

Network Rail

W1002B Oxford Corridor

Phase 1: Planning Amendment Option Report

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A01
For Approval
June 2015

| Authorisation Sheet | |
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1.0 INTRODUCTION

This report has been prepared by Tata Steel Projects on behalf of Network Rail.

It is proposed to redevelop part of Oxford station and associated land to increase capacity and create an additional passenger terminal including; platforms, canopies and a relocatable train operating company (TOC) accommodation building - all with ancillary office, storage and parking facilities.

The proposal aims to facilitate modifications to train lines, platforms and canopies that would provide additional capacity for a 5x23m and a 6x23m train with the proposed layout arranged to be cognisant of any subsequent Oxford station master plan development. Please refer application drawings for site layout.

The proposed platforms adjustments include for the lengthening of two existing lines/platforms to provide terminal platforms adjacent to the immediate north of the existing station building.

The proposed accommodation building seeks to replace the existing building located to the north of the main station complex. The existing facility is housed in a single storey building that has been extended and adapted over the course of time and now operating beyond its intended design life span.

The provision of an up to date and modern workplace for rail operating staff is considered to be a very important factor (in terms of accommodation) during the proposed station upgrade along with additional platforms, canopies and lines that support the longer term objective of any subsequent master plan (for the station redevelopment).

At the Oxford City Council West Area Planning Committee meeting on Tuesday 12th May 2015, the planning decision was deferred to allow the applicant and officers to consider other feasible options for siting and design which mitigate the impact on local residents.

Members were concerned that the location of the two-storey building caused a loss of amenity to the residents of Stable Close over the lifetime of the building, due to the overshadowing of the gardens.

The existing building which is to be demolished and make way for the new TOC building is a single storey with a flat roof. The existing building cast shadows over the properties of Stable Close during the winter periods in the late afternoon (3pm).

The proposed building that was submitted as part of the planning application is a two storey building with the ground floor level to match the existing platform level.

The daylight / solar study for the shadowing patterns at each equinox and mid-summer and mid-winter day show that the change from a single building to a two storey building will be minimal with the only changes occurring to shadow being an increase to gardens in the Summer at 6pm.

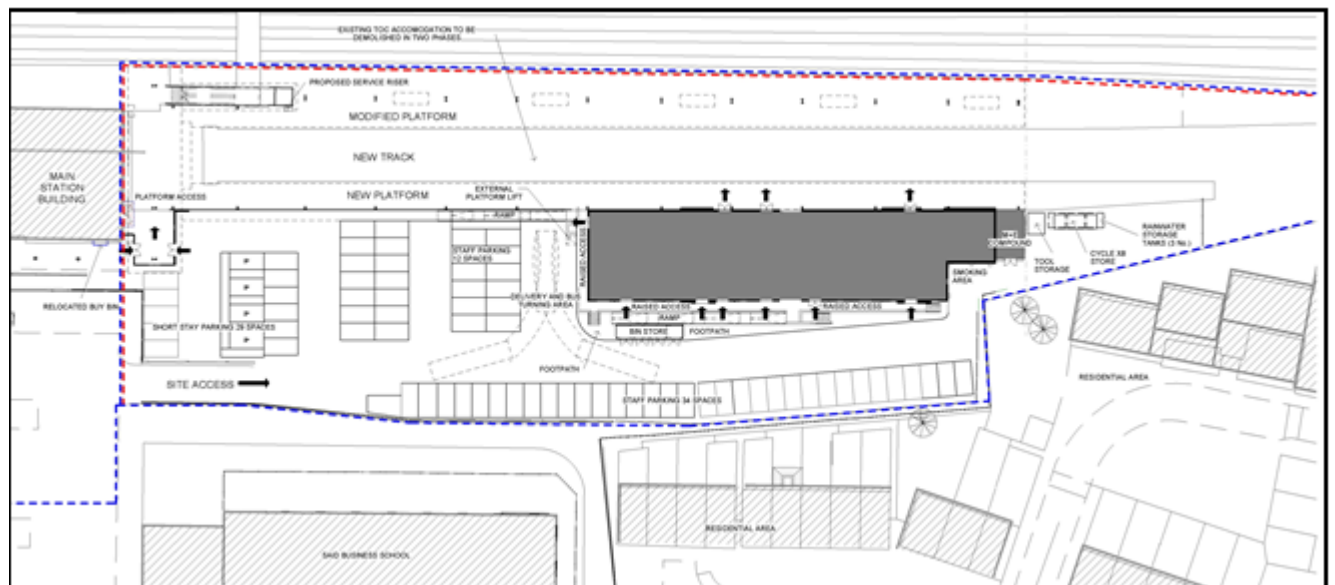
The existing boundary fence to rear garden of Stable Close is 1800mm high, which also casts a shadow to the gardens in the late afternoon / evening.

This report investigates options, that will not make the shadows worse to the Stable Close properties.

Tata Steel Projects and Network Rail have considered 6 no. options which are outlined in this report.



EXISTING SITE LAYOUT



PROPOSED SITE PLAN (AS PLANNING APPLICATION REF No.15/00096/PA11)



Boundary fence between Network Rail land & the Stable Close properties

1.1 Solar Study Images (existing)



Summer 9am Existing



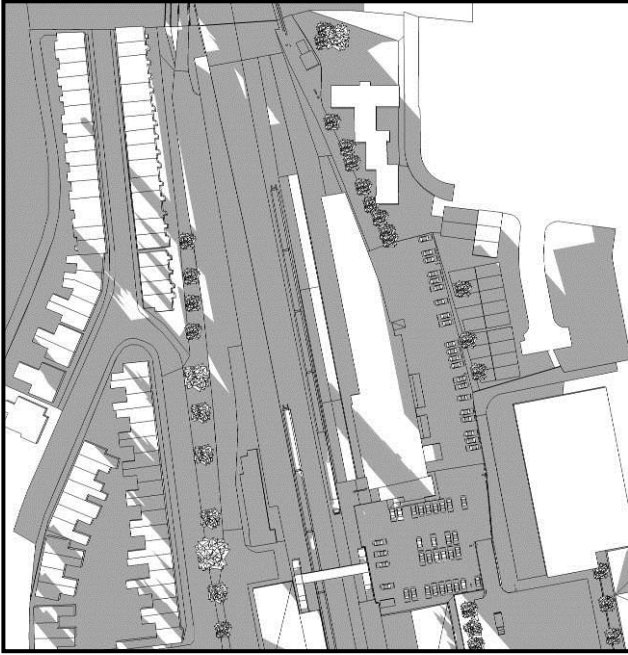
Summer 12am Existing



Summer 3pm Existing



Summer 6pm Existing



Winter 9am Existing



Winter 12am Existing



Winter 3pm Existing

2.0 OPTION 1: SINGLE STOREY BUILDING

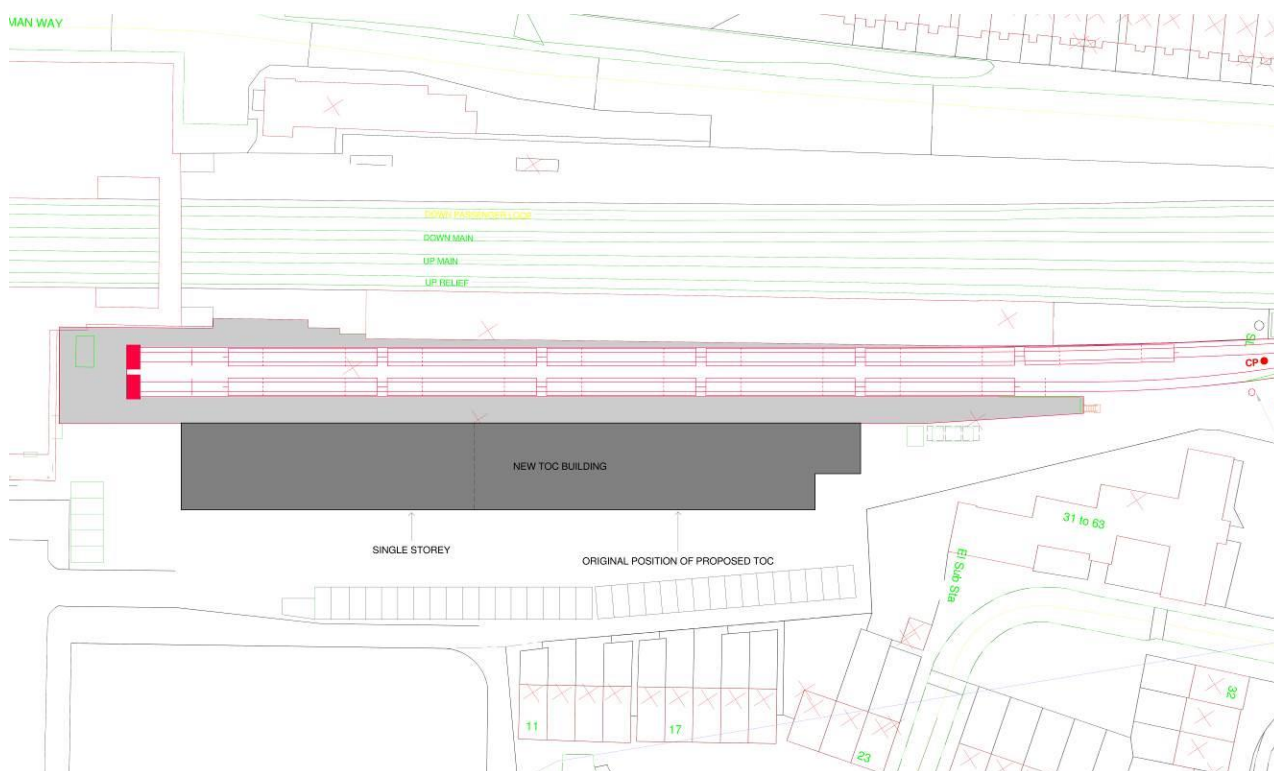
2.1 Block Plan Study

The proposed building could be changed to wholly single storey. This will achieve a full reduction in the shadow that are cast over the properties to Stable Close.

To accommodate the building into the space available and still provide some car park spaces will reduce the building floor area by approx. 10-15%. The areas that cannot be accommodated in the new building will be the area for the FGW staff that are to be moved from the Phase 2 building. During Phase 2 work the FGW staff will need to be temporarily accommodated and eventually moved into the proposed Western Entrance building.

The building length will increase by approx. 43 metres. The increase in the footprint will affect the vehicular provision and hinder the potential masterplan scheme. The increased length could clash with the masterplan and result in part demolition of the new building & temporary relocation of staff while the masterplan is under construction.

There will also a noise increase for the domestic properties from the train movements and platform announcements.



2.2 Construction

The construction phasing will be as follows:

- Demolish existing platform & canopy.
- Construct temporary accommodation for TOC & SSP.
- Relocate TOC & SSP staff to new temporary.
- Demolish the existing building.

- Construct new building.
- Move TOC & SSP staff into the new building.
- Remove the temporary accommodation from Beckett Street car park.

2.3 Operational

The delivery lorry turning facility will not be practical on a daily basis, this will cause a significant operational difficulties for the catering providers.

The SSP & M&S will be sited in Beckett Street car park for a period of approx. 6 months during construction of the TOC building, this will result in a lengthy travel route with the trolleys.

2.4 Vehicular / Car Parking

This option will significantly reduce the number of car park spaces. Some TOC staff parking will be lost and all the short stay parking space will be lost. In total 69 no. existing car parking spaces will be lost. The 4 no. staff disabled car parking spaces will be lost.

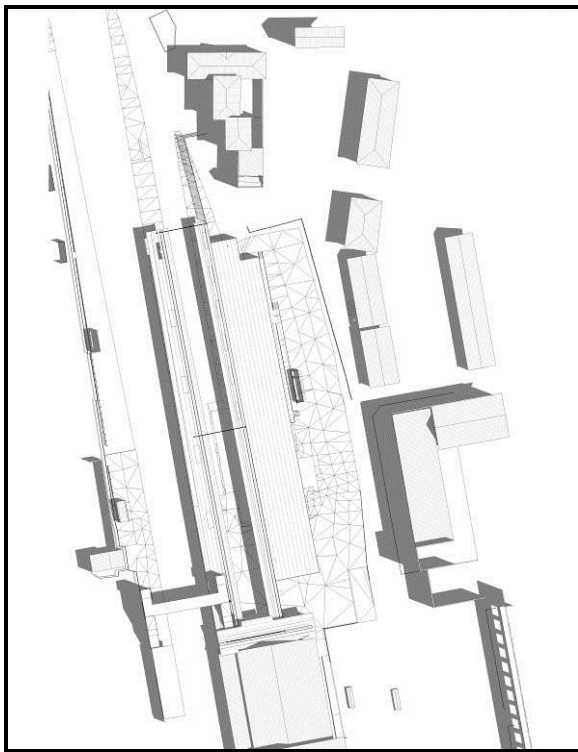
Vehicle tracking studies have revealed that the delivery vehicle turning is impractical on a daily basis, the lorry can only manoeuvre by having managed car park space that will need to be vacant to allow the lorry to turn.

The bus replacement facility will also be lost.

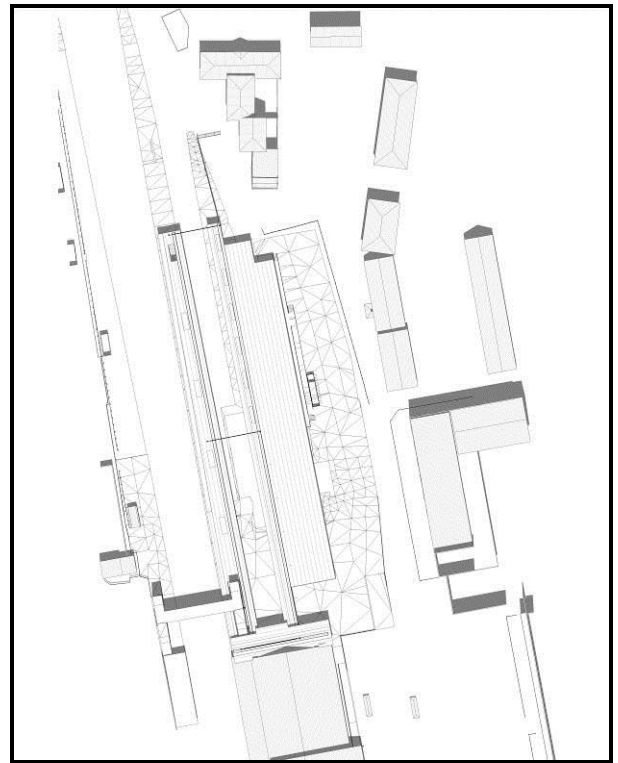
2.5 Summary

- ✔ The lower building will generate full reduction in the shadows that are cast on to the properties of Stable Close.
- ✘ Loss of car park spaces.
- ✘ No staff disabled car parking spaces can be accommodated.
- ✘ No delivery vehicle turning space.
- ✘ Removal of bus replacement facility.
- ✘ Operational difficulties.
- ✘ Temporary accommodation required in Beckett Street car park.
- ✘ Loss of floor area.
- ✘ Increased building footprint.
- ✘ Hinder to the potential masterplan scheme.
- ✘ Noise increase for the domestic properties.
- ✘ Potential staff relation difficulties, moving staff into temporary accommodation.
- ✘ Increased costs.

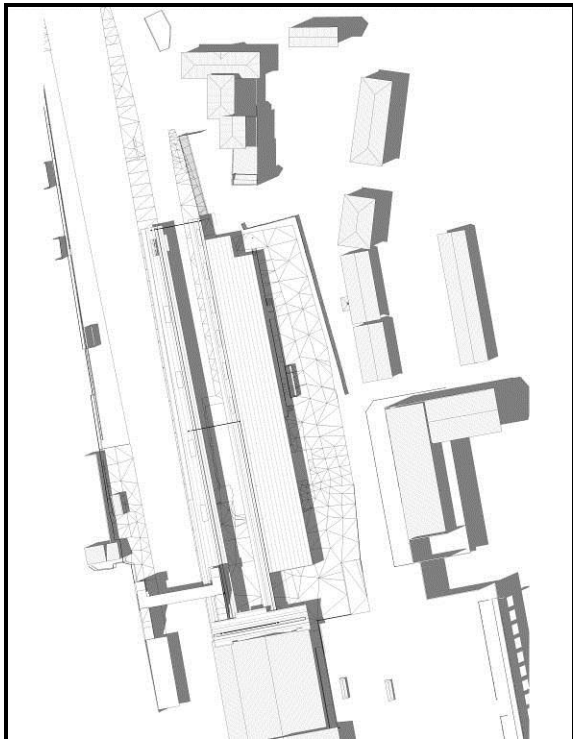
2.6 Solar Study Images



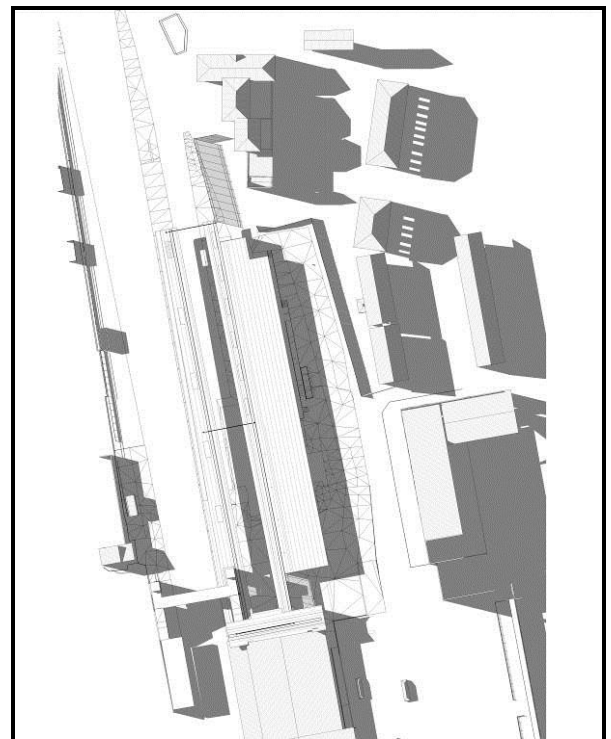
Summer 9am Proposed



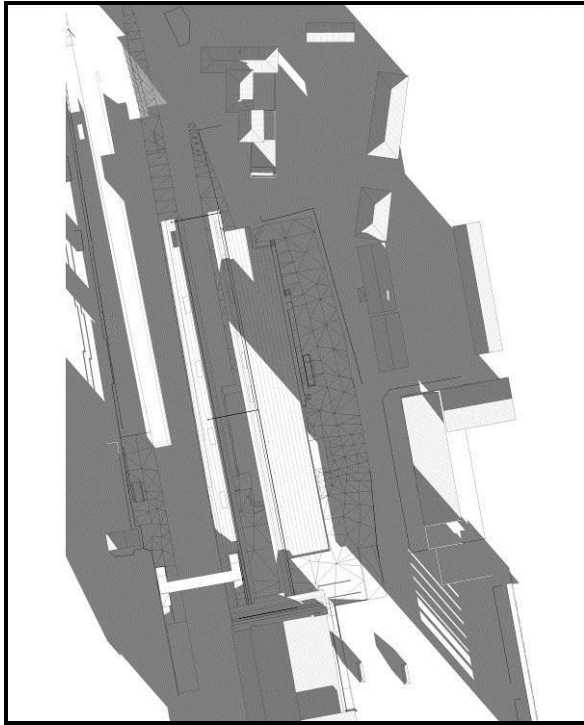
Summer 12am Proposed



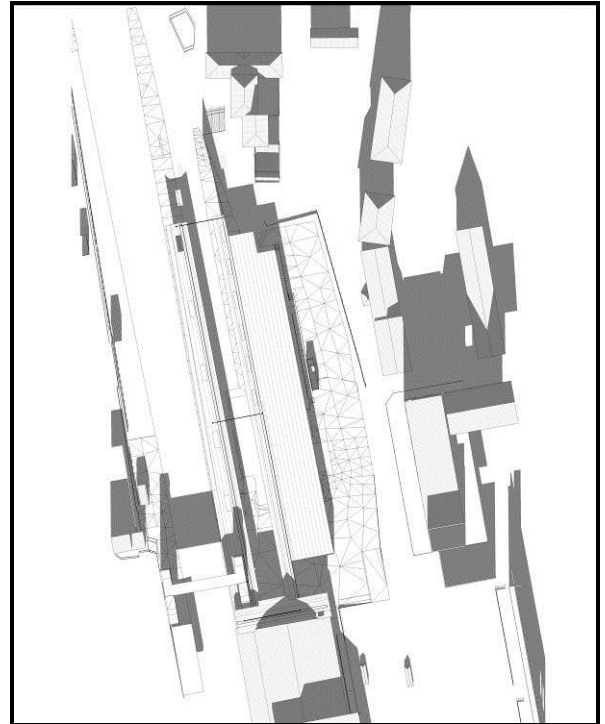
Summer 3pm Proposed



Summer 6pm Proposed



Winter 9am Proposed



Winter 12am Proposed



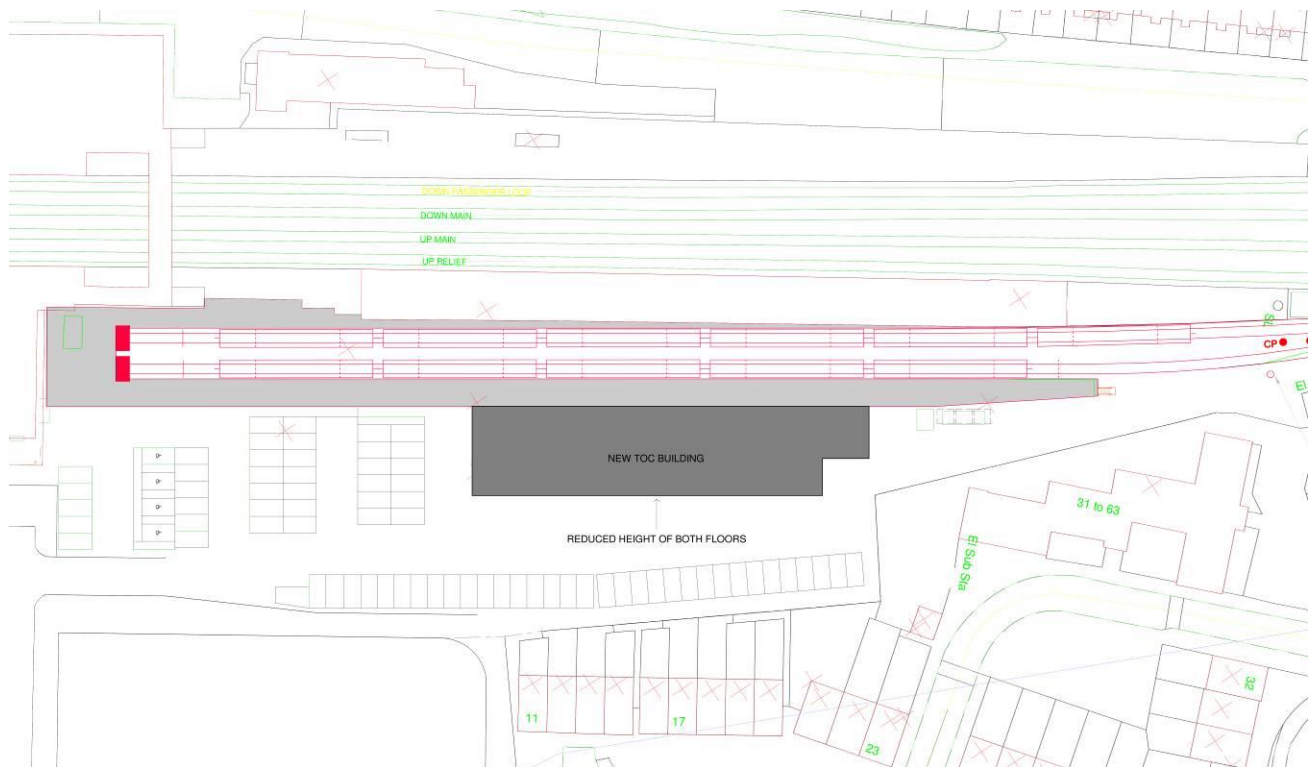
Winter 3pm Proposed

3.0 OPTION 2: REDUCE HEIGHT OF BOTH FLOORS

3.1 Block Plan Study

The proposed building height could be lowered by approx. 400mm by reducing the floor to floor height by reducing the ceiling heights and the ceiling voids.

This option has little effect on the shadows to the Stable Close properties.



3.2 Construction

The proposed construction phasing will remain the same.

3.3 Operational

The operational function of the building will remain unaltered.

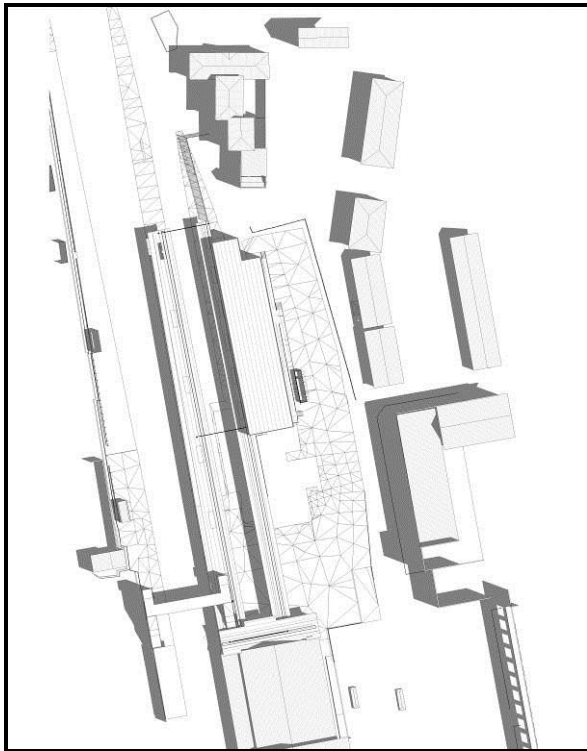
3.4 Vehicular / Car Parking

No change.

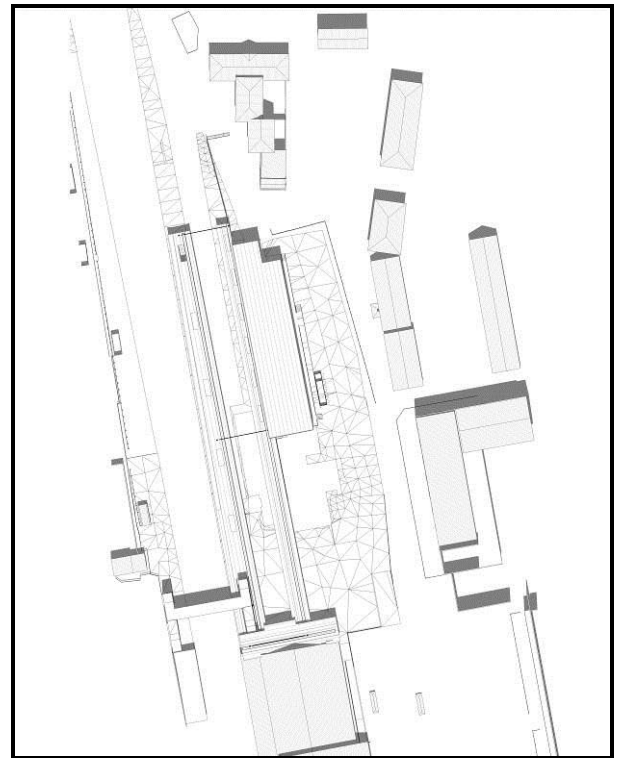
3.5 Summary

- ✘ Little reduction on the shadows to the Stable Close properties.
- ✔ Minimal impact on the current design & operational functions.
- ✔ No impact on the potential masterplan scheme.

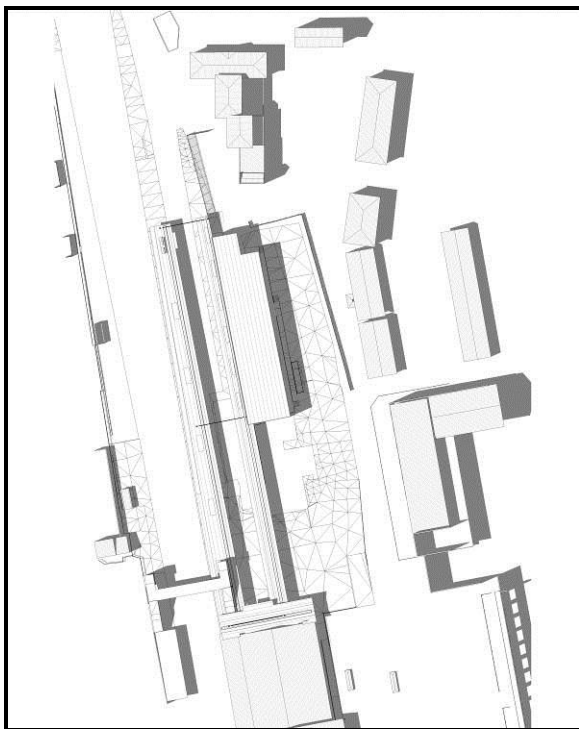
3.6 Solar Study Images



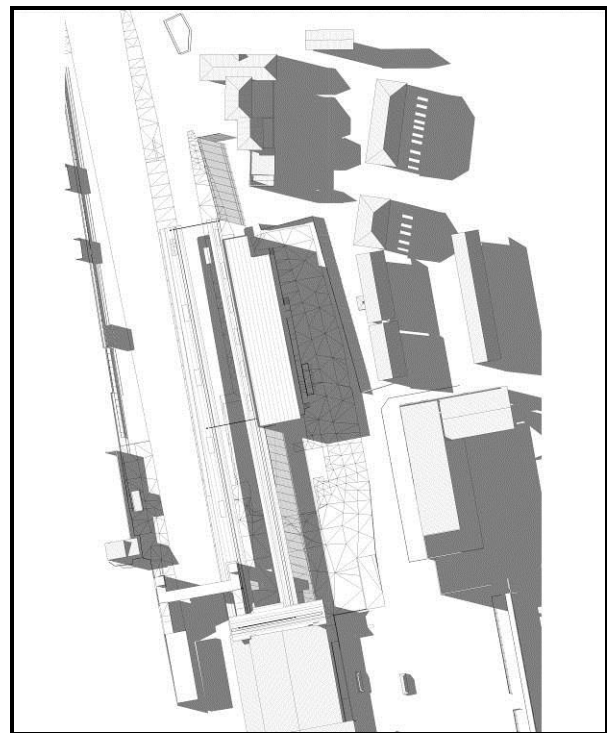
Summer 9am Proposed



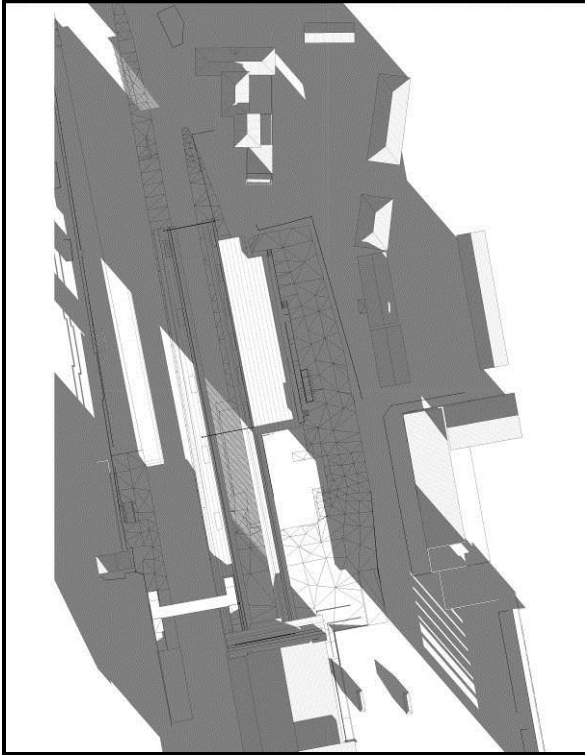
Summer 12am Proposed



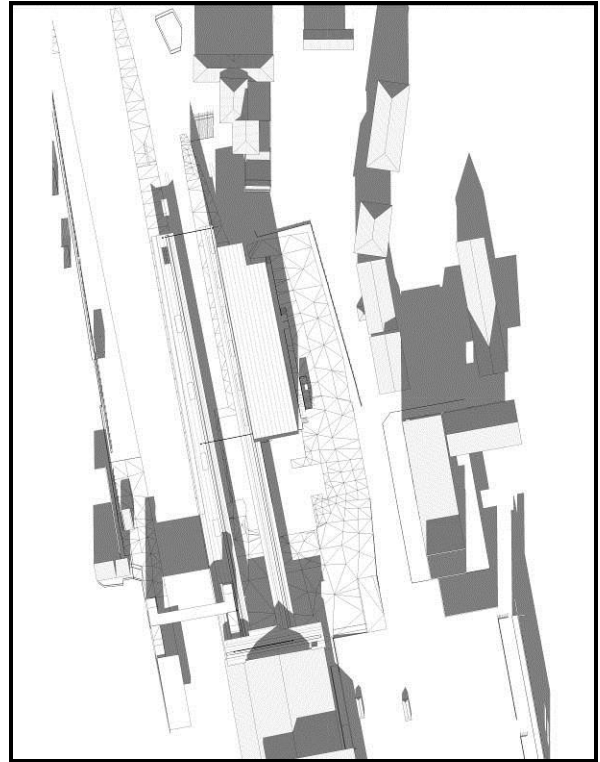
Summer 3pm Proposed



Summer 6pm Proposed



Winter 9am Proposed



Winter 12am Proposed



Winter 3pm Proposed

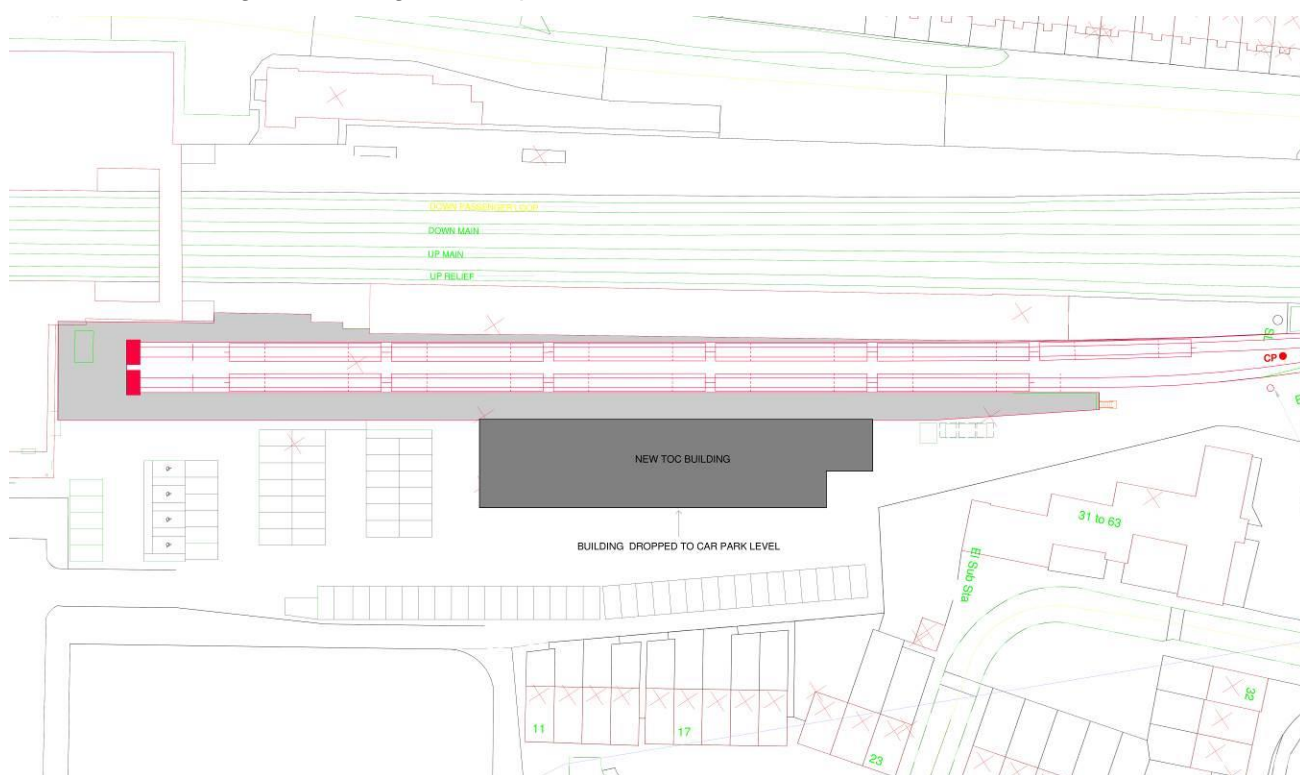
4.0 OPTION 3: DROP THE BUILDING TO CAR PARK LEVEL

4.1 Block Plan Study

The proposed building could be dropped to the same level as the car park, this will provide a large improvement in the shadow that are cast on to the properties of Stable Close. However, staff circulation to and from the platform will be affected.

The building will be designed to provide level access from the east side from the car park, this will provide level walking routes for staff and deliveries. The west face platform will be 900mm higher than the building floor level resulting in stepped access from the building on to the platform. Trolley access from building to platform will become longer and more complex.

The windows that face the platform will need to be reconfigured in relation to the platform level. This will result in less natural daylight to the rooms facing the platform. The access ramps to the car park side of the building will no longer be required.



4.2 Construction

The proposed construction phasing will remain the same.

4.3 Operational

Catering trolley movement from the TOC building on to the platform will be severely affected & will become less efficient. The trolley travel route will become a much longer distance via an external ramp and gate. Ideally a weatherproof trolley route will be required, this will be difficult to achieve.

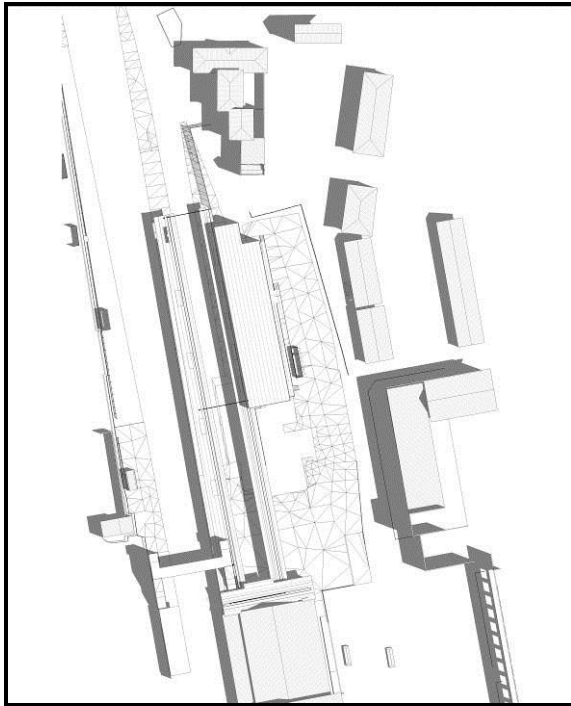
4.4 Vehicular / Car Parking

No change.

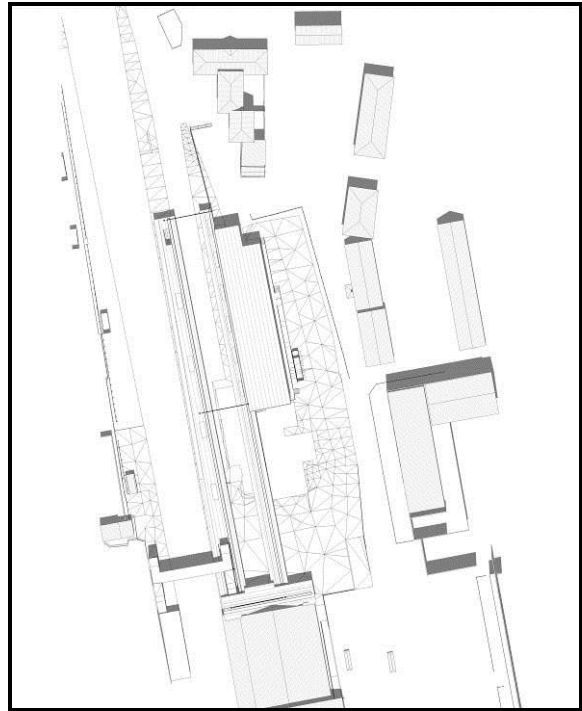
4.5 Summary

- ✔ The option for dropping the building to the car park level will provide a large improvement in the shadow that are cast on to the properties of Stable Close.
- ✔ No impact on the potential masterplan scheme.
- ✘ Staff circulation to and from the platform will be affected and steps will need to be introduced plus a weatherproof trolley route.
- ✘ Slight increase in noise for the domestic properties.

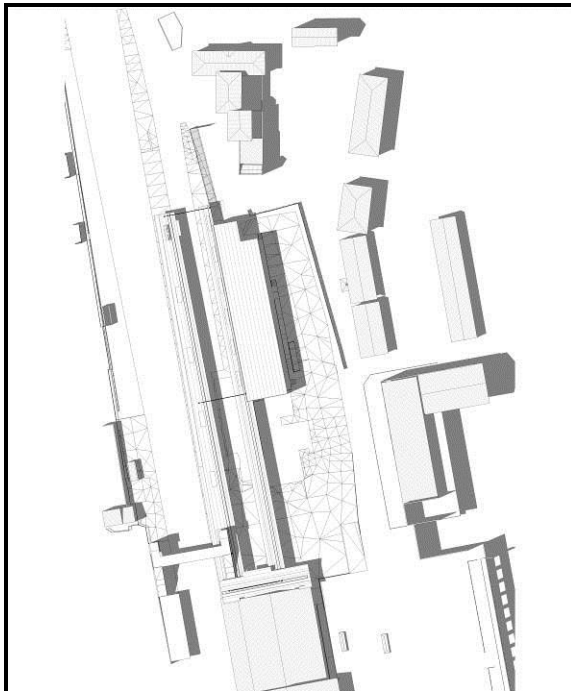
4.6 Solar Study Images



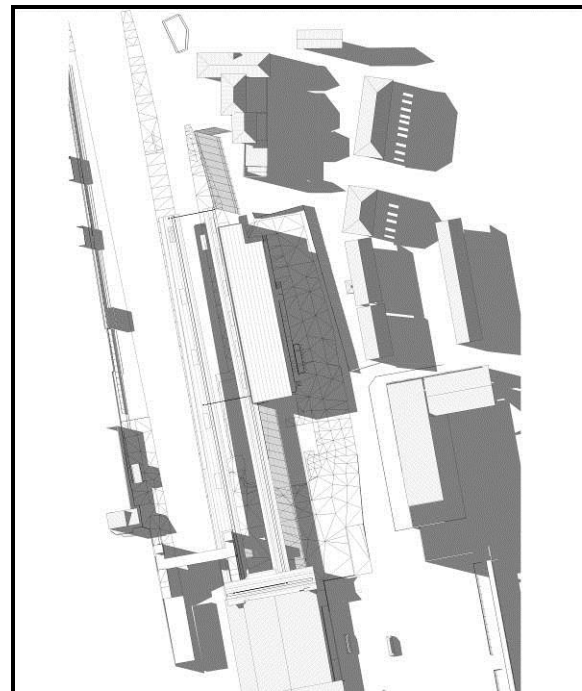
Summer 9am Proposed



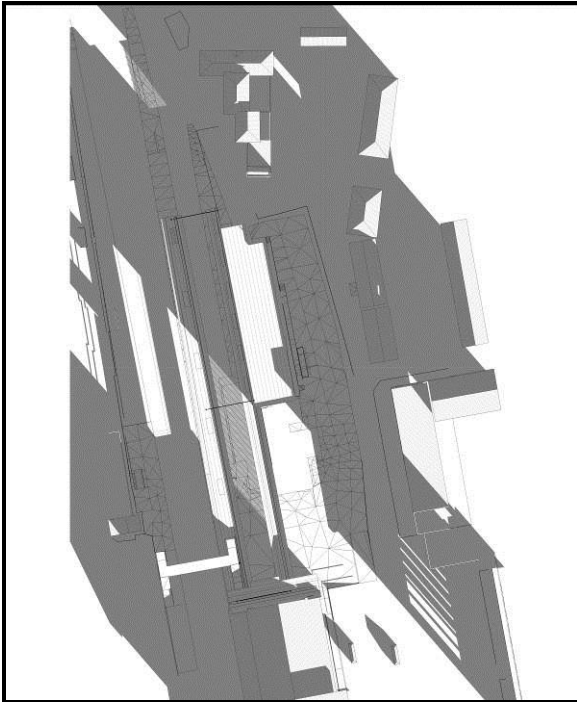
Summer 12am Proposed



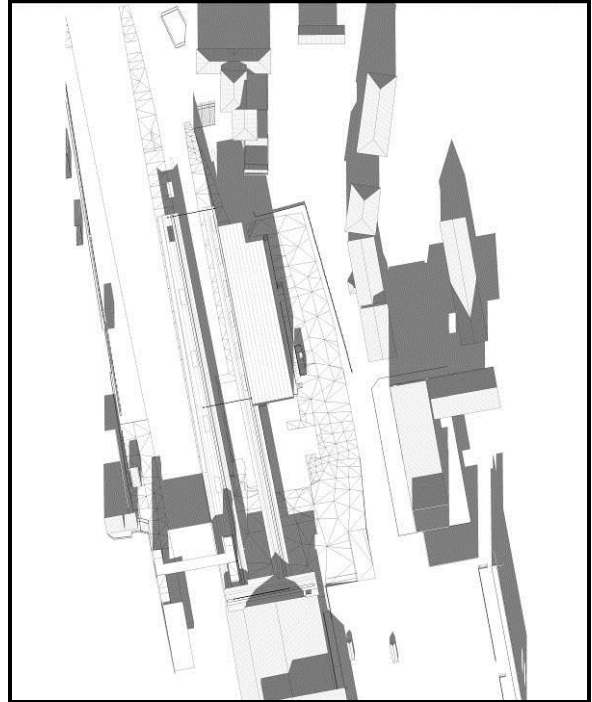
Summer 3pm Proposed



Summer 6pm Proposed



Winter 9am Proposed



Winter 12am Proposed



Winter 3pm Proposed

5.0 OPTION 4: MAKE MOST OF THE 1ST FLOOR HALF WIDTH

5.1 Block Plan Study

The proposed building could be reduced at 1st floor. By making most of the 1st floor half width will achieve full reductions in the shadows that are cast on to the properties of Stable Close.

The solar shading study has found that this option results in less shadows than options 2 & 3.

There will be a reduction in the floor area of the building of approx. 200m² which would prevent the relocation of the FGW Phase 2 staff into the building. During Phase 2 work the FGW staff will need to be temporarily accommodated and eventually moved into the proposed Western Entrance building.



5.2 Construction

The proposed construction phasing will be affected. If the TOC Building is going to be constructed in phases, some of the TOC staff will need to be temporarily accommodated until the second phase of the construction is complete.

The modular building construction will be less efficient and more costly, with the split level roof.

5.3 Operational

The first floor layout will need to be redesigned, a full impact on the operation of the building cannot be fully assessed until this is finalised.

5.4 Vehicular / Car Parking

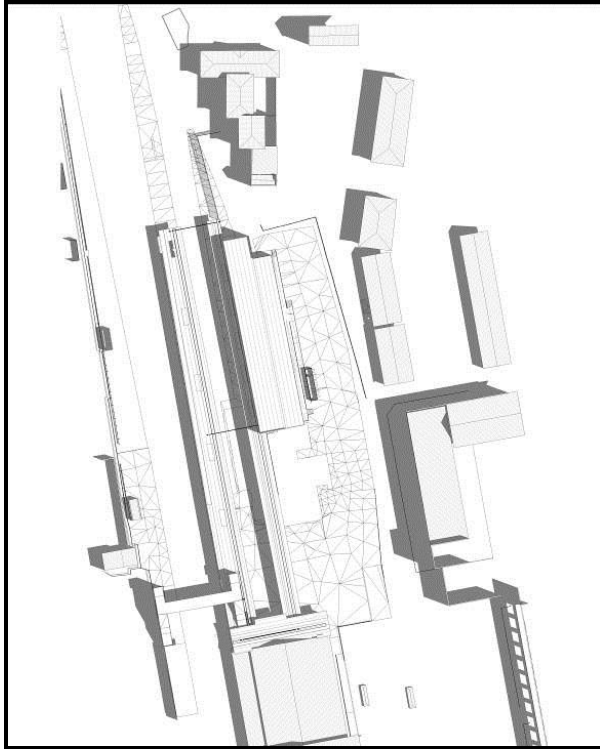
No change.

5.5 Summary

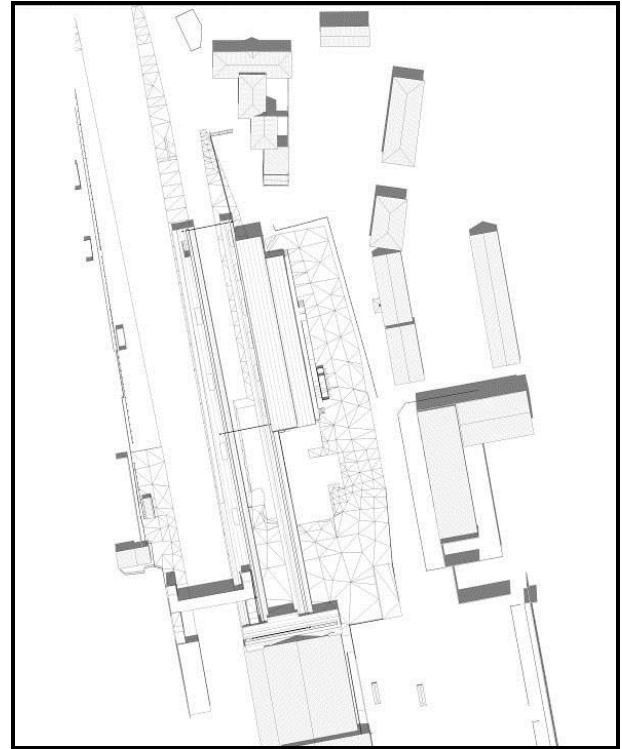
- ✓ Full reductions in the shadows that are cast on to the properties of Stable Close.
- ✓ No impact on the potential masterplan scheme.
- ✓ No reduction in noise attenuation.
- ✗ Reduction in the floor area of the building.

- ✘ FGW Phase 2 staff unable to be accommodated into the building.
- ✘ Modular construction less efficient / more costly.

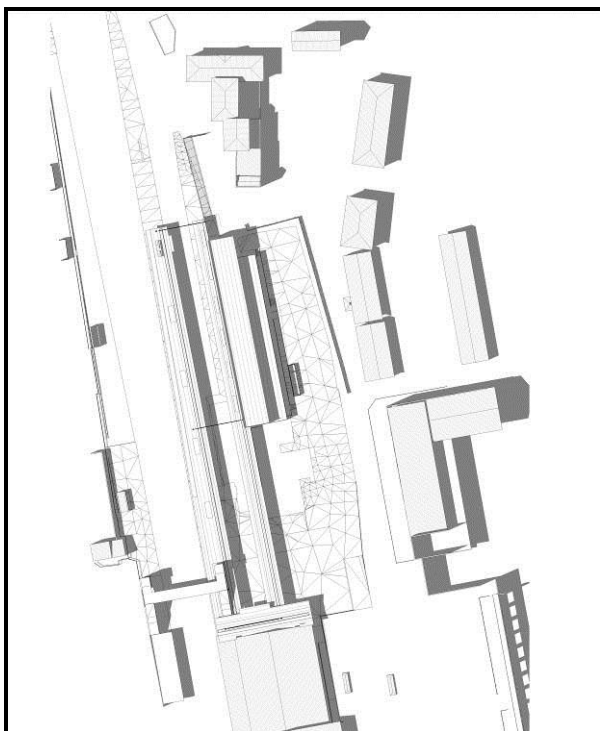
5.6 Solar Study Images



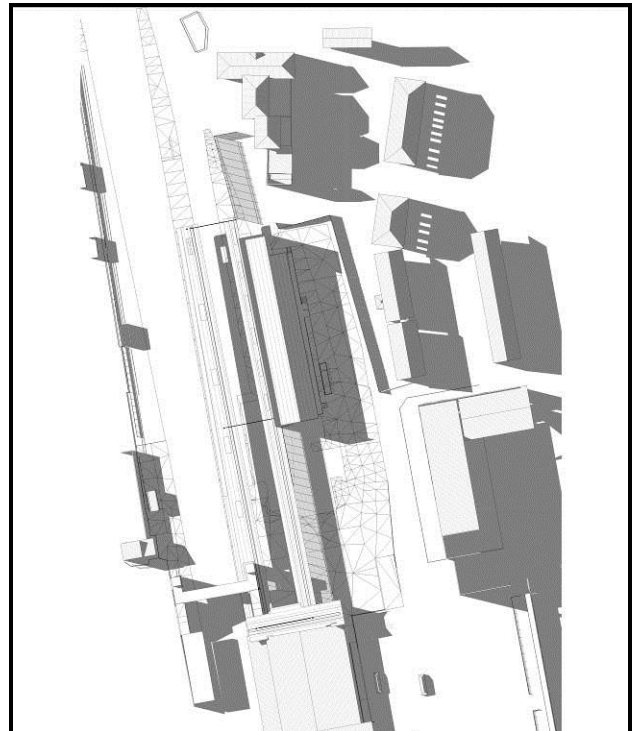
Summer 9am Proposed



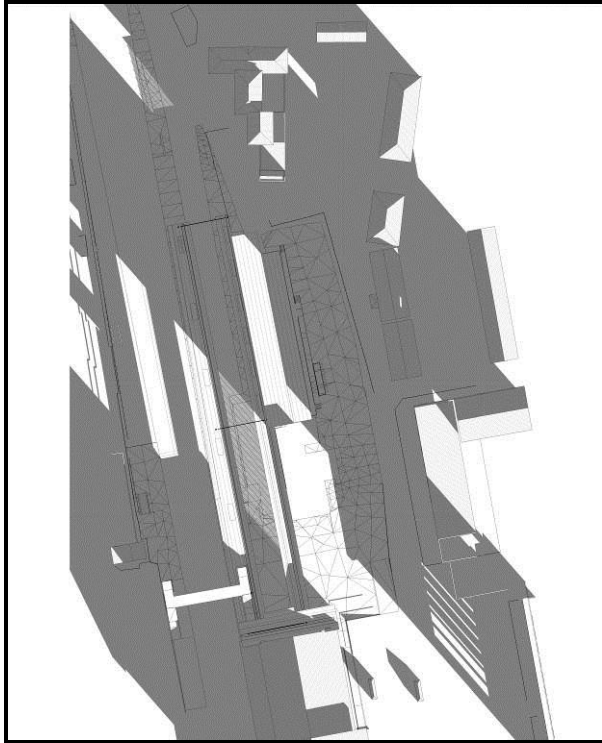
Summer 12am Proposed



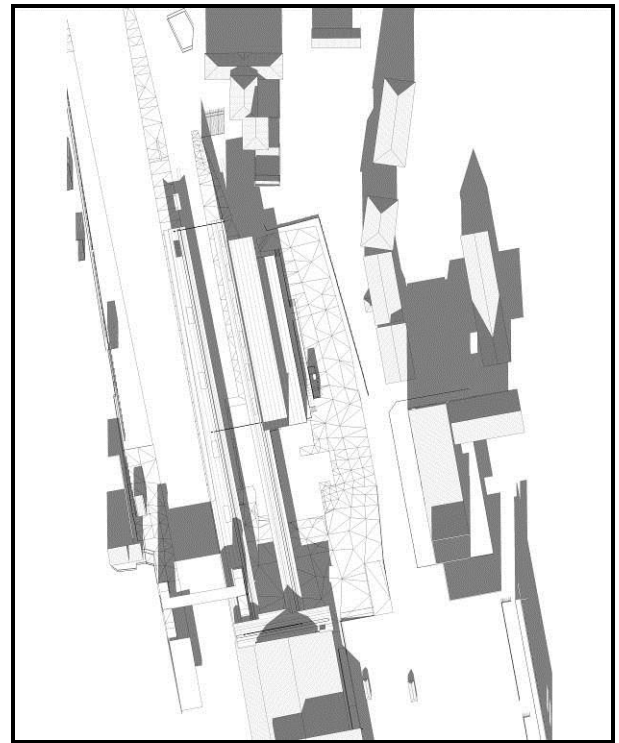
Summer 3pm Proposed



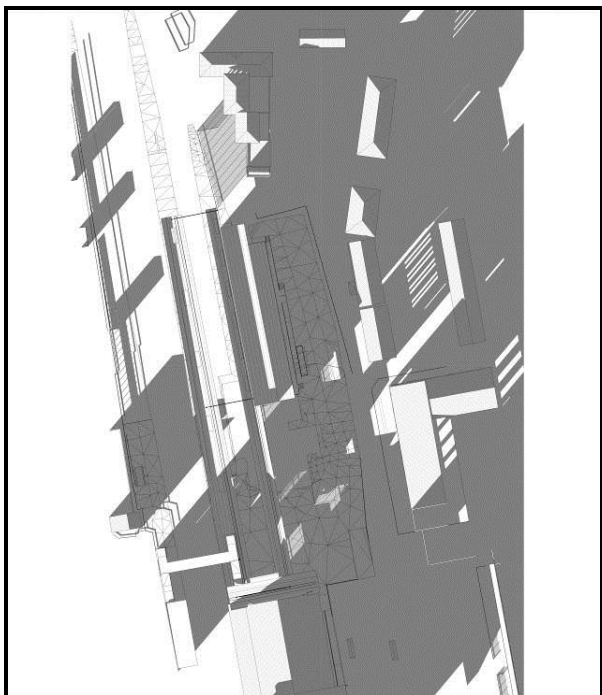
Summer 6pm Proposed



Winter 9am Proposed



Winter 12am Proposed



Winter 3pm Proposed

6.0 OPTION 5: MOVE THE COMPLETE BUILDING SOUTH

6.1 Block Plan Study

The proposed building could be moved south. This will achieve full reductions in the shadows that are cast on to the properties of Stable Close.

To accommodate the building into the space will involve moving most of the car parking spaces to the north of the site.

The relocation of the building could clash with the masterplan and result in part demolition of the new building & temporary relocation of staff while the masterplan is under construction.

There will also a noise increase for the domestic properties from the train movements and platform announcements.

Additional construction ground work will be required which will lead to increased cost. The new building is sited in a different location to the existing building that is being demolished.



6.2 Construction

The construction phasing will be as follows:

- Demolish existing platform & canopy.
- Construct Phase 1 of the TOC Building (to accommodate SSP & M&S).
- Part demolish the existing TOC Building (catering end).
- Construct Phase 2 of the TOC Building.
- Move the existing TOC staff in to Phase 2 of the new TOC Building.
- Demolish the remaining existing TOC Building.

6.3 Operational

Other than the change in the position of the building the operational function of the building will remain unaltered.

6.4 Vehicular / Car Parking

Moving the building south will mean that the vehicle parking will move to the north end of the site. The short stay disabled would move an unacceptable distance away from station entrance at either the north of the site (115 metres away) or to Beckett Street car park (120 metres away). The recommended travel distance for people with disabilities is as follows;

Visually impaired 150m

Wheelchair users 150m

Ambulatory (no stick) 100m

Stick users 50 m

Moving the car park area to an area out of view of the general public is not ideal in terms of 'Safe by Design'.

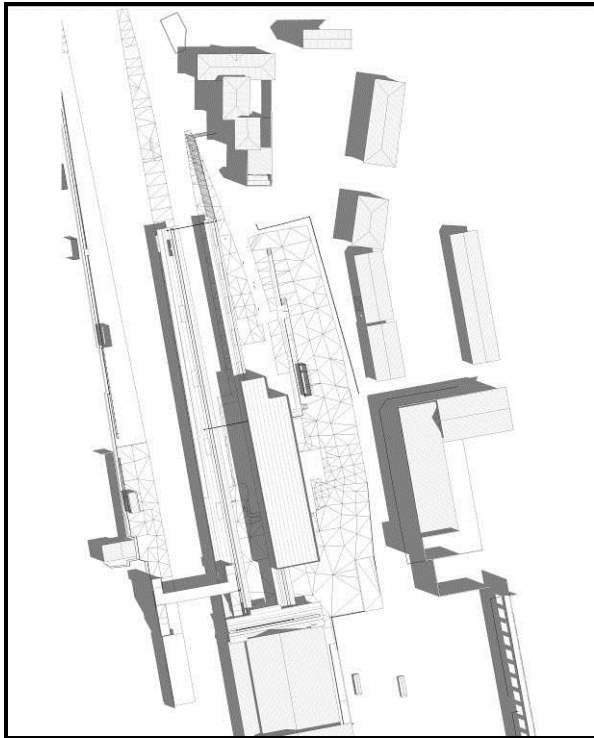
The delivery vehicle will be able to turn at the area to the north of the new building.

The bus replacement facility will also be lost.

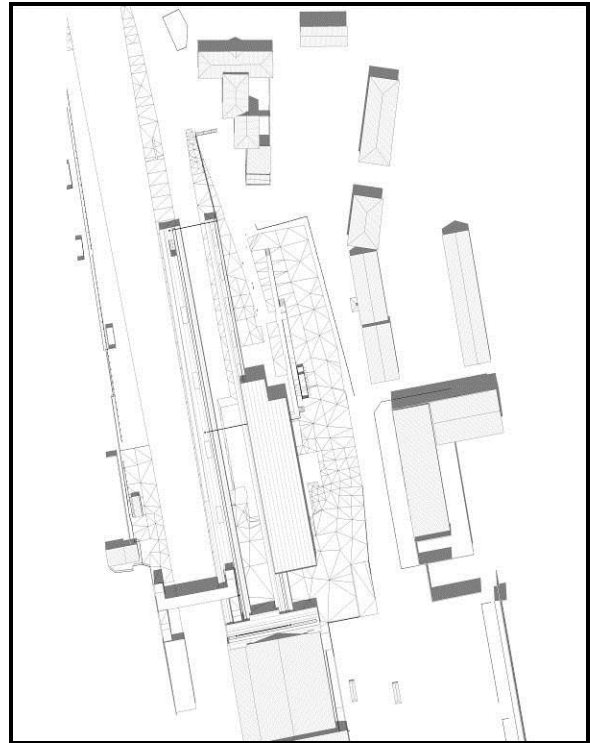
6.5 Summary

- ✓ Full reductions in the shadows that are cast on to the properties of Stable Close.
- ✓ No requirement for temporary accommodation.
- ✗ Hinder the potential masterplan scheme.
- ✗ Relocation of car park spaces.
- ✗ Short stay car park space a long distance from the station entrance.
- ✗ Removal of bus replacement facility.
- ✗ Operational difficulties.
- ✗ Noise increase for the domestic properties.
- ✗ Car park location is not in view of the general public (safety issues).
- ✗ Additional construction works & additional construction costs.

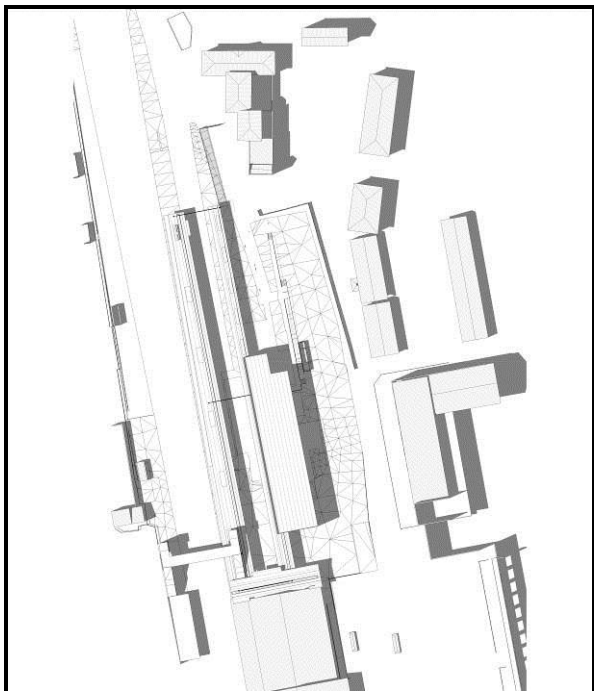
6.6 Solar Study Images



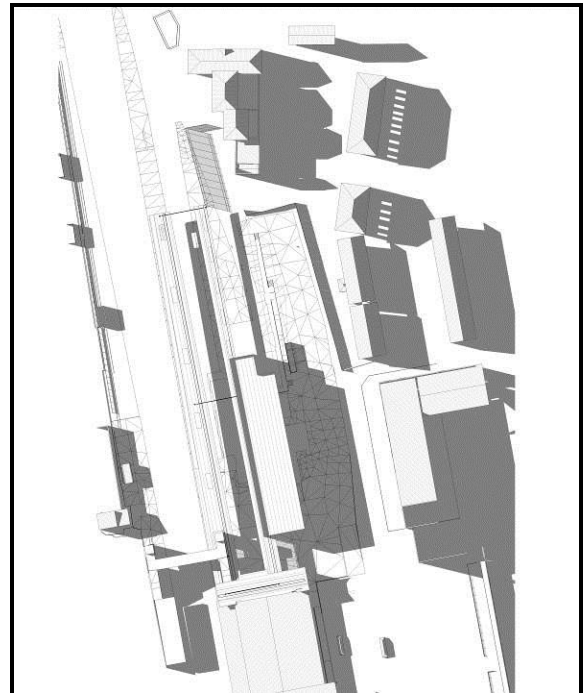
Summer 9am Proposed



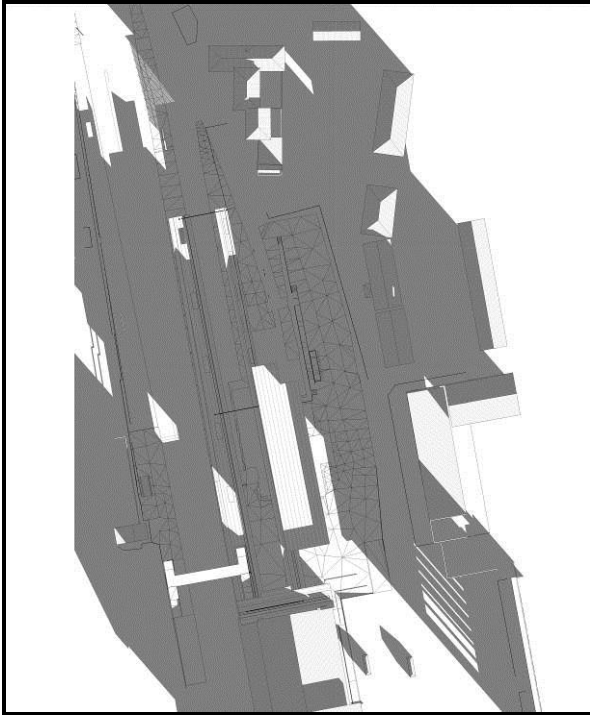
Summer 12am Proposed



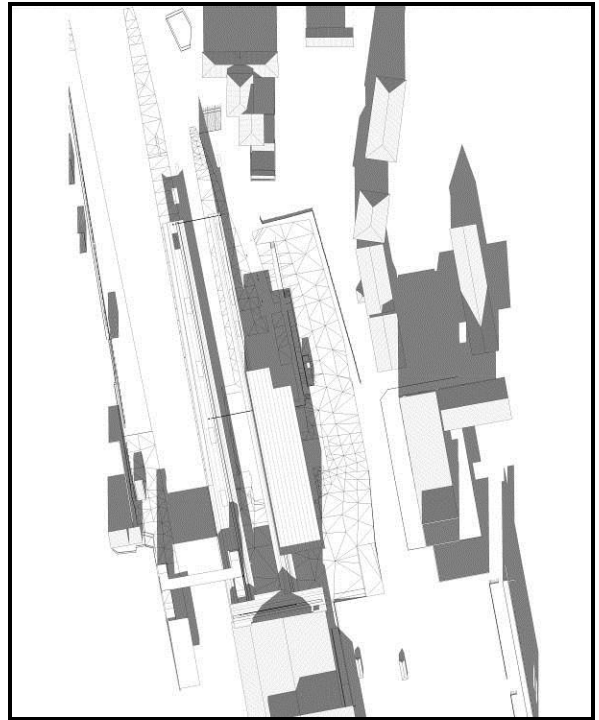
Summer 3pm Proposed



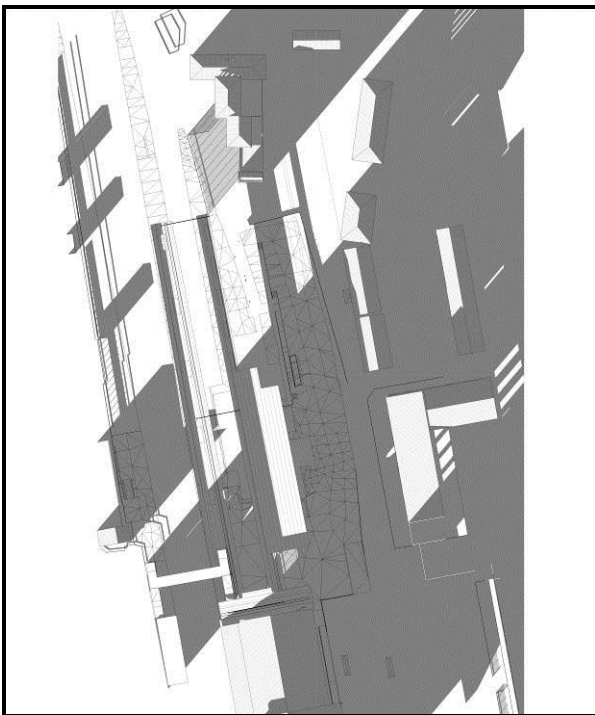
Summer 6pm Proposed



Winter 9am Proposed



Winter 12am Proposed



Winter 3pm Proposed

7.0 OPTION 6: DO NOTHING

7.1 Block Plan Study

The proposed building could remain as the original planning application.



7.2 Construction

No change.

7.3 Operational

No change.

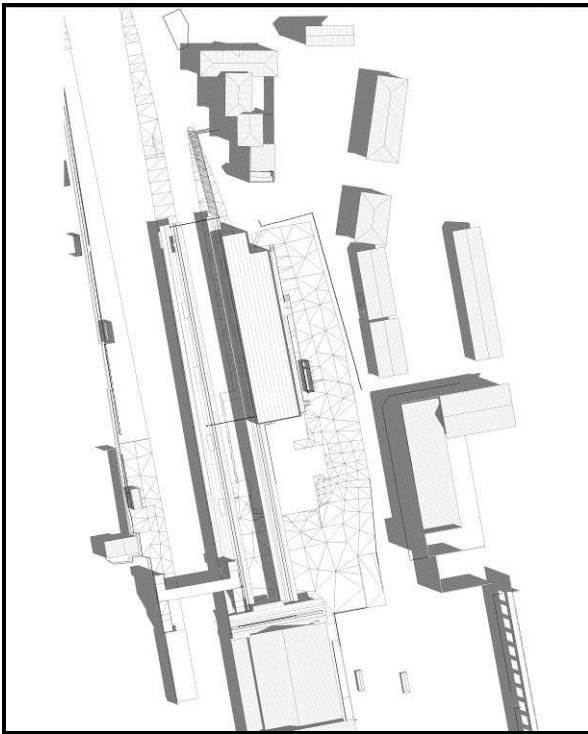
7.4 Vehicular / Car Parking

No change.

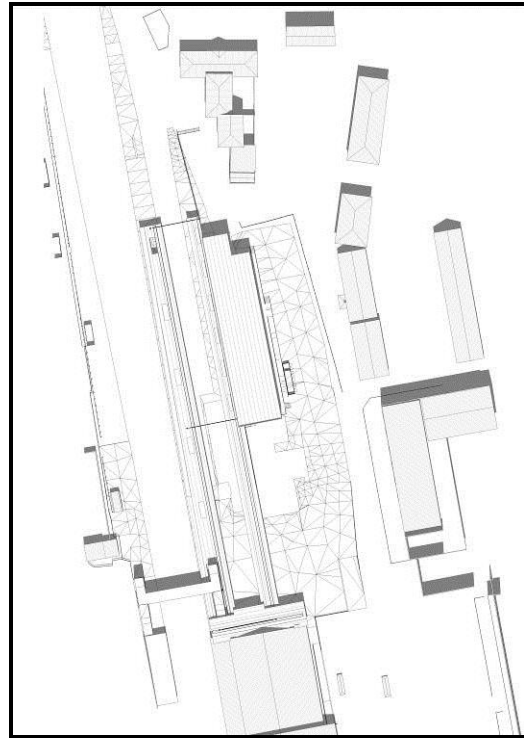
7.5 Summary

- ✘ No reductions in the shadows that are cast on to the properties of Stable Close.
- ✘ Planning rejection is a risk.
- ✔ No impact on the potential masterplan scheme.
- ✔ No reduction in noise attenuation.

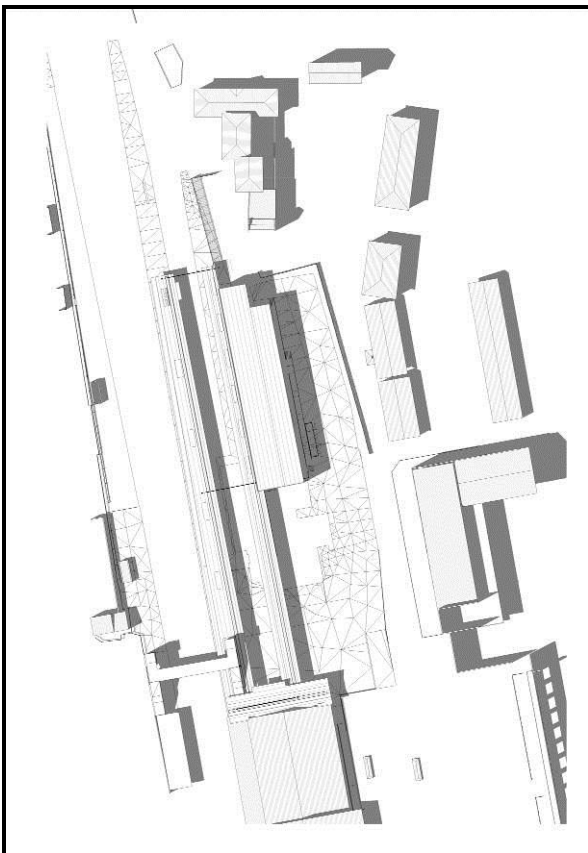
7.6 Solar Study Images



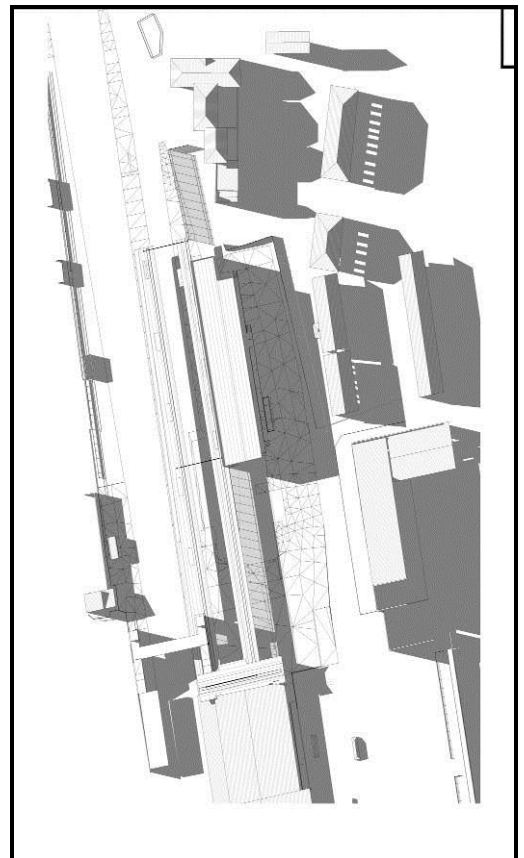
Summer 9am Proposed



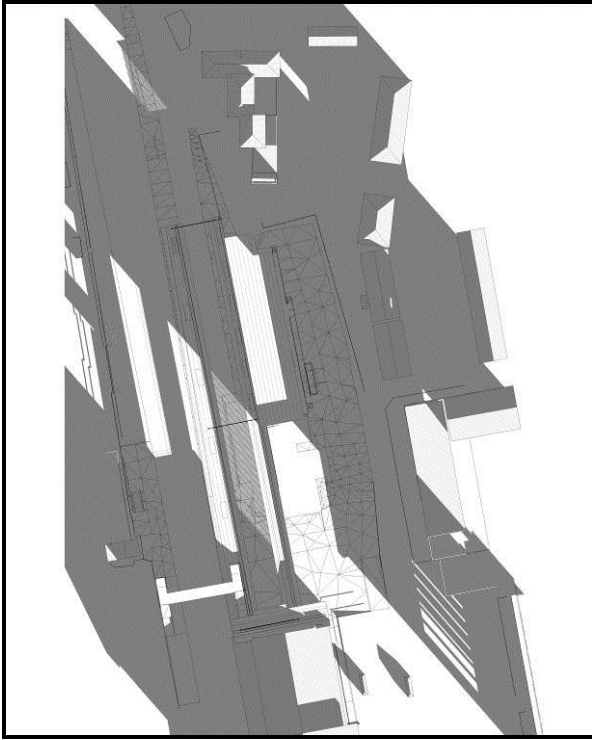
Summer 12am Proposed



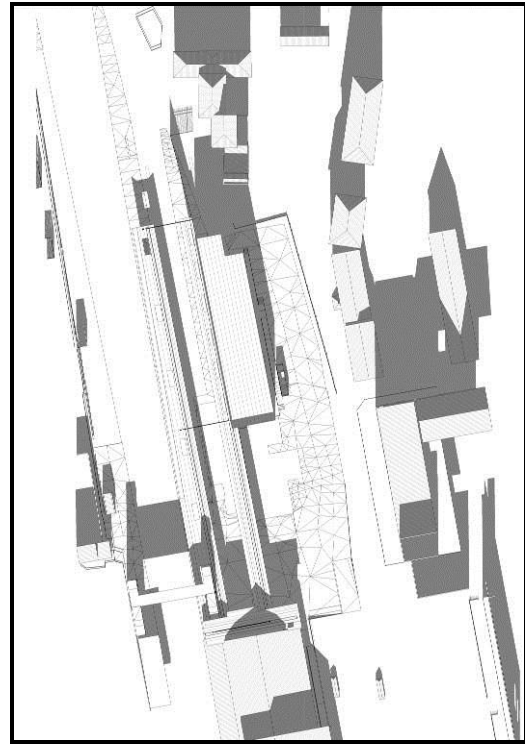
Summer 3pm Proposed



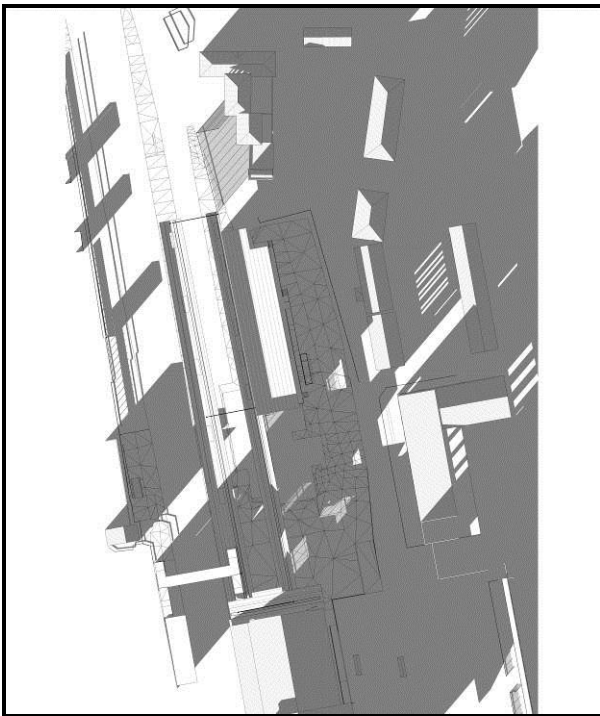
Summer 6pm Proposed



Winter 9am Proposed



Winter 12am Proposed



Winter 3pm Proposed

8.0 CONCLUSION

We recommend that the option 4 is adopted as the scheme to progress & propose as a planning amendment.

Option 4 gives the following advantages:

- ✓ A full reduction in shadows.
- ✓ No increase in the building footprint.
- ✓ Car parking and vehicular access remain unaffected.
- ✓ The platform / building floor level interface remain as the original scheme.
- ✓ No detrimental impact on the operation of the building.
- ✓ The design amendment will be viewed favourably by the Planning Committee.
- ✓ The building position does not have an impact on the potential masterplan scheme.

Option 4 has the following disadvantages:

- ✗ A loss in floor area.
- ✗ The FGW from Phase 2 cannot be accommodated, thus requiring temporary accommodation.
- ✗ The layout will need to be redesigned to suit loss of first floor area.
- ✗ The layout of building zones could become more fragmented from the original layout.
- ✗ The elevational treatment of the building will need to be considered and may look different from the original planning drawings.
- ✗ The construction phasing & sequencing will differ from the original scheme.

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