CITY OF PARRAMATTA

Department of Planning and Environment
4 Parramatta Square, 12 Darcy Street
Parramatta NSW 2124

Your Ref	SSD-31179510
Our Ref	NCA/9/2022
Contact	Paul Sartor
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1 September 2022

ATTN: STEPHEN DOBBS;

NOTICE OF EXHIBITION OF ENVIRONMENTAL IMPACT STATEMENT FOR THE GREGORY PLACE BUILD TO RENT SCHEME (2A GREGORY PLACE, HARRIS PARK)

I refer to the above application and the request to provide advice on the proponent's *Environmental Impact Statement*.

Council is supportive of the provision of affordable housing and housing choice within our City, noting the proposal proposes a 50/50 split between affordable housing and build to rent. However, having reviewed the application it is clear that there are a number of fundamental concerns with the proposal as presented. On this basis, Council **objects** to the proposal for the following reasons. Council's full discussion of issues is provided at Attachment 1.

1. The proposal is not supported by Council as there are considered to be flood impacts contrary to the Floodplain Development Manual and NSW Flood Policy.
    (i) Council notes that there are significant differences in the submitted flood study compared to the Council's adopted flood study.
    (ii) The site is classified as a High Hazard Flood area.
    (iii) Modelling needs to be reworked to include a blockage factor, overland flow and climate change.
    (iv) a 500mm freeboard is not considered to be acceptable.
    (v) a Riparian Corridor Study is required.

2. The built form of the proposal and its heritage relationship to Experiment Farm, Elizabeth Farm and Hambledon Cottage and the surrounding context in Gregory Pl cannot be supported. The proposal does not adequately respond to this important heritage and low scale residential context, the unique site characteristics, streetscape and existing and future character of the locality.

3. The archaeological potential of the site has not been properly determined and is likely to conflict with the proposed basement which is significant in size.

4. The proposed 6-8 storey building height dwarfs Hambledon Cottage and the existing surrounding context in Gregory Place. The proposed 67% variation to the Parramatta LEP Height Control of 9.2m is not supported.

5. The proposed site planning results in the impression of a private gated estate which impacts unacceptably on heritage views. Setbacks to key interfaces are insufficient and the interface with Clay Cliff Creek is poor.

6. Basements must not cover the entire site and should be located beneath the building footprint only. Basements may well not be a suitable design solution given the site's flood affectation, including the need to plan for the PMF.

7. Noting the objection to the scale of the proposed development overall, the proposed parking rate, whilst compliant with the minimum rates required under the Housing SEPP is considered an oversupply. Were the proposal to be approved at this scale and density, parking provision should be restricted to a maximum of 242 residential parking spaces and 68 visitor parking spaces in order to minimise the site's traffic generation and its impact on the operation of the surrounding road network.

8. There is inadequate setback and tree protection given to a group of significant trees located in the north western corner and along the western side. The proposed setback of 6m is insufficient to enable retention of these trees.

9. The proposal will have significant visual impact on the heritage parkland and will likely increase recreational demand on the adjoining Hambledon Cottage and Experiment Farm reserves to a level that will compromise active and passive recreational experiences for users.

It is noted that this is a Council officer submission that has not been endorsed formally by Council.

Given the number of concerns with the proposal Council cannot support the scheme at present and objects to the application.

We are committed to working further with the Department and should you wish to discuss the above matters further, please contact Paul Sartor on the details listed above.

Yours sincerely

Myfanwy McNally
MANAGER, CITY SIGNIFICANT DEVELOPMENT

ATTACHMENT 1 – Detailed Comments

Flooding

The site is subject to significant inundation and high hazard conditions, representing a significant risk to life of residents from flash flooding. The proposal must be substantially reviewed to reduce this risk - if this is even possible. The proposal is not supported by Council in accordance with the Floodplain Development Manual and NSW Flood Policy. Council notes that there are significant differences in the submitted flood study compared to Council's adopted flood study. Council cannot vouch for or endorse the accuracy of the submitted flood study and given the difference, Council remains concerned that the proposal has not adequately assessed or responded to flood risk.

Following a high-level review of the submitted flood study in the given timeframe the following comments and recommendations are provided:

Flood Study

a. The flood maps provided in the report have significant differences in terms of the flood extents and flood levels. A comparison between Council's Flood Enquiry Information vs. the Flood report prepared by GRC Hydro, dated 16 June 2022. 1% AEP flood extent is attached. Refer to **Appendix 1.** The extent of flooding along Gregory Place, Alfred Street and Hassall Street are significantly less in the GRC Hydro Report compared to the adopted Council Flood Study which should be investigated.
   Action: The consultant should compare flood extents and investigate the differences; the submitted models should be independently peer reviewed by a suitably qualified engineer/flood modeller. The results of the peer review should be documented and submitted to Council.

b. According to the Flood Information provided to the applicant by Council on 23 September 2020, part of the site is classified as a High Flood Hazard area. **Council's DCP states that high flood risk areas are not suitable for residential development.**
   Action: The proposed building footprints should be amended (narrowed) to avoid flood impacts and to avoid the high flood risk area. Suspended slab structures over a high hazard area are not supported, given bulk and scale concerns. There is high risk associated with floodwater surrounding the buildings with regards to safe access and egress that needs to be assessed.

c. There are culverts along Clay Cliff Creek at road crossings that are in very close proximity of the site which can be subject to extreme blockages during major floods. It appears that the modelling provided by the application applies a zero blockage along the culverts. A suitable blockage factor should be calculated for each crossing and utilised in the flood model. In highly urbanised catchments such as Clay Cliff Creek there are large floating debris which can often exceed 3m in length, such as cars, shopping trolleys, household materials etc. which should be factored in the blockage calculations as per the guidelines.
   Action: A suitable blockage factor should be applied at culvert crossings as per the requirements of ARR2019 Book 6, Chapter 6 Blockage of Hydraulic Structures. The models should be updated, and the blockage scenario should be adopted for the design floods not as a sensitivity. This zero blockage condition may also impact on the design of creek bank i.e., higher velocities and increased scour potential and may result in hazardous condition e.g. increased flows, flood levels at downstream of the culverts.

d. There are two types of flooding that affects the site mainstream/riverine flooding from Clay Cliff Creek and the local catchment overland flooding from the catchment that is located to the north of Clay Cliff Creek including the site area itself. The report fails to address the overland flow paths across the site. The concept architectural drawings *Site Analysis Plan, Issue B, Drawing Number CD 003* show potential overland flow paths in the existing site plan. These overland flowpaths and others should be included in the flood study as blocking the overland flow paths will deflect the floodwaters to other areas and may cause significant flood hazard internal and external to site.
Action: The overland flow/local catchment should be included in the TUFLOW models. A rain-on-grid approach may be suitable to include the local catchment to the north of Clay Cliff Creek. A combined model that incorporates riverine and local catchment flooding for both pre-development and post development scenario needs to be adopted.

e. Australian Rainfall and Runoff (ARR) 2019 hydrology and methodology appear to have been used in the flood study with no consideration given to alternative methods for verification or sensitivity testing.
Action: As advised in Draft Floodplain Risk Manual, DPE, 2022 sensitivity with ARR 1987 methodology needs to be included in the updated flood submission.

f. A fixed tailwater boundary appears to have been used, however there are no further details on the adopted downstream flood level. The potential for coincidence with downstream tailwater levels (Parramatta River) or tidal inundation levels is possible at the site location. The downstream boundary levels could have significant impact on the flood levels and flood behaviour at the site location. The boundary level selected should be discussed in the report. An increased tailwater level such as the 1% AEP level at Parramatta River should be investigated and the increased flood risk as a result should be addressed in the submitted reports.
Action: The boundary level selected should be discussed in the report. An increased tailwater level such as the 1% AEP level at Parramatta River should be investigated and the increased flood risk should be addressed in the submitted reports. A detailed sensitivity analysis for impact of tailwater condition needs to be undertaken and included in the report.

g. There are significant flood impacts that are caused as a result of the proposed development. There are impacts up to 100mm and there are newly flooded areas outside the site area. There is increased flood risk as a result of the proposed development, which is contrary to the DCP and Floodplain Development Manual 2005.
Action: The proposed building footprints should be amended (narrowed) to avoid flood impacts. Setbacks from the creek should be implemented as legally required by the Water Management Act 2020.

It should be demonstrated that the following requirements are achieved and clearly reported in the flood report;

i. No worsening of the adjacent properties in terms of flood levels, flood hazard, velocity and duration of inundation, impact maps to be included.
ii. No loss of existing flood storage, a comparison table needs to be included. There are no details on compensatory flood storage proposed, as mentioned in flood report. A separate drawing including levels, cross

sections, hazard needs to be included. It is recommended that all flood storage to be above ground.

iii. No increase in flow, flood levels and velocities in creek at downstream of the subject site. A comparison table needs to be included in the report.

h. As per the submitted *Flood Risk Management Report*, dated 16 June 2022, identifying potential effects of climate change is presented as a requirement as per *State Significant Development Guidelines* (page 1, summary). The flood study and risk management report do not contain any information on climate change which is conflicting. Climate change impacts including increased rainfall and runoff and sea level rise should be assessed in the submitted flood models and reports.
Action: Implement climate change factors as per ARR2019 guidelines Book 1 Chapter 6, the design should consider the service life of the proposed development and implement conservative RCP8.5 scenario. Climate change scenario should be adopted as per design case scenario.

i. The adopted floor levels of RL. 5.5 m AHD plus the 500 mm freeboard *(Flood Risk Management Report,* page 4*)* is not suitable for this type of development. Parramatta DCP 2011 requires the PMF level (9.3m AHD) to be adopted as the proposed buildings can be essential to evacuation during periods of flood or if affected during flood events would unreasonably affect the ability of the community to return to normal activities after flood events.
Action: All habitable floor levels to be equal or greater than the Probable Maximum Flood (PMF). This increase in FFL may cause a greater design impact given Councils bulk and scale concerns.

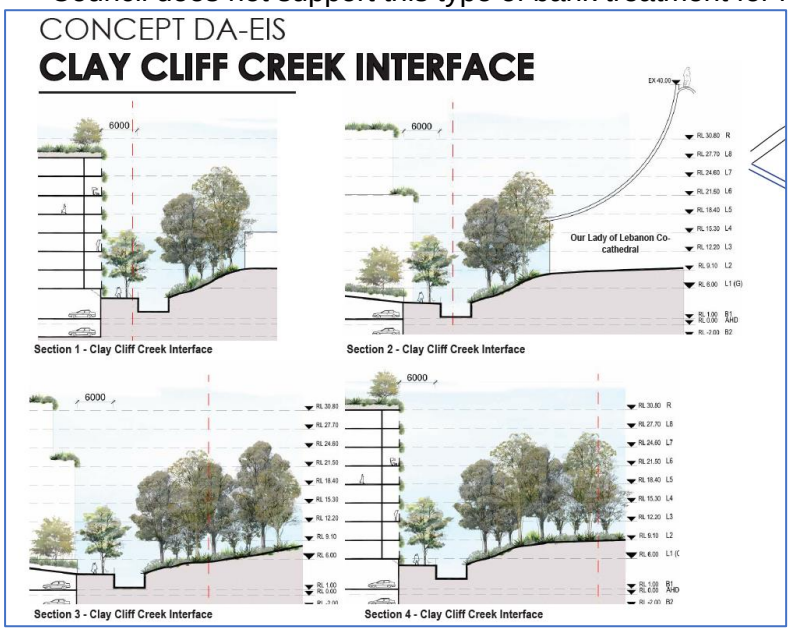
j. The building footprints shown on the architectural drawing *Site Plan, Drawing No: CD 005* is significantly different to the footprints shown in the submitted Flood Study by GRC Hydro (1% AEP Peak Hazard Conditions, Figure No 11). The boundaries of Building C appear to have been modified. The modelling of building footprints should be reflected in the flood study as per architectural drawings. Any differences in the building footprint will lead to misrepresentation of flood behaviour and likely to cause undesirable flood impacts.
Action: Amend building footprints as per the latest architectural plans and update flood modelling as necessary.

k. Flood study reports 1% AEP to be 28.8 m^3/s which is less than Lower Parramatta River Flood Study (LPRFS) which estimates 34 m^3/s. Flood Levels are also less than Council's adopted flood levels. Furthermore, Stormwater Management Plan calculates the flow as 46 m^3/s from DRAINS Model.
Action: As estimated flows are varying significantly which may have significant impact on assessment, a detailed review needs to be undertaken and appropriate flows needs to be adopted for the flood assessment. It is likely to produce the higher flow results than LPRFS as lower percentage of imperviousness adopted for the study. Electronic copy of all updated models DRAINS, WBNM and TUFLOW along with electronic copy of sub catchment plans and relevant details need to be provided for review. Flood report does not include details such as impervious areas and other parameters adopted.

l. Sensitivity testing of roughness parameters have not been undertaken. Roughness values that are adopted in the model should be supported by relevant guidelines and site observations

Action: Manning's roughness should be assessed by applying an increase of 20 percent and decrease by 20 percent. Results should be compared with design case and included in the updated flood maps.

m. It is noted that creek bank along the subject site has been proposed to be engineered vertical wall as shown in the snapshot from landscape plans. Council does not support this type of bank treatment for natural creek.



Action: Riparian Area needs to be appropriately treated and planted to prevent any potential erosion in major flood events. Stormwater channel/creek belongs to Sydney Water and hence any works needs to be approved by Sydney Water.

n. Two driveways to the buildings are proposed to be in lower part of Gregory Place which is a high flood hazard area. It should be ensured that minimum level of the entry ramps is above 1% AEP (with climate change) + 500 mm free board.
Action: It is recommended to have entry to the higher side (further north of Gregory Place where flood depths are likely to be shallow) of the subject site. It is also strongly recommended that the basement carparking not be considered in this development due to the site being located within the floodplain unless the basement is fully protected and safe pedestrian evacuation access from the basement levels is provided for all flood events up to and including PMF.

o. The flood risk management report does not seem to contain any detail on structural soundness of the proposed buildings.
Action: A structural engineer's report is required to certify that the structure can withstand the forces of floodwater, debris, and buoyancy up to and including a PMF level.

p. Flood Emergency Response Plan does not satisfy the requirements or consider the extreme hazardous flood conditions at site location.
Action: The report needs to be specific for the proposed development and consider the PMF flood event. The plan should also consider the number of occupants and visitors (persons at risk) during a flood event. A detailed Flood Emergency Response Plan needs to be provided to Council's Development Services Unit for assessment and approval.

Stormwater Management

q. Stormwater Management Plan, Kozarovski and Partners states that inclusion of On-Site Detention (OSD) will have a negative impact and hence not proposed for the development. To support this, the report mentions that a DRAINS model has been developed. This DRAINS model has not been supplied for review. Since the flows are different from the flood report and a comparison has been made with flows only. A detailed assessment and a comparison hydrograph are needed for review along with an electronic copy of the DRAINS model, sub-catchment plans, impervious areas etc. The following information needs to be provided to Council for assessment prior to any SSD approval. An electronic copy of DRAINS model along with sub-catchment plans need to be provided for review considering;
    i. Stormwater drainage system should be adequate for 5% AEP flow with 50% blockage in sag pits and 20% blockage in on-grade pits with safe overland flow in 1% AEP. Climate change should be included in the design case.
    ii. Existing and Proposed utilities needs to be shown in long section and Plan.
    iii. This information needs to be provided to council's development services for assessment and approval.
r. Stormwater Pit Details should be included. Council's standard design should be utilised.
s. Manhole clear opening (excluding step iron) should not be less than 900 mm.
t. Structural details and certification for Custom pits greater than 1.2m and Standard Pits greater than 2.5m depth needs to be included.
u. All pit cover/ grate should be class D heavy duty, galvanised steel, bike safe and bolted down type. If pit is in pedestrian area, then it should be heel-safe and anti-slip in addition.
v. All pipes should be class 3 or higher Reinforced Concrete Spigot and Socket Rubber Ring joint to comply with design cover and heavy vehicular loading whichever is higher.
w. Further, Structural certification of pipes is required having a depth greater than 2.5m.
x. All pipes should be class 3 or higher Reinforced Concrete Spigot and Socket Rubber Ring joint to comply with design cover and heavy vehicular loading whichever is higher.
y. Appropriate design for stormwater discharge should be incorporated based on council's stormwater disposal policy. Detailed design/drawings need to be included for any discharge or connection out of the subject site. If it is proposed to connect to the channel then Sydney Water needs to approve the connection and discharge location.
z. The provided Stormwater Management Plan states that *"The aim of the WSUD strategy is to intercept the runoff from the site and re-use it for irrigation and toilet flushing."* WSUD approach should also consider improving stormwater quality and health of water receiving body.
    i. While it is noted that Stormfilter 460 x8 have been proposed to treat private water, it is recommended to incorporate natural treatment trains e.g. Bio-garden, natural strips, to treat stormwater from internal roads to improve water quality of stormwater reaching the creek.
    ii. Separate plans for Overall Water Sensitive Urban Design (WSUD) map should be included in the design drawing submission
    iii. An electronic copy of MUSIC Model should be provided for review.

iv. Rainfall Station should be PARRAMATTA NORTH MASONS DR (66124) 6 minutes data from 1988 to 1998 (10 years). It is also available in MUSIC-Link for MUSIC_X.

Clay Cliff Creek

a. Constraints for urban development adjacent to rivers and creeks include physical constraints as well as requirements for additional assessment and approvals under the Water Management Act 2000. The proposed works are within the riparian zone according to the Guidelines for Riparian Corridors (RC) on Waterfront Land, Natural Resources Access Regulator (NRAR), May 2018. Clay Cliff Creek fits into the definition of a riparian zone, defined as a 1st order stream according to the NSW Government- Determining A stream order fact sheet. According to NSW Geographical Names Board Clay Cliff Creek is officially recognised as a **gully** (refer to **Appendix 2**).
b. The WaterNSW website defines the riparian zone as; *"land alongside creeks, streams, **gullies**, rivers and wetlands. These areas are unique and diverse, and are often the most fertile parts of the landscape."*
c. Controlled activities carried out in, on or under waterfront land are regulated by the Water Management Act 2000 (WM Act) as referenced in the guideline.
d. According to RC Guidelines a buffer of 10 metres is required on each side of the watercourse which is called the VRZ (vegetated riparian zone-refer to **Appendix 3**). The current proposal does not have any buffer.
e. According to the WM Act the definition of "waterfront land" and "river" is as below.
    - Waterfront land means; the bed of any river, together with any land lying between the bed of the river and a line drawn parallel to, and the prescribed distance inland of, the highest bank of the river, or
        - (a1) the bed of any lake, together with any land lying between the bed of the lake and a line drawn parallel to, and the prescribed distance inland of, the shore of the lake, or
        - (a2) the bed of any estuary, together with any land lying between the bed of the estuary and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the estuary, or
        - (b) if the regulations so provide, the bed of the coastal waters of the State, and any land lying between the shoreline of the coastal waters and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the coastal waters,
        - where the prescribed distance is 40 metres or (if the regulations prescribe a lesser distance, either generally or in relation to a particular location or class of locations) that lesser distance. Land that falls into 2 or more of the categories referred to in paragraphs (a), (a1) and (a2) may be waterfront land by virtue of any of the paragraphs relevant to that land.
    - river includes—
        - (a) any watercourse, whether **perennial or intermittent and whether comprising a natural channel or a natural channel artificially improved**, and
        - (b) **any tributary, branch or other watercourse into or from which a watercourse** referred to in paragraph (a) flows, and
        - (c) anything declared by the regulations to be a river,
        - whether or not it also forms part of a lake or estuary, but does not include anything declared by the regulations not to be a river.

Recommendation: Council recommends a Riparian Corridor Study to be undertaken that investigates the requirements and required setbacks from creek. This study should investigate the current Clay Cliff Creek and also the original creek alignment. A suitably qualified professional should be engaged to undertake a detailed study to identify and

assess the requirements and seek necessary approvals to satisfy relevant guidelines and legislation. Further requirements need to be confirmed from council's Open Space and Natural Area department.

Heritage

The proposal is located on the boundary of Experiment Farm Heritage Conservation Area (HCA) as identified within the Parramatta DCP 2011 and although these controls are not applicable to the subject site, the indirect effect of this proposal would adversely impact the following objectives of the HCA:

O.1 Protect all the attributes which contribute to the heritage value and character of the Experiment Farm Conservation Area, and to maintain and improve its residential amenity.
O.2 Ensure that Experiment Farm will always have an appropriate setting so that it can continue to tell the history of Colonial Australia to citizens and international visitors.
O.4 Maintain the low scale suburban character of the area

Despite the support from Heritage NSW for the application to proceed to DA stage, Council's Heritage Advisor continues to have concerns that the bulk and scale of the development is excessive given the site constraints and the proximity to heritage items and the Harris Park HCA.

It is also unclear if the proposed basement will conflict with the archaeological potential of the site. There are items of environmental importance such the existing landscape, the reserve and Clay Cliff Creek which could affect the feasibility of the current proposal. This is to be explored further before approval is granted for any basement.

The reports and the provided response on heritage, visual and archaeological impacts are questionable in terms of compliance of building form and height, suitable degree of visual and physical separation with the heritage items and the possible reparation zone (vegetated riparian zone). It is premature to exclude archaeological potential both aboriginal and non-Aboriginal as natural watercourse are associated with aboriginal uses of natural resources and the colony, and first settlers created their homesteads in proximity of those watercourses. Council has three surviving examples in this area and there is a potential to investigate more in the subject site.

Once the archaeology of the site is better understood, a suitable strategy for heritage interpretation of the existing resources, natural, archaeological, and built, should be developed that would inform the final design. The park is surrounded by natural reserves, the site should consider Council's concerns regarding flooding and open space and create additional open space and natural reserve where significant constraints exist. This would allow a further degree of separation or transition with heritage, natural and low density-built environment as required.

In summary, Council's Heritage recommendations are as follows:

- lower scale and bulk of the buildings – significant reduction in height is required
- an increased setback to Gregory Place to reflect the similar setback of the residential area
- increased buffer zone with Clay Cliff Creek as per flooding requirements
- an updated Heritage Interpretation Strategy to include the former water course of Clay Cliff Creek

- a better and larger contextual analysis of the original natural water course alignment and the existing artificial water course to address the naturalisation of its two paths. Provide comparative examples of vegetated riparian zones.

Urban Design

The Harris Park-Rosehill district is not envisaged as a continuation of Parramatta CBD or Camellia high density living precincts. This historic district provides a 'breathing space' for these dense development areas. The development height is a maximum of 9.2m in this location. This respects the historic low-lying setting of the district and preserves identified vistas between local historic buildings and across the Parramatta River basin to the northern ridgeline above the floodplain (refer Parramatta DCP 2011). This relationship is similar to that of Surry Hills and Chippendale within the Sydney CBD.

The proposal severs the landscape setting and heritage relationship between Experiment Farm, Elizabeth Farm and Hambledon Cottage. These layers contribute to the cultural and landscape value of the three cottages as identified in the Parramatta DCP 2011 (refer to PDCP 2011 - Appendix B).

The proposal does not recognise the potential to elevate the profile of the existing grouping of Experiment Farm, Elizabeth Farm and Hambledon Cottage and increase their role as a tourism destination by extending the parkland setting. The benefits of a proposal for a build to rent gated estate must be measured against the long-term public, visual, open space, economic and tourism benefits of enhancing the setting of these heritage items in Parramatta.

This proposal should not be approved for the following built form reasons.

Building Height and Scale
The proposed 6-8 storey building height dwarfs Hambledon Cottage and the existing surrounding context in Gregory Place and the 67% variation to the Parramatta LEP Height Control of 9.2m should not be supported by the consent authority. A maximum height of 11m is more commensurate to the existing character of the area and should be the maximum height sought. The proposal does not adequately respond to this important heritage and low scale residential context, the unique site characteristics, streetscape and existing and future character of the locality. It is therefore considered a massive overdevelopment.

- A maximum height of 3 storeys across the site (up to 11m) should be enforced, as:
    - This height is a balance between the existing surrounding context and future development potential to the South and East.
    - It will reduce the impact of the proposal as a backdrop to Hambledon Cottage when viewed from the North.
    - It will allow for better protection of view corridors from Elizabeth Farm to Hambledon Cottage and Experiment Farm to Hambledon Cottage per the requirements of 4.3.2 of Parramatta DCP 2011.
- A maximum 1-2 storey street wall height with recessed 3rd storey aligned with Gregory Place and Hambledon Cottage should be enforced, to:
    - Acknowledge the lower scale existing single residential context and height limit along the opposite side of Gregory Place (ranges from 6-8m).
    - Allow the opportunity for a more appropriate architectural character interface to Hambledon Cottage and Gregory Place. The built form expression should replicate aspects typical of multi-dwelling housing design with vertical architectural expression, broken into smaller bays which reference the built form pattern of the existing streetscape, rather than the sprawling horizontal expression typical of residential flat buildings, which are currently prohibited in this context.

- 3 storey streetwall/maximum height to Clay Cliff Creek and Experiment Farm Reserve and surrounding parklands should be enforced, to:
    - Respond to the natural topography of the site, as it approximately aligns with the height at the top of the embankment on the southern side of Clay Cliff Reserve.
    - Allow for increased solar access to the Channel Walk, imperative to allow for adequate landscaping, pedestrian safety and amenity requirements.
    - Minimises the canyon effect along the channel walk and creates an open, natural environment along the creek that links to surrounding parklands/reserves.
- No building length should exceed 50m.

Site Planning

The proposed site planning results in the impression of a private gated estate, with a majority of the site isolated from the public domain and without a street address. The location and scale of buildings unacceptably impacts on protected heritage views. The proposed Channel Walk is considered a key strategic move connecting heritage items within the locality and is supported; however, it should be more generous.

- Exploration of a more open road within the site along the Northern boundary, to replace the proposed private accessway, which will:
    - Improve public connectivity and wayfinding through the site and allow each building to have a clear street address;
    - Provide a public interface to the rear of Hambledon Cottage, the parklands, Clay Cliff Creek and Experiment Farm Reserve;
    - Provide better access to the site for emergency services;
    - Allow for on-street carparking; and
    - Improve pedestrian safety and wayfinding by providing a dedicated pathway and verge along the street.
- It is recommended that Building C be removed from the proposal. Building C is proposed to be the bulkiest building within the site, with no setback or transition in height to its context, is located in the isolated North Western corner of the site removed from the public street frontage and directly adjacent to the parkland setting of Experiment Farm and Hambledon Cottage. Removal of Building C will:
    - Maintain an absence of built form in this location to protect important view corridors between Experiment Farm and Experiment Farm Reserve and Hambledon Cottage and respond to flooding constraints;
    - Create a strong spatial and visual connection between the proposal and Experiment Park Reserve and the parklands;
    - Allow for the space at the western edge of the site to be used for communal open space and deep soil provision and to strengthen the parklands setting between Experiment Farm and Hambledon Cottage;
    - Help retain large significant trees to the north-western edge.
    - Allow for the view corridor created by the recommended public road to terminate in landscaping rather than built form.
    - Should Building C not be removed from the development:
        - The local road should return south to give a public frontage to the building.
        - Additional setbacks (at least 10m) should be provided to existing mature trees to the northwest corner of the site.

- Building footprints and building separation should be designed to frame important view corridors around and through the site, including those associated with Experiment Farm and Reserve, Hambledon Cottage, Elizabeth Farm and the Channel Walk.
- Primary entry lobbies should not be located along the Channel Walk due to wayfinding and safety concerns. Access to buildings should be provided only from a public street interface, with the potential for secondary access points to the Channel Walk.

Setbacks

Setbacks to key interfaces along the site's boundaries are insufficient, resulting in an insensitive relationship with Hambledon Cottage and the reserve, incompatible streetscape along Gregory Place and an interface with Clay Cliff Creek which doesn't respond to the amenity and safety requirements of the proposed "Channel Walk".

- Provide a 10m ground setback from the top of Clay Cliff Creek embankment to:
    - Allow for a riparian landscape edge to the creek;
    - Provide a shared pathway (min. 3m width);
    - Allow for a landscaped buffer to the building which can facilitate larger tree planting and landscaping for privacy and a natural outlook for residents;
    - Allow for landscaping strategies such as terracing and grading to mitigate level differences between natural ground level and internal building levels required for flooding. This will prevent the unacceptable use of large retaining walls;
    - Provide WSUD opportunities which could support the naturalisation of the creek in the future;
    - Increase building separation between the proposal and the steep embankment and Our Lady of Lebanon Church on the Southern side of the creek, which will increase views to sky and access to sunlight.
- Provide a 22.5m ground setback to the north boundary to:
    - Respect the historical Hambledon Cottage and its associated curtilage;
    - Retain existing trees along the Northern boundary, which provide a key backdrop to Hambledon Cottage;
    - Allow for a local road with a dedicated pedestrian path and on-street parking which can be dedicated to Council;
    - Allow for a planted front building setback from the road reserve and contiguous deep soil zones;
- Provide a 6m ground setback to Gregory Place to:
    - Align with the prevailing setback along the street and better integrate with the surrounding low-scale residential dwellings;
    - Allow for deep soil zones and tree planting;

General:

- The basement should be consolidated beneath the building footprint and be setback from the northern and southern boundaries. The basement must not cover the whole site as it restricts opportunities to retain existing trees and provide for deep rooted planting.
- The façade along Gregory Place should be articulated and modulated to reflect the existing subdivision and dwelling patterns on the street.
- Opportunities to provide an active residential interface and passive overlooking onto public spaces (i.e., Experiment Farm Reserve, Clay Cliff Creek channel walk) should be investigated.

- Provide a clear delineation of public, communal and private spaces and pathways on all architectural drawings. This should include any areas fenced off from the public.

Traffic and Transport

Councils Traffic and Transport Team have reviewed the proposal and wish to provide the following comments:

- Parking provision – Off-street parking is to be provided in accordance with the requirements of Clause 18 (f) of the SEPP (Housing) 2021 for In-fill affordable housing developments and Clause 74 (2) (d) of the SEPP for Build-to-Rent developments. Details are to be illustrated on the plans submitted with the final DA.

  Applying the above parking rates, the proposed development is required to provide 242 parking spaces. It is noted that based on the submitted Concept Architectural drawings for the proposal, the proposed development will provide 566 residential and 68 visitor parking spaces. This parking provision complies with the minimum requirements of the SEPP.

  However, it is requested that parking provision of the proposed development be restricted to maximum 242 residential parking spaces, SEPP parking rate being a maximum given the sites strategic location near the Parramatta CBD and 68 visitor parking spaces (as proposed by the applicant) in order to further minimise the site's traffic generation and its impact on the operation of the surrounding road network. This reduced parking rate does not warrant a basement across the entire site and any basement/s should be retained under the building footprints only to increase planting and deep soil opportunities.

- The design and dimensions of the parking spaces, aisles, driveways, gradient, columns, and radii are to be in accordance with the requirements of AS 2890.1-2004. All vehicles are to enter and exit the site in a forward direction. On-site manoeuvring of vehicles into and out of the site and for critical manoeuvring areas within the car parking area are to be demonstrated in accordance with Appendix B of AS 2890.1 – 2004. Details are to be illustrated on the plans submitted with the final DA and this should be secured by way of a condition of consent.

Council's Traffic and Transport Services section cannot support the proposed development in the current form.

Universal Accessibility

The following comments have been provided from Council's Universal Accessibility Officer and should be considered further:

- A comprehensive access reports by Design Confidence has been provided identifying several issues that will be required to be addressed at the construction certificate (CC) stage of the project. These additional comments are not limited to or replace those mentioned within the access report and does not relinquish the applicant from its obligation to provide a fully compliant detailed universally accessible design.
- 483 units have been provided; thus, a minimum of 49 accessible/ adaptable units are required as per City of Parramatta DCP.

  10% of dwellings to be adaptable, additionally all ground floor dwellings in buildings with no lift and all dwellings in buildings with lift access must be 'visitable' by people with a disability. This means that there must be a continuous accessible path of travel (AS 1428.1:2001) from the street and any visitor parking to and through the entrance door of affected dwellings. Parramatta DCP table 3.4.5.1.

A breakup of the accessible units should be as follows 19 single, 26 two bedroom and 4 three-bedroom units, this will provide suitable equitable breakdown of units.

- Ensure a clearly defined accessible paths of travel are provided from the property boundary and connecting all the principal entries of the blocks provided on site as per AS1428.2 and BCA D3.
- Low level thresholds should be provided at all doors accessing outdoor areas including the residential, retail, gym, and commercial areas.
- The Abutment of differing surfaces shall have a smooth transition. *Design transition shall be 0 mm. Construction tolerances shall be as follows:*
- *0 ±3 mm vertical.*
- *0 ±5 mm, provided the edges have a bevelled or rounded edge to reduce the likelihood of tripping**. AS1428.1.7.2.***
- Equipment and furniture within the common areas including the gym BBQs and communal areas as per BCA table D3.1 will require universally accessible and inclusive features, suitable for a person with a mobility and other impairments.
- Note; AS1428.2 provides guidance on accessible furniture including, reach ranges and varying heights of tables and seats with back and arm rests.

Landscaping and Trees

Of most concern to Council's Landscaping and Trees team is that there is an inadequate setback and tree protection given to a group of significant trees located in the north-western corner and along the western side. The trees identified as T181 Lophostemon confertus requires an 8.4m setback and T190 Lophostemon confertus, T191 Eucalyptus microcorys and T192 Eucalyptus saligna all require a minimum 9.6m setback and not 6m as indicated. This would be a major encroachment and would require the trees to be removed. The buildings should be setback a minimum 9.5m and reflected in the amended architectural plans for building C.

Further discussion within the AIA around the specific tree protection measures and setbacks required to adequately retain and protect these trees through the demolition and construction process is required.

More generally the proposal is to consider the following changes to ensure adequate protection of the trees and landscaping in the site:

- Limited detail has been provided for the 'Green Roof' areas as shown on the environmental strategy plan. Green roof areas can be supported but need to be considered early on in the building design. Maintenance, access, irrigation, drainage for example is to be considered at an early stage of the design to ensure all landscape areas thrive.
- Soil depth proposed on the podium levels to vary between 800-1200mm to support small, medium and large trees as per the Apartment Design Guide soil requirements. Slab setdown to be incorporated into the design at an early stage to help achieve this.
- The deepsoil zone is, however, limited to outside the basement where it is further restricted due to the location of the 8m wide accessway road along the northern side, and the wide 'Channel Walk – Clay Cliff Creek Walk being located along the southern side. Consistent with traffic comments it is requested that the basements are restricted to be under the building footprints only to maximise deep soil and planting opportunities.
- It is recommended the soil volume be contiguous under footpaths and roads, where treepits are required, to allow tree roots to access maximum soil volume.
- It is recommended a soil plan be provided to understand the soil depths and volumes to show the different planting areas on-slab meet the ADG requirements.

- A detailed Landscape Plan and a Planting Plan for all the different landscape areas is required at DA stage.
- Plant imagery for the 'Ecotone' northern area has been provided using predominantly exotic species, which is not supported. Although it is appreciated that this palette has been designed to reflect some of the colonial history, it is preferable the majority of the planting should be native species, preferably indigenous plant species to recognise and enhance biodiversity conservation within the Parramatta area.
- It is recommended the proposed planting schedule should differentiate native and exotic species to ensure the majority of the planting is native.
- At present the concept design has shown limited proposed trees along the northern side, indicating a great reliance on the existing trees to the southern side of Hambledon Cottage.
- There is little to no private landscape space or buffer indicated on the northern side of the buildings. The 8m wide access road appears to be up against the buildings on the architectural plans, which is not supported.
- The proposed trees identified in the planting character for the 'Ecotone' area are generally small exotic species. Trees to be replaced with larger species (minimum 13m height) since they are within the deepsoil zone.
- It is highly recommended there should be trees planted on both sides of the 8m accessway to create a strong sense of arrival and to provide a distinct vegetative buffer between Hambledon Cottage and the proposed build to rent development.
- Plant imagery for the 'Community Heart' central area has been provided using a mix of native and exotic species. There has been reference to bushtucker planting and colonial character landscaping, however, the planting palette has a limited bushtucker plant list.
- The plans and EIS make reference to enhancing the creek character, however, the plans show a great reliance on the existing trees located on the southern side of the creek, which is currently inaccessible from the development.
- There has been no discussion regarding where the proposed grasses will be planted to enhance the Cumberland Plain Shale Woodland character.
- The open space and connections plan suggests several crossings over the creek which is advantageous, however, they have not been shown on the masterplan.
- At present the concept design has shown limited proposed trees along the northern side of Clay Cliff Creek walk.
- Typical sections indicate only a 6m setback between the basement / building façade and creek edge, where the wide pedestrian path and deepsoil zone is located. This setback is restrictive and does not allow for adequate tree planting to reflect the woodland shale character and feel referenced in the landscape plans and EIS.
  It is recommended the buildings step back in places to allow for adequately sized tree planting to be planted at ground level to strengthen the link between the trees on the southern side and reflect the Cumberland Plain Shale Woodland character reference.
- Plant imagery for the 'Creek' southern area has been provided using native planting species, however, it is felt that since there has been reference to the Cumberland Plain Shale Woodland then some of the species should be replaced with suitable species reflecting this ecological community, such as replacing *Corymbia citriodora* with *Corymbia maculata* and *Rubus rosifolius* with *Rubus parvifolius* for example. In addition, *Tasmannia lanceolata* shrub should be deleted as it is not native to NSW and will not thrive here.
- The Arboricultural Impact Assessment (AIA) reads more like a Preliminary Tree Assessment Report and only partially discusses the impacts to the trees associated with the proposed demolition and construction works (roads (services), buildings, landscape, temporary access etc).
- The AIA is impossible to read the tree numbers without using the survey plan, zoomed in on Adobe. The AIA should be updated to have a series of legible tree location plans with the tree numbers shown.

- A tree retention and removal plan should also be provided as part of the AIA.
- Further discussion around the specific tree protection measures is required for the adequate retention of trees along the northern, western and eastern boundary in regards the construction of the proposed the accessway and basement construction.
- Retention of moderate to high retention value trees T158, T159 and 165 along the southern boundary opposite the Clay Cliff Creek should be strongly considered for retention in the amended plans and the future path relocated slightly to meander around these trees.
- A Tree Protection Management Plan (at a legible scale) is required to discuss the site specific impacts, percentage encroachments into the TPZ and specific tree protection measures required.

Open Space

Councils Open Space Team has reviewed the proposal and consider that this will have a significant visual impact on the heritage parkland and likely increase recreational demand on the adjoining Hambledon Cottage and Experiment Farm reserves to a point that exceeds thresholds for positive active and passive recreational

Given the isolation of the parklands to the south of the Clay Cliff Creek, it is requested that the proposed park is dedicated at no cost to Council and any remediation works are completed under stage 1 of the proposal at the full cost of the proponent. It is unclear how this can be dedicated to Council when this is zoned RE1.

This proposal presents a significant opportunity to increase public open space provision through additional land dedication to expand the adjoining Hambledon Cottage and Experiment Farm Reserves, which has not been demonstrated.

The proposed Clay Cliff Creek walkway is supported in concept, however, has poor amenity due to inadequate building setbacks and topography e.g. embankment**.** There is potential for conflicts between private dwellings and public users due to close proximity and lack of adequate buffer.

The southern reserve has a high likelihood of contamination consistent with the adjoining public reserve. It also has poor solar access and topography impacts amenity and useability. Reduced accessibility as lacks direct connection to residential dwellings.

Open Space recommendations:

- Removal of Building C to strengthen the heritage parkland setting and provide potential additional public open space that improves capacity to meet additional recreational demand
- Basements (if appropriate on flood management grounds) are to be contained under the building footprints and building setbacks are to be increased from the public reserve boundaries and proposed Clay Cliff Creek Walk to better protect existing mature trees and accommodate a wider landscape buffer to reduce amenity impacts
- Ensure clear delineation between the existing public reserve and communal open space through pathways or other landscaping treatments
- Maximise protection of existing mature boundary trees and use of large-scale canopy species to soften the ground-level interface between the built form and heritage parkland setting
- Improve accessibility to the southern reserve through a potential direct connection to the Clay Cliff Creek Walk
- Remediation of southern reserve to be consistent with adjoining public reserve, the following conditions are recommended to ensure that the open space is remediated to an appropriate standard:

Preliminary soil investigation (PSI)

A PSI must be conducted of land to evaluate the suitability of the land for its intended use as parks, open space and recreation. The preliminary soil investigation must be conducted by a suitably qualified person(s) in accordance with the NSW Environment Protection Authority's Guidelines for Consultants Reporting on Contaminated Sites. The preliminary investigation is essentially a desktop exercise with the objectives of:

- *Identifying potential contamination sources, nature of contamination and the affected areas*
- *Highlight areas of potential contamination which may impact the intended land use; and*
- *Inform a detailed investigation and remediation, validation and site audit statements*

Detailed Site Investigation (DSI)

A DSI must be conducted by a qualified and experienced land contamination consultant and a draft and final report of the investigation must be supplied to appropriate regulatory authority.

Remediation Action Plan (RAP)

Draft remediation action plans and validation plans must be submitted to the appropriate regulatory authority and Site Auditor for approval prior to commencement of remedial works. All remedial works must be carried out in accordance with State Environmental Planning Policy (Resilience and Hazards) 2021

Validation Report (VR)

A validation report must be submitted to appropriate regulatory authority stating that the objectives in the RAP have been achieved and the land is remediated to a standard suitable for the proposed land use.

Site Audit Statement and Report

The proponent shall engage an NSW EPA accredited auditor to undertake an independent review of the site investigation, remediation action plan and validation reports as per Councils Contaminated Land Policy and Procedures. A site audit statement shall be submitted to appropriate regulatory authority prior to commencement of construction works verifying the following:

- *That the primary consultants work complies with all appropriate laws, standards, procedures and relevant NSW Guidelines*
- *That the land is fit for purpose*
- *That an Environment Management Plan is / is not required including post remediation monitoring and ongoing management*

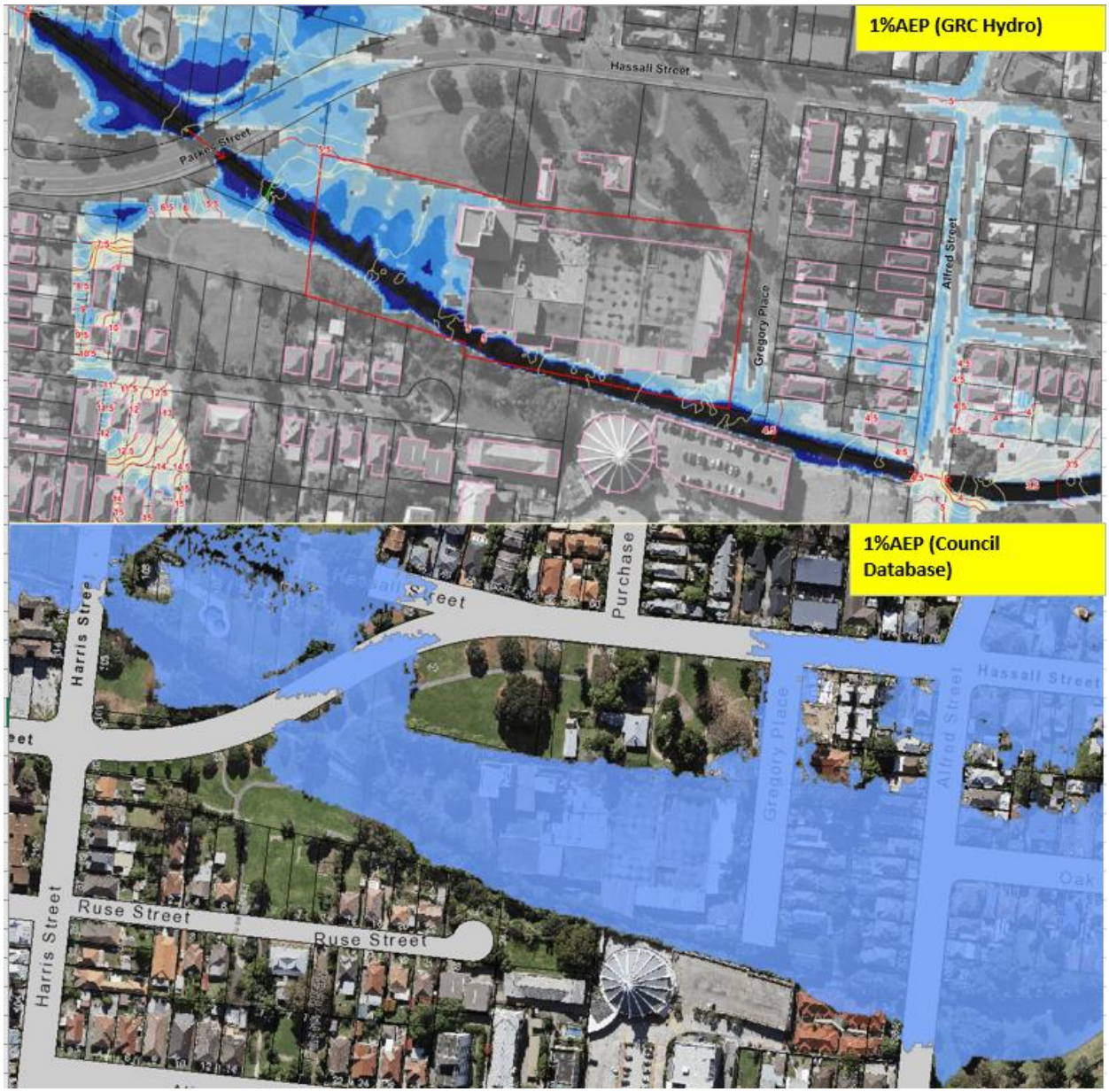
Waste Services

The application has suggested 36 x 1,100L General Waste MGB's (collected and emptied once a week) and 54 x 360L Recycling Waste MGB's (collected and emptied once a week). For a development of this size Council can provide 3 general waste collections per week and a weekly recycling service, allowing for bin numbers to be reduced to 12 x 1,100L general waste bins and 18 x 1,100L recycling bins. Given this, the applicant should want to review the footprint of their bin room.

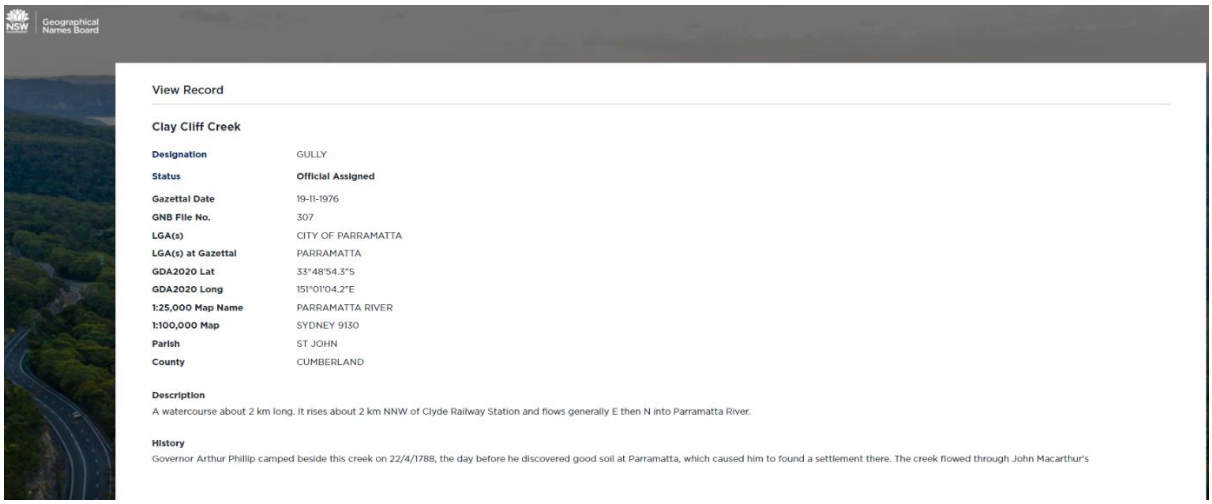
From the plans provided, it appears the bin holding area and collection point is at basement level 2. Council requires the bin holding area and collection point to be at street level **within the property**. Councils waste vehicle is required to enter and exit in a forward direction without the use of a turntable, and the entire trucks travel path has a clearance height of 4.5m.

Details of this is to be provided in the concept plan. Bulky waste storage facilities are also required within the building.

Appendix-1 – 1% AEP Flood Extents Comparison



APPENDIX-2 – NSW Geographical Names Board



Geographical Names Board

View Record

Clay Cliff Creek

Designation	GULLY
Status	**Official Assigned**
Gazettal Date	19-11-1976
GNB File No.	307
LGA(s)	CITY OF PARRAMATTA
LGA(s) at Gazettal	PARRAMATTA
GDA2020 Lat	33°48'54.3"S
GDA2020 Long	151°01'04.2"E
1:25,000 Map Name	PARRAMATTA RIVER
1:100,000 Map	SYDNEY 9130
Parish	ST JOHN
County	CUMBERLAND

Description

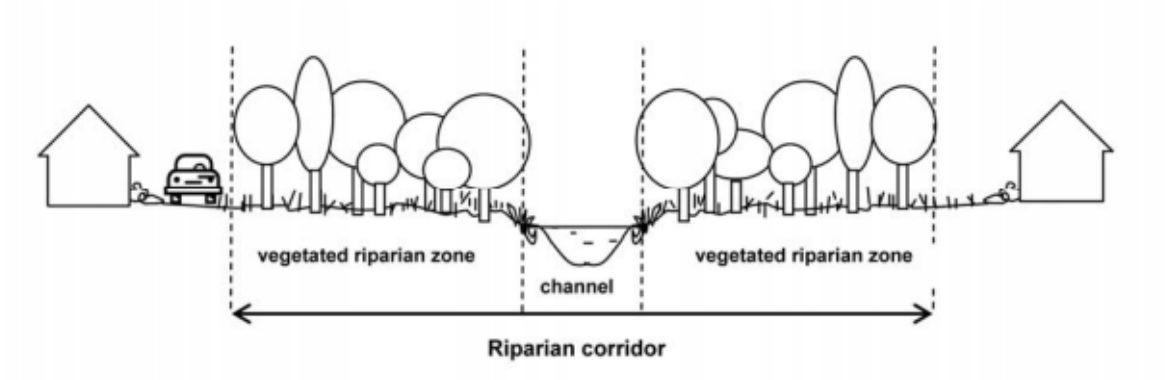
A watercourse about 2 km long. It rises about 2 km NNW of Clyde Railway Station and flows generally E then N into Parramatta River.

History

Governor Arthur Phillip camped beside this creek on 22/4/1788, the day before he discovered good soil at Parramatta, which caused him to found a settlement there. The creek flowed through John Macarthur's

APPENDIX – 3 RIPARIAN CORRIDOR WIDTHS -Guidelines for Riparian Corridors (RC) on Waterfront Land, Natural Resources Access Regulator (NRAR), May 2018

Figure 1. The riparian corridor



Riparian corridor widths

The Officer of Water recommends a VRZ width based on watercourse order as classified under the Strahler System of ordering watercourses and using current 1:25 000 topographic maps (see Figure 2 and Table 1). The width of the VRZ should be measured from the top of the highest bank on both sides of the watercourse.

Figure 2. The Strahler System

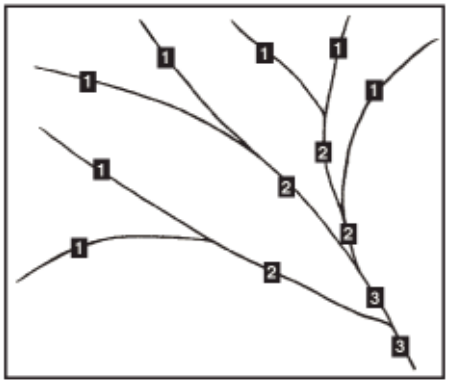


Table 1. Recommended riparian corridor (RC) widths

Watercourse type	**VRZ width** (each side of watercourse)	**Total RC width**
1st order	10 metres	20 m + channel width
2nd order	20 metres	40 m + channel width
3rd order	30 metres	60 m + channel width
4th order and greater (includes estuaries, wetlands and any parts of rivers influenced by tidal waters)	40 metres	80 m + channel width