 tonnes per annum is delivered by ship.

The ship capacity is anticipated to be within 4,000 tonnes (2,500 m³) and 13,000 tonnes (8,125 m³) depending on what is available in the shipping market at the time. Hanson is yet to determine to appropriate vessel for the facility. The approximate aggregate truck capacity delivering and receiving aggregates from the site will be 33 tonnes (20.6 m³).

g) Confirmation of the total amount of sand to be delivered to the site by truck in tonnes and cubic metres, how the sand is transferred from the trucks and stored at the site and the proportion of delivered sand that will be used on-site.

As above.

2. Hours of operation of other concrete batching plants:

a) Examples of other concrete batching facilities in the Sydney region that operate for 24 hours per day, 7 days per week.

All of Hanson's concrete plants in Sydney have historically operated 24 hours per day to meet market demands. Currently both Hanson's Banksmeadow and Greenacre concrete plants are operating on a 24/7 basis. Most other concrete batch plants in Sydney have the capability to operate 24/7. We also note there are several recent development consents issued by councils and the Land and Environment Court that authorised 24/7 concrete batching operations in Sydney.

3. On-site traffic movements:

a) The location in the EIS or RTS where traffic movements within the site, including swept paths, are described.

Appendix H of the Environmental Impact Statement is a Traffic Impact Assessment Report prepared by AECOM. Appendix B of the Traffic Impact Assessment contains detailed swept paths for concrete trucks, aggregate trucks, and cement tankers.

The plans were amended during the Response to Submissions, and revised swept path analysis (for the paths that changed) were provided at Appendix C of the Supplementary Traffic Report, which was prepared by AECOM, and which formed Appendix E of the Response to Submissions Report.

4. Information previously requested:

a) Photomontages in accordance with the Commission's request dated 7 May 2021.

Revised photomontages are attached.

5. Hanson's Additional Comments

a) Updated Site Plan

The originally proposed plan shows the location of the filling chute on the outside edge of southern side of the silos. We have subsequently determined through design development that it will be possible to locate the filling chute on the inside edge of the silos, meaning that the trucks can be loaded from the partially enclosed space underneath the silos with high speed roller door located at the entry and exit areas. This requires 3 truck parking bays to be relocated from the eastern end of the silos to parking spaces that are now available along the southern façade, adjacent to the existing proposed truck parking spaces. The relocated parking bays have been designed to ensure that trucks can enter and exit the bays and manoeuvre around the south-eastern corner of the site safely and efficiently with no functionality problems. We have provided a revised site plan and elevations that shows the revised location of the filling chute and provides the swept path for the revised truck access way underneath the silos. The previously provided elevations also show the trucks accessing the silos from directly underneath.

In relation to the height of the silo and silo roof, we confirm that the silo height is proposed to be 27m and the silo roof height is proposed to be 7m with an overall silo height of 34m. This is consistent with the elevations provided.

b) Amendment to Condition F3(a) of the Recommended Development Consent

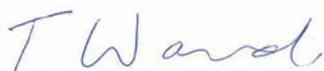
As per the Environmental Impact Statement by Ethos Urban dated 14 March 2018 (page 11), Hanson proposes to deliver 1,000,000 million tonnes of aggregates by ship. It is therefore requested that Condition F3(a) of the recommended development consent be amended to state *"The operation of this use is restricted to a maximum of: delivery of 1,000,000 million tonnes of concrete aggregates per annum **by ship**"*.

Conclusion

We trust that the additional information provided will assist the Commission in its assessment and determination of SSD 8544.

Hanson would welcome the opportunity to clarify any further queries of the Commission, if required. Should you have any queries about this matter, please do not hesitate to contact me on [REDACTED]

Yours sincerely,



Tim Ward
Director