

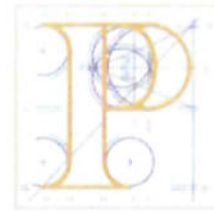
**APPENDIX 1: NOTIFICATION LETTER OF 3<sup>RD</sup> PARTY APPEAL FROM ABP**

<b>AN BORD PLEANÁLA</b>	
LDG-	_____
ABP-	<u>319719</u>
<b>12 JUN 2024</b>	
Fee: €	_____ type: _____
Time:	_____ By: _____

**Our Case Number:** ABP-319719-24

**Planning Authority Reference Number:** 3274/24

**Your Reference:** NWQ Devco Limited



An  
Bord  
Pleanála

John Spain Associates  
39 Fitzwilliam Place  
Dublin 2  
D02 ND61



**Date:** 16 May 2024

**Re:** Demolition of 6 storey office building and basement. Construction of mixed use development ranging from 9 to 17 storey's in height and site development works. An EIAR and NIS submitted with planning application.  
CitiGroup Building, 1 North Wall Quay, Dublin 1, D01 T8Y1

Dear Sir / Madam,


Enclosed is a copy of a further appeal under the Planning and Development Act, 2000, (as amended).

As you are aware, the planning authority's decision in the matter is already the subject of an appeal to the Board. Under section 129 of the Planning and Development Act, 2000, (as amended), as a party to the appeal you may make submissions or observations in relation to the enclosed appeal in writing to the Board within 4 weeks beginning on the date of this letter.

**Please note when making a response/submission only to the appeal it may be emailed to [appeals@pleanala.ie](mailto:appeals@pleanala.ie) and there is no fee required.**

Any submissions or observations received by the Board outside of that period shall not be considered and where none have been validly received, the Board may determine the appeal without further notice to you. Please quote the above appeal reference number in any further correspondence.

Yours faithfully,

  
Fadimie Khatipova  
Administrative Assistant  
Direct Line: 01-804-9312

BP06

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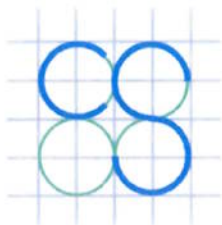
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**APPENDIX 2: ADDITIONAL RESPONSE SUBMISSION PREPARED BY CS  
CONSULTING**

319719



CS CONSULTING  
GROUP

## CS CONSULTING GROUP

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An Bord Pleanála  
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**Sent By:** Email

**Job Ref:** R118

A – GF/GL

**Date:** 7-Jun-24

**Doc. Ref. 1NWQ-CSC-ZZ-XX-LT-C-0003-P0**

**RE: Additional response submission in relation to ABP Case Reference PL29N.319719  
(DCC Planning Reference 3274/24) at 1 North Wall Quay, Dublin 1, DO1 T8Y1**

### INTRODUCTION

This document has been prepared by Cronin & Sutton Consulting Engineers (CS Consulting) on behalf of the applicant NWQ Devco Limited in relation to the applicant's proposed development at 1 North Wall Quay, Dublin 1, DO1 T8Y1 (DCC Reg. Ref. 3274/24; ABP Case Ref. PL29N.319719). The decision of Dublin City Council to refuse permission for this proposed development is currently the subject of two concurrent appeals:

- A 1<sup>st</sup>-party appeal by the applicant, seeking to obtain permission for the development.
- A 3<sup>rd</sup>-party appeal by Clarion Quay Management Company (CQMC), seeking to uphold DCC's decision to refuse permission.

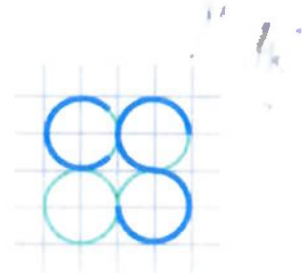
The present document is tendered in response to the appeal submission by Clarion Quay Management Company (CQMC) to An Bord Pleanála, lodged on the 13<sup>th</sup> of May 2024 in relation to DCC Planning Reg. Ref. 3274/24. The CQMC appeal submission raises several concerns around the basement structure, vehicular servicing, and height of the proposed development, and the potential for these to impact upon the nearby Clarion Quay Estate (CQE) residential complex. This response document addresses the points raised by CQMC in relation to basement structure and vehicular access and servicing.

KP & Associates Consulting Engineers Ltd. T/A Cronin & Sutton Consulting  
**Company No.** 505303 | **Registered Office:** 19-22 Dame Street, Dublin 2.  
**Directors:** P. Sutton (Chairman), O. Sullivan (Managing), C. Sutton-Smith,  
E. Sutton, N. Barrett, C. Bony, M. McEntee, L. McNamee, C. Twomey  
**Assoc. Director:** G. Lindsay | **Associates:** C. Farmer, K. Freyne, L. Garrett,  
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**LONDON OFFICE:** Centralpoint, 45 Beech St, London, EC2Y 8AD  
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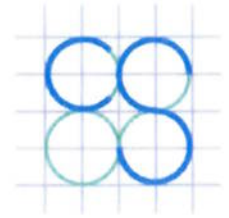
Some suggested modifications (which could be implemented by Condition) have been made to the proposed development's design by the applicant, following DCC's decision to refuse planning permission under Reg. Ref. 3274/24. These modifications, which respond to the DCC Reasons for Refusal and to other points raised by internal DCC Departments, were made prior to submission of the 1<sup>st</sup>-party appeal by NWQ Devco Limited to An Bord Pleanála but after drafting of the 3<sup>rd</sup>-party appeal document by Clarion Quay Management Company. As such, CQMC will not have had the opportunity to review these suggested design changes, several of which specifically address concerns raised in its appeal submission to ABP, at the time of preparing its appeal.

#### **CQMC SUBMISSION EXTRACT – BASEMENT STRUCTURE** (pages 6 to 7)

*"The basements of CQE (2 no.) are not shown on any of the drawings, in the Application Planning Report, SSFRA, Surface Water Management Plan, Engineering Services Report, Demolition Method Statement, or the Basement Impact Plan, nor are they taken into account in the R&E analysis by Hegarty Building Contractors. It is noted that the relevant external departments asked for more information in this regard. The Planner's Report clearly states that the site lies in Floor Zone B and the DCC Strategic Floor Risk Assessment states that underground offices are not permitted in this area.*  
p.22

*"We are very concerned by the extent of the proposed basement development. The existing Level 00 is given as +3.400 m AOD and building has a single basement with a floor at -0.325 m AOD. The depth of the basement is 3.725 m not including the foundations. The proposed development shows Level 00 at +3.650 m (includes a 500mm free board) and the floor of basement level 3 (given as -2) is -9.575 m. Taking into account the difference in Level 00 of 250mm, the three basements proposed have a combined depth of 12.975 m. This does not include the foundation, depths of lift pits nor the proposed geothermal piling.*

*"The R&E assessment by Hegarty Building Contractors describes the difficulties involved in the demolition of the existing basement, concluding that for buildability and safety, it and the ground floor plate should be entirely removed. The documentation submitted in support of the application describes the use of secant piling and anchors to construct the proposed basements to a further depth of -9.250 m excluding any substructures. In view of the omission of the two existing basement car parks to CQE from the calculations, we submit to the Board that the documentation should not be relied upon, particularly in relation to flood risk, future flooding events, water uplift of structures and potential damage to surrounding structures and property."*



## **CSC RESPONSE – BASEMENT STRUCTURE**

This extract of the CQMC submission raises the following principal points by our interpretation:

- a) The basements of CQE are not shown on application drawings and documents.
- b) The extent and depth of basement of the new basement and demolition of existing basement.
- c) Underground Office usages in Flood Zone B.

These are addressed sequentially below.

a) The basements of CQE are not shown on application drawings and documents

We note the concerns of the appellant, however it is generally understood that neighbouring properties and their structure would be examined in more depth at detailed design stage and through the construction process of the new structures proposed. The final design and construction sequence shall in no regard undermine or cause damage to any existing neighbouring structure.

b) The extent and depth of the new basement and demolition of existing basement

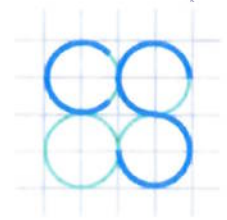
As part of the 1<sup>st</sup> party appeal an updated Basement Impact Assessment (BIA) was prepared and submitted which in our opinion outlines mitigating measures to suitable address the concerns raised by the appellant.

c) Underground Office usages in Flood Zone B

Following a review of the Liffey Tidal Flood Extents (appended) map, it highlights the development site in the 1 in 1000 year flood zone (0.1% Tidal AEP Event) and outside the 1 in 200 year flood zone (0.5% Tidal AEP Event). The adjacent node point (09LIFF00180) indicates a level of 3.35m AOD for the 1000 year flood event and 3.12m AOD for the 200 year flood event.

The proposed development shall have a minimum finished floor level (FFL) at ground floor of 3.65m AOD, i.e. 300mm freeboard above the 1000 year flood event and 530mm freeboard above the 200 year event, as stated in the SSFRA submitted with the planning application. This FFL level includes access points into the building that allow for further access to the lower ground floor. Levels for circulation vents, lightwells etc to the lower ground floor shall be above the level of 3.65m AOD.

With this new FFL of 3.65m AOD, the development site would now be located outside of the 1000 flood zone indicated on the Liffey Tidal Flood Extents Map. Therefore the site would be located within Flood Zone C.



As stated in the original SSFRA, submitted with the planning application, this development would be classed as less vulnerable development and as shown in the table below (Table 3 from the SSFRA) a justification test is not required.

Development Category	Flood Zone A	Flood Zone B	Flood Zone C
Highly Vulnerable Development	Justification Test Required	Justification Test Required	Appropriate
Less Vulnerable Development	Justification Test Required	Appropriate	Appropriate
Water-compatible Development	Appropriate	Appropriate	Appropriate

We note the loss of flooding area, however compensatory storage is not required as this only relevant to fluvial flooding and not tidal flooding. As the building development would then be classed as Flood Zone C, lower ground floor usages are now deemed appropriate in line with the Dublin City Council's "Dublin City Development Plan 2022-2028, Specific Flood Risk Assessment.

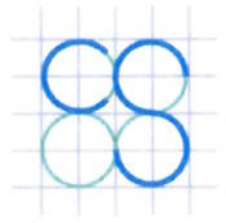
#### **CQMC SUBMISSION EXTRACT – VEHICULAR ACCESS AND SERVICING** (pages 7 to 8)

*"We note the Conditions (4 & 5) of ABP-308336-20 relating to the height of the refurbishment of New Century House (NCH) which is directly to the north of the subject site and existing CitiGroup building. Condition 4 required there be no plant to the roof of NCH to protect the residential amenities of adjoining residential units.*

*"Condition 5 of NCH Appeal Decision required that all service access be from the South West and not from Alderman Way which serves CQE. A complaint was made to the DCC Enforcement, and a letter of reply issued on the 1<sup>st</sup> of May (attached). Following inspection, they have referred the matter to the Parking Enforcement Section as the issue has been identified as a relating to parking on Alderman Way. This highlights the parking issues raised below but does not address the enforcement of the Condition regarding the location of service access.*

*"The relevant land registry map shows the first section of the Alderman Way as a right of way. This is marked as far as and including the access to the basement ramp for NCH and includes the pavement to the CQE development side. CQE have a right of way over this road. The rest of Alderman Way and Clarion Quay is shown within the ownership of the Applicant. CQE have rights of access to their basement car parks from Clarion Quay. These are not indicated on the site plans.*





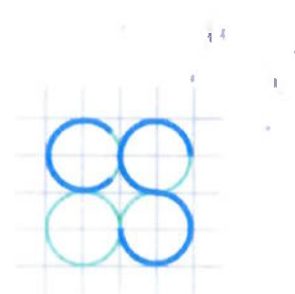
"This access should be unhindered on a day-to-day basis as well as for waste collection and routine maintenance. CQE will undergo planned works under the Government Apartments Remediation Scheme and access will be required for this programme which will apply to the entire estate.

"There is a designated parking and drop-off zone for the exclusive use of the creche in Block 9/10 of CQE for much of the length of Alderman Way on the eastern side. The creche is a required amenity provision in the original CQE development planning approval. We also note that the pedestrian access ramp and steps to CQE where the abut the red site boundary are not clearly shown on the drawings submitted by the applicant.

"As noted above, and highlighted in the photographs submitted with this appeal, the current unregulated usage of the streets for servicing and delivery causes ongoing issues for local residents, the creche users and can restrict access for waste collection and potentially emergency services. The safety of users of the road, and particularly the children arriving at and leaving the creche, is a serious concern.

"The Applicant has submitted a Traffic and Transport Assessment by CS Consulting Group. While Traffic Survey Data and TRICS Data are included in the report, there is no accurate reporting of the current issues which exist in Alderman Way and Clarion Quay. There is no assessment of congestion or of the short, medium, and long term effects of the increased quantum of vehicles generated by the construction and occupational stages of the development. The proposed traffic light system to manage access to the 2 no. car lifts to access the Basement parking (second level basement) to replace the current ramp access would have a direct effect on Clarion Quay and the access to CQE. As we have noted, the basement access ramps to CQE are not marked on any of the applicant's drawings. These are approximately 12 metres from the proposed access point to the car lift (no measurements are given so this figure is extrapolated from the proposed Ground Floor Plan). There is a speed calming ramp which extends to half the width of the access doors and the internal 'dwell' space for 1 vehicle (p47 Traffic & Transport Assessment) appears to be directly in front of the proposed 2 no. bicycle lifts potentially obstructing these. As the calculation of peak hour (8-9am) vehicular access to the development is 75 vehicles (64 + 11 service) (Table 12., p35, Ibid.), and there is no parking allowed on Clarion Quay, we submit that there would be considerable congestion and the restriction of access to and from CQE by the residents. The large numbers of trips generated during the construction period (284 per day) which would use a temporary access from Commons Street, will require a comprehensive Traffic Management Plan. Table 13, p36 Ibid. In respect of this we note that Commons Street is the designated area for deliveries and service to New Century House (see above) and is a key access route for the Bus Eireann fleet operating to and from Busaras.





*"The proposed delivery and service access as well as waste collection for the occupational stage are stated to be from Clarion Quay. The proposed Ground Floor Plan shows 2 no. parking bays on Alderman Way in front of the ESB substation. This is in to the North West side of the building. The waste bin storage areas are on Basement level -1 (the second level of three basements) in the South East corner. A letter from Knight Frank included in the Heritage Significance and Adaptive Capacity Assessment to support the proposal. Amongst the criteria outlined by them which largescale occupiers (given as 50,000+ sq. ft/4,645+ sq. m), it is stated that they require 'larger areas for drop off/deliveries to accommodate the wider array of uses and future adaptation of their office space.'*

P11

*"As the building will potentially accommodate multiple office users, the Gaiety School of Acting and the visitors to the Liffey Experience, we are concerned that the service and delivery access is not sufficient for the building as proposed and would not withstand future demand as outlined. The ongoing issues with parking and unregulated access to Alderman Way and Clarion Quay indicate failure to do so at the quantum of the current CitiGroup building.*

*"Vehicular access for the users of the building is from Clarion Quay directly beside the north entrance to the 'community park'. This leads to 2 no. vehicle lifts."*

#### **CSC RESPONSE – VEHICULAR ACCESS AND SERVICING**

This extract of the CQMC submission raises the following principal points by our interpretation:

- a) Existing issues of undisciplined vehicle parking/halting on Alderman Way and Clarion Quay.
- b) The potential for the proposed development to exacerbate these existing issues during construction and operational phases of the development.
- c) Rights of way and access to the existing CQE buildings.
- d) The potential for the proposed development's vehicular basement access arrangements to create congestion on Alderman Way and Clarion Quay.

These are addressed sequentially below.

##### **a) Existing issues of undisciplined vehicle parking/halting on Alderman Way and Clarion Quay**

It is acknowledged that Alderman Way and Clarion Quay currently experience undisciplined vehicle parking and halting at times, although background traffic volumes are low. These issues appear to arise from an apparent lack of enforcement and a lack of existing servicing facilities, coupled with the vehicular trip generation of all surrounding buildings, and are not primarily attributable to the operation of the existing office building at One North Wall Quay. The applicant





Subject to these suggested modifications, the proposed development's vehicular servicing arrangements would represent a significant improvement over those of the existing building, and would therefore not exacerbate existing issues of undisciplined vehicle parking/halting on Alderman Way and Clarion Quay.

Furthermore, as described in the Service Delivery and Access Strategy submitted under DCC Reg. Ref. 3274/24, the proposed development's facilities management will prepare and implement a Development Servicing Management Plan that will specifically aim to ensure that servicing of the development can be carried out efficiently, whilst minimising any negative impacts on the surrounding road network. This will include provision for scheduling deliveries outside background peak hours and for enforcement measures where such operations are conducted without the approval of facilities management.

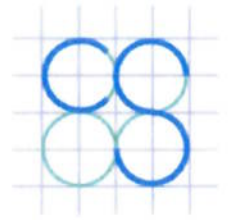
c) Rights of way and access to the existing CQE buildings

The site boundary shown on the planning drawings submitted under DCC Reg. Ref. 3274/24 corresponds to the extents of the Land Registry folios associated with the existing building at One North Wall Quay, except where (as indicated) it is necessary to include sections of footpath and/or roadway on North Wall Quay and Commons Street that are in the charge of DCC. The extents of any rights of way held by the owner(s) of the CQE buildings are not readily identifiable from public sources; the proposed development does not however entail any significant change to the alignment or cross-section of Clarion Quay and there is no intention by design to interfere with these buildings' existing access and servicing arrangements.

d) The potential for the proposed development's vehicular basement access arrangements to create congestion on Alderman Way and Clarion Quay

As described in the Traffic and Transport Assessment submitted under DCC Reg. Ref. 3274/24, the proposed development is projected to generate a maximum of 40no. light vehicle arrivals to the basement during the weekday AM peak of 08:00 to 09:00 (32no. cars and up to 8no. light servicing vehicles, which may also access the basement). Assuming the 8no. light servicing vehicles to also depart within this AM peak period, this gives a projected total of 48no. vehicular trips to and from the basement; this represents an average of one such vehicle arrival or departure every 1.25 minutes.

The exact cycle time of the proposed development's vehicle lifts shall depend upon final specification, but a maximum full cycle time of approximately 2 minutes would be representative of a lift arrangement of this nature, given the vertical travel distance involved. Over a 60-minute period, the proposed 2-lift access arrangement would therefore be able to process approximately 60no. vehicle arrivals or departures. This capacity exceeds the projected



demand, and any queueing of incoming vehicles waiting for lift access is expected to be negligible. The design modifications suggested as part of the 1<sup>st</sup>-party appeal create a further off-street waiting area between Clarion Quay and the lifts themselves, which does not impact the access to the suggested off-street servicing set-down zone.

It is therefore submitted that the proposed development's vehicular basement access arrangements have negligible potential to create vehicle queueing that could obstruct adjacent accesses or through traffic along Alderman Way and Clarion Quay.

**APPENDIX 3: RESPONSE TO POINTS RAISED IN THE THIRD-PARTY APPEAL BY  
CQMC PREPARED BY BPC ENGINEERS**

<b>AN BORD PLEANÁLA</b>	
LDG-	_____
ABP-	<u>319719</u>
<b>12 JUN 2024</b>	
Fee: €	_____ Type: _____
Time: _____	By: _____

# 1NWQ, Dublin 1

Response to points raised in the Third Party Appeal by CQMC with regards to the Daylight, Sunlight & Overshadowing Assessment

Project Ref: 20340

Client: NWQ Devco Ltd.

Date: 11/06/2024

Report by:

Building Performance Consulting Engineers



AN BORD PLEANÁLA	
LDG-	_____
ABP-	319719
12 JUN 2024	
Fee: €	_____ type. _____
Time:	_____ By: _____

Rev	Description	Date:	Written By	Approved By:
P13-02	Response to Third Party Appeal by CQMC	06/06/2024	J. Gleeson	J. Gleeson CEng MIEI, CMVP (AEE)
P13-03	Response to Third Party Appeal by CQMC	11/06/2024	J. Gleeson	J. Gleeson CEng MIEI, CMVP (AEE)



## Response to Third Party Appeal by CQMC

This report has been prepared to respond to the Third Party Appeal by CQMC in support of DCC's decision to refuse the proposed development at 1 North Wall Quay (i.e. DCC planning ref: 3274/24). This report specifically responds to items raised regarding sunlight and daylight performance of the proposed building on existing surrounding buildings. This report should be read in conjunction with the final daylight, sunlight and overshadowing report prepared by BPC Engineers and dated the 09/05/2024 rev. P13-01.

### Query 1:

The Third Party Appeal by CQMC states the neighbouring residential development has achieved "...RIAI Silver Medal for Housing 2007, the RIAI Best Housing 2003, the OPUS Housing Award 2003, the RIAI Regional Awards 2003 and the AAI Awards – Special Mention 2002, and is regarded as an exemplar of mixed-use, inner-city living design. It comprises a series of buildings which are arranged about a green amenity space, an internal park strip and, onto Excise Walk. On receipt of the RIAI Silver medal, 'speaking on behalf of the Urban Projects, Derek Tynan explained, "Urban Projects are honoured by the award of the RIAI Silver Medal for Housing for Clarion Quay in recognition of the proposition that we should not only design for people to live in the city but also to live well in the city. The ambition of the project was to form a neighbourhood on the "new city" of the Docklands - a reality which is now emerging!:" <https://www.voltim.un.ie/article/eslc-larion-quay-du-blin-docklands-awarded>.

The location of each of the 12 blocks which make up the CQE is carefully oriented to maximise access to sunlight and daylight viz. the modulation of the blocks to Excise Walk which are split vertically allow the penetration of sunlight through from the first floor, the distances between the blocks around the garden and the locations of wintergarden accesses and of appropriately designated rooms to prevent overlooking, all allow access to sunlight throughout the day.

The relative heights of the buildings have been carefully designed to maximise access to daylight and sunlight throughout the day for all residents and to the users of the streets around the complex.

The proposed redevelopment of the Citigroup building would effectively negate all these aspects of this award-winning housing development. The Sun lighting and Daylighting Report submitted in support of the application contains minimal analyses of the effects on the CQE which the Planning Authority clearly stated were deficient. The Dublin city planners had requested at the Pre-planning meeting that a full study was undertaken due to their concerns about the harm that the proposed development would do to the residents and the amenity of CQ Estate due to its height and massing. This constituted overbearing, overshadowing and the loss of light inter alia.

The report submitted by BPC Engineers refers to the lack of response by the PA during the 'challenge' stage of the application process. They state that the massing of the development was significantly reduced 'to limit the effect of the proposed development on existing neighbourhood amenity areas and properties' p4. They further state that the results show that the proposed development effect has predominantly being (sic) limited to a small number of bedrooms which will have a minor adverse impact with respect to access to skylight and to sunlight.

The effect of the proposed development has been limited to bedrooms of four apartments within Block 12 and Block 2 which will have a noticeable reduction in daylight.

However, given the current daylight levels in the apartments affected are currently low one could assume artificial lighting would likely be predominantly used which will continue to be the case after the proposed development.' p4 On the basis that their study confirms that 50% of the neighbouring amenity space would receive at least two hours of sunlight on the 21 st of March, they conclude that they 'believe that the proposed development performs at an exemplar level for a scheme of this scale and meets many of the recommendations as set out in the BRE Guide, 'p4 Emphasis author's own. We detail our concerns regarding this assessment in the 'Community Park' section below. In their introduction they state that they have used the BRE Guidelines - Site Layout Planning for daylight and Sunlight: A Guide to Good Practice (2022) and BS EN 17037 as the basis for the assessment and analysis. They note that the location of the

site is in the Central Business District where 'it is important on sustainability grounds that buildings extend upwards to gain usable floor area'. p5. After this they cite the Housing Quality and Standards objective 11.3(d) 'the design of developments should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst, minimizing overshadowing and maximizing the useability of outdoor amenity space.' p5

In their analysis of the loss of daylight to the windows they have identified, they make their case based on the assumption that many of the windows affected most detrimentally already have low levels of light and would use artificial light in any case. This is contrary to the BRE 209 3rd ed. Which states that sustainability is a factor that should inform all analysis of Sun lighting and Daylighting. 'Access to skylight and daylight helps make a building energy efficient; effective daylighting will reduce the need for electric light, while winter solar gain can meet some of the heating requirements.' P7, Introduction

We refer the Board and Inspector to the model of the proposed building used by BPC in the Part L Compliance Assessment. While this model does not show the surrounding buildings and context, it is considerably more detailed than the block model in the Sunlight and Daylight Analysis and clearly shows the size and massing of the proposed development. There is also a floor by floor plan graphical breakdown of the spatial usage.

In Appendix A we provide further information regarding Daylighting and Sunlighting as well as Solar Dazzle/Glare, Overlooking, Overshadowing, and Overbearing. Appendix B contains Photographs of the Daylight and Sunlight currently enjoyed by CQE.

While we understand that the planning process does not deal with 'rights to light', they do exist in law, and this should be recognised at design stage where there may be a loss to existing properties. Appendix 16, Section 9 of the DCC DP 2022 - 2028 states that Rights to light is not covered in this guide or under the planning process. The

*planning authority note that the granting of any planning permission does not override a legal right to light."*

#### Response 1:

The daylight, sunlight and overshadowing report has been updated and was submitted with the 1<sup>st</sup> party appeal to respond to reasons for refusal from the planner's report. An option to reduce the massing of the development adjacent to Block 1, 2 and 3 Clarion Quay was included as part of the 1<sup>st</sup> party appeal to further improve the daylight and sunlight results to these blocks.

The results show that the proposed development's daylight effect has predominantly been limited to a small number of bedrooms which will have a minor adverse impact with respect to access to skylight.

The daylight results for Block 1, 2 and 3 of Clarion Quay (i.e. with the proposed development) still performs better than many of the existing east facing windows in Block 8. The proposed design has gone through a series of design iterations to ensure there is not a significant number of units effected by the proposed development.

The analysis shows that 96% of the existing neighbouring dwellings windows achieve the BRE's recommendation for annual probable sunlight hours on annual basis and on a winter basis.

The third party appeal by CQMC raises concerns for solar dazzle/glare but does not provide any evidence for this claim. To have significant solar dazzle and glare it would require elements of the façade to be mirrored glazing or have convex/concave elements, but as is this is not the case in the proposed building it will perform as is typical to any building in the Docklands in Dublin.

The existing neighbouring amenity space tested confirms that 50% of the area should receive at least two hours of sunlight on 21<sup>st</sup> of March. We note images have been included in Appendix B as part of the Third Party Appeal by CQMC which show photographs of the daylight sunlight currently being enjoyed by CQE. As mentioned previously the amenity area still achieves 50% sunlight on March 21<sup>st</sup> for at least 2 hours and there is a negligible effect by the proposed building on the neighbouring amenity June 21<sup>st</sup>. Therefore, the existing neighbouring amenity space achieves the BRE's

recommendation for sunlight and should appear adequately sunlit throughout the year with the proposed development included.

#### Query 2:

The Third Party Appeal by CQMC included the following:- "Appendix A: Sunlighting, Daylighting, Overshadowing, Overbearing and Overlooking

The applicants have submitted a Daylight, Sunlight and Overshadowing Assessment of the impact of the proposed development on the receiving environment. This was prepared by BPC Engineers. This document only contains data regarding Daylight to a restricted number of windows in the CQE, Sun on Ground to the amenity garden of CQE, and an Appendix with shadow casting on the solstices and equinoxes (described as purely illustrative). As outlined below, these does not provide the analyses required by the Local Authority. Further to this, there is no comprehensive analysis submitted of the performance of the proposed development nor of the potential Overlooking or Overbearing of the receiving environment.

Section 5 of Appendix 16 of the Dublin City Development Plan 2022-2028 clearly states the required analyses to be submitted to the Planning Authority for proposed development.

#### 5.0 Assessment Methodologies

The following section outlines the expected methodology for daylight and sunlight reports to be submitted with planning applications. Daylight and sunlight assessments will generally consist of two parts, being (a) how the proposed development performs and (b) how the proposed development impacts levels of daylight and sunlight availability in surrounding existing buildings. Until such time when BRE 209 is updated and all relevant and required information is included (i.e. the removal of reference to BS 8206-2 and inclusion of metrics within BS EN 17037), the planning authority will request metrics from both BS 8206-2 and BS EN 17037.

These are outlined below for clarity.

#### 5.1 Performance of the Proposed Development

- Annual Probable Sunlight Hours on all relevant windows
- Winter Sunlight Hours on all relevant windows
- Sunlight on Ground in all amenity spaces
- Average Daylight Factor in all habitable rooms
- No Sky Line in all habitable rooms
- Target Illuminance in all habitable rooms

#### 5.2 Impact on the Surrounding Properties

- Vertical Sky Component on all relevant surrounding windows
- Annual Probable Sunlight Hours on all relevant surrounding windows
- Winter Sunlight Hours on all relevant surrounding windows
- Sunlight on Ground in all surrounding amenity spaces

#### 5.3 Other Criteria and Considerations

In addition to the above metrics, the planning authority will require consideration of the points below, save in agreed exceptional circumstances:

- When assessing the impact of a proposed development, it is expected that all surrounding properties are assessed. It is not acceptable to assess only the surrounding residential properties. Residential properties should be clearly marked out and results for these presented separately.

- When assessing the impact of a proposed development on the existing surrounding properties, it is expected that the rule within clause 2.2.4 of BR 209 is applied. This rule outlines that "Loss of light to existing windows need not be analysed if the distance of each part of the new development from the existing window is three or more times its height above the centre of the existing window." Thus, all surrounding buildings that sit within three times the height of the proposed development shall be included within the assessment. The assessment can then use methods typically applied in BR 209 to determine the correct approach to investigating loss of light.

- When analysing the results found to investigate the impact of a proposed development on the surrounding existing buildings, it is expected that the nomenclature and associated descriptions from within Appendix 1 of BR 209 are



used. The wordings of negligible, minor adverse, moderate adverse and major adverse have defined meanings. These meanings have associated descriptors, and these shall be applied during the analytics section of reports. Appendix I in BR 209 provides these descriptions in full.

- The use of average daylight factor in assessing the impact of a new development on surrounding existing developments is not permitted.
- Where alternate target values are being set, this shall be completed in line with Appendix F of BR 209.
- When analysing the performance of a proposed development, it is expected that all rooms with an expectation for daylight are assessed. Assessing only a sample of rooms is not permitted.
- When determining input factors for simulations, applicants shall clearly state their assumptions. pp 396 -397 Emphasis author's own.

The BRE 209 3rd edition was published in 2022. States that 'the guidance here is intended for use in the United Kingdom and in the Republic of Ireland, though recommendations in the Irish Standard IS EN 17037 may vary from those in BS EN 17037.' P7, BRE 209. As such the use of the BRE 209 3rd edition and BS EN 17037 are applicable to this application.

Throughout the relevant documentation submitted, BCP Engineers make no reference to the Assessment Methodologies from the DCDP. Section 3.5 of the Climate Action Energy Statement submitted refers to BS 8206-2 in relation to Internal daylight analysis of the proposed building (this is part of the Scheme Performance Assessment required).

However, in the Daylight, Sunlight and Overshadowing Assessment they state that they have used the BRE Guidelines - Site Layout Planning for daylight and Sunlight: A Guide to Good Practice (2022) (BRE 209 3rd ed.) and BS EN 17037 as the basis for the assessment and analysis.

The main changes in the BRE 209 3rd ed. compared to the BRE 209 2nd ed. relate to the assessment of internal Daylighting in proposed developments. This is no longer measured by Average Daylight Factor. This metric is now based on illuminance Lux levels, otherwise known as Spatial Daylight Autonomy (SDA). In addition to this Sunlight Exposure (SE) replaces Annual & Winter Probable Sunlight Hours and

Sunlight on Ground studies apply to Scheme Performance which must include evergreen trees if relevant. The No Sky Line study is also applicable where internal layouts are known.

The proposed development must be fully tested in terms of the development itself (Scheme Performance) and its impact on the receiving environment (Impact on Surrounding Properties).

#### Scheme Performance

As per the DCDP, data must be submitted showing:

- Annual Probable Sunlight Hours on all relevant windows-Sunlight Exposure
- Winter Sunlight Hours on all relevant windows-Sunlight Exposure
- Sunlight on Ground in all amenity spaces
- Average Daylight Factor in all habitable rooms - Spatial Daylight Autonomy
- No Sky Line in all habitable rooms- the internal room layouts are known
- Target illuminance in all habitable rooms - measured in lux

The application does not provide an assessment of Sunlight Exposure, Sunlight on Ground, No Sky Line or Target illuminance for the proposed scheme. The Climate Action Energy Statement submitted by BPC Engineers contains a single page referring to the Average Daylight Factor in all habitable rooms. They state that 'internal daylight analysis is being performed in an effort to maximise daylight in the office spaces' p12. (Emphasis authors own.) They present one image which is Figure 8: Example of Daylight Factor Contours for Eighth Floor. (Emphasis authors own.) No further information is given. In addition to this, their analysis was prepared using BS8206-2 which has been superseded and a methodology which is no longer recommended.

'C2 BS EN 17037 supersedes BS 8206 Part 2 "Code of practice for daylighting", which contained a method of assessment based on Average Daylight Factor, which is now no longer recommended. For daylight provision in buildings, BS EN 17037 provides two methodologies.

One is based on target illuminances from daylight to be achieved over specified fractions of the reference plane (a plane at tabletop height covering the room) for at

least half of the daylight hours in a typical year. The other, alternative, method is based on calculating the daylight factors achieved over specified fractions of the reference plane. BRE 209 Appendix C, p72 Impact on Surrounding Properties The DCDP clearly states that the assessment of the impact of a proposed development must be carried out on all surrounding buildings including non-residential buildings. These assessments are based on the BRE 209 3rd ed. and BS EN 17037 I IS EN 17037. BRE 209 3rd ed. guidelines are intended 'for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas, and garages need not be analysed. The guidelines may also be applied to any existing non-domestic building where the occupants have a reasonable expectation of daylight; this would normally include schools, hospitals, hotels and hostels, small workshops, and some offices.' Section 2.2.2 p14

The required analyses are

- Vertical Sky Component on all relevant surrounding windows
- Annual Probable Sunlight Hours on all relevant surrounding windows
- Winter Sunlight Hours on all relevant surrounding windows
- Sunlight on Ground in all surrounding amenity spaces

The buildings, which must be included in the analyses listed above, are identified using the height:distance ratio and 25 degree rule. If the lowest window of an existing building (taken to be 1.5m above ground) is within 3 x height of the proposed development, it must be analysed using the 25 degree rule. If the angle described (see below) is greater than 25 degrees, further analysis using Vertical Sky Component must be undertaken. 2.2.5 If the proposed development is taller or closer than this, a modified form of the procedure adopted for new buildings can be used to find out whether an existing building still receives enough daylight. First, draw a section in a plane perpendicular to each main window wall of the existing building (Figure 14). Measure the angle to the horizontal subtended by the new development at the level of the centre of the lowest window. [ ... ] If, for any part of the new development, this angle is more than 25 degrees, a more detailed check is needed to find the loss of skylight to the existing building. Both the total amount of skylight and its distribution within the building are important. Ibid.

The highest point of the proposed building is 80.150 m. The calculation of the distance within which all buildings must be assessed, is  $3 \times (80.150 - 1.5) = 235.95$  m. The red circle on Figure 1 overleaf shows the full extent encompassed - it extends pasts Stacks A and C (protected structures) to the west, to the playing fields and amenity gardens of at Mariners Port including Mayor Square and the Former Excise Building (Protected Structure) to the north, and the National College of Ireland and 25 North wall Quay to the east. All of the lowest windows to all buildings within 235.95 m of the proposed development should then be assessed by applying the 25 degree test to ascertain whether there is a loss of skylight to the existing building.

The Daylight, Sunlight & Overshadowing Assessment does not refer to any of the above methodology. On page 9 of the Assessment, BPC identify the sections of existing neighbouring dwellings which they include in their analysis without any justification for these results. It is unknown whether they carried out the required analyses to reach this conclusion. These are designated 'potentially sensitive receptors'. They then use the Vertical Sky Component (VSC) method to assess the potential reduction of skylight to the windows of these buildings only.

Considering the extensive range of windows/buildings which should be initially assessed, it is possible that there are other windows which would need to be analysed using the VSC method. With specific reference to CQE, there are numerous windows and wintergardens which may be affected considering their aspect and the fact that the proposed building lies to the south of the existing dwellings.

#### Sunlight

Access to sunlight is key to amenity and health. This is true of both domestic and non-domestic buildings where there is a particular requirement for sunlight. The BRE 209 3rd ed., section 3.2.13 outlines when testing for potential obstruction to sunlight is warranted: 'If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if the centre of the window:

- receives less than 25% of annual probable sunlight hours and less than 0.80 times its former annual value; or less than 5% of annual probable sunlight hours between

21 September and 21 March and less than 0.80 times its former value during that period;

- and also has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.' p26

Sunlight is measured in Annual & Winter Probable Daylight Hours which is a metric required

by the Local Authority. No data relating to this has been submitted by the Applicants.

### Sunlight on Ground

The applicants have submitted a Sunlight on Ground study of the main Garden to CQE which shows that it achieves exactly the minimum required performance of at least half the space (50%) receiving two hours of sunlight on the 21st of March. The area defined as the 'neighbouring Residential Amenity', identified on page 34 of the Assessment, and shown in the diagrams on p35, appears to be substantially truncated to the south compared to the original plans for CQE and the amenity garden. Also note the difference in shape and enclosed area. (Figs . 2 & 3)

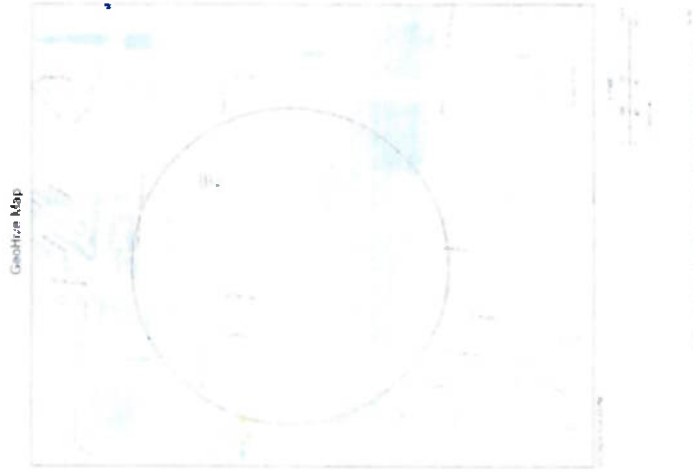


Figure 1 – GeoHive map showing 235.95 m red circle for Daylight assessment.

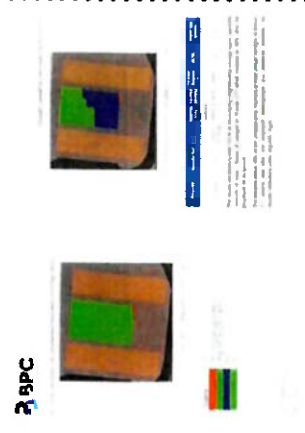


Figure 2 – p35 of the Applicant Daylight, Sunlight & Overshadowing Assessment identifying the area of the amenity garden in CQE

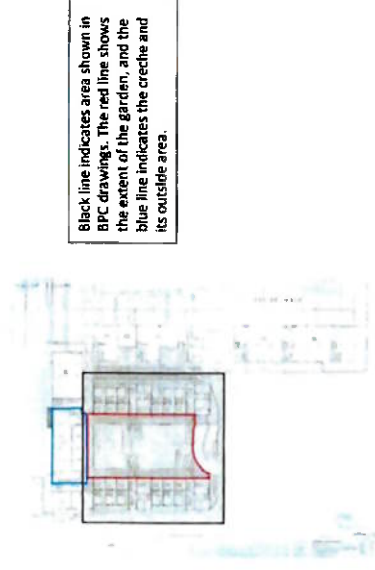


Figure 3 – Urban Projects Clonon Quay Estate Layout Plan



The photograph below clearly shows the reality of the extent of the garden to the southern boundary and its relationship to the parking ramp and the southern end of Block 8. (Fig. 4)



Figure 4. View of garden looking East.

The southern end of the garden is the area most affected by the potential loss of sunlight and possible overshadowing, so it is critical that accurate measurements of the amenity be used. It may be that the minimum standard of 50% would not be met if the full extent of the garden were used for the measurement. This amenity is used by the residents of CQE and provides substantial visual amenity. The creche on the ground and first floor of CQE Block 9/1 O (facing south) has a substantially glazed wall looking on to it and its external space opens onto it.

#### Shadow Diagrams

The shadow diagrams which are included in the Appendix to the Daylight, Sunlight and Overshadowing Assessment provide data for the 21<sup>st</sup> of March, June, September, and December. The results given are for increments of every 2 hours per day. An hourly breakdown would be more informative. The computational models of the existing building, the proposed development and the surroundings used are lacking in detail and appear to be missing some plant and screening elements which are critical to the assessment of potential obstruction. The model of the building generated for the solar gains study is considerably more detailed.

#### Solar Gain, Solar Glare and Solar Convergence

In Appendix A of the Part L Compliance Assessment submitted by BPC Engineers there is a detailed analysis of Solar Gain. The building is glazed for most of its elevations which exposes it to considerable solar gain. From the ground to 11<sup>th</sup> floor the peripheral spaces are mostly generic offices. From the 12<sup>th</sup> to 16<sup>th</sup> floors the offices face south with circulation spaces to the north. In every instance on the southern facade, blinds are required as the solar gain limits of the design were exceeded.

Due to the almost exclusive use of glazing, in addition to the requirements of the Local Authority which have not been provided, no account has been taken of the potential of the development to cause Solar Dazzle or Glare. This is identified in the BRE 209 3<sup>rd</sup> ed: as a possible 'long-term problem for some heavily glazed (or mirror clad) buildings.' P41. This has the potential to cause 'disability glare' which 'can affect motorists and train drivers' ability to drive safely.' Ibid

A further potential issue is that the concave layout of the south facing facade of the proposed development has the potential to cause Solar Convergence. This 'creates a relatively small area of concentrated solar radiation. Within this area, various adverse effects could occur:

- damage to people's eyes from looking at the reflected sun
- burns to people's skin, either directly from the radiation or from touching hot objects like metal railings or door handles
- local overheating, for example if someone is in a parked car



- *damage to materials*
- *in extreme circumstances, materials could smoulder or catch fire.* ' P42 BRE 209 3rd ed.

**Response 2:**

The analysis and assessments in daylight, sunlight and overshadowing report have been carried in line with the recommendations of BRE's "Site Layout Planning for daylight and sunlight, a Guide to good practice" (PJ Littlefair), 2022 and BS EN 17037.

The analysis has been completed in line with the recommendations of Appendix 16 of Dublin City Councils Development Plan 2022-2028. The appeal raised by CQMC includes methodologies to be followed for proposed residential developments. The proposed development at 1 North Wall Quay is a commercial development and therefore these have no relevance for this application. In terms of the impact of existing neighbouring residential properties we did follow the methodologies as outlined in Appendix 16 of Dublin City Councils Development Plan 2022-2028, the BRE guide and BS EN 17037.

The daylight, sunlight and overshadowing report has been updated to respond to reasons for refusal from the planner's report and was submitted with the 1<sup>st</sup> party appeal. An option to reduce the massing of the development adjacent to Block 1, 2 and 3 Clarion Quay was included as part of the 1<sup>st</sup> party appeal to further improve the daylight and sunlight results to these blocks.

Dublin City Council (DCC) development plan acknowledges that good quality, higher density developments can make a positive contribution to the evolving urban form and structure of the city and can help to achieve sustainable land use and movement patterns. RGRE objectives align to DCC's objective to provide for increased density in a sustainable manner whilst ensuring the highest standards of design as well as the protection of existing amenities and the natural and historical assets of the city.

The appeal raised by CQMC suggests the sunlight daylight analysis of the proposed building should be expanded to include all buildings within a 235.95m radius from the proposed building. While this is incorrect, we have expanded our analysis in our updated report for neighbouring buildings until there is no effect due to the proposed building.

The appeal raises concerns on sunlight to the creche amenity which is located between blocks 8 and 12. The following illustrates sunlight results for both the existing and proposed scenarios for the area identified as the creche amenity.



Existing Sunlight to Neighbouring Amenity Space      Proposed Sunlight to Neighbouring Amenity Space

Floor Ref	Amenity Ref	Amenity Area	LR Area Existing	LR Area Proposed	Pr/Ex	Meets BRE Criteria
Creche						
Ground	A1	Area m2 Percentage	87.00 100%	87.00 100%	1.00	YES

The results above show that 100% of the existing neighbouring amenity space currently receives at least 2 hours of sunlight on March 21st and this remains at 100% after the proposed development.

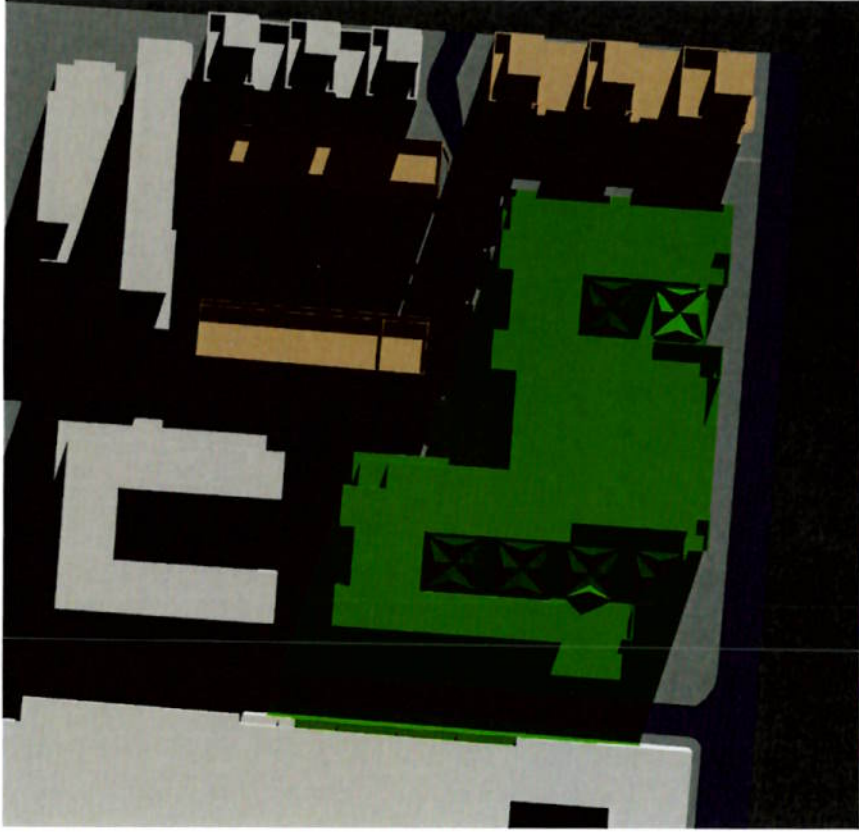
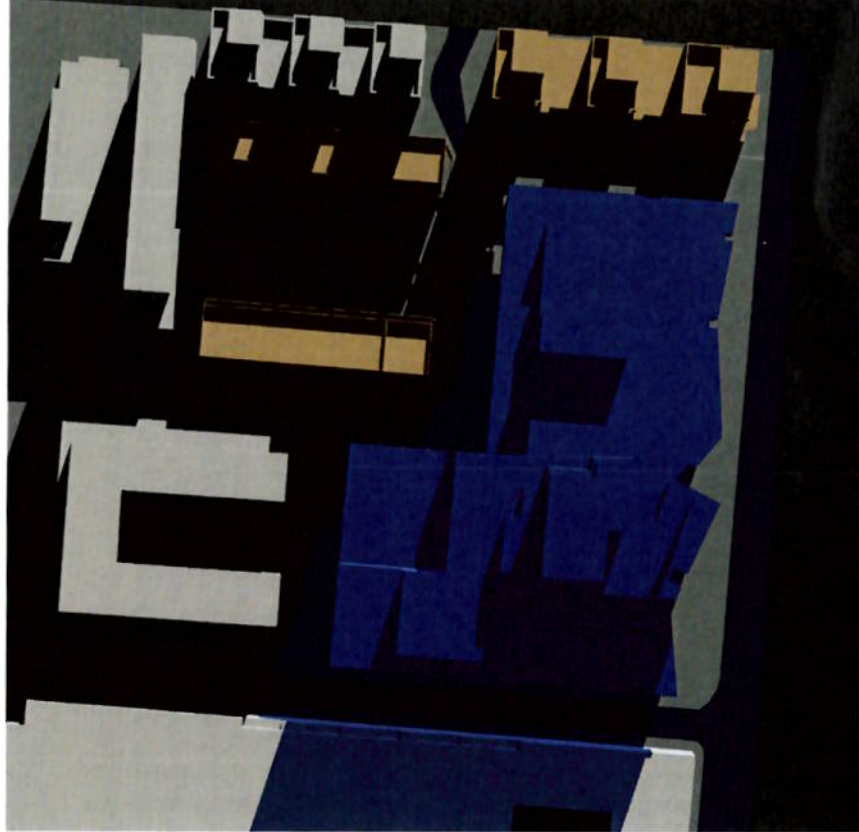
As the analysis shows 100% of the amenity area receives at least 2hrs of sunlight on March 21<sup>st</sup> after the proposed development, it can be said it therefore achieves the recommendations within the BRE Guide.

The appeal raised by CQMC requests shadow images on an hourly basis. While this is not a requirement, we have included these images as Appendix A for March and June 21st. The images show some additional shadows cast on March 21st due to the proposed development, but this is limited predominantly to the time between 12 and 2 o'clock. Its important to note on June 21st when the amenity area is used most frequently the proposed building does not cast any significant amount of shadow on the neighbouring amenity. The proposed design has gone through a series of design iterations to ensure there is not a significant effect by the proposed development on the neighbouring amenity and the shadow analysis along with the sunlight analysis on March 21st verifies this.

The appeal raised by CQMC raises solar gain, solar glare and solar convergence. To have significant solar dazzle and glare it would require elements of the façade to be mirrored glazing or have convex/concave elements, but as is this is not the case in the proposed building it will perform as is typical to any building in the Docklands in Dublin.

The proposed building will not only exceed the national regulatory standards but will also achieve voluntary sustainability standards such as LEED. As the demand for sustainable buildings continues to grow, the type of building proposed at 1 NWQ will be key to attracting the best companies to invest in Ireland.

## Appendix A – Shadow Images

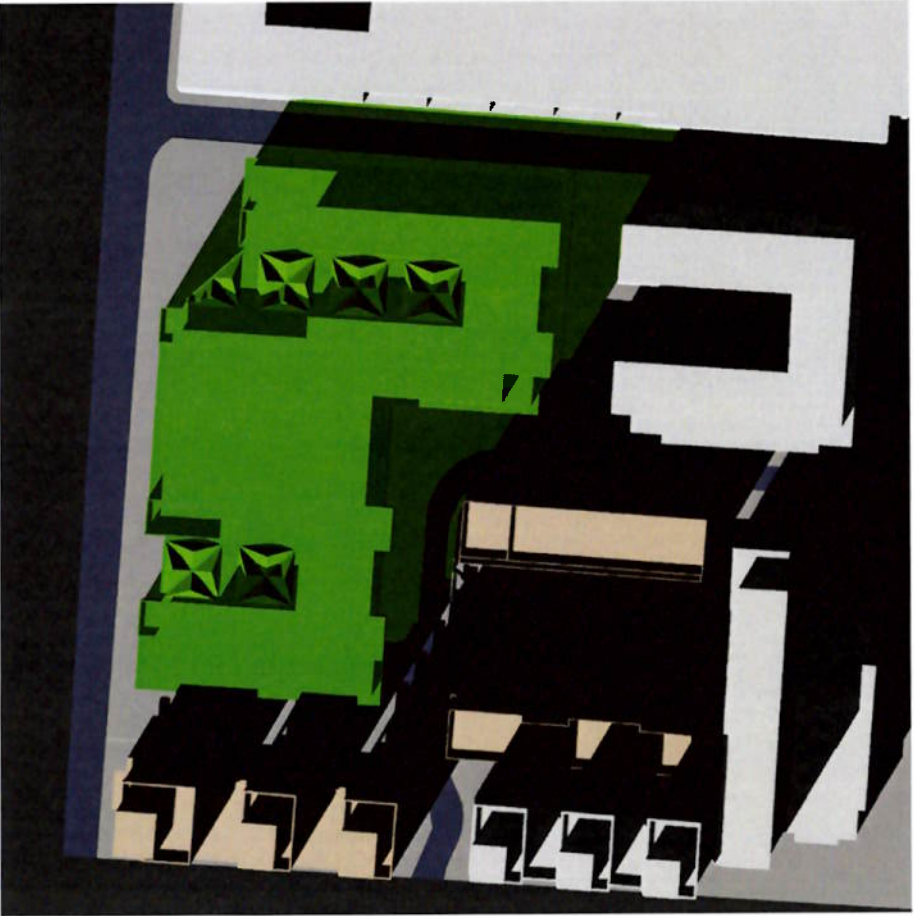
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March 21st - 08:00



March 21st - 09:00

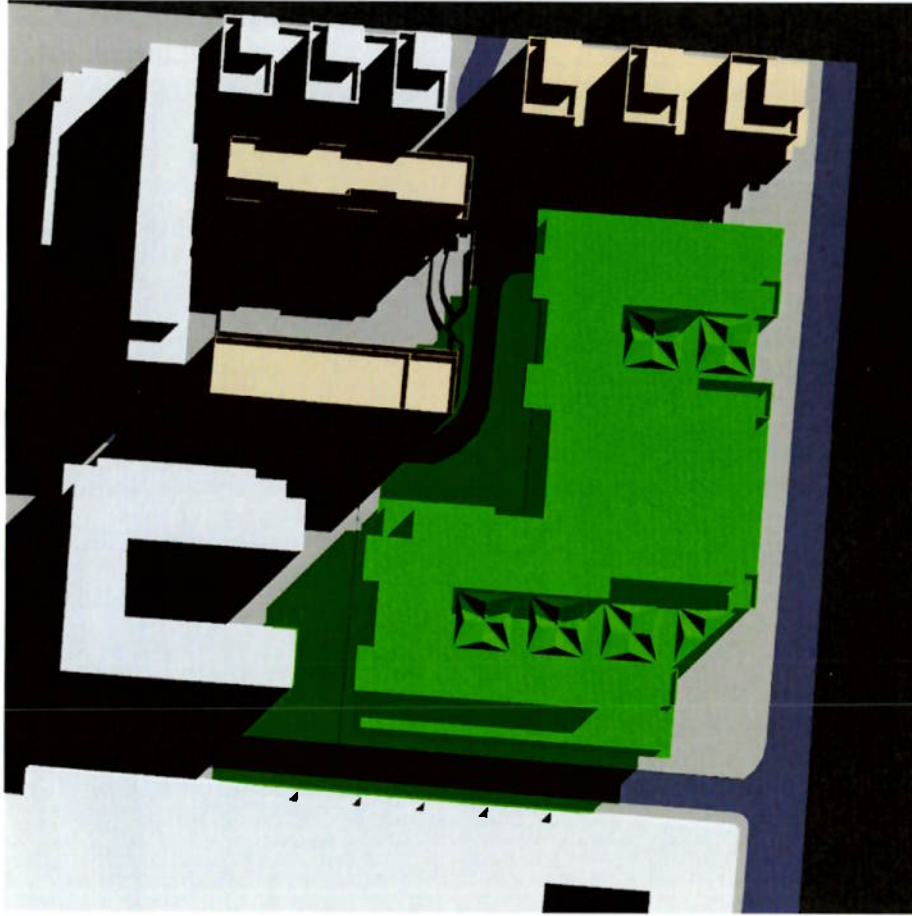
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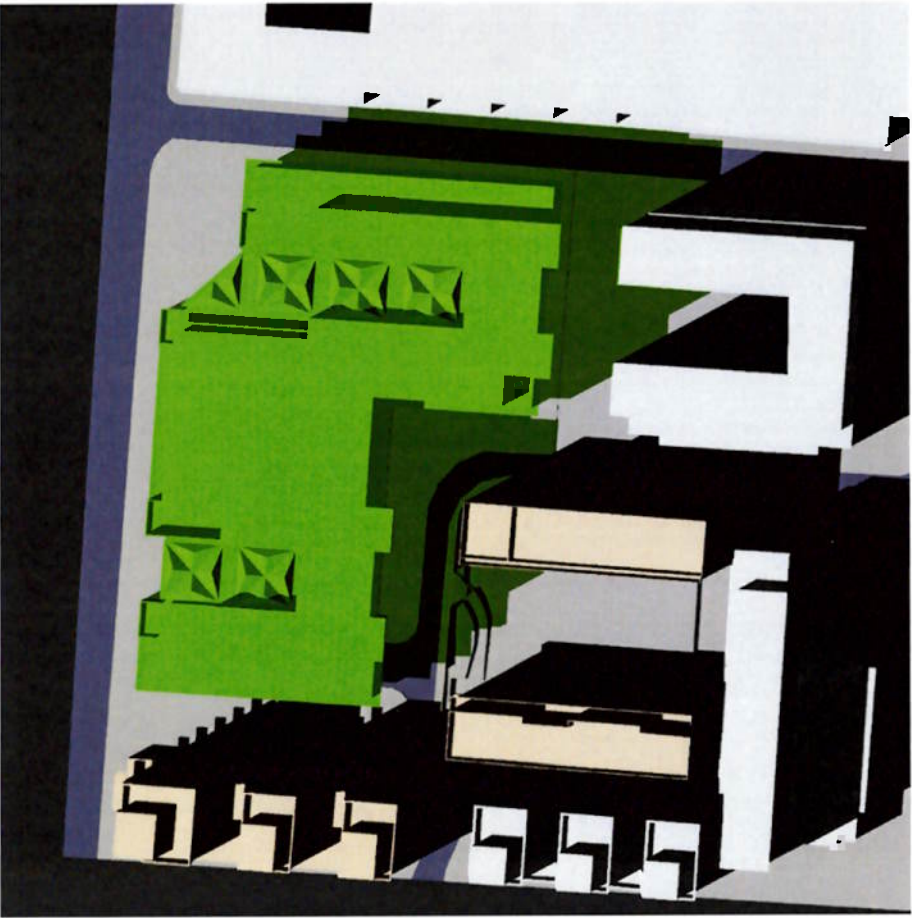
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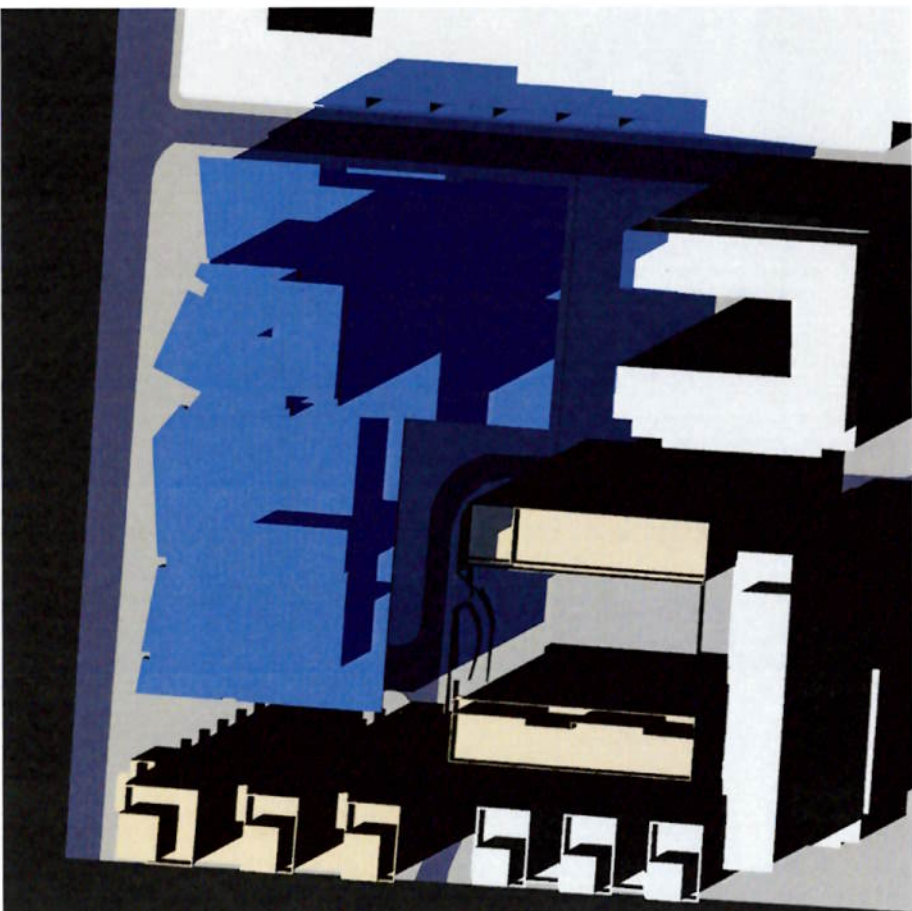


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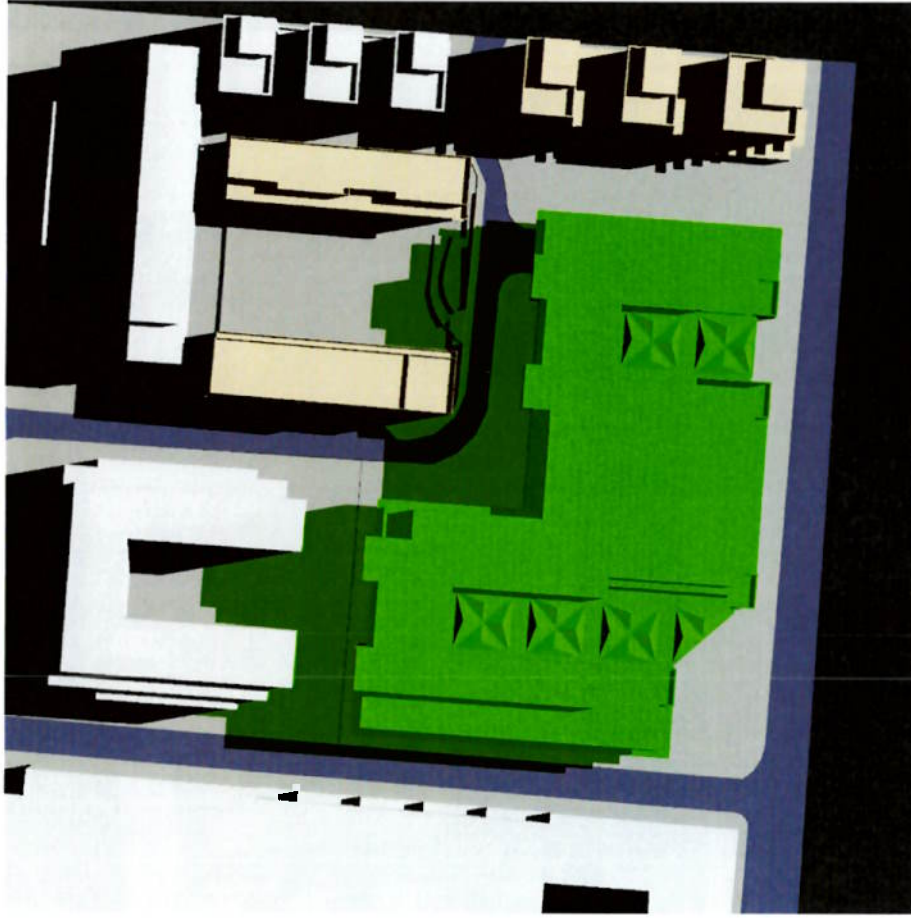
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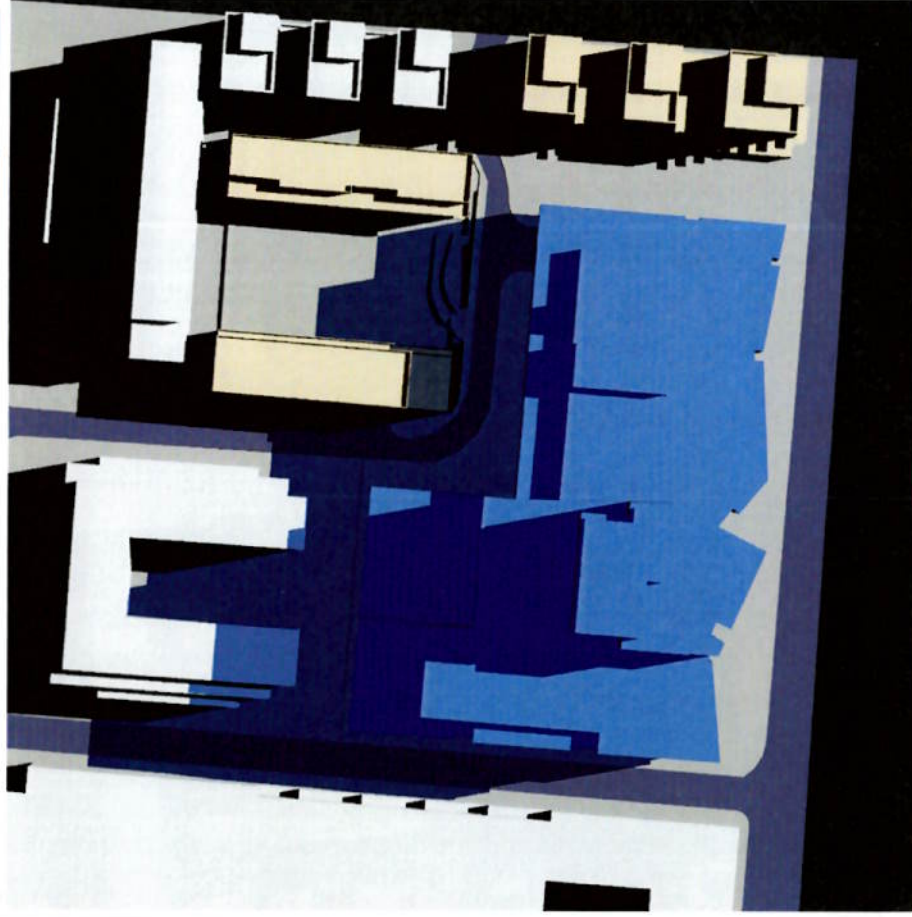


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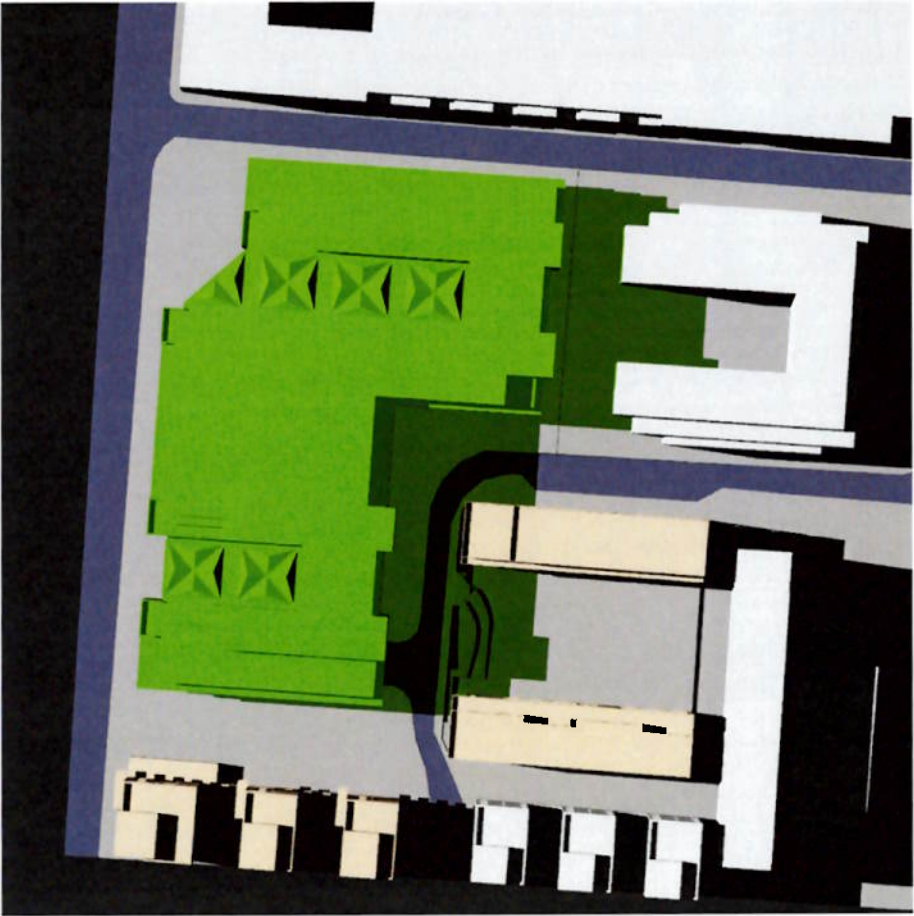
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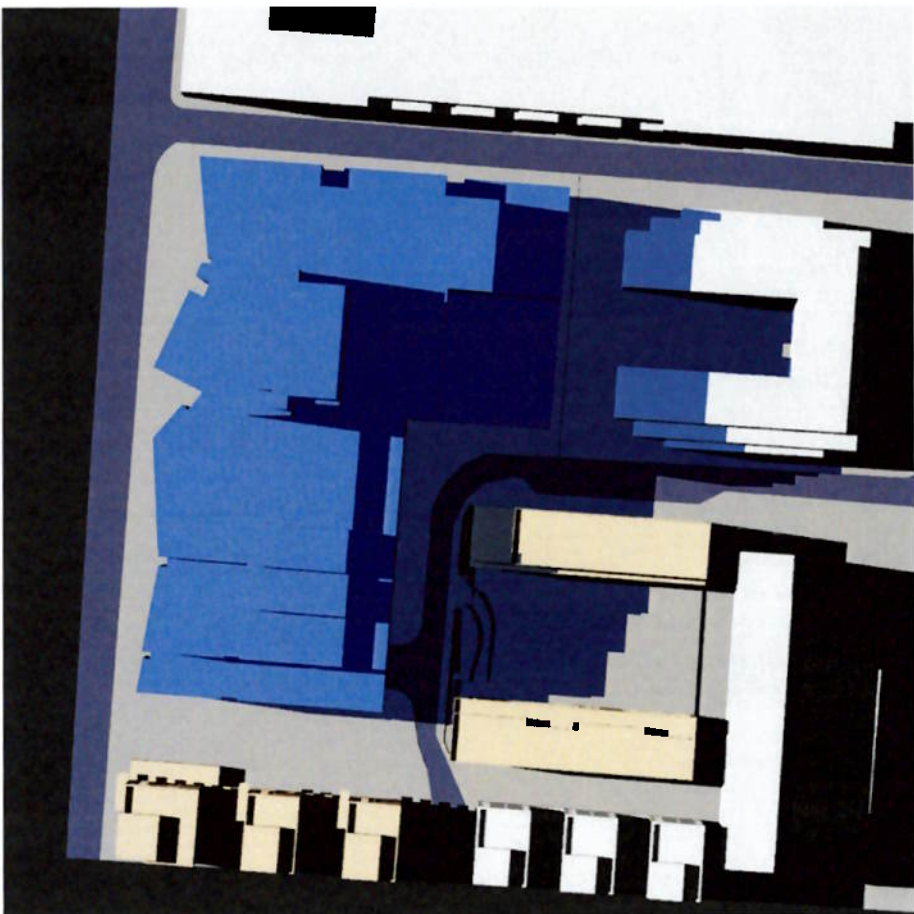


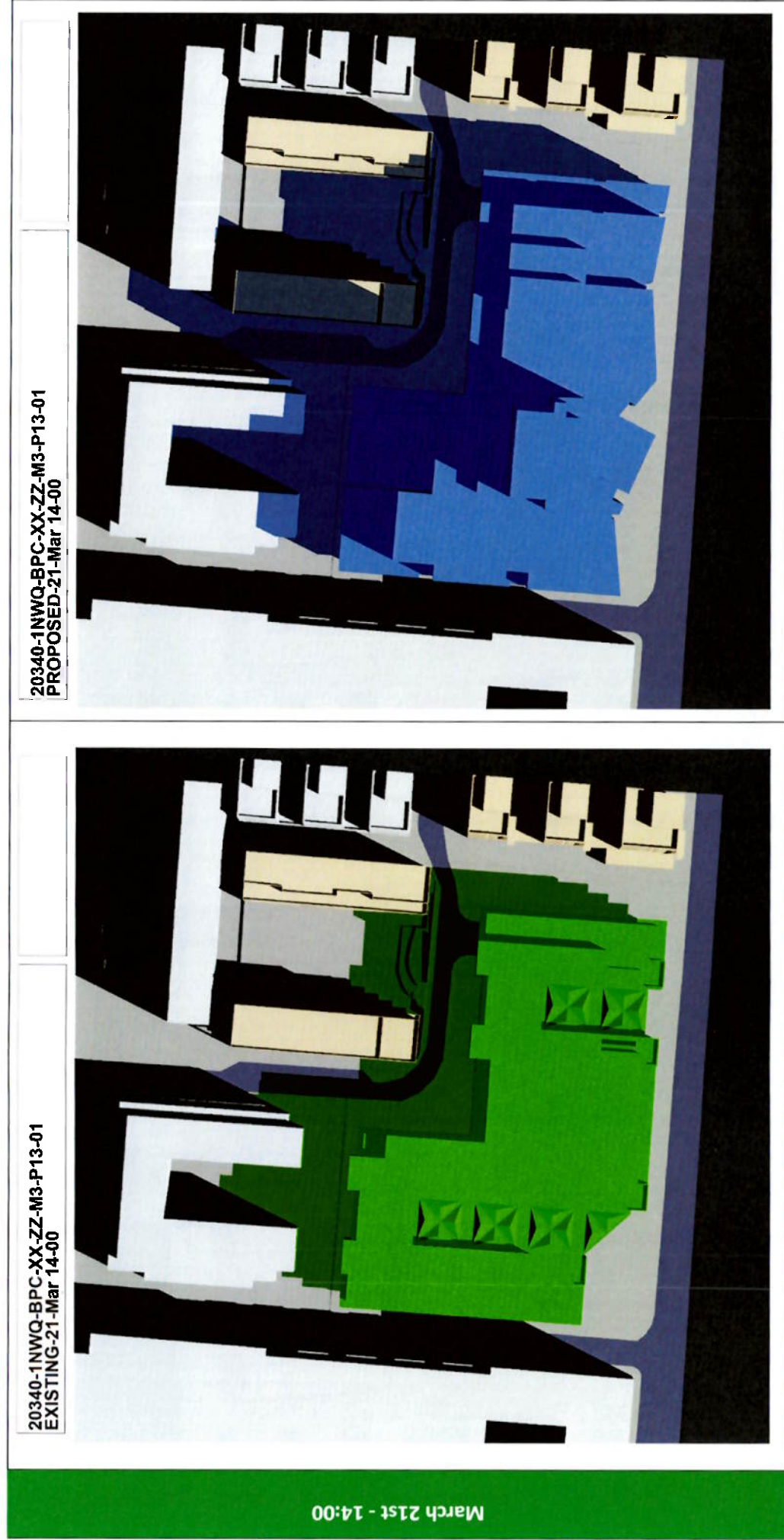
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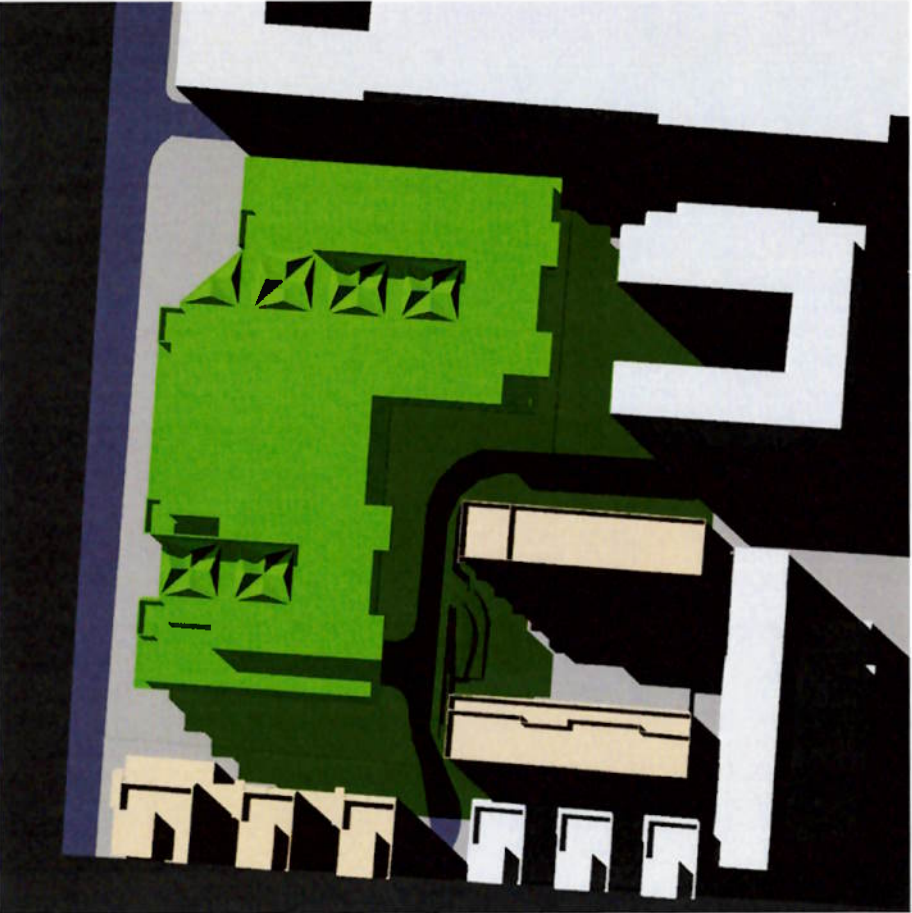






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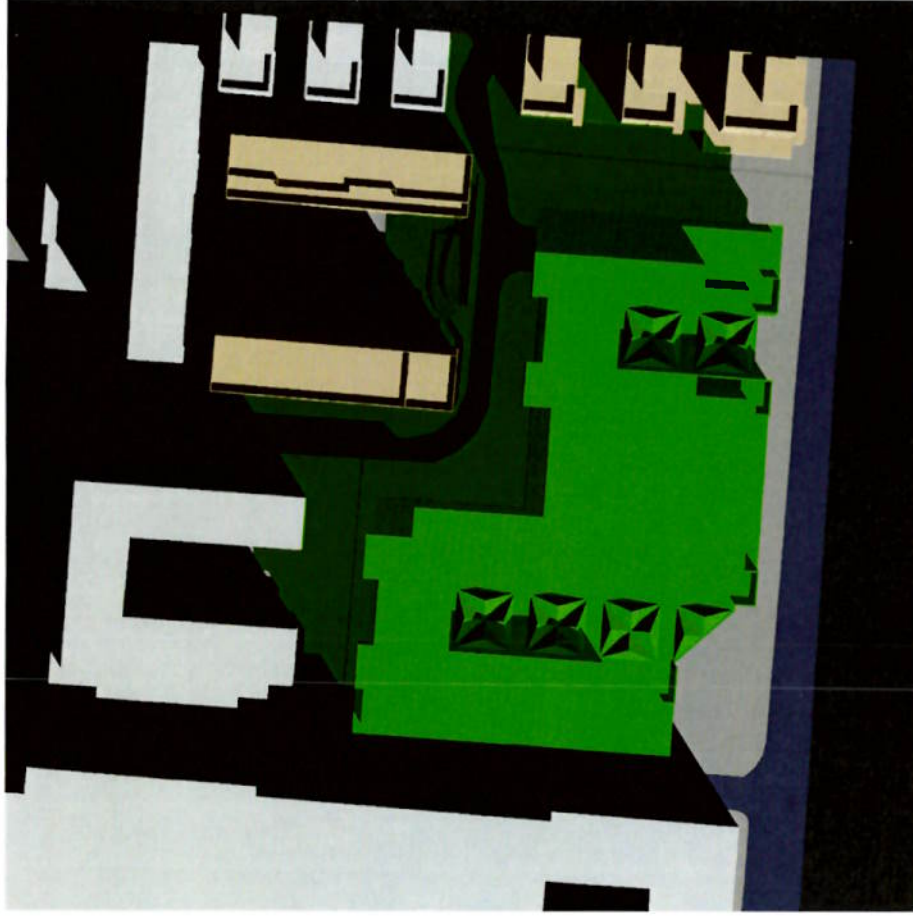
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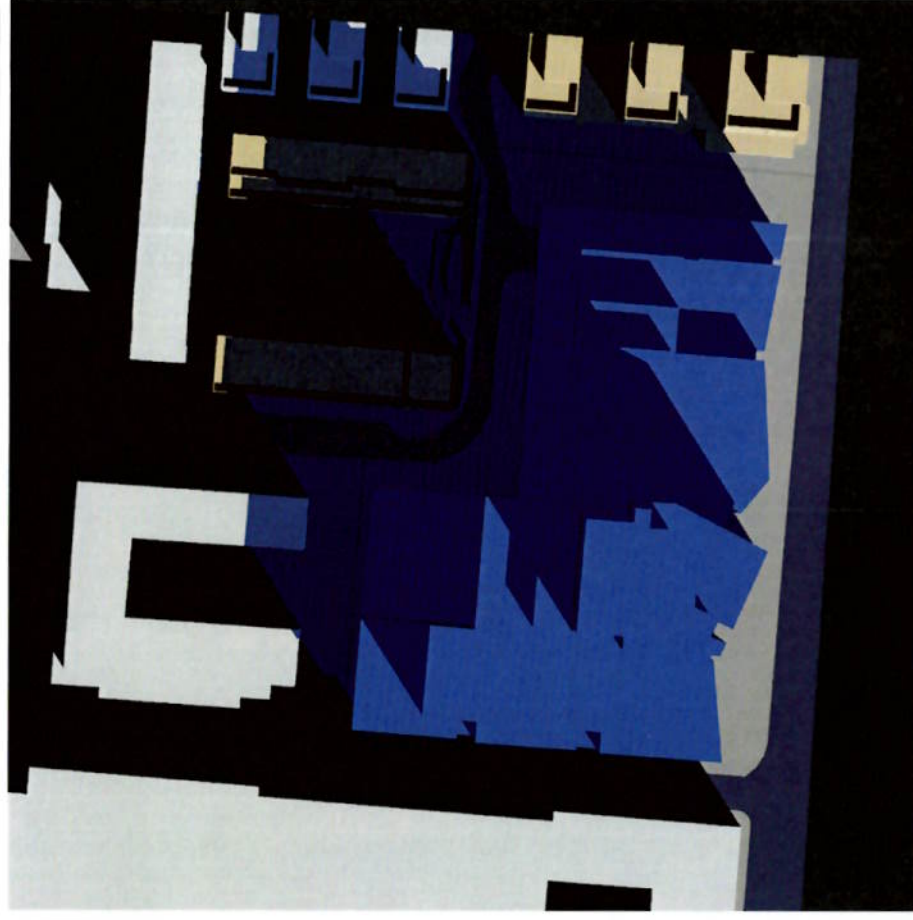


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March 21st - 16:00

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March 21st - 17:00

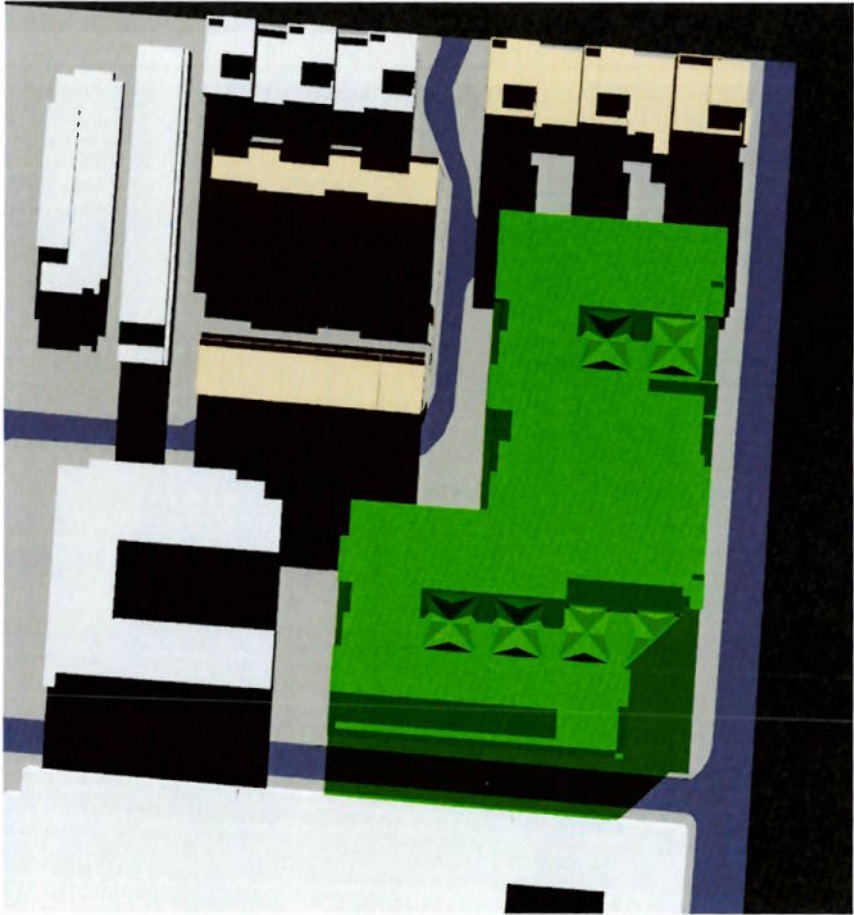
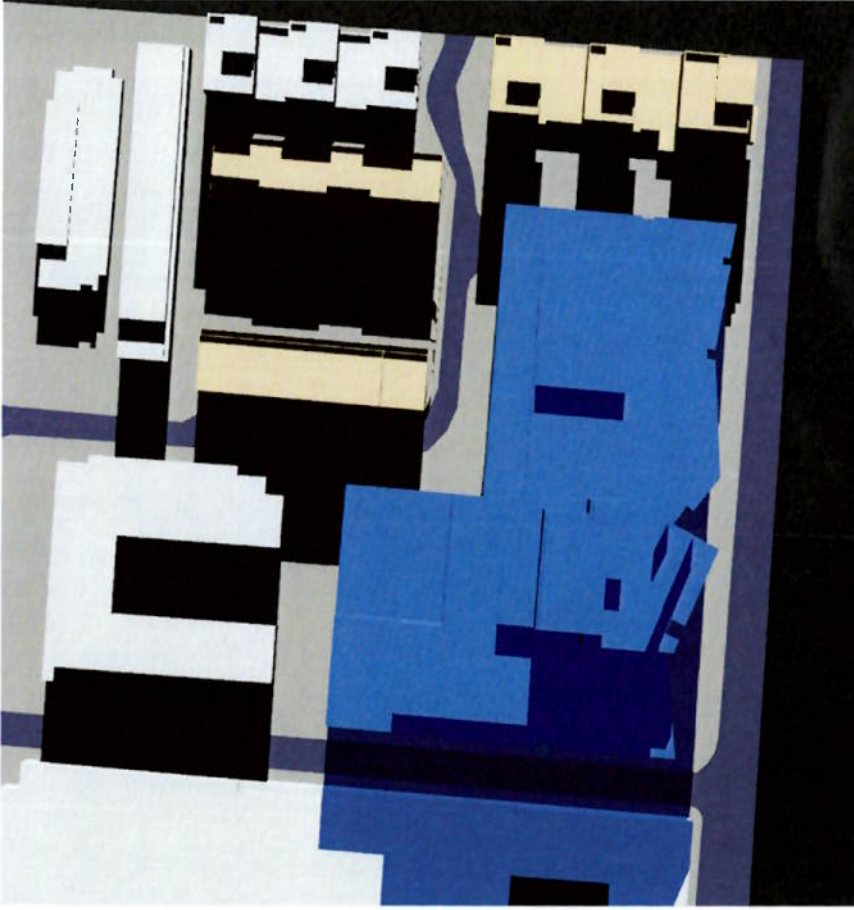
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21<sup>st</sup> June

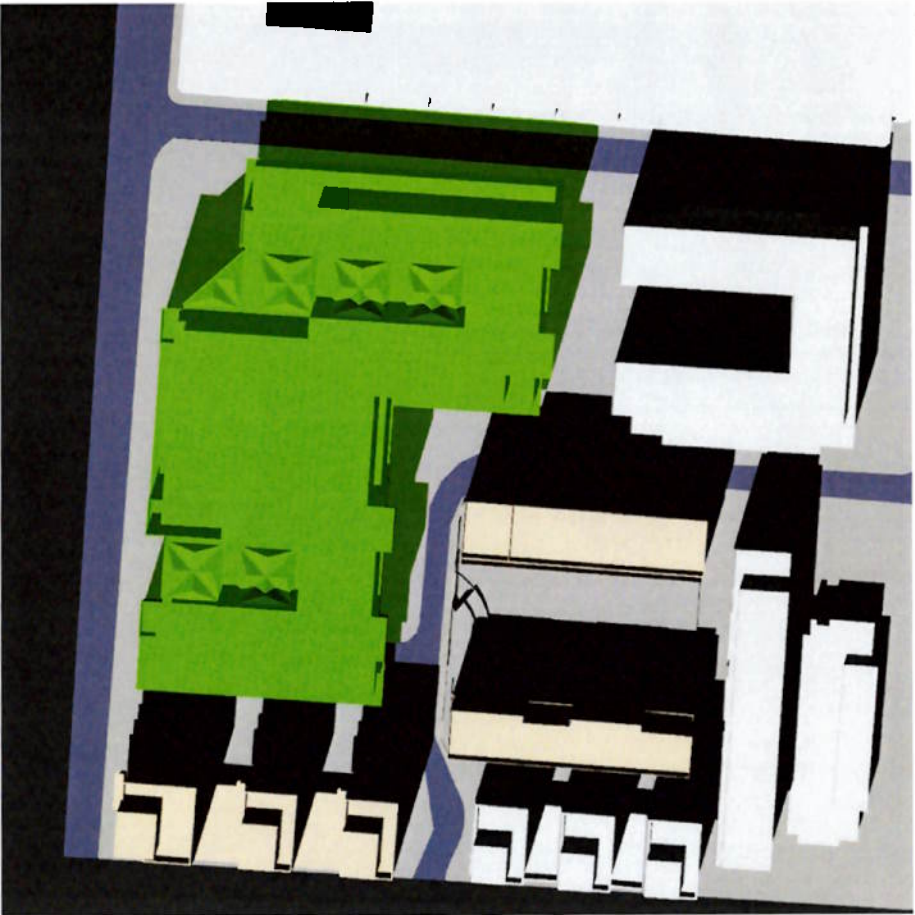
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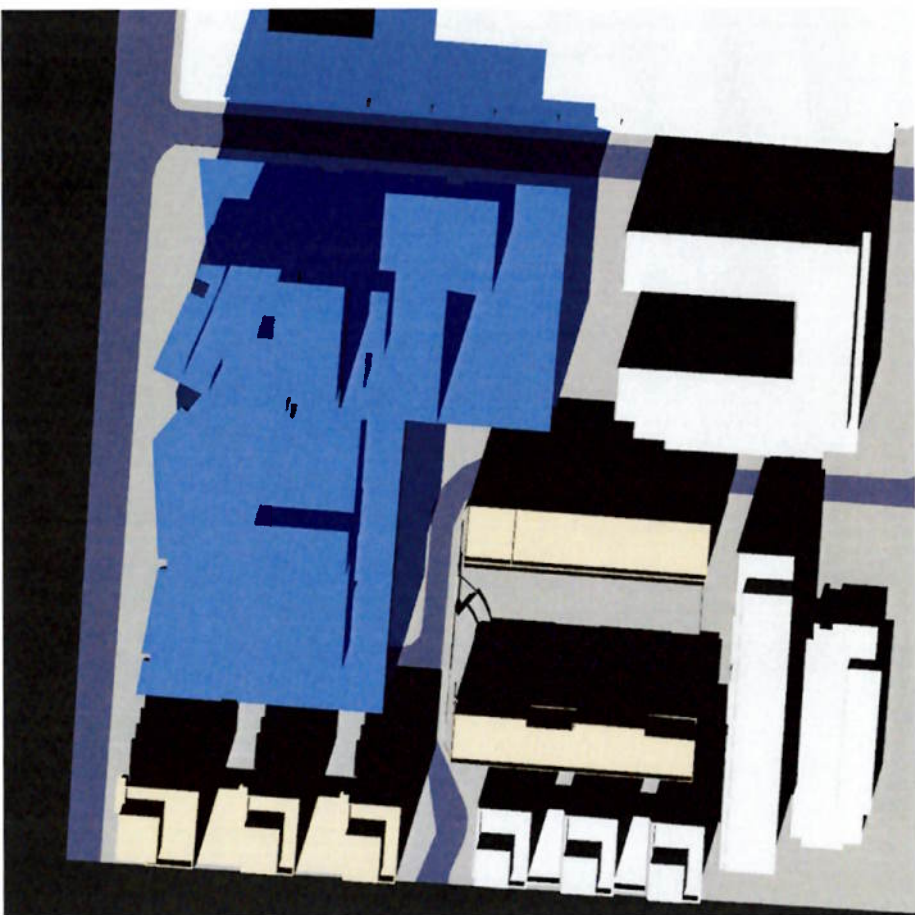


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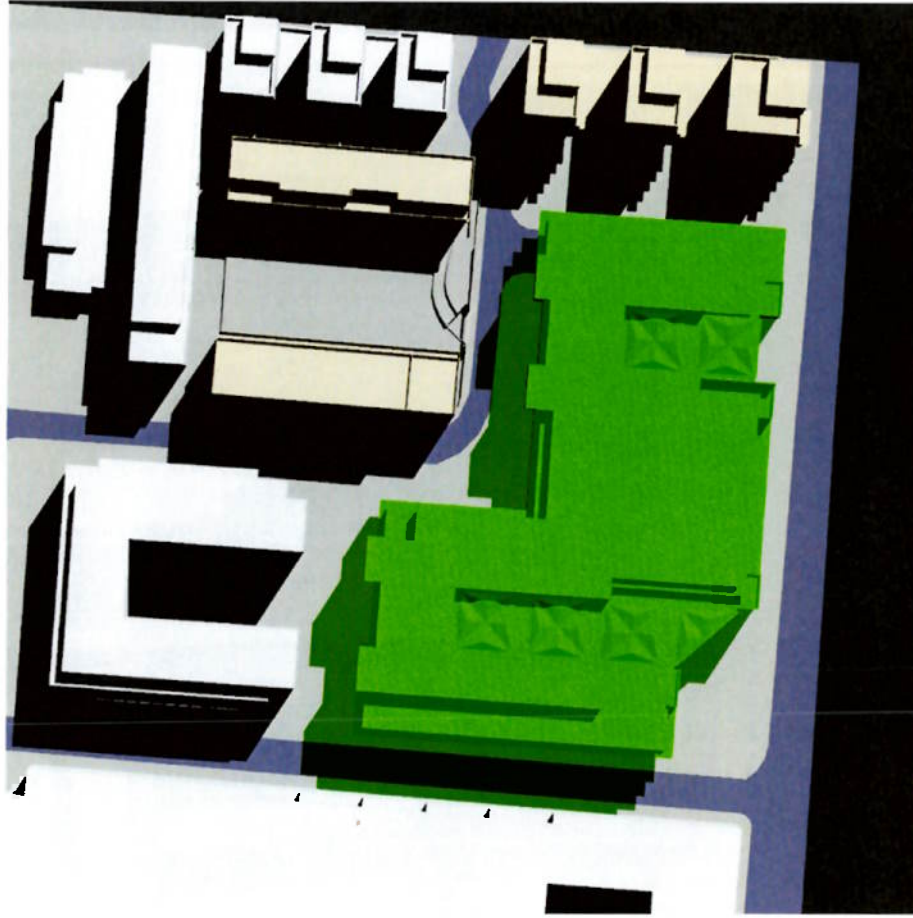


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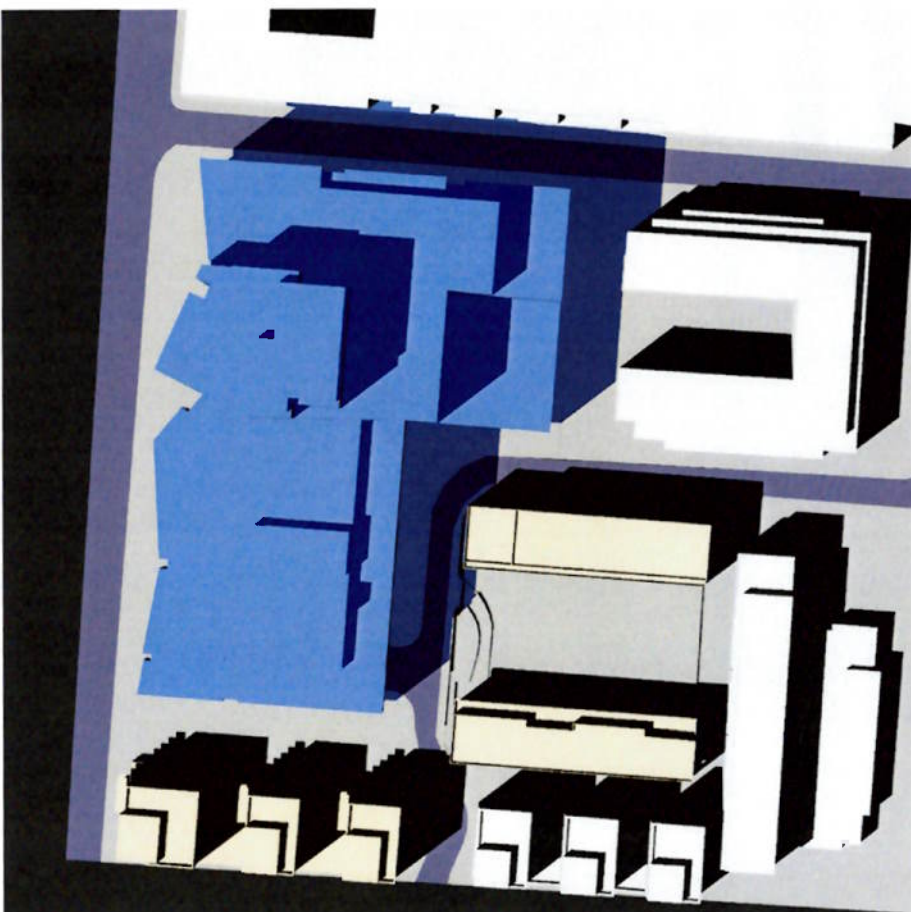


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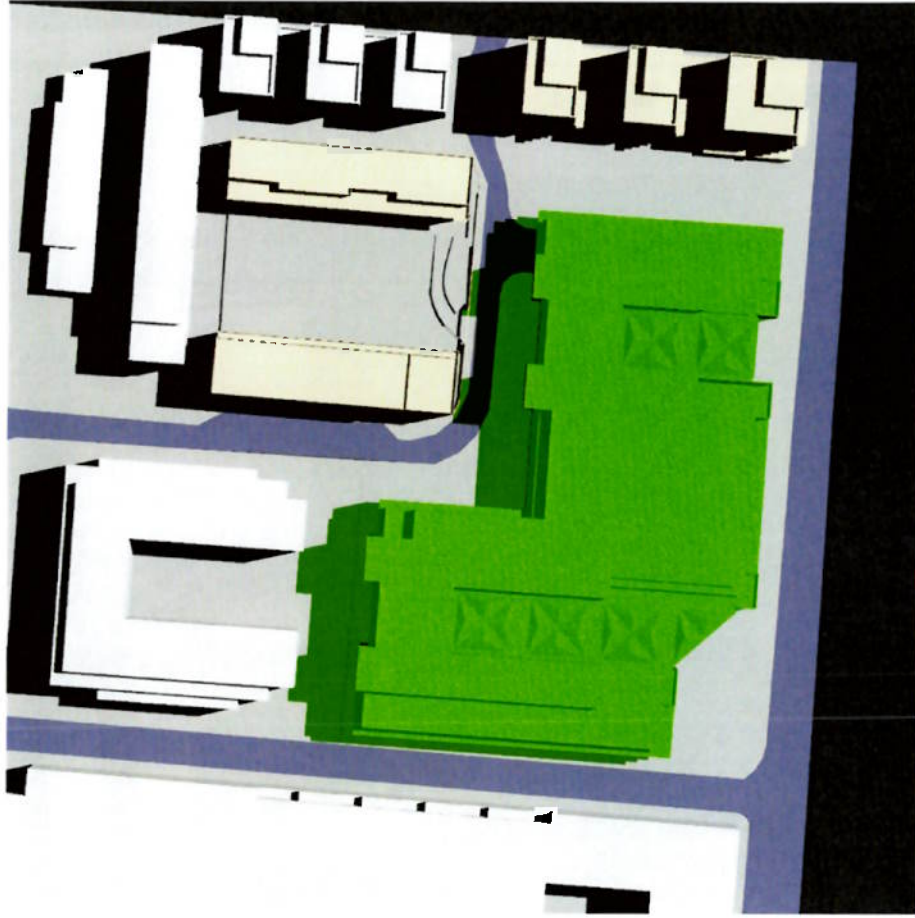
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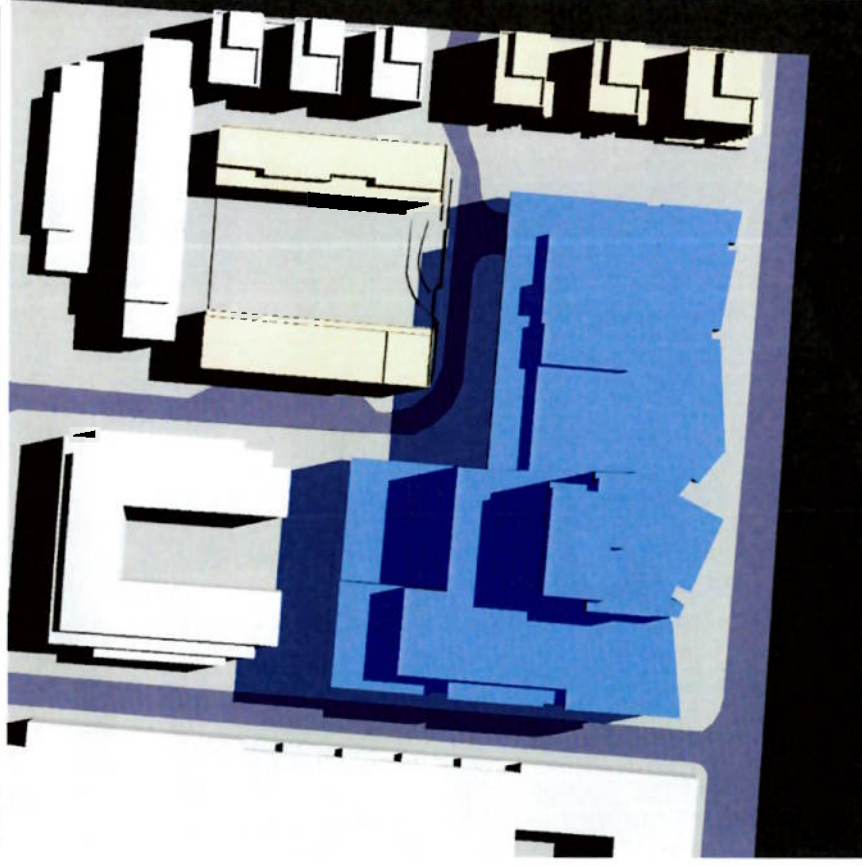


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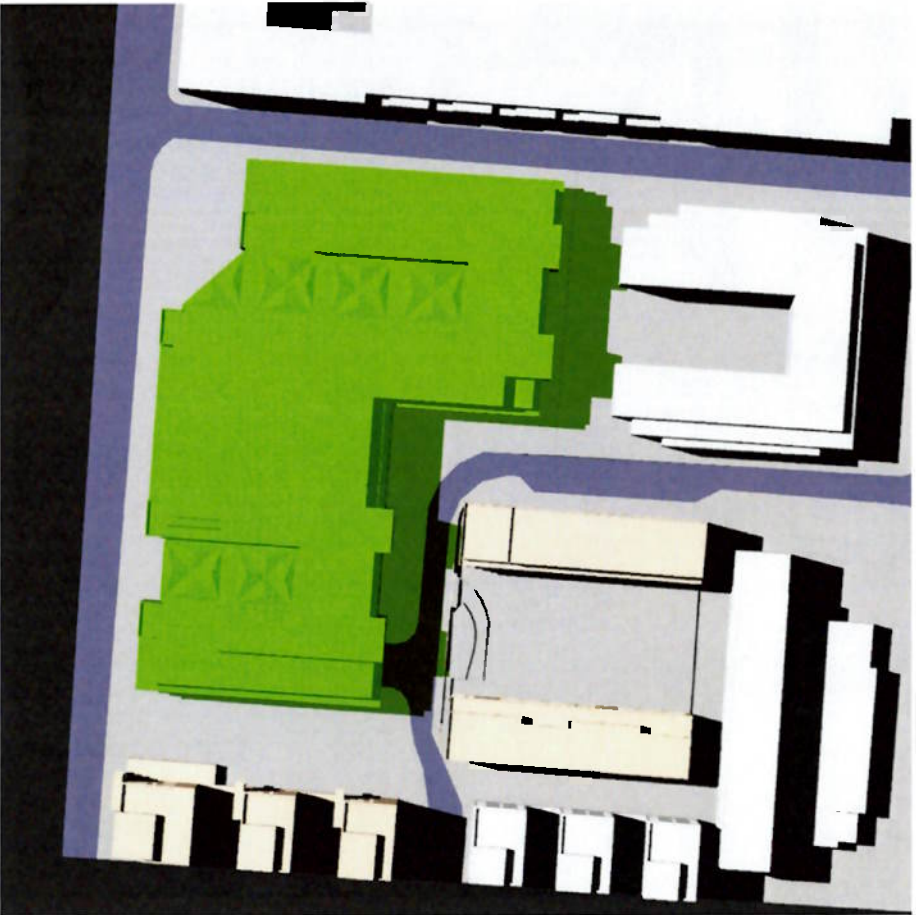


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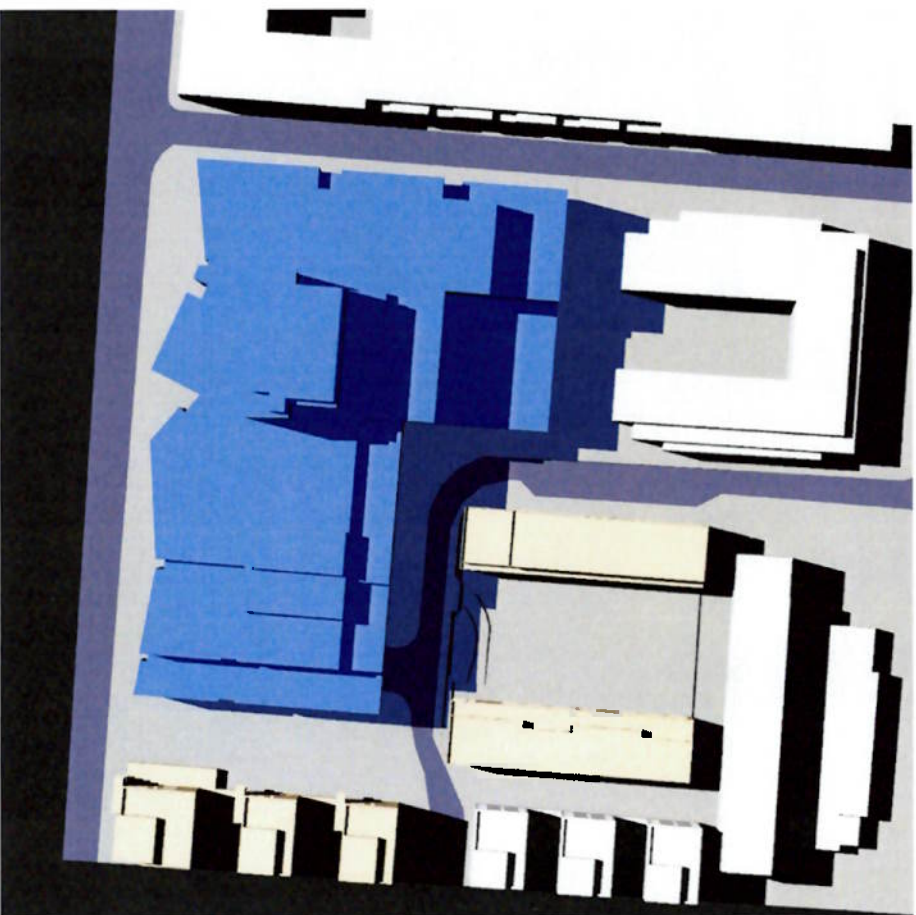


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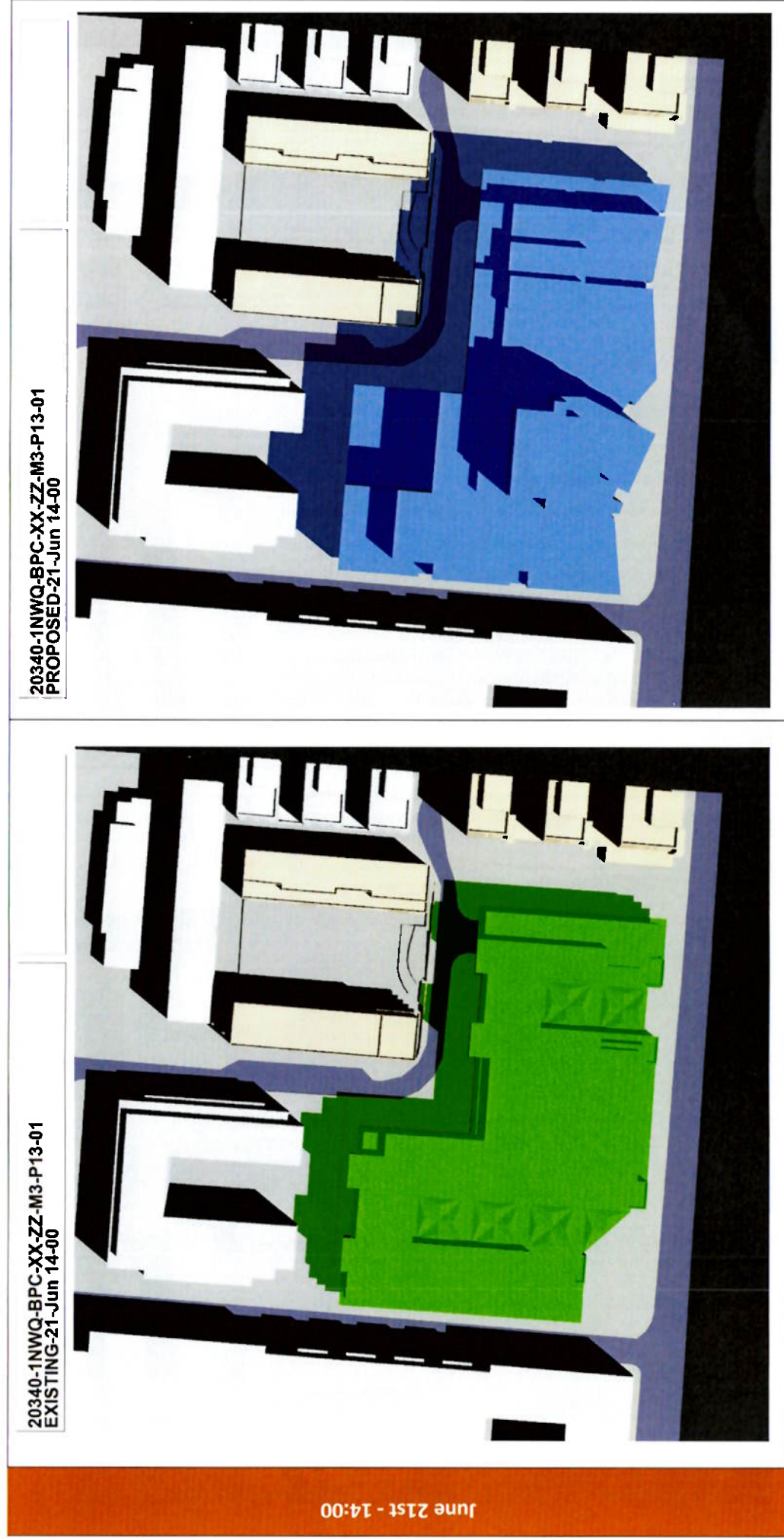
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20340-1NWQ-BPC-XX-ZZ-M3-P13-01  
PROPOSED-21-Jun 13-00

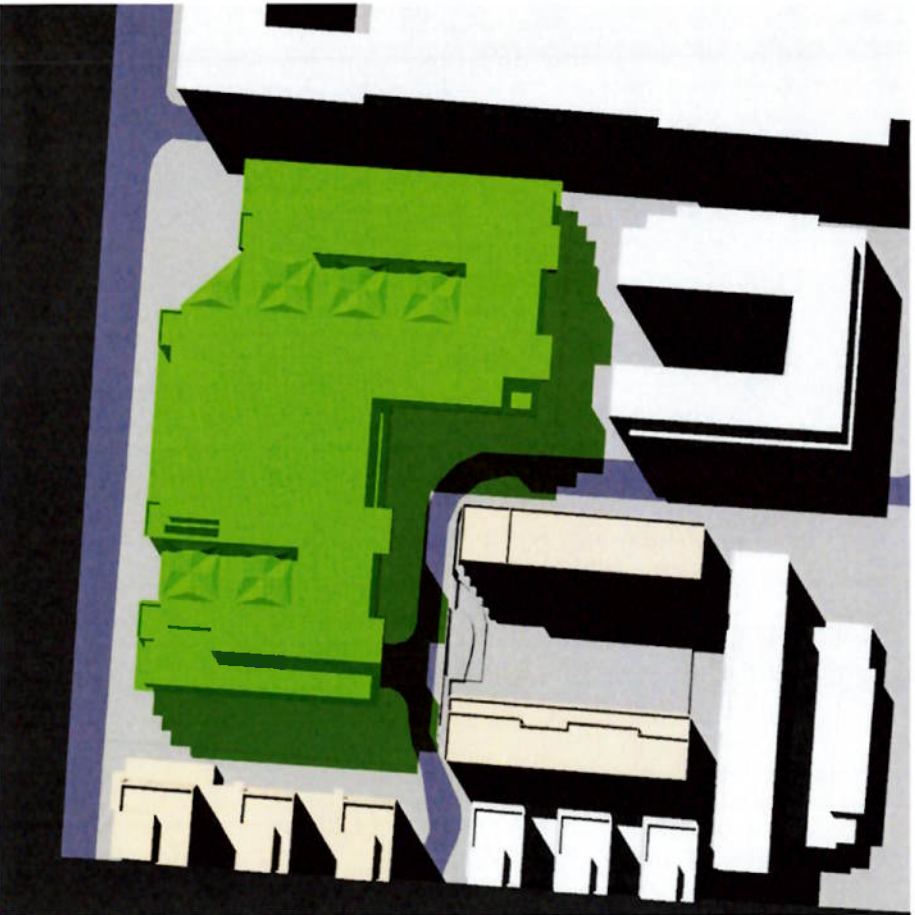




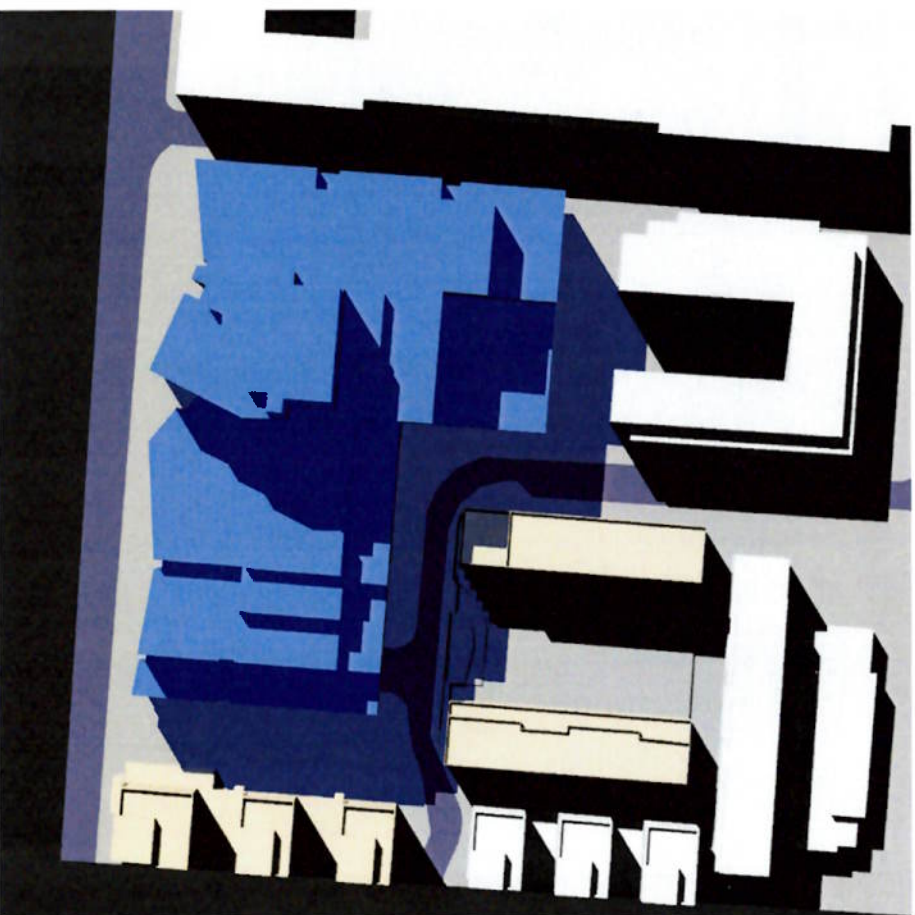


June 21st - 15:00

20340-1NWQ-BPC-XX-ZZ-M3-P13-01  
EXISTING-21-Jun 15-00

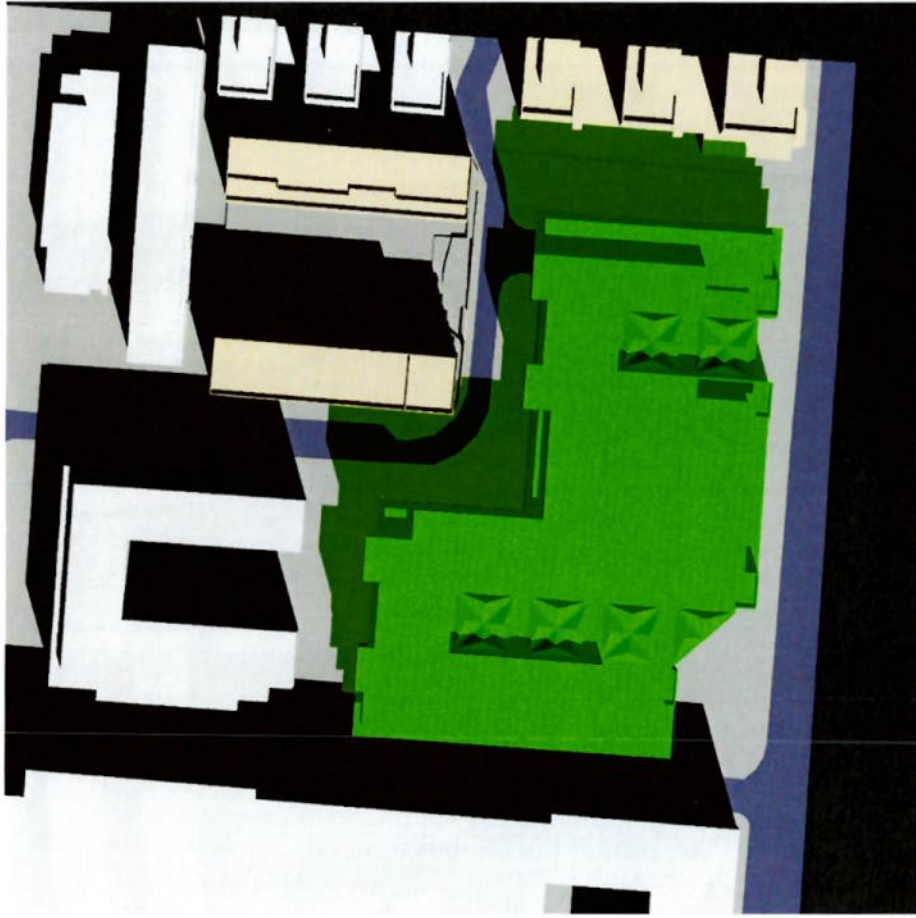


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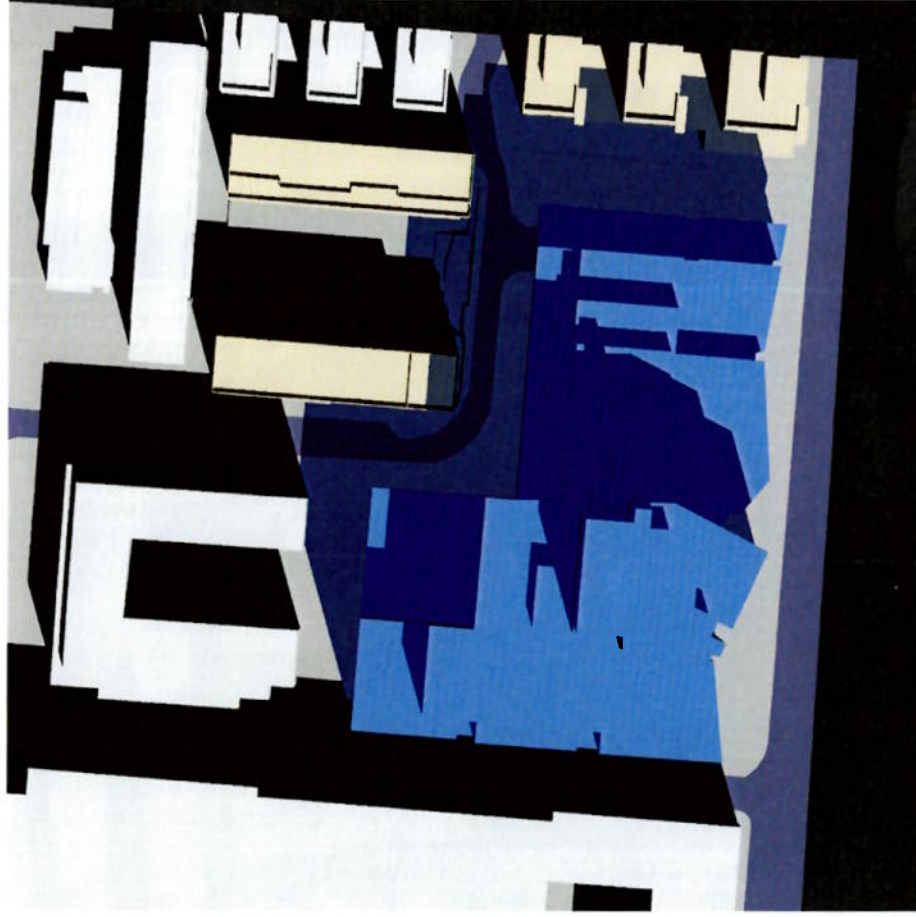




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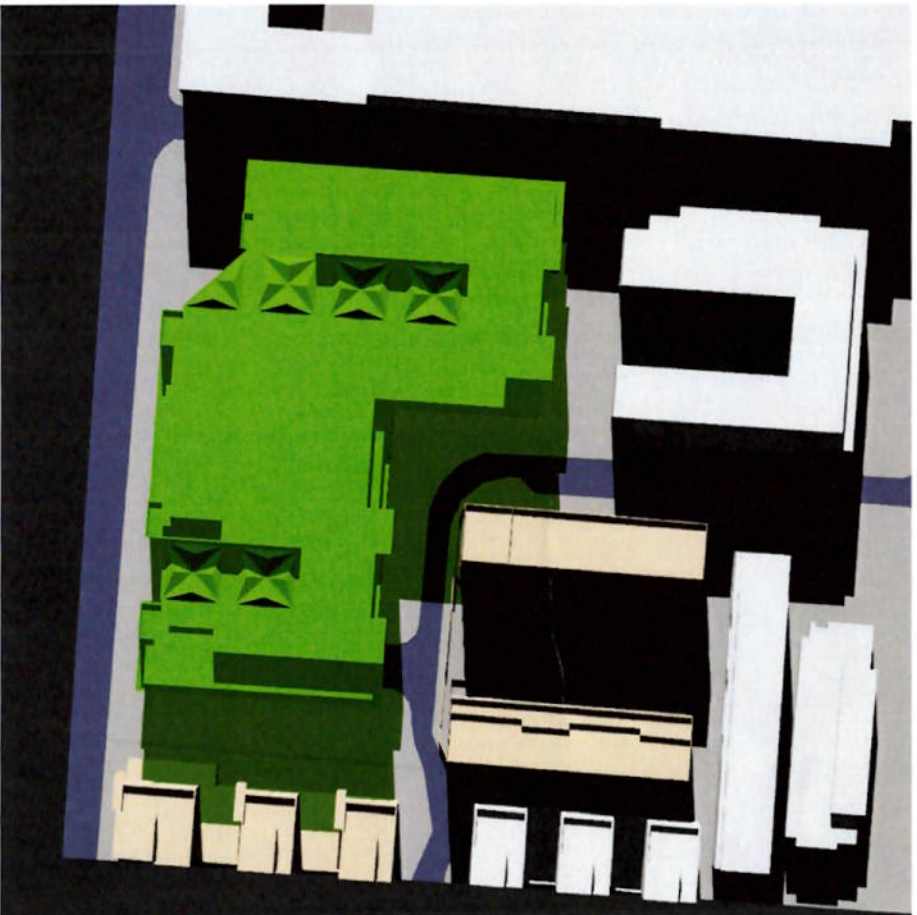
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June 21st - 16:00

June 21st - 17:00

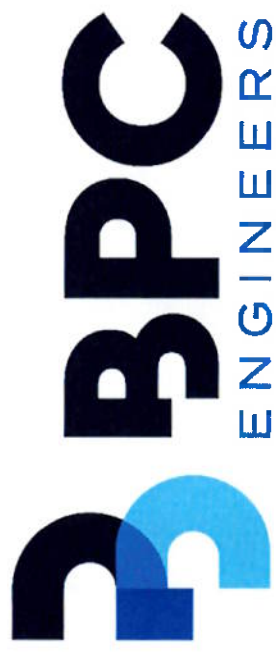
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EXISTING-21-Jun 17:00



20340-1NWQ-BPC-XX-ZZ-M3-P13-01  
PROPOSED-21-Jun 17:00







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