

Consideration of Crime Prevention Through Environmental Design has been considered during the development of the scheme. The location and shared use of the facility throughout the day are aligned to the four principles of CPTED. The descriptions and responses below are based on the NSW Police Safer by Design information to help create the perception and reality of capable guardianship

SURVEILLANCE

The Grey House Precinct is located well within the College campus, with exception with its direct connection to the Grey House Walk connecting the college to Pymble Avenue. There a number of residential properties in the immediate vicinity, providing the potential for natural surveillance. The suburb of Pymble is characterised as an affluent community with low crime rates.

The site currently have extensive Technical/mechanical surveillance via CCTV coverage as part of its Operational Plan, with a 24 hour on-site security team. It is proposed the new building and surrounding landscape will incorporate CCTV as part of design.

ACCESS CONTROL

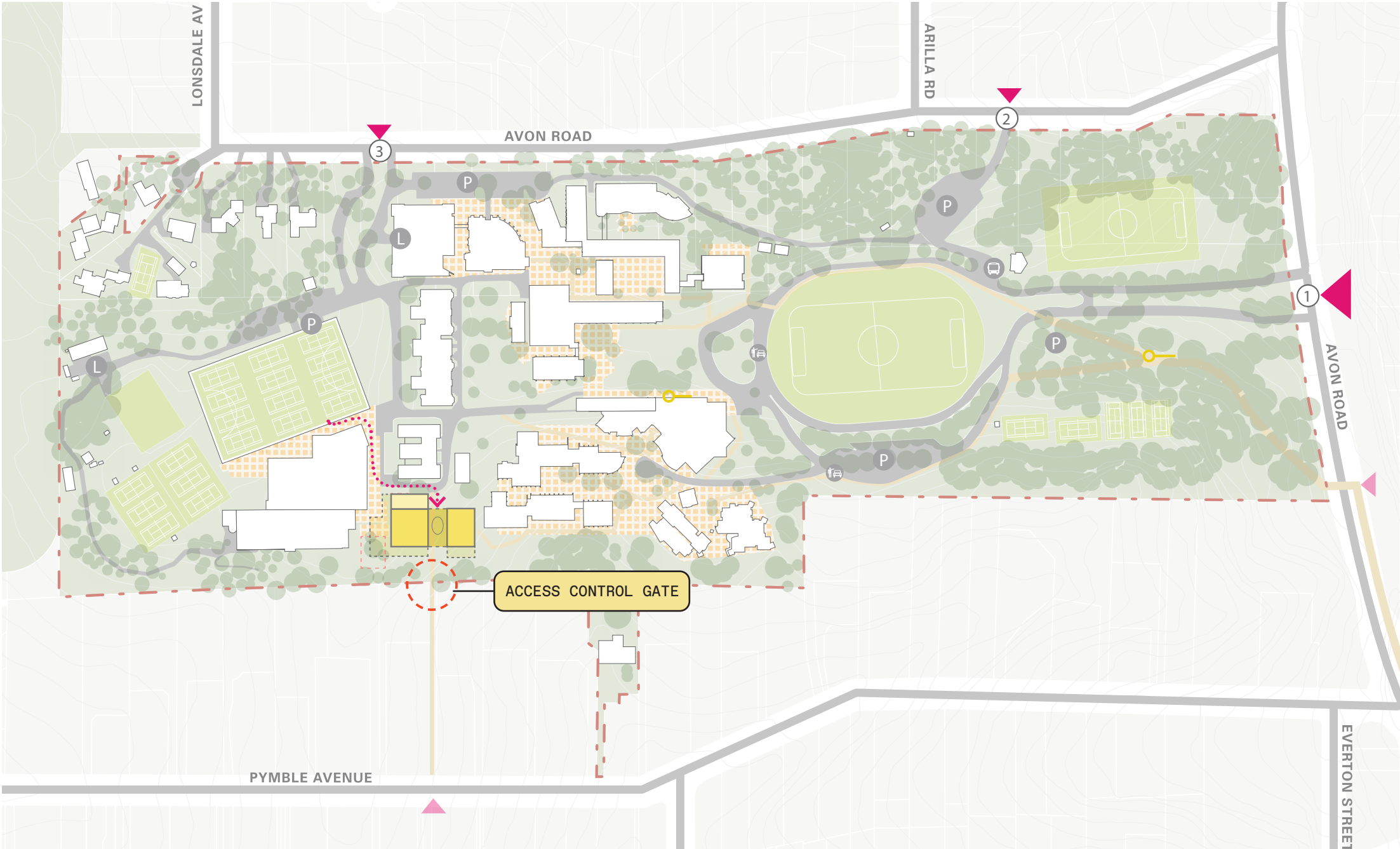
Lines-of-sight through the site have been considered. The nature of the changing security level throughout the day means that physical and managed access control is required. The various entry points to the site, and the gates at the end of Grey House Walk, are controlled by powered gates which are operated in accordance with the Operational Plan. All doors into the building itself have electronic access control systems.

TERRITORIAL REINFORCEMENT

The use of the facility as a shared community and school facility will help build community ownership. The building and its external spaces will be actively managed, cleaned and maintained as part of the Operational Plan, maintaining the level of quality and care of the facility.

SPACE MANAGEMENT

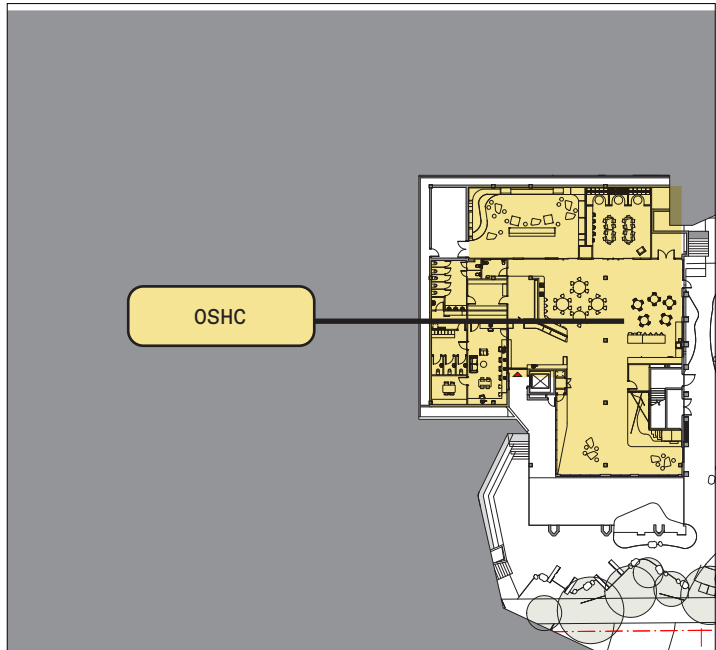
The facility has numerous active users, including as a Junior School, OSHC, ELC and Dance communities. This is managed by the Operational Plan and promotes active usage of the site through the day and evening - as a sustainable and effective use of resources. With its continual occupation of the site as well as its siting within the campus, it is assumed there will be very little opportunity for crime within the precinct.



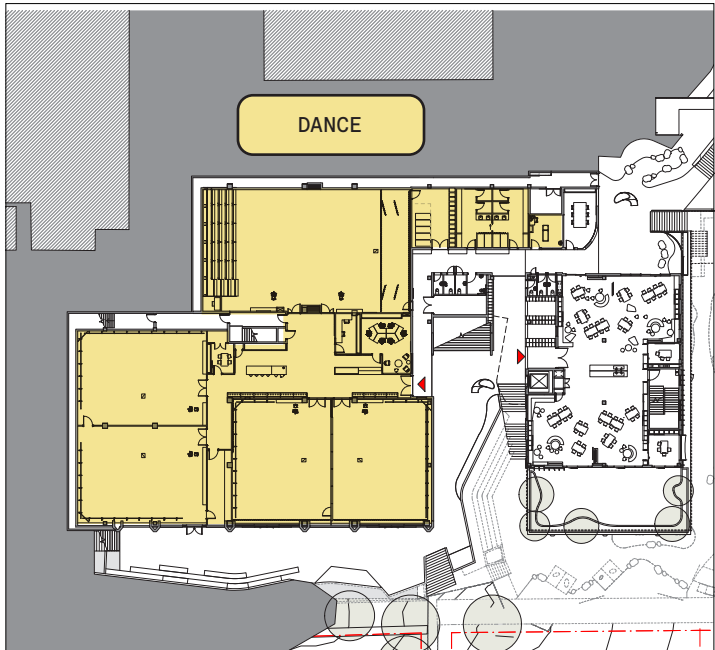
04.19 SHARED USES

The proposed development, through flexible and adaptive design, presents opportunities for the shared use of school facilities by the wider community. Specifically, the intention would be for the ELC, Dance Academy and OSHC holiday care program, to be available for use by the broader community. Outdoor facilities and areas such as OSHC have opportunities for usage by the wider community outside of school hours for co-curricular activities.

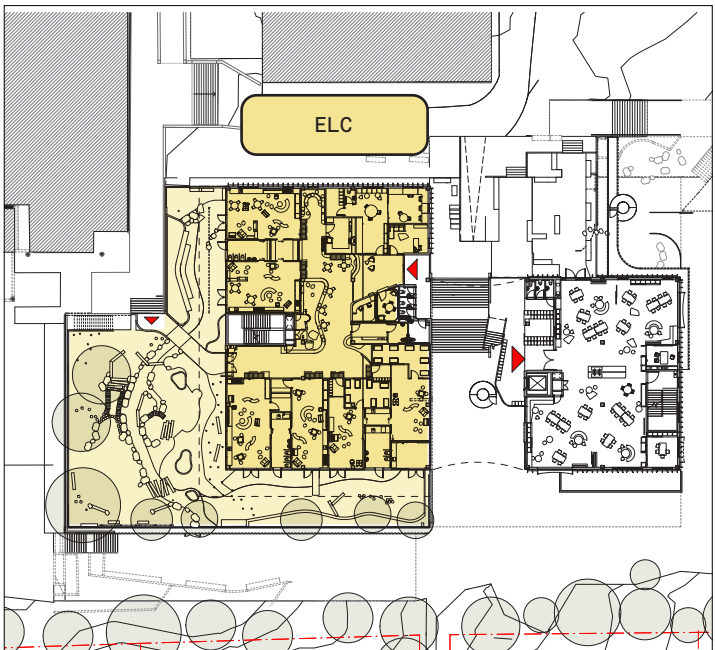
Given these uses would be generally consistent with the standard operation of these facilities when used by College students during school hours, no significant or unacceptable amenity impacts are anticipated to arise. The physical design of the development together with the implementation of the Operational Plan of Management (Appendix 32) would suitably safeguard neighbouring amenity including during external use of the proposed Grey House Precinct.



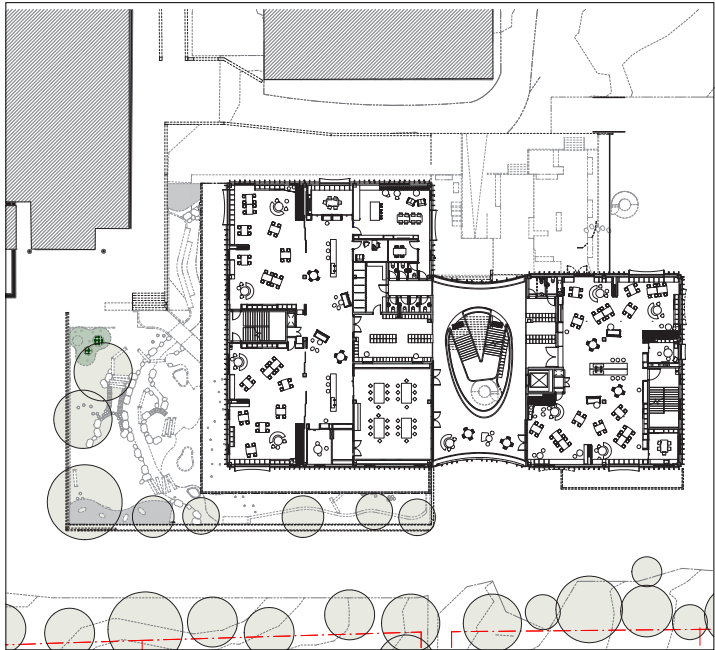
LEVEL 00



LEVEL 01



LEVEL 02



LEVEL 03



LEVEL 04

04.20 BUILDING SERVICES

Please refer to Stantec’s Infrastructure Management and Services reports for further information.

MECHANICAL SERVICES

The building has a mixed-mode airconditioning and ventilation that incorporates ceiling fans where suitable, operable windows and user display systems that define when the building can be operated with the windows open. The VRV system will maintain a 210 - 240 internal condition when external conditions are between 7.10 and 31.50. Ventilation is provided to support spaces in accordance with relevant standards and briefed requirements. The building does not include a Building Management System (BMS).

ELECTRICAL SERVICES

The building is supplied power from a proposed new substation (relocating and replacing an existing substation that sits on the proposed building site). The building main switch room is located in the northern part of Level 1 and distribution boards are provided as required. Lighting is provided to building code and architectural requirements. The building has a photovoltaic array located on the northern section of the level 4 roof and main roof.

TELECOMMUNICATION SERVICES

Incoming telecommunications will be provided to the building via a connection to the existing private fibre LAN network. The existing fibre network is located adjacent to the building site, and will be distributed via the main Communication Room located on Level 1 and will be distributed via the Communication Cupboards on each level.

HYDRAULIC SERVICES

Sewer is connected to an existing main located at the south of the site. As part of the development, an onsite detention tank will be installed to the south of the site. Domestic potable water is provided to each learning hub for educational activities. Toilets are split between student, staff and community use.

FIRE PROTECTION SERVICES

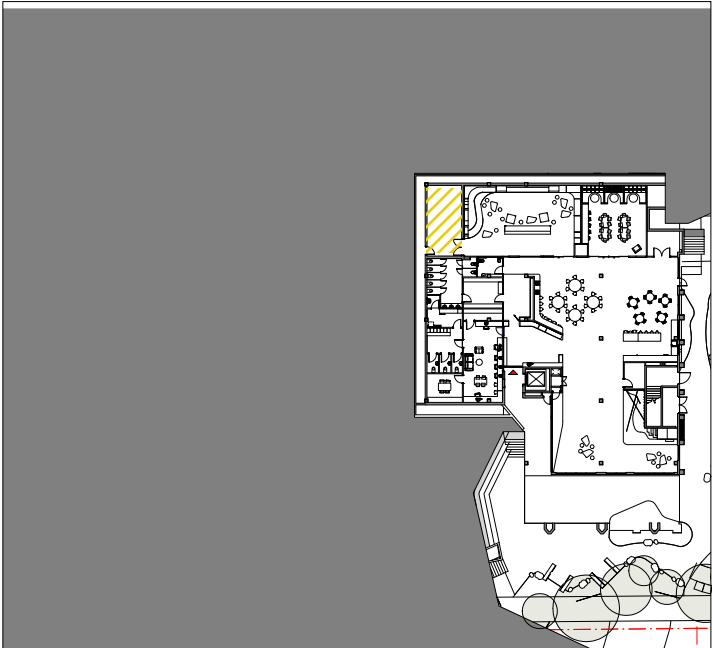
The building is not required to be sprinklered. It has fire hydrants located at each fire stair on each level, and throughout the building where required. Smoke and fire detection systems are provided as required by Australian Standards.

PLANT ROOM LOCATIONS

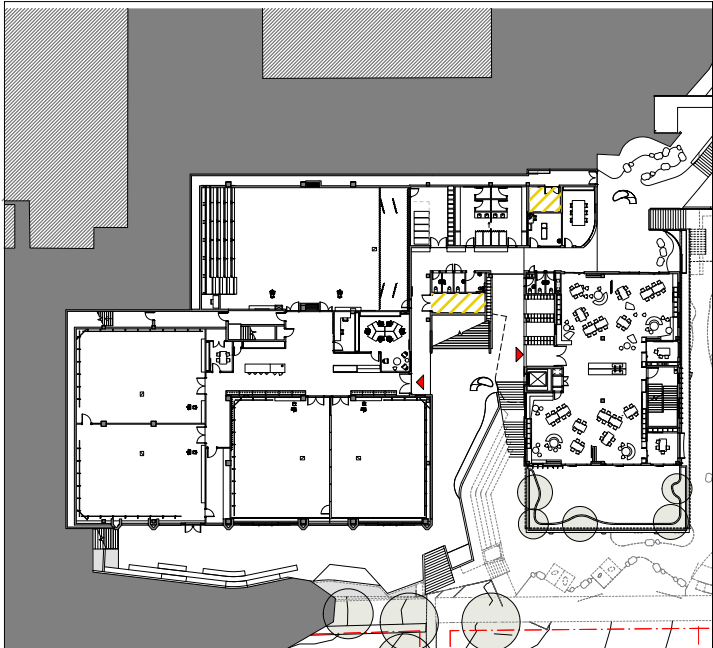
Plant rooms are located on the ground floor:

- Adjacent to the southern entry for the electrical Switch Room
- Adjacent to the northern entry for the telecommunications incoming services
- In the basement for fire pumps and cold water pumps
- Building Communications Rooms on each level
- Mechanical and Electrical Plant on level 3 at the southern and eastern end of each bar

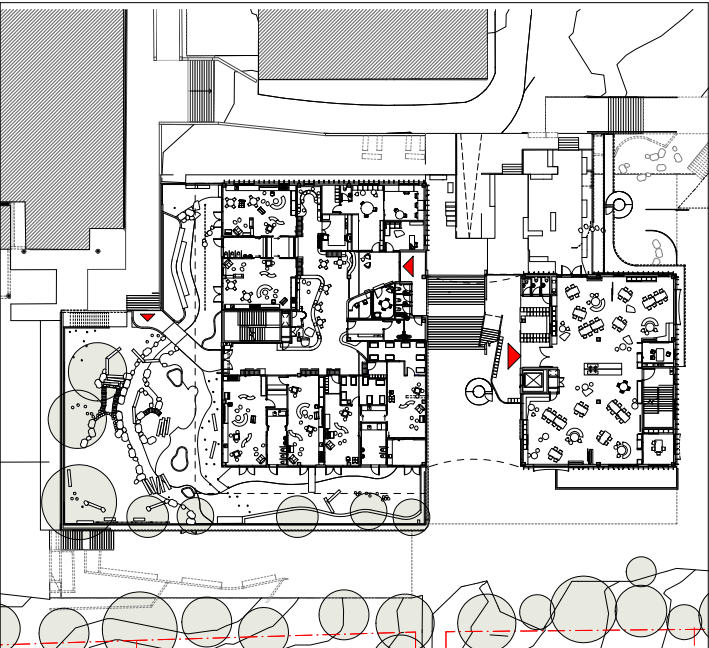
 PLANT ROOM



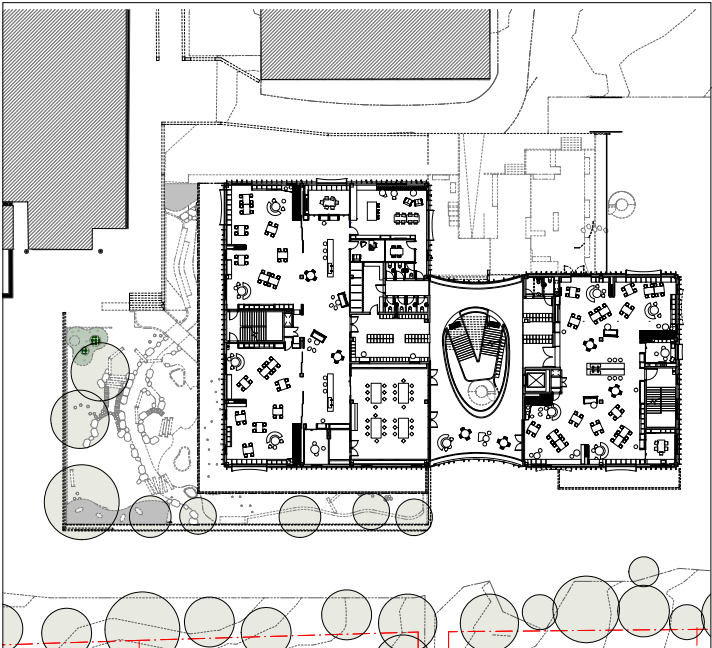
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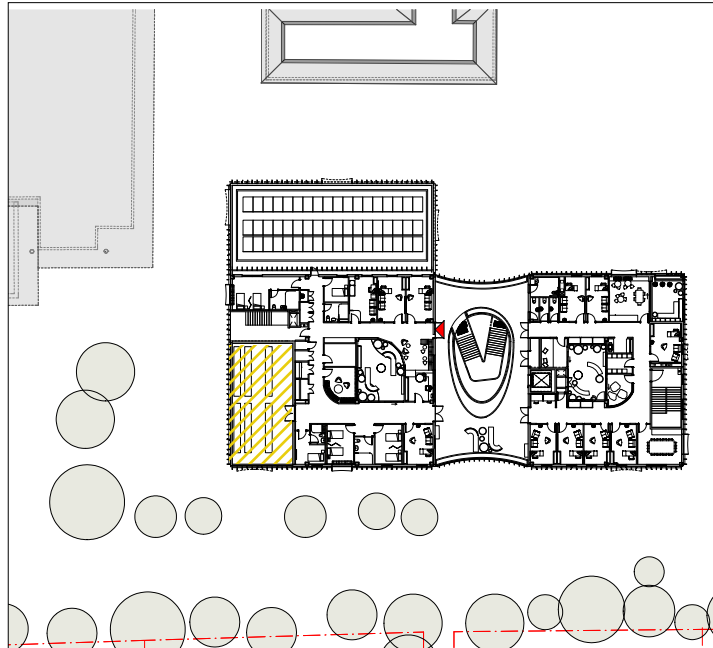
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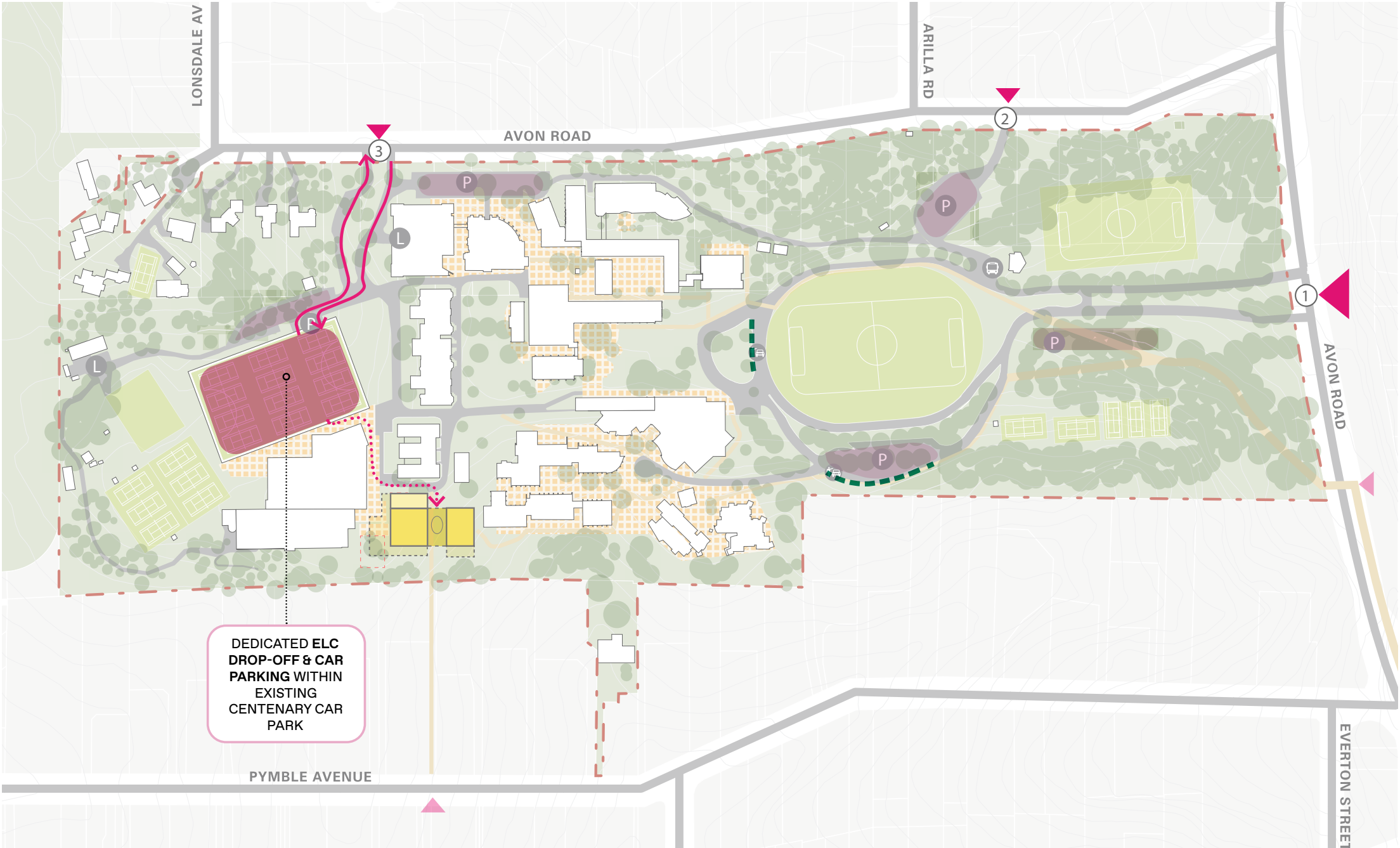
04.21 ENTRIES, ACCESS + SECURITY

The Grey House Precinct is not envisaged to alter the school community’s entrypoints onto the site, nor alter the way in which they commute to the site.

The project proposes to utilise the 38 existing parking spaces (including one accessible space) within the existing Centenary Car Park, for the ELC. The allocated parking spaces also serve the swim school, however the swim school would not require the use of these spaces during the ELC drop-off (7-7:30am) and pick-up (6-6:30pm) times. Therefore, the shared use of these spaces is considered appropriate and would meet the requirements of KDCP.

The Centenary Car Park is accessible via Gate 3, along Avon Road. A boom gate is currently installed to separate the 38 swim school spaces from the rest of the car park, and would continue to operate in order to reserve the 38 spaces for ELC use only.

The development of a new ELC is not expected to have any adverse impact to the existing parking conditions along Pymble Avenue or other adjacent streets.



SOURCE: MGS ARCHITECTS

04.22 WASTE MANAGEMENT + LOADING

An Operational Waste Management Plan has been prepared by Elephants Foot, please refer to this report for detailed information.

WASTE MANAGEMENT

Elephants Foot have calculated the bin quantities and collection frequencies in accordance with City of Sydney and other relevant guidance documents at local, state and federal levels. Based on this advice the scheme has a dedicated waste room containing 1100 litre bins and a dedicated bulky waste room.

These rooms are shared by all users and are located at the southern end of the site. Building management, cleaning and waste collection staff only will have access to these rooms. The bins will be emptied three times weekly. The two rooms are located at the southern end of the site adjacent to the loading parking space.

It is envisaged that the waste management of the Grey House Precinct will adhere to the current strategy in place at the College. The current strategy is listed as follows:

General waste – Decanted from across the site by a cleaning contractor and taken to the waste management area at the maintenance yard of the College, located nearby to Gate 3 on Avon Road.

Cardboard and paper – recycling bins throughout the site and again collected by a cleaning contractor and disposed of in a Bergman rotor baler owned by the College.

Food waste – ORCA food digester situated next to the kitchen used by the Catering contractor for the disposal of food preparation waste and food scraps from the boarders dining room.

LOADING ZONES

Loading vehicles currently access the rear of the campus via Gates 3b and 4.

No additional servicing bays are required given the servicing demand for the ELC is expected to be minnor and would be catered for by the multiple existing loading docks and service bays within the the College.



LOADING ZONES (SOURCE: MGS ARCHITECTS)

Policies &
Framework

05



Better Placed is a policy for our collective aspirations, needs and expectations in designing NSW. It is about enhancing all aspects of our urban environments, to create better places, spaces and buildings, and thereby better cities, towns and suburbs. To achieve this, good design needs to be at the centre of all development processes from the project definition to concept design and through to construction and maintenance.

The seven principles of Better Placed have been used throughout the briefing, consultation and design process. This page presents an overall summary, however this entire report should be read as a response to this policy.

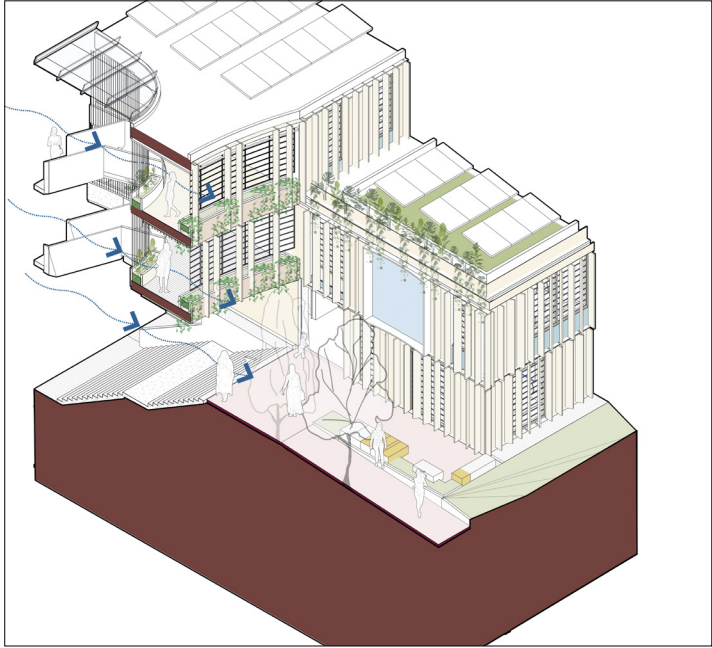
The GANSW Better Placed can be used to promote the importance and value of design to develop improved outcomes.

OBJECTIVE	DESCRIPTION	DESIGN RESPONSE
1. BETTER FIT	Contextual, local and of its place	<ul style="list-style-type: none">• Landscape setting integrated into the architecture through significant planting in the building and outdoor learning spaces• The scale and massing of the proposal is aligned to adjacent school buildings• Material and colour choice is based upon significant contextual school buildings and landscape
2. BETTER PERFORMANCE	Sustainable, adaptable and durable	<ul style="list-style-type: none">• The project is on track to meet a 5 star Green Star equivalence• Biophilic Design (green roof and internal planing)• Sustainable design principles are visible to the school through PV's and planting• The building is flexible with open learning spaces and regular grid to allow change in pedagogy over time• High floor to ceilings, solar shading fins for improved daylight and natural ventilation for improved air quality, temperature conditions and fresh air• Reforestation of Blue Gum
3. BETTER FOR COMMUNITY	Inclusive. connected and diverse	<ul style="list-style-type: none">• Multiple converging pathways to the building, inclusive of surrounding uses and access• ELC supports College staff return to work• Integrated facility with co-curricular, teaching spaces and pastoral care spaces to support school community and wellbeing• Connection through the bulding from Gey House Walk to heart of school
4. BETTER FOR PEOPLE	Safe, comfortable and liveable	<ul style="list-style-type: none">• Diversity of types of space within the building, age appropriate and safe• Natural ventilation and good daylight to teaching spaces to create high quality teaching space that is visually connected to the broader school campus• Outdoor space higher up the building has been created internal to the floorplate to connect with nature whilst sheild students from potential un safe edge conditions
5. BETTER WORKING	Functional, efficient and fit for purpose	<ul style="list-style-type: none">• Detailed Functional Design Brief developed with the school• 'Outdoor room' circulation space provided additional outdoor learning environments and opportunity to connect the different users• Many users within the building with very specific requirements created fit for purpose (dance. ELC) whilst providing inherent flexibility for the future
6. BETTER VALUE	Creating and adding value	<ul style="list-style-type: none">• Outdoor room added an additional space to the brief• Dance and ELC facilities have opportunity for community access• Consolidating Health and Wellbeing at the top of the buiding provided additional opportunity for retreat spaces
7. BETTER LOOKING AND FEEL	Engaging, inviting and attractive	<ul style="list-style-type: none">• The design is contemporary, embracing the history of the site and future school vision and pedagogy• The scale, mass, entry points and form of the building have been designed to welcome• Playful elements (stair and slide) and artwork incorporated into the architecture to inpire and engage both staff and students• Storytelling in landscape and through planting and the building materials engage with Country

05.02 GANSW GREENER PLACES FRAMEWORK



The draft GANSW framework for greener spaces identifies four principles. The masterplanning work, siting and development of the project brief has enabled alignment of the Grey House Precinct and these principles.



PRINCIPLE 1: INTEGRATION

Combine green infrastructure with urban development and grey infrastructure

Designed to bring the landscape into the building spaces, not just spill out from space into the landscape. Building promotes healthy and active living through passive design principles, green roof, photovoltaics, external atrium space.



PRINCIPLE 2: CONNECTIVITY

Create an interconnected network of open space

Through the central pathway/ 'outdoor room' the building connects lower junior school playground and Grey House walk with upper boarding house lawn. Reconnect and reforest the existing blue gum forest to re-instate natural bush condition to boundary and re-introduce wildlife.



PRINCIPLE 3: MULTIFUNCTIONALITY

Deliver multiple ecosystem services simultaneously

Material selection is of high-quality and high-performance, locally sourced where possible. Diversity of types of outdoor space included within and surrounding the building will benefit social wellbeing, student learning, learning from the building as well as provide environmental benefits.



PRINCIPLE 4: PARTICIPATION

Involve stakeholders in development and implementation

Extensive consultation with students and staff has been an integral part of the design process and evolution from early brief development and concept design through to detailed design including consultation with Indigenous student working groups. Community engagement with neighbours and local community has been ongoing. More recently local Elder, Uncle Laurie Bimson met with the school and design team and will be a part of the ongoing design process with particular interest in native plant selection and their significance to fauna.

05.03 GANSW ENVIRONMENTAL DESIGN IN SCHOOLS MANUAL, 2018



The GANSW Environmental Design in Schools Manual has been developed in response to a growing appreciation of the significant role that good design can play in education, with increasing evidence that student learning outcomes are closely related to the quality of the environment in which they learn.

The Design manual provides a holistic understanding of environmental design. It presents strategies for passive design as opportunities for making positive, sustainable change in the building or running of a school. This manual gives greater advice to support the Education SEPP, including the Design Quality Principle 2: Sustainable, efficient and durable.

These principles have been considered in the design of the Grey House Precinct Building and were key to informing the development of the design.



1. USE PASSIVE COOLING AND HEATING

- Operable windows
- Window shading through fins
- Fans in teaching spaces to circulate air
- Efficient use of air-conditioning with a reasonable range



2. RE-DESIGN LEARNING EXPERIENCES

- Bring plants into the classroom
- Work Outside
- Provide noisy and quiet spaces
- Expose building services



3. COMMUNICATE CAREFUL USE OF RESOURCES

- Find ways to save resources (educate with regards to consumption)
- Display Data
- Provide building sensors
- Expose building services



4. ACTIVATE THE SCHOOL GROUNDS

- Encourage physical activity
- Learn outdoors
- Share environmental knowledge
- Contribute to the local environment
- Share community assets
- Understand the importance of trees

05.04 SEPP - EDUCATIONAL ESTABLISHMENTS, CHILDCARE FACILITIES + GANSW DESIGN GUIDE FOR SCHOOLS



The GANSW Better Placed: Design Guide for Schools provides guidance on how to meet the Education SEPP Design Quality Principles. A response to the SEPP is provided separately.

The Design guide identifies 7 principles from the SEPP to be considered during the design of a school. The delivery of the GHP has followed a very rigorous process to help deliver an outcome that is aligned to these guidelines and to the SEPP. During the Concept and subsequent Detail Design phases, BVN and the greater design team have contributed to delivering a project measured against these principles. This process includes (amongst various other instruments):

- The Pymble Ladies College Master plan (prepared by MGS Architects)
- Detailed and ongoing consultation with key stakeholders including the students, staff and community through schematic design and design development process
- School pedagogical benchmarking
- Indigenous community and neighbourhood community consultation

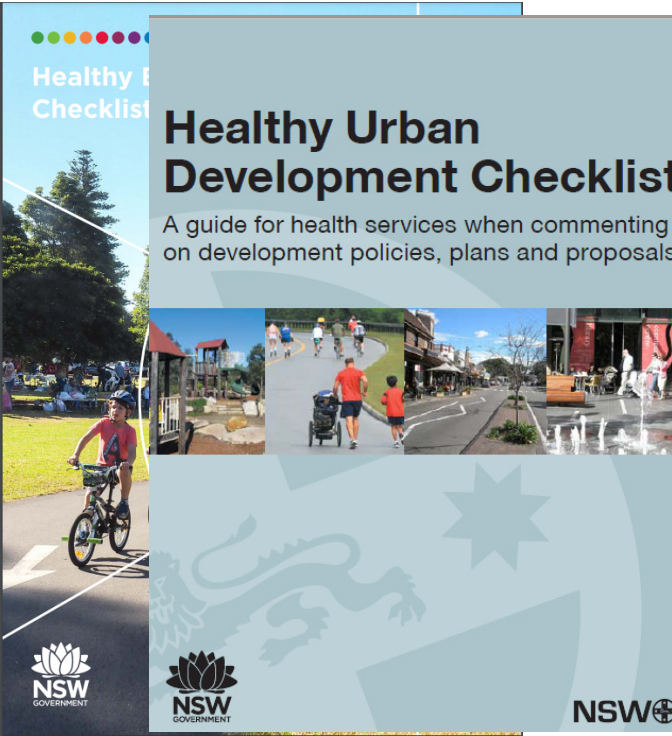
Additionally, the seven objectives of the GANSW ‘Good Design Outcomes have been considered.

During the course of the design the principles of the SEPP (Educational Establishments and Child Care Facilities) 2017 have been considered and addressed.

The requirements of the SEPP align to the GANSW Design Guide for Schools and the requirements of the design brief.

OBJECTIVE	DESIGN RESPONSE
1. Context, built form and landscape	<ul style="list-style-type: none">• GHP proposal responds to school setting; landscape and heritage, including Aboriginal cultural heritage• Replacing temporary buildings at end of life• Spatial organisation informed by and responds to topography and site conditions such as orientation and climate• Landscape holistically integrated into building to provide outdoor amenity wherever possible and to mitigate negative impact on neighbours
2. Sustainable, efficient and durable	<ul style="list-style-type: none">• Designed to minimise the consumption of energy through significant PVs, water harvesting and reduce waste and encourage recycling through re-use of onsite materials on the school farm• Designed to maximise flexibility of teaching spaces and be adaptable enabling building to evolve over time to meet future requirements
3. Accessible and inclusive	<ul style="list-style-type: none">• Designed with clear main entry to provide distinctive unifying front door as well as clear identity for each of the departments within.• Lift access at central atrium stair for equitable access and access to health services• Designed to enable safe and vibrant space for extended hours community. Dedicated OSHC, ELC and co-curricular dance facilities as well as Health provide varied operation hours to support school community (boarders, families and staff)
4. Health and safety	<ul style="list-style-type: none">• Student health and safety has been a strong consideration in the design and approach to engagement with the landscape, materials and tactility, diversity of types of spaces and openness.• Within the campus setting security is less of a concern and a welcoming and accessible building design has been prioritised
5. Amenity	<ul style="list-style-type: none">• Flexible learning spaces and in between spaces have been considered in the design to create pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities• Siting of the building and stacking of operations considers the amenity of adjacent developments and the local neighbourhood to minimise impact• Campus setting has benefit of minimal acoustic impacts on the building• Diversity of stage and age appropriate indoor and outdoor learning and play spaces incorporated into design• Access to sunlight, natural ventilation, outlook through picture windows, visual and acoustic privacy, storage and service areas.
6. Whole of life, flexible and adaptive	<ul style="list-style-type: none">• Masterplan considers the whole site and future school planning• Flexible structural grid and durable natural materials utilised wherever possible to maximise opportunities for re-use and repurpose and to enable change for future use• Maximise multi-use within the building and future flexibility
7. Aesthetics	<ul style="list-style-type: none">• Good proportions and balanced composition, embedded into the natural topography and landscape setting through terracing of forms and change in podium material• Facade composition includes picture windows to create balance and playfulness, material choice, rhythm and form referencing elegance of formal college setting while acknowledging age appropriate response for child users• Student and staff community commented on positive response to the landscape setting of the college and therefore the building further engages with this positive association• Identity of the school to empower women that will ‘change the world’, the building speaks to this vision - courageous, unspired, environmental responsibility for the world, flexible to change, connected to Country, our environment and landscape

05.05 HEALTHY URBAN DEVELOPMENT CHECKLIST



The Healthy Urban Development Checklist is a practical tool to help NSW health professionals and those outside the health sector, assess built environment factors that impact on health. It is designed to support engagement with planning processes and guide feedback on development policies and plans.

Four key principles guide the development and implementation of this checklist:

- Equity
- Early engagement
- Interdependence
- Building partnerships

There are 11 themes in the Checklist which have been considered in the development of the design of the GHP.

THEMES	DESIGN RESPONSE
1. HEALTHY EATING	Support for food production as part of the landscape and teaching and learning - vegetable gardens and edible native plants Access to healthy eating opportunities on site with multiple healthy canteens and kitchennettes within teaching buildings
2. PHYSICAL ACTIVITY	Incidental physical activity is encouraged through favouring stair use for student movement and celebrating stair space Physical activity function in the building with Dance Connection and access to quality and useable outdoor spaces, play areas and recreational sport facilities
3. HOUSING	Dwelling diversity in the Pymble area in walking distance
4. TRANSPORT AND CONNECTIVITY	Good bus and train access with proximity to Pymble station Reduction of car dependency and encouragement of active transport through GTP Development maximising the development potential of the Pymble Ladies College site State of the art technology integration to maximise connectivity of students globally and locally
5. QUALITY EMPLOYMENT	Opportunities for enterprise being explored for student training and development Building provides additional job opportunities through new service of ELC
6. COMMUNITY SAFETY AND SECURITY	Minimal security issues as the building sits within the existing college campus setting
7. OPEN SPACE AND NATURAL FEATURES	Existing school campus affords great access to open green and natural space. The building further enhances these connections to green space through additional landscaping and planning opening on to landscaped space. Sense of distinct place and inclusion of public art being developed. Reference and enhancement of natural, historical and cultural significance through indigenous consultation, history, knowledge and journeys narrative
8. SOCIAL INFRASTRUCTURE	Diverse range of facilities to attract and support a diverse student and staff population Socially beneficial uses with inclusion of early childcare ELC and OSHC
9. SOCIAL COHESION AND CONNECTIVITY	Building reflects the Pymble values and vision to provide students with a strong connection to the built environment and place Central circulation promotes social interaction and cohesion Connection with Country ties the building to place
10. ENVIRONMENT AND HEALTH	Natural ventilation to learning spaces to maximise fresh air, high floor to ceilings to maximise daylight
11. ENVIRONMENTAL SUSTAINABILITY AND CLIMATE CHANGE	Reforestation of Blue Gum forest Photovoltaics and green roof, recycled water and compost and waste management through agroicultural farm on site



Aboriginal people know that if we care for Country, it will care for us. For tens of thousands of years they have managed, cultivated and cared for the landscape where our towns and cities were established and continue to grow.

The GANSW Connecting with Country Framework is a draft framework for developing connections with Country to inform the planning, design, and delivery of built environment projects in NSW. It is intended to help project development teams – advocating ways they can respond to changes and new directions in planning policy relating to Aboriginal culture and heritage, as well as place-led design approaches. It also aims to help project teams gain a better understanding of, and to better support, a strong and vibrant Aboriginal culture in our built environment.

During the course of the design the principles of the Connecting with Country Framework and Designing with Country Framework have informed the design process.

STRATEGY	PROCESS	DESIGN RESPONSE
1. Pathways for connecting	<ul style="list-style-type: none">• Learning from first languages and placenames• Develop mutually beneficial relationships with Country• Reawakening memories of cultural landscapes• Finding common ground	<ul style="list-style-type: none">• Reference to history of the site and indigenous tracks• Explored an understanding of the Country on which the school sits• Shared story telling and walking the site with traditional custodians and knowledge-holders• Minimise impact on and learn from the environment
2. Considering project life cycles with an Aboriginal perspective	<ul style="list-style-type: none">• Sensing – Start with Country• Imagining – Listen to Country• Shaping – Design with Country• Caring for Country	<ul style="list-style-type: none">• Actively seeking the sense of Country• Listening to Aboriginal communities speak about Country in a way they feel comfortable• Making from and on Country respects and allows for ecosystem relationships• Deep affection and responsibility for looking after the health and wellbeing of the ecosystem.
STRATEGY	PROCESS	DESIGN RESPONSE
1. Elements of Designing with Country	<ul style="list-style-type: none">• Architecture/urban design• Passive Design• Biophilic Design	<ul style="list-style-type: none">• Age appropriate and community focussed design• Passive design principles, natural ventilation, daylighting• Building integrated into landscape and landscape into building
2. Connection to Country	<ul style="list-style-type: none">• Traditionally cognitive mapping by Aboriginal people was done through walking Country and learning about important sites, cultural lore, and wayfinding through storey telling.	<ul style="list-style-type: none">• Past journeys and storey telling explored and layered narratives developed to inform design
3. Human-centred vs. Country-centred design	<ul style="list-style-type: none">• If design and planning processes considered natural systems that include people, animals, resources and plants equally – similar to an Aboriginal world view – this could make a significant contribution to a more sustainable future world	<ul style="list-style-type: none">• Sustainability initiatives, recycled materials, building as teacher, and reforestation of native endangered species

Amenity Impact

06

06.01 VISUAL AMENITY

VISUAL AMENITY

The new building is designed to to be calm and recessive in its architectural form and facade articulation. Aligning to the existing College facilities, it sets up a clear setback zone for landscaped buffer to neighbouring properties.

The demolition of the existing demountable structures will be an improvement to local vicinity. Although some medium- to large- trees are to be removed as part of the project, the majority of species are considered to be exotic and have low biodiversity value. Instead, the project looks to reinstate and connect the Sydney High Blue Gum to be re-established adjacent to this boundary. The project will improve the overall visual amenity of the precinct

VISUAL PRIVACY

There are residential buildings to the south (16m separation to closest property).

Visual privacy into the school is protected by proposed landscape screening and the setback of the teaching spaces behind articulated facade screening. Similarly, the planting and facade screen provides privacy for residential buildings.

The neighbouring properties are below the lowest level of the proposed building – the houses will not be in direct sightlines from within the building as there are 600mm high spandrels from the finished floor level.

Picture windows have been carefully placed on the southern facade with the glazing to be lined with an Interlayer mesh to provide privacy screening to neighbours and back into the building.

VIEW LOSS

Primary views of the area of the proposed works are those from the southeast portion of Goodlet House, the northeast portion of the aquatic and fitness centre, and the southwest portion of the junior school. Partial views of the subject site are available from the open grassed area located between goodlet house and the junior school.

Partial views of the subject site are also available from the rear of the private dwellings which are located directly to the southeast, with glimpses available through the tall, dense plantings positioned along the southeast school boundary.

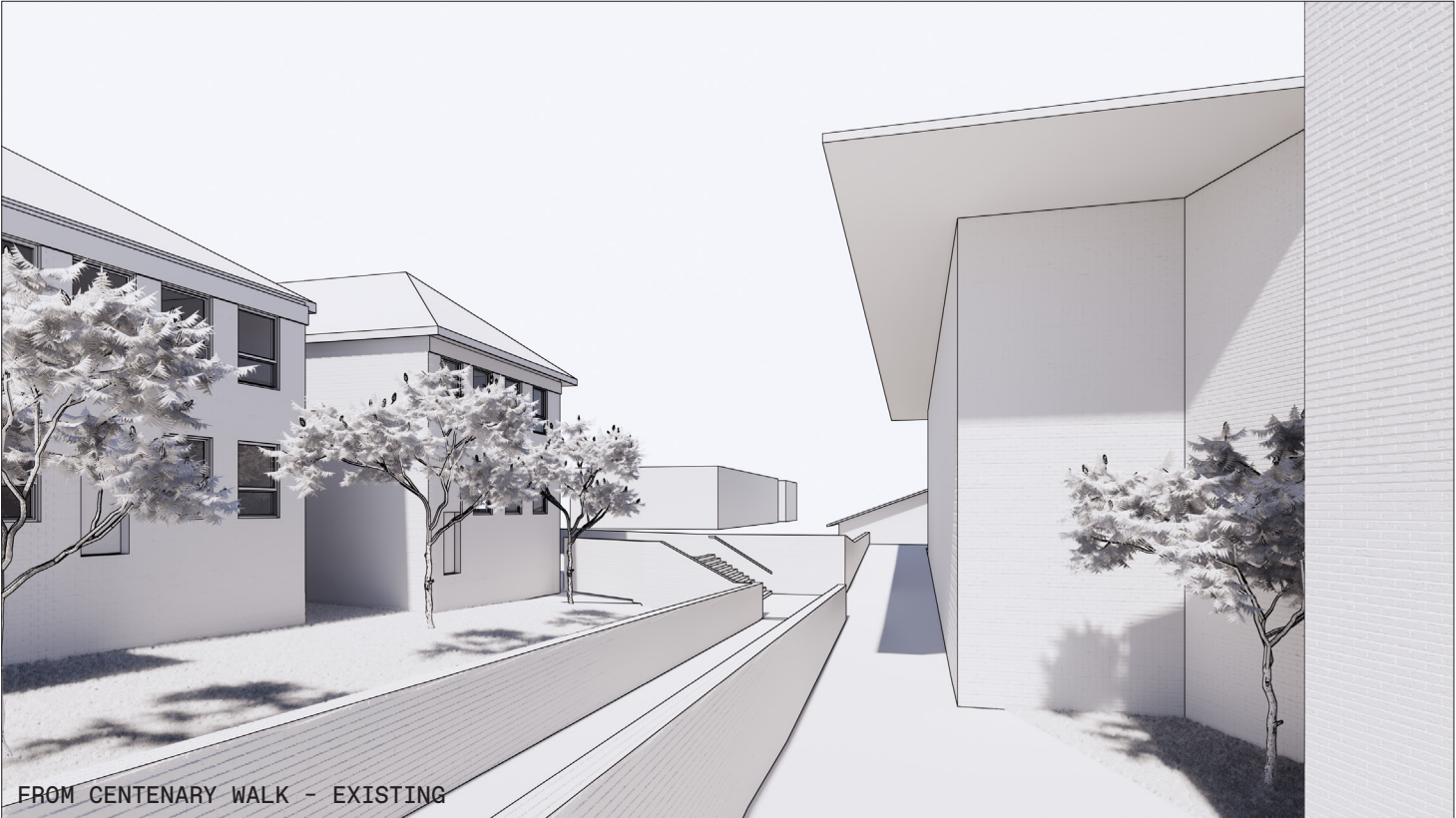
There are no notable distant views or vistas available from, or of, the subject site. The surrounding area is characterised by mature gardens with large trees as well as the areas of retained blue gum forest, and as such views from the public domain are largely screened. Views from residential properties adjacent to the College will not result in major view loss. The proposed development wil form a minor constituent of the view being partially visible from the edge of the Pymble Avenue Conservation C11 Area - the view impact is considered to be of moderate/minor.



06.02 VIEW ANALYSIS – WITHIN CAMPUS



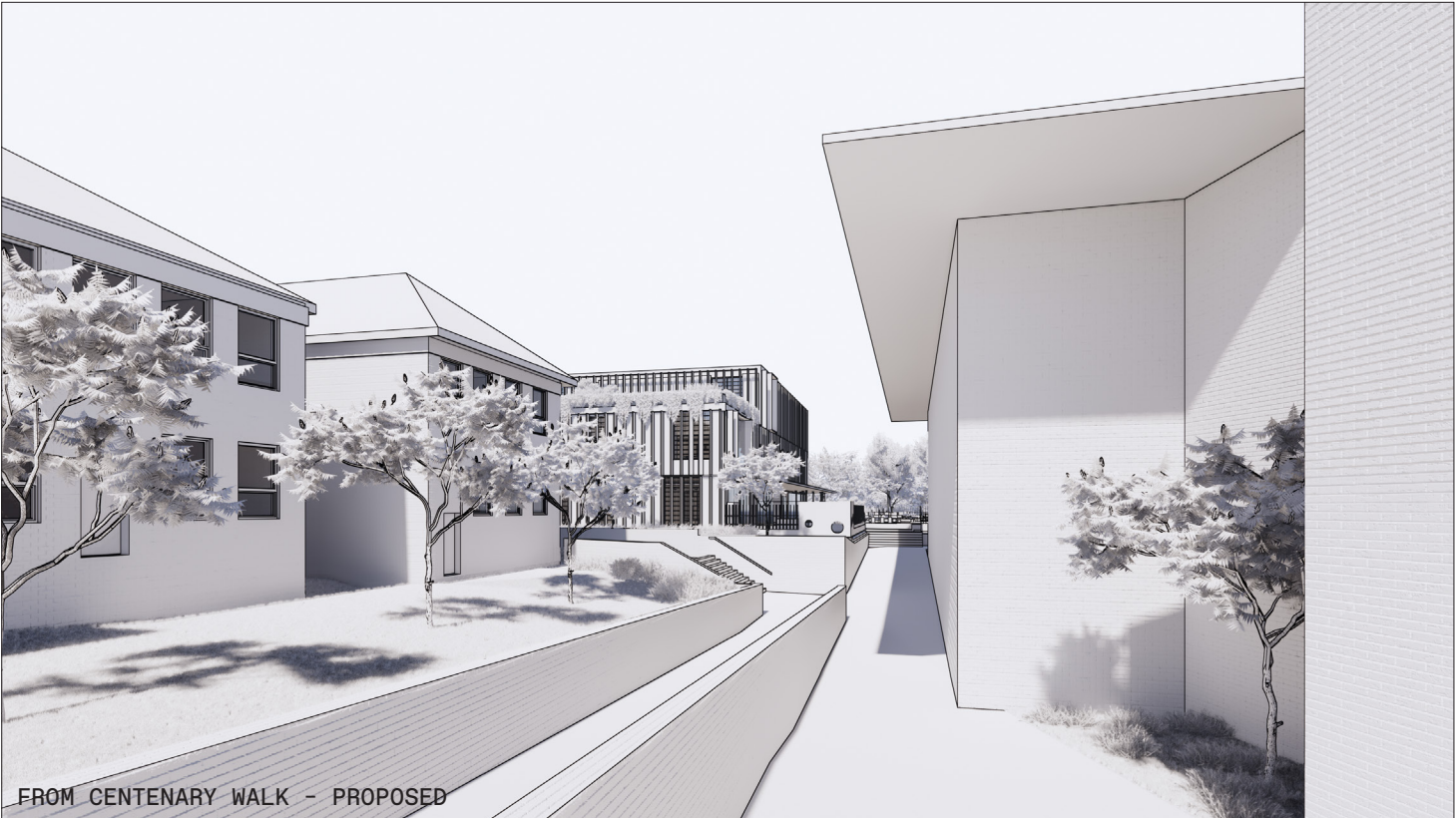
FROM COLLEGE HEART - EXISTING



FROM CENTENARY WALK - EXISTING



FROM COLLEGE HEART - PROPOSED



FROM CENTENARY WALK - PROPOSED



06.03 VIEW 1: FROM CENTENARY WALK





06.05 VIEW 3: FROM EAST (PLAYGROUND)

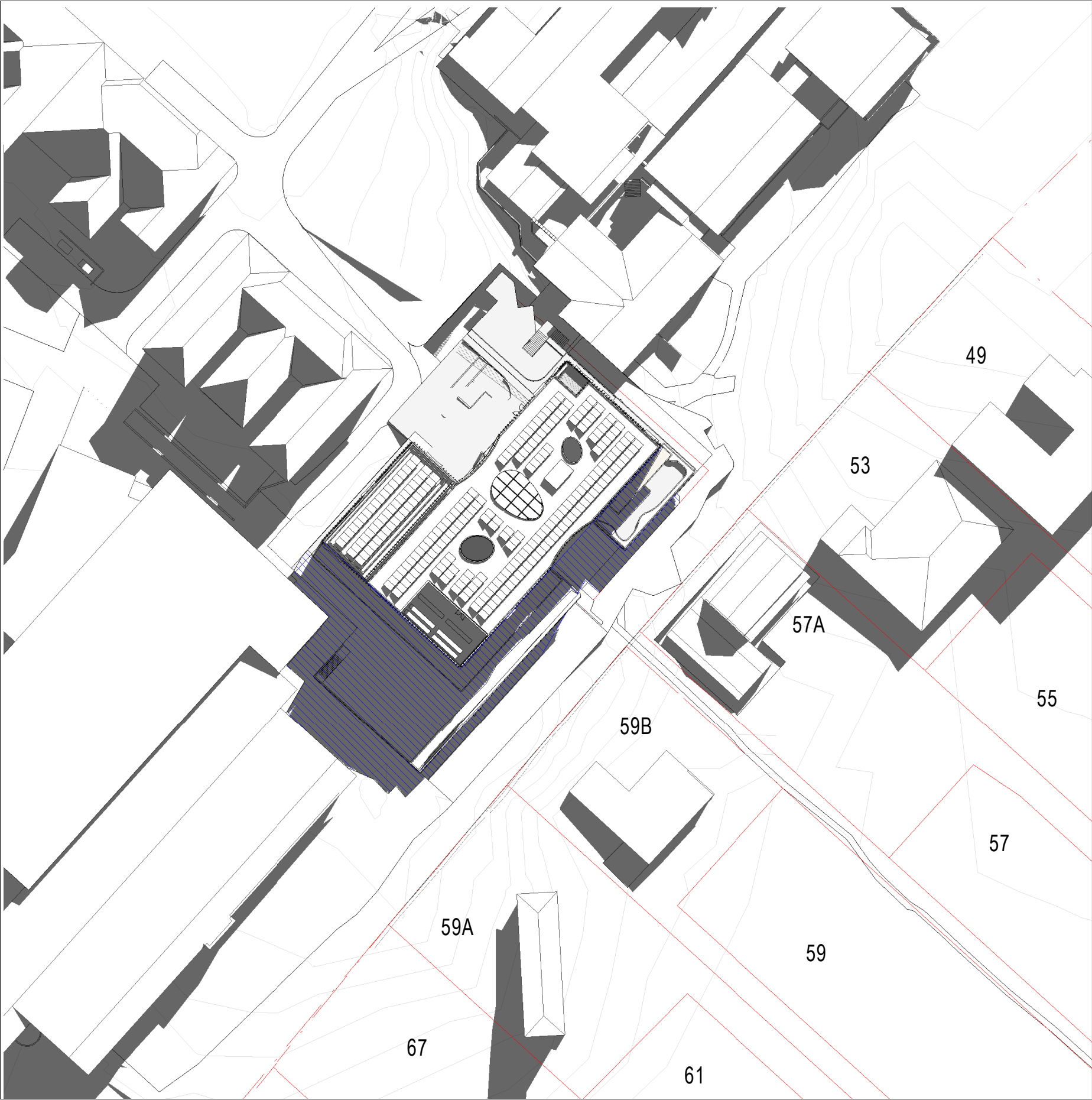


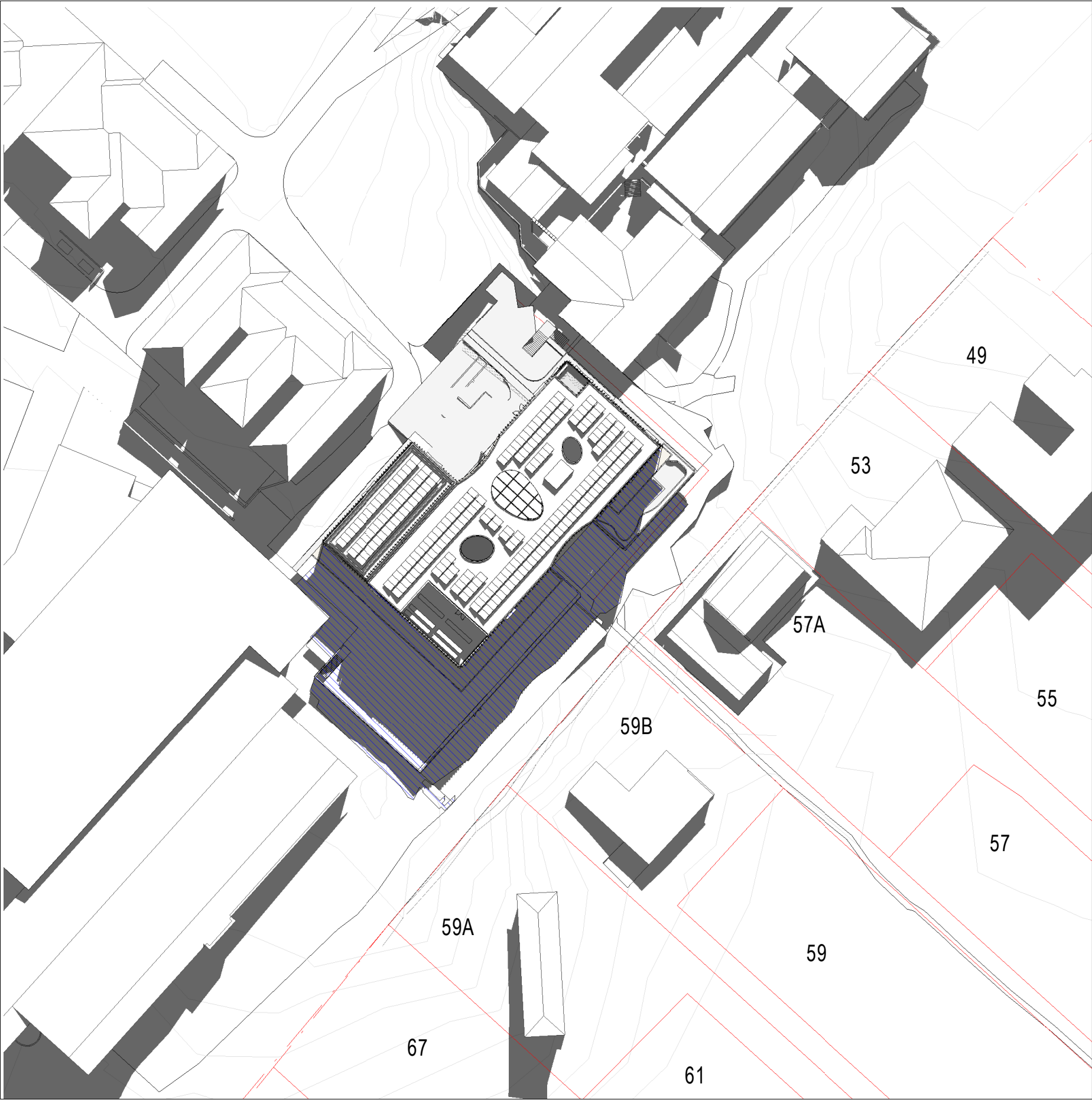
06.06 VIEW 4: FROM NORTH (COLLEGE HEART)



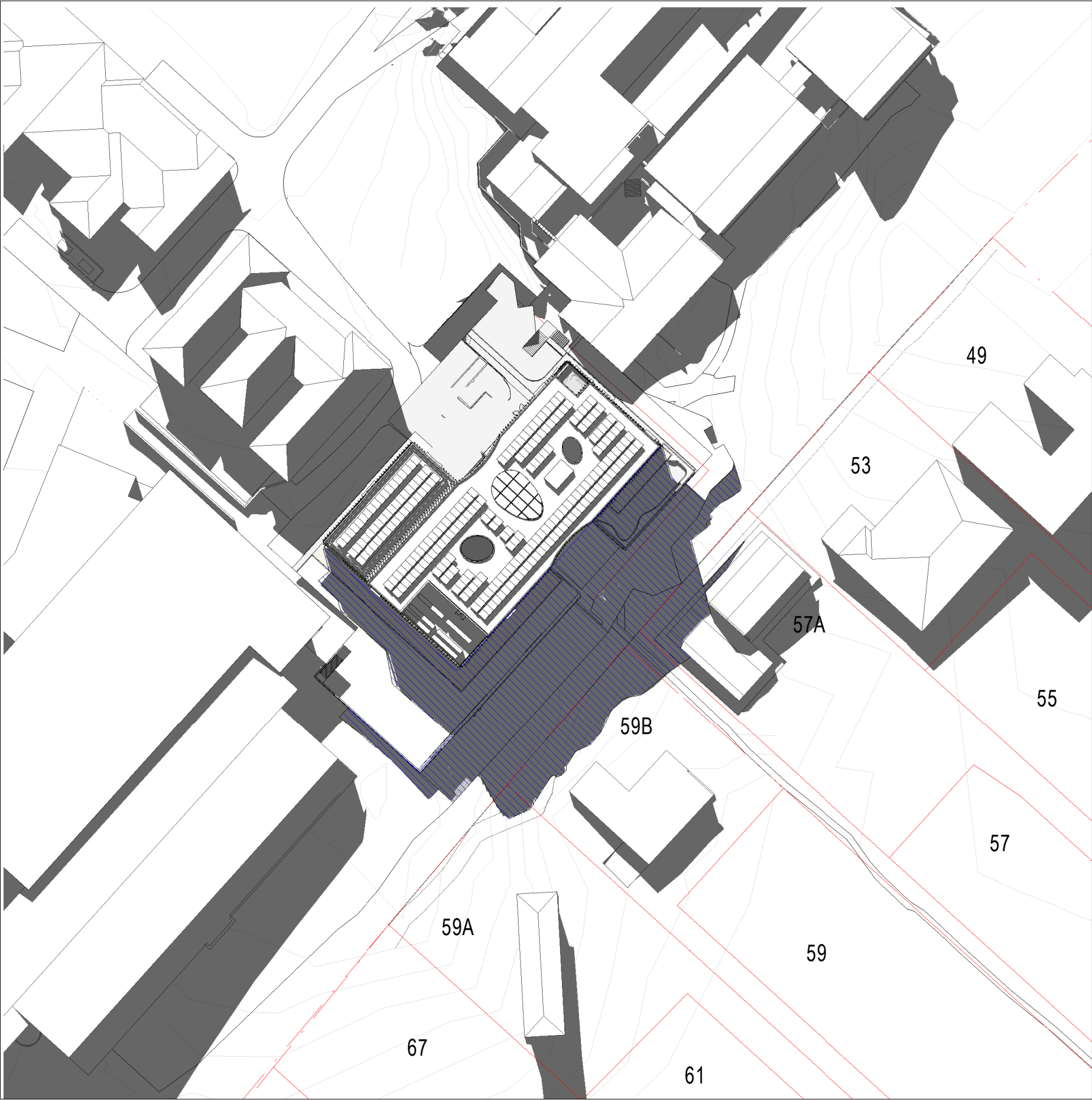


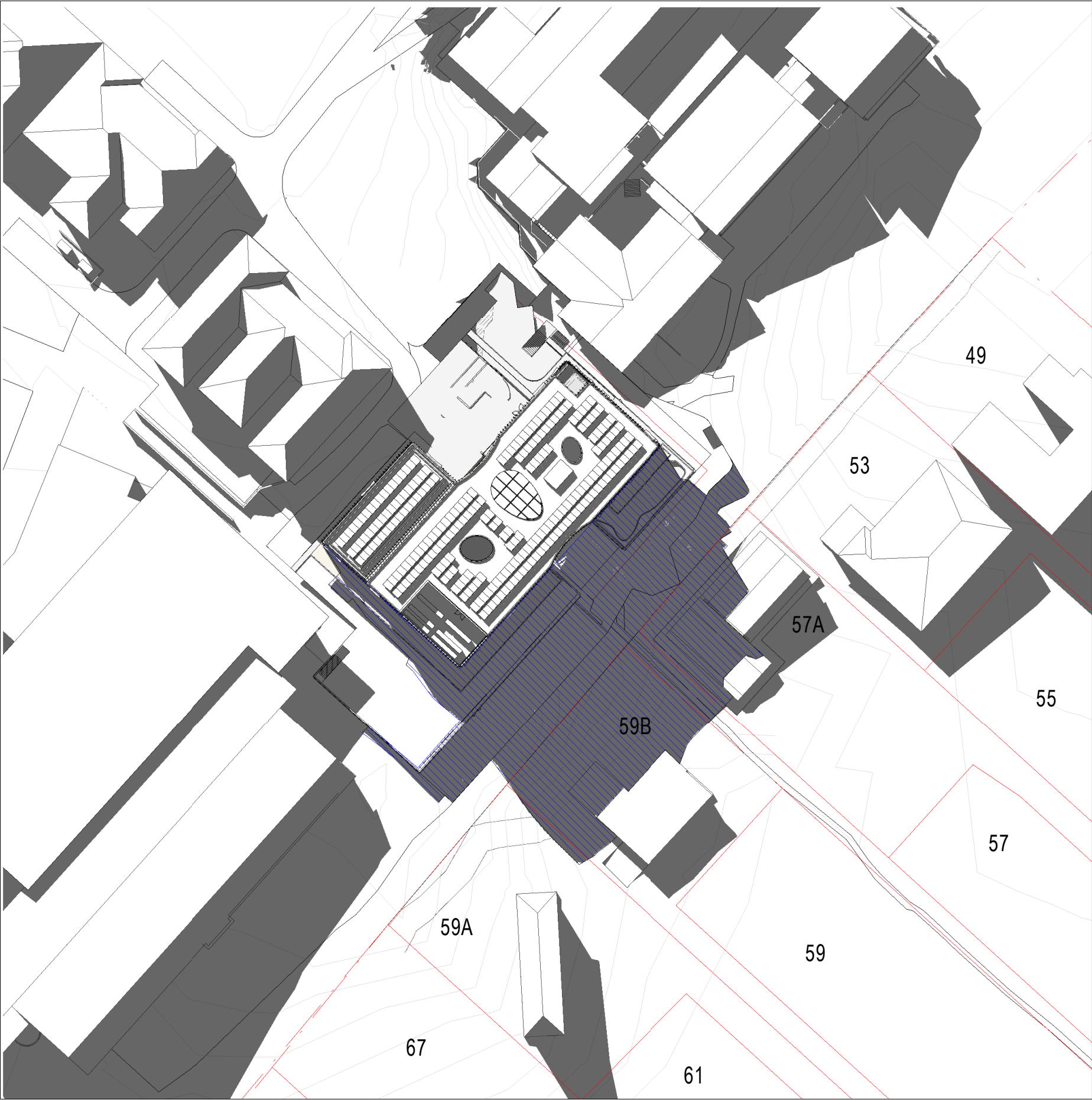


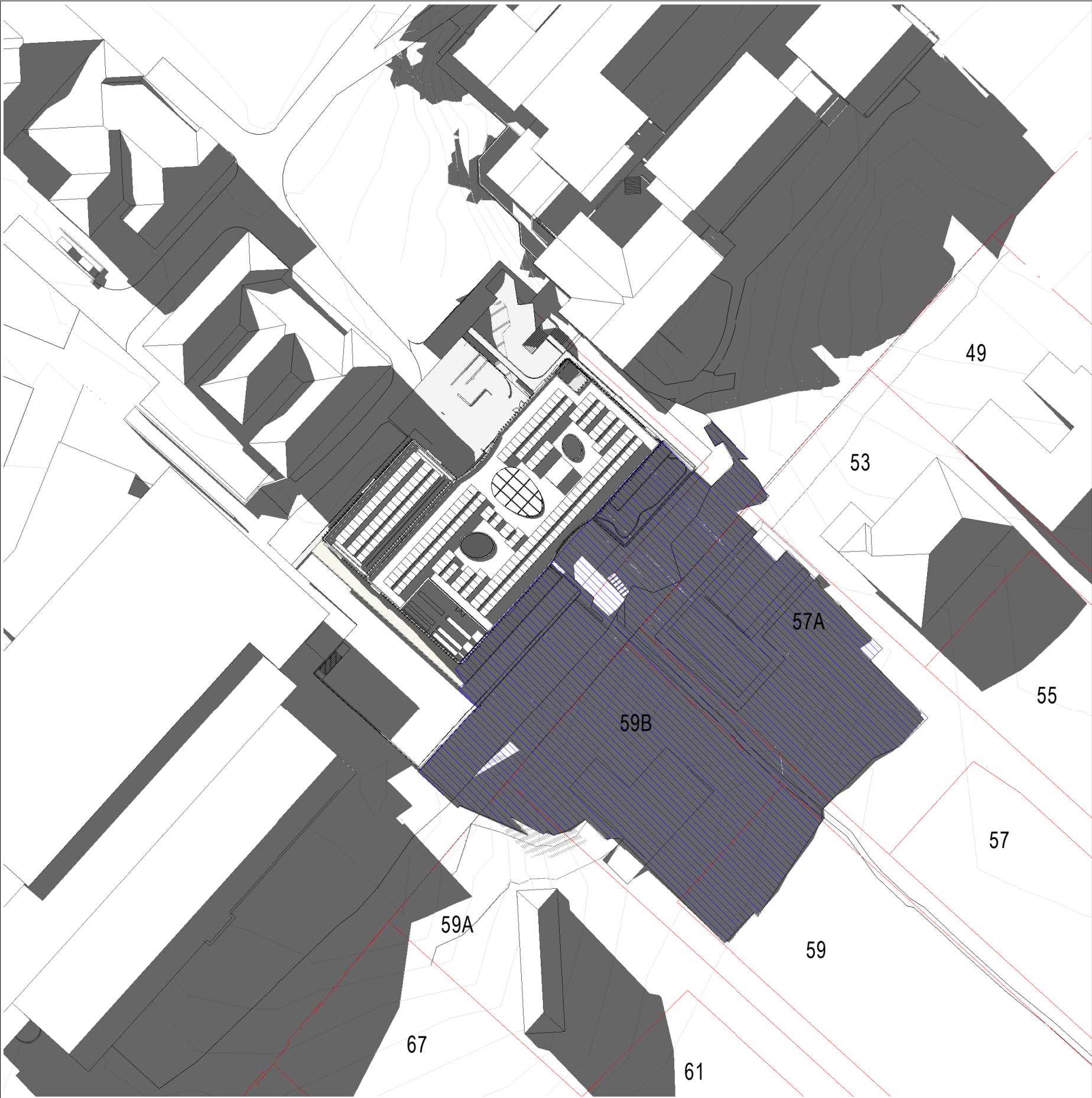












06.15 SHADOW PLAN 23 SEPTEMBER 9 AM

