



# Better Barnsley Town Centre

## - Midland Street and Interchange Square Design Development

### Design And Access Statement

# Introduction

This report is to be read in conjunction with the initial Stage 2 and DAS reports prepared as part of the works to Midland Street, Interchange Square and the Pedestrian Bridge.









The purpose of this report is to highlight the key design development changes that have occurred to Midland Street and Interchange Square and the reason for those amendments.

Some information from the previous Stage 2 Report has been copied into this document for reference and to provide an understanding of what drove the initial designs and layouts.

1. The taxi rank should be relocated to Eldon Street
2. Servicing access is required for the interchange / Eldon Arcade / Midland st / Eldon st businesses
3. Emergency bus access must be accommodated from the bottom end of the interchange
4. Signage to the relocated taxi rank should be considered both externally and inside the interchange
5. Co-ordination with the bridge project will be required as that scheme progresses
6. A barrier / Design feature needs to be considered along the line of the level crossing once it closes.

# Technical Parameters Plan

On the adjacent plan an illustrative interpretation of the client's brief has been done to understand the spatial requirements.

-  Existing Buildings
-  Existing Pleached Trees providing Visual Barrier to Bus Turning Head
-  Loading Bays
-  Possible landing zone for Pedestrian Bridge [exact location TBC]
-  Disabled Parking Areas
-  Taxi Rank
-  Pedestrian Access / Crossing Point to Eldon Arcade
-  Pedestrian Bridge
-  Bus Escape Route
-  Existing Gated Access to Bus Interchange Retained
-  Railway line to be blocked as part of Public Realm / Pedestrian Bridge Works
-  Vehicular Zone  
- min 3.5m wide to Midland St and Kendray Street

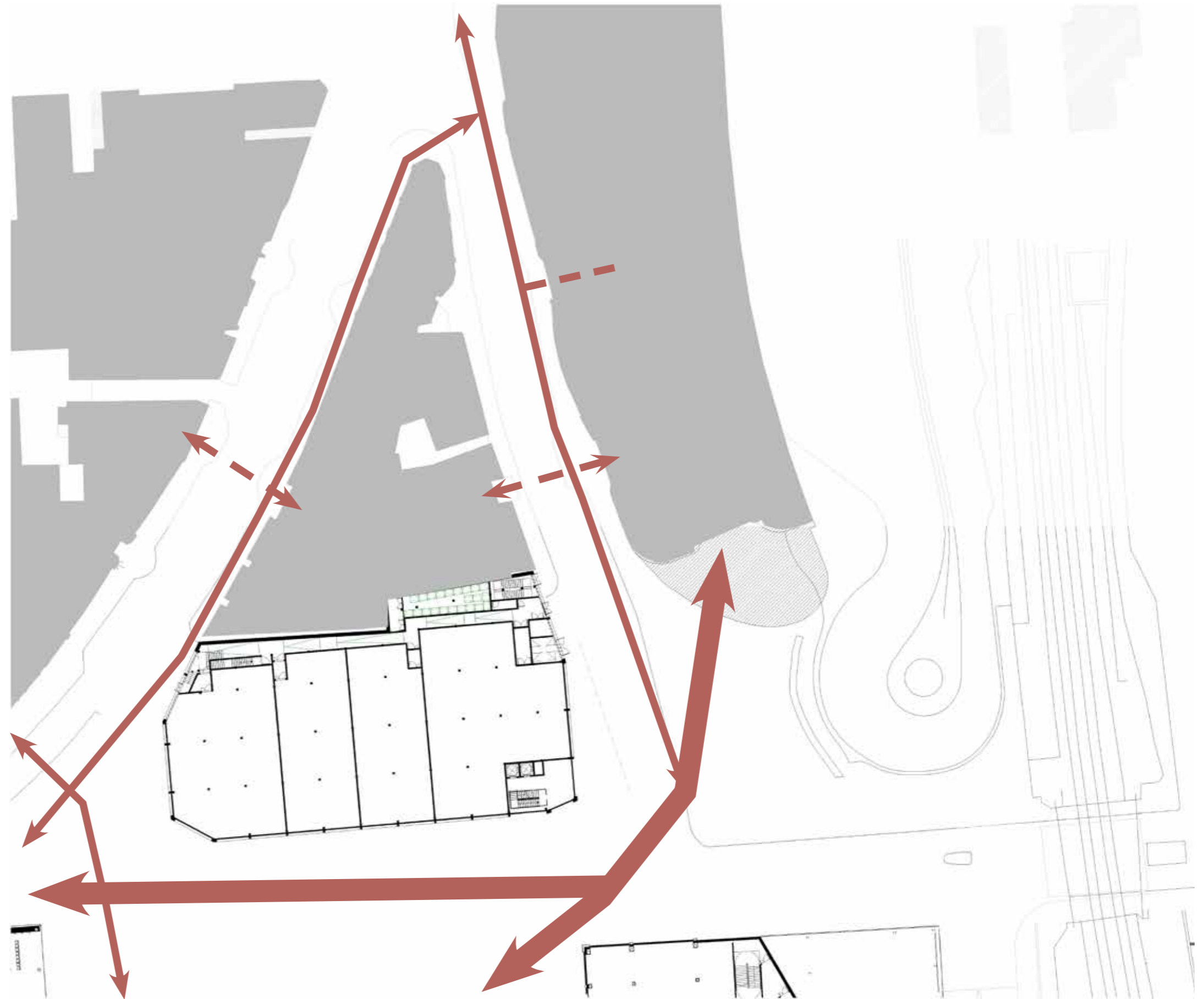


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## Proposed Pedestrian Movement

The adjacent plan shows how the proposed town centre building development will change the pedestrian movement along Midland Street and to/from the town centre. The most significant changes come to Kendray Street where proposals for Phase B [Main Square] encourages use of shared space and doesn't restrict people to the edges of the space.

- ➔ Primary Pedestrian Movement
- - - Secondary Pedestrian Movement



Copied from a previous report.

## Proposed Vehicular Movement

The adjacent plan shows how the proposals will change the movement to Midland Street, Kendray Street and Eldon Street.

Midland Street will remain One Way southwards but will be restricted to service and emergency vehicles only with taxis now using Eldon Street.

The railway crossing on Kendray Street will be closed to all traffic.

- ➔ All traffic
- ➔ Service / Emergency Access only

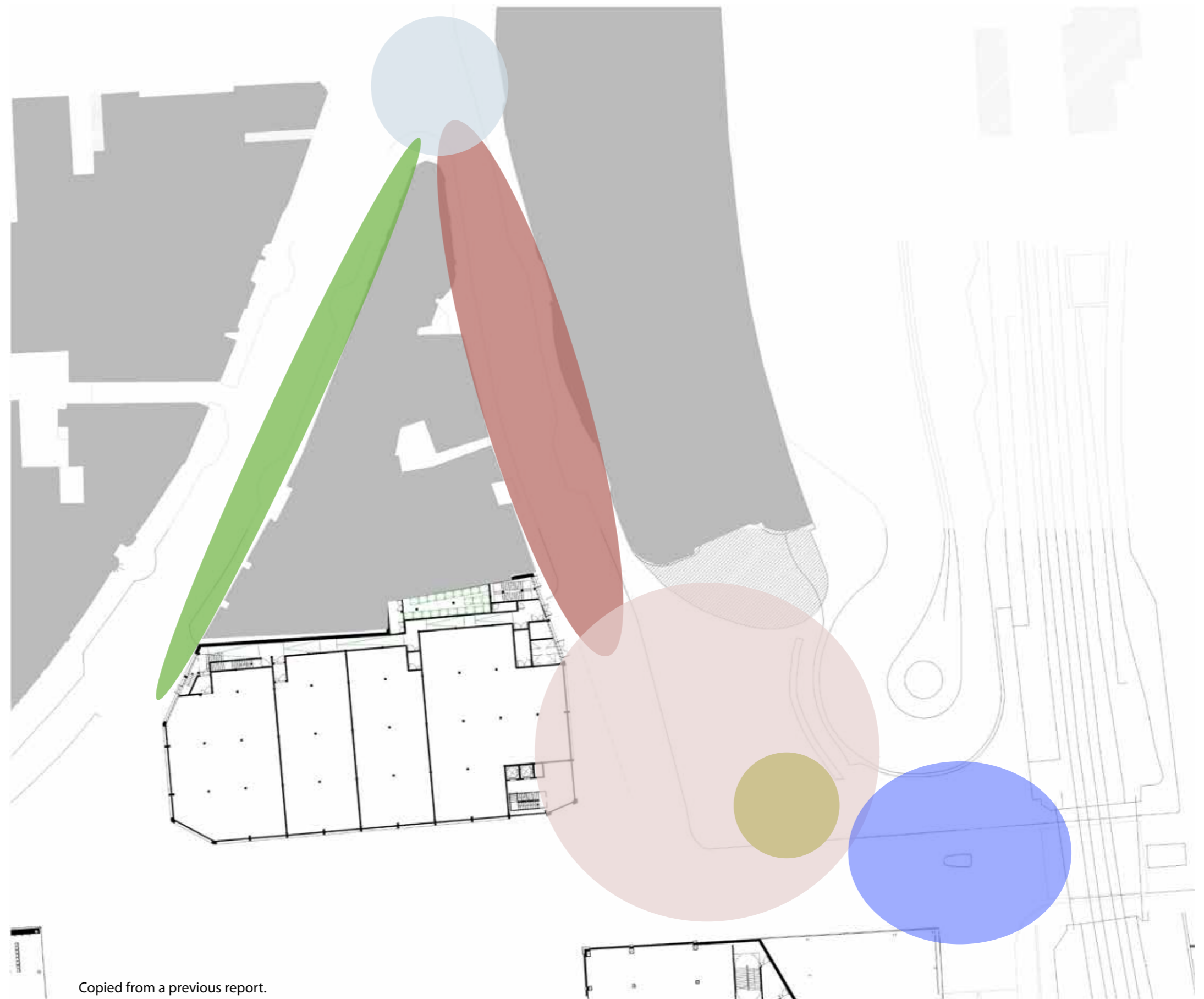


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# Character Areas

Following the client brief an initial study was undertaken to understand the different zones and character areas that need to be considered.

- Lower Kendray Street:**  
 A difficult area to address and design due to closing it off to vehicular movement through this space. By closing off the railway crossing and access to the service road, there will only be emergency bus escape route required from the Interchange. With no buildings or land uses in this space and the potential of the pedestrian bridge going overhead, this area is in danger of becoming an underused space with a risk of unsociable activities. Especially given the proximity to the Interchange and lack of Natural surveillance.
- Southern Gateway - Interchange Square:**  
 The main pedestrian gateway space to the town. Needs to be a high quality arrival space and legible for people to navigate through to the rest of the town centre.
- Northern Gateway - Eldon Street / Midland St Junction:**  
 This zone has been treated with new paving but with the re-configuration of vehicle movements with access only down Midland Street. This space has an opportunity to become more pedestrian focussed and reduce the visual impact of the standard carriageway junction
- Pedestrian Footbridge Landing Zone:**  
 The bridge will form the dominant feature within this space. How it interacts with the public realm will be key.
- Midland Street:**  
 This street has an opportunity to become much more pedestrian friendly. With taxis being moved onto Eldon Street and only service vehicles and emergency vehicles permitted access only southwards. There should be more space to widen footpaths and improve the pedestrian environment that will facilitate movement in and out of the Interchange and Eldon Arcade.
- Eldon Street:**  
 The Taxi rank is to be moved from Midland Street to Eldon Street but utilising the existing bays currently for Loading. An extension at the southern section may be required.



Copied from a previous report.

# Concept Plan : Midland Street and Interchange Square

1. Proposals to tie in with existing Public Realm works completed along Eldon Street. Taxi waiting area to potentially move from Midland Street to Eldon Street
2. New Pedestrian priority gateway to the northern end of Midland Street
3. Loading bays proposed along length of Midland Street
4. Wide pavement created to eastern side of Midland Street
5. Vehicular access narrowed and pedestrian crossing point proposed to create link from Interchange into retail units opposite
6. Main Entrance to Interchange
7. Defined pedestrian route towards Town Centre
8. Existing metal statue [possibly re-located]
9. Potential landing area for proposed future pedestrian bridge to be determined. Indicative area shown. Design to in-corporate ways to aid pedestrian movement towards bridge as appropriate.
10. Phase C proposals to tie in with Phase B proposal as appropriate. Programme of works to be considered as part of this.



Concept plan as presented as part of Barnsley Public Realm Phase B Stage 2 Report. Please refer back to document for further details.

Copied from a previous report.

# Interchange Square Option A Concept Plan

This layout option takes inspiration from the organic form of the Interchange building and overhead canopy. By placing three 'oval' shaped raised planters within the square to subtly control and guide pedestrian and vehicular movement through the space. They offer seating opportunities and an elegant contrast to the angular, craggy character of the Main Square. These planters offer similarities to the raised planters at Northumbria University.

Directional paving can also aid legibility and connect the Interchange with the Town Centre.

We have proposed an early suggestion on the Pedestrian Bridge. Using the option B landing zone from the previous page/diagram. The bridge allows for two curved stair cases that direct movement to and from both the Interchange and the Town Centre. The space between these two staircases could be utilised by retail units that would create an active frontage to the square and also a lift for universal access to the bridge.



Copied from a previous report.

# Interchange Square Option B Concept Plan

This layout option looks at trying to create a green oasis with swathes of planting beds. Whereas option A is predominantly hard, this option is aiming to create a softer feel to the space. We have taken inspiration from Angel Square, Noma in Manchester which has large planting beds and benches around the edges. Pedestrians are required to meander between the planting beds, however these are still relatively direct routes between key destinations.

Subtle changes in paving units can guide people through.

We have retained the bridge option from the Option A layout Plan



Copied from a previous report.

# Interchange Square : Design Development

Jan 2018

The initial layout for the Interchange area was prepared with consideration given to many of the constraints and issues as shown on the previous pages. The space became very important for the town centre as it was an arrival area for people using the Bus and Train connections into the town centre but it is also the point that people first see when arriving into the town centre by foot over the new bridge.

From the entrance of the Interchange, views can be seen over the square and into the main sq.

As part of the wider Better Barnsley Town Centre scheme, it was agreed with the client that as much of the existing vehicular traffic using this space should be removed and that the strategy to help achieve this involved moving the taxi rank from Midland Street onto Eldon Street. All vehicles other than emergency and service vehicles would then be allowed to travel through here. This allowed the whole of Interchange Square to be focused on pedestrians and turned into a shared surface space with high quality materials, bespoke street furniture, planting areas and flush or no kerbs.

Vehicular tracking information can be seen on the adjacent General Arrangement Plan which is mirrored from the Proposed Vehicular Route plan on page 5.



## Interchange Square : Design Development

Another reason for creating an open shared space within the Interchange Square area was to provide potential room to locate some of the outdoor market stalls.

Many strategies and options were explored of where to position the stalls. It was agreed in the end to spread them in small clusters across the whole town centre. The adjacent plan is an early option of how many and where they were going to be positioned. It is just the stalls to the southern side of the space that can be seen on the final General Arrangement Plan.



# Interchange Square : Design Development

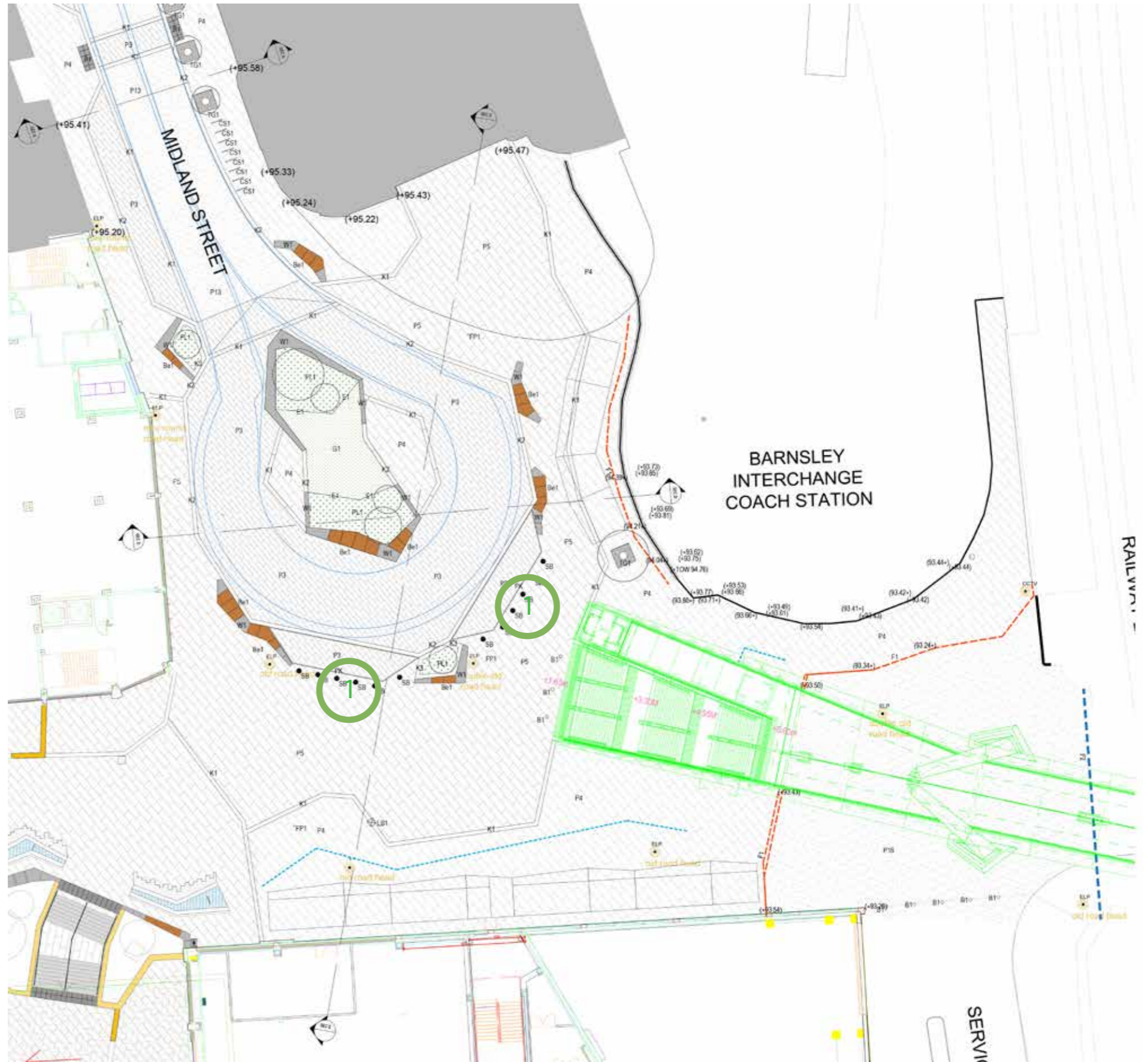
Dec 2019

After internal reviews of the Town Centre Masterplan, in December 2019 BMBC made a conscious decision to change the strategy for vehicular movement along Midland Street in order to omit all movement onto Kendray Street and the Main Square other than emergency vehicles.

Midland Street was changed to become a two-way street and vehicles were given the space to turn within Interchange Square. At this stage it was discussed that pedestrians should continue to be given priority with high quality materials shown, flush kerbs used to distinguish vehicular zones and help with directional paths. Plenty of bespoke street furniture and market stall space has been retained in this design revision to encourage people into the space. It was felt giving pedestrians priority within this option was still achievable as the only vehicles using this area would taxis and service vehicles.

This design was also to include a small zone for taxi's to use. Including a small number of bays for this purpose was seen as important due to its central location and proximity to the Interchange Coach Station and new bridge.

**1** Taxi Bays

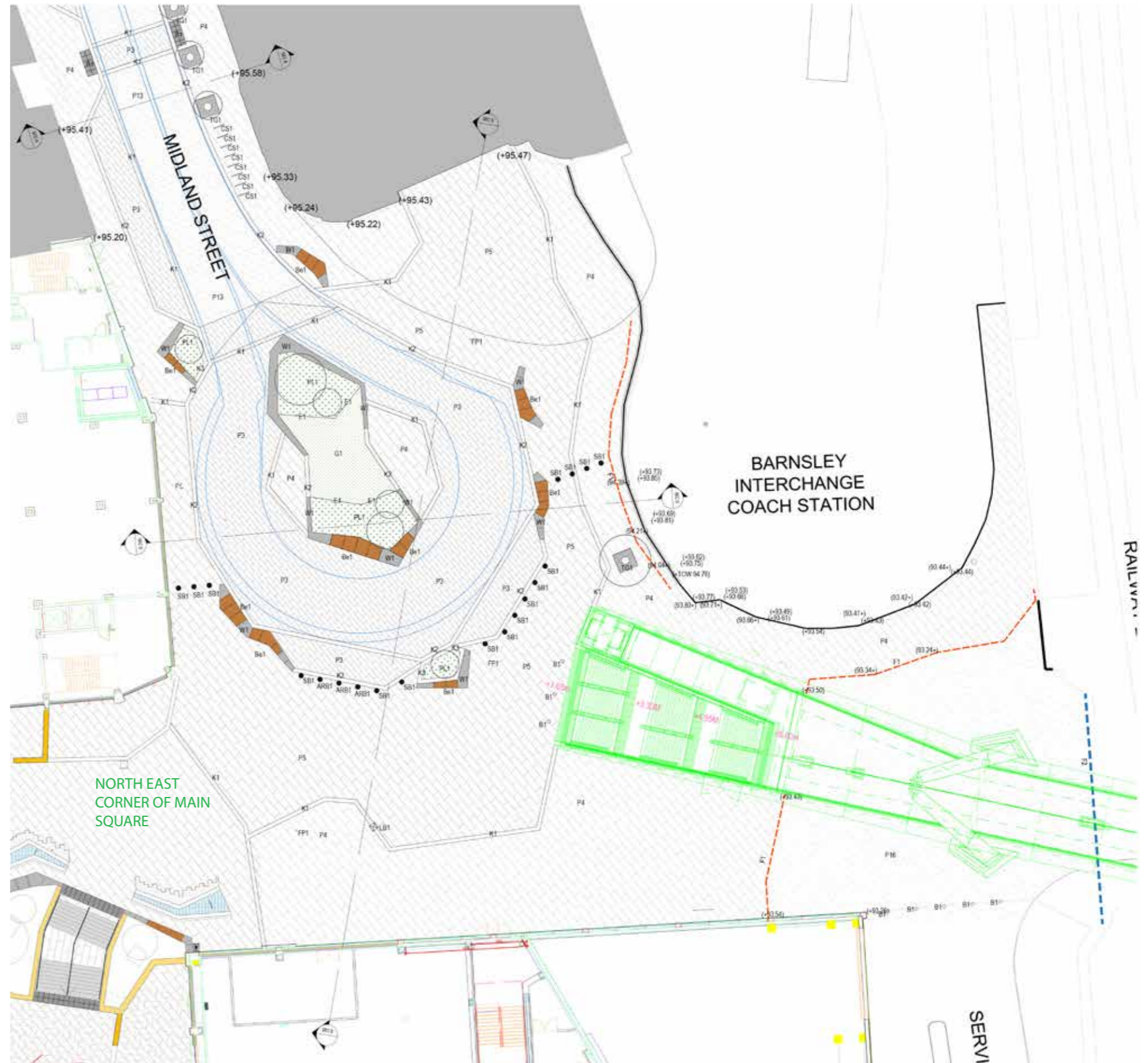


# Interchange Square : Design Development

Jan 2020

At the start of 2020, BMBC had identified a number of locations where bollards were needed having commissioned a Dynamic Vehicle Assessment. This report highlighted areas the Council wanted Hostile Vehicle Mitigation measures introduced as part of the wider Masterplan design.

The end of Interchange Square was identified as one of the locations where these measures were required. The adjacent plan shows the location of bollards which are used to mitigate the report findings.




# Interchange Square : Design Development

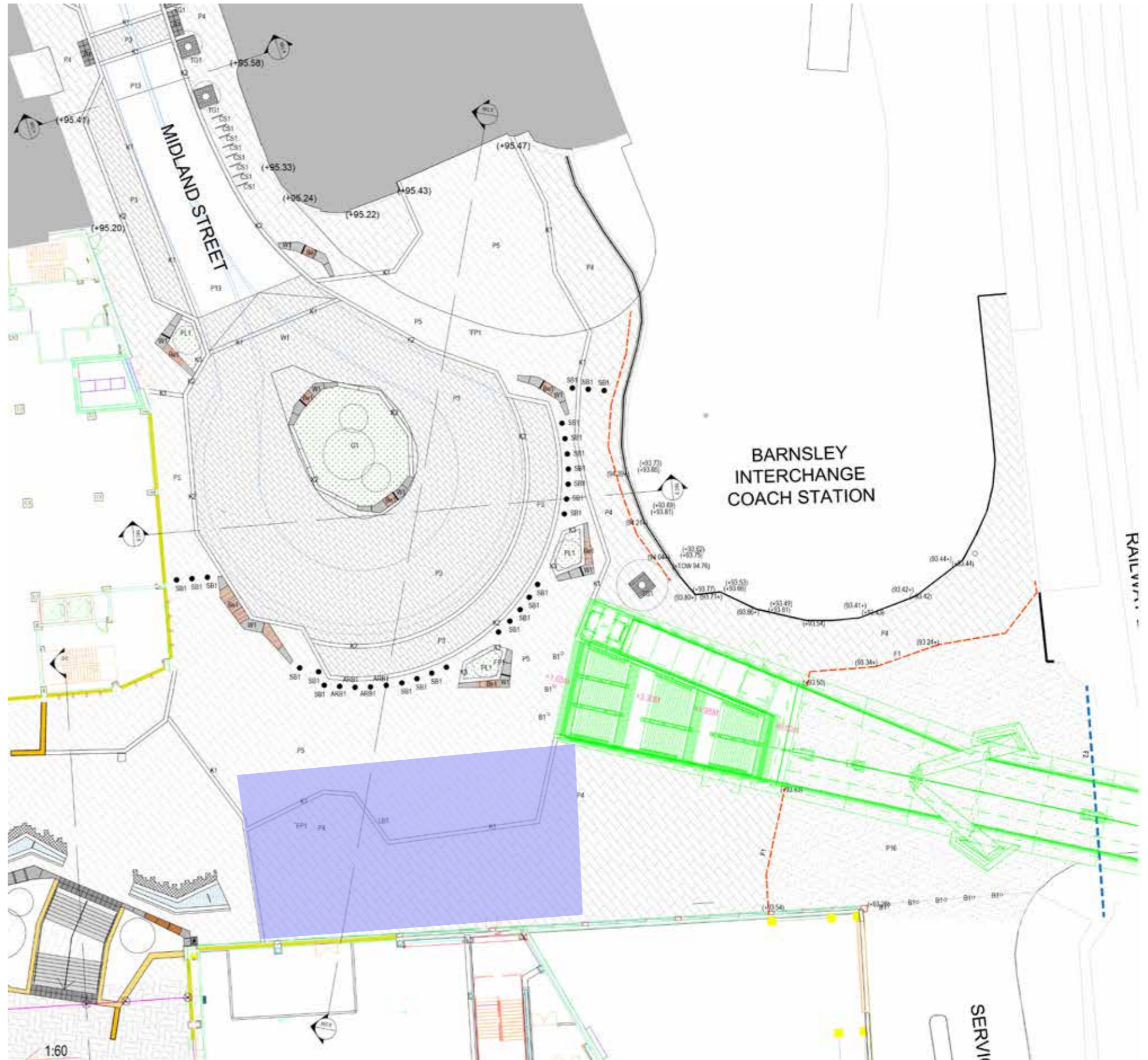
April 2020

In March / April 2020, BMBC requested changes to the design that included;

- Reducing the size of the island, thus providing more space for turning vehicles
- Providing more taxi parking bays
- Having an upstand kerb to the perimeter of the turning area but retaining the ramp on the northern side of the island and retaining block paving in the area to help slow any vehicles travelling down Midland Street into this space.

By this point in the design, the market stall positions had been removed from the plan but the intention now was for a small cluster of them to be located to the south of the space only.

 Indicative area for market stalls



# Interchange Square : Design Development


April 2020

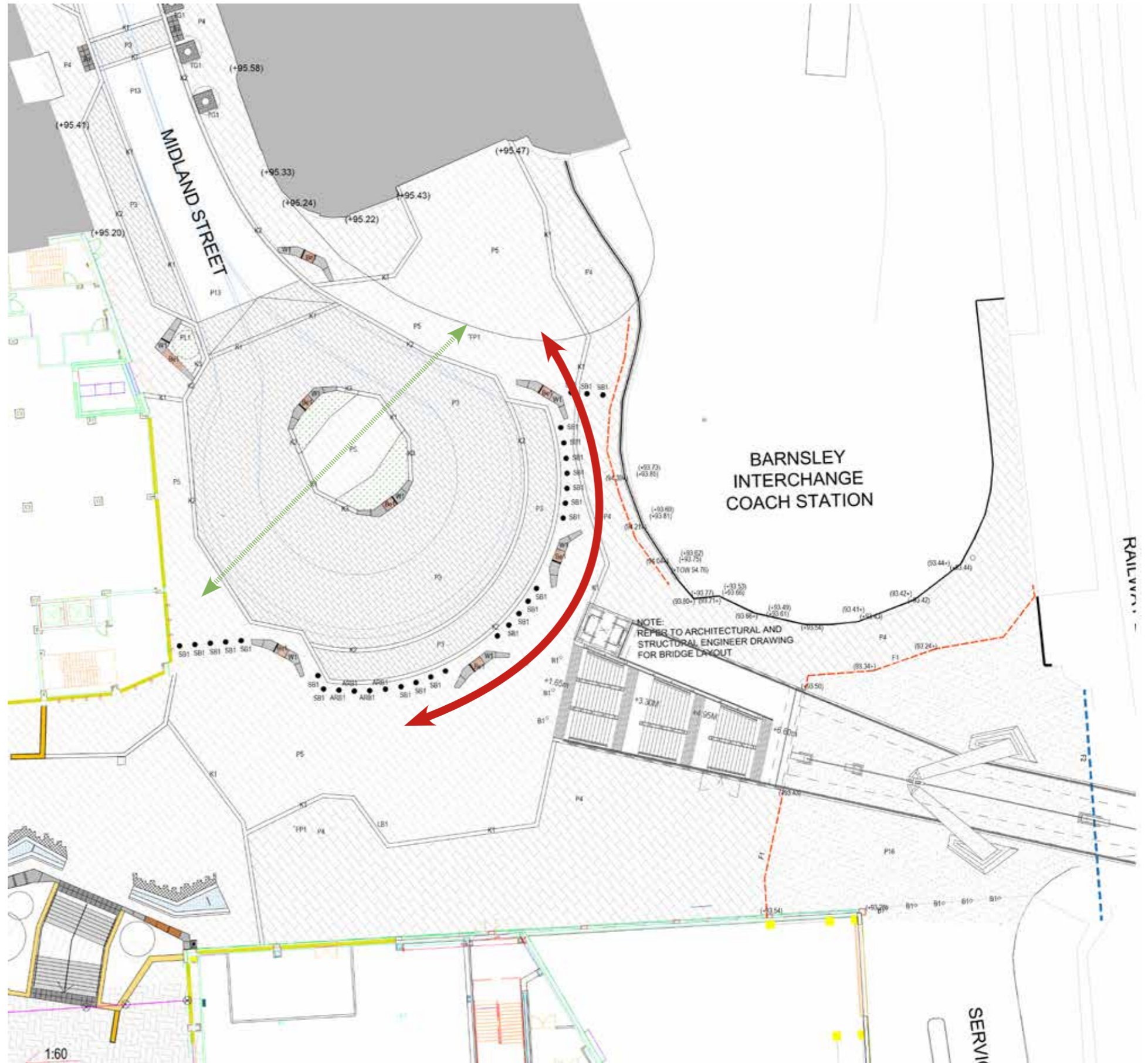
Further discussions with the Council lead to minor amendment being made to the design. These included giving pedestrians a safe direct route across the island by introducing a large area of hardstanding with planting and the granite walls retained for additional protection.

The paving was retained to the highway as part of this drawing revision to maintain the feeling of this area being a square.

The detail of the seating adjacent to the taxi rank was amended to avoid pinch points around the alternative pedestrian route.

 Direct Route

 Alternative Pedestrian Route




# Interchange Square : Design Development


**Oct 2020 - Present**

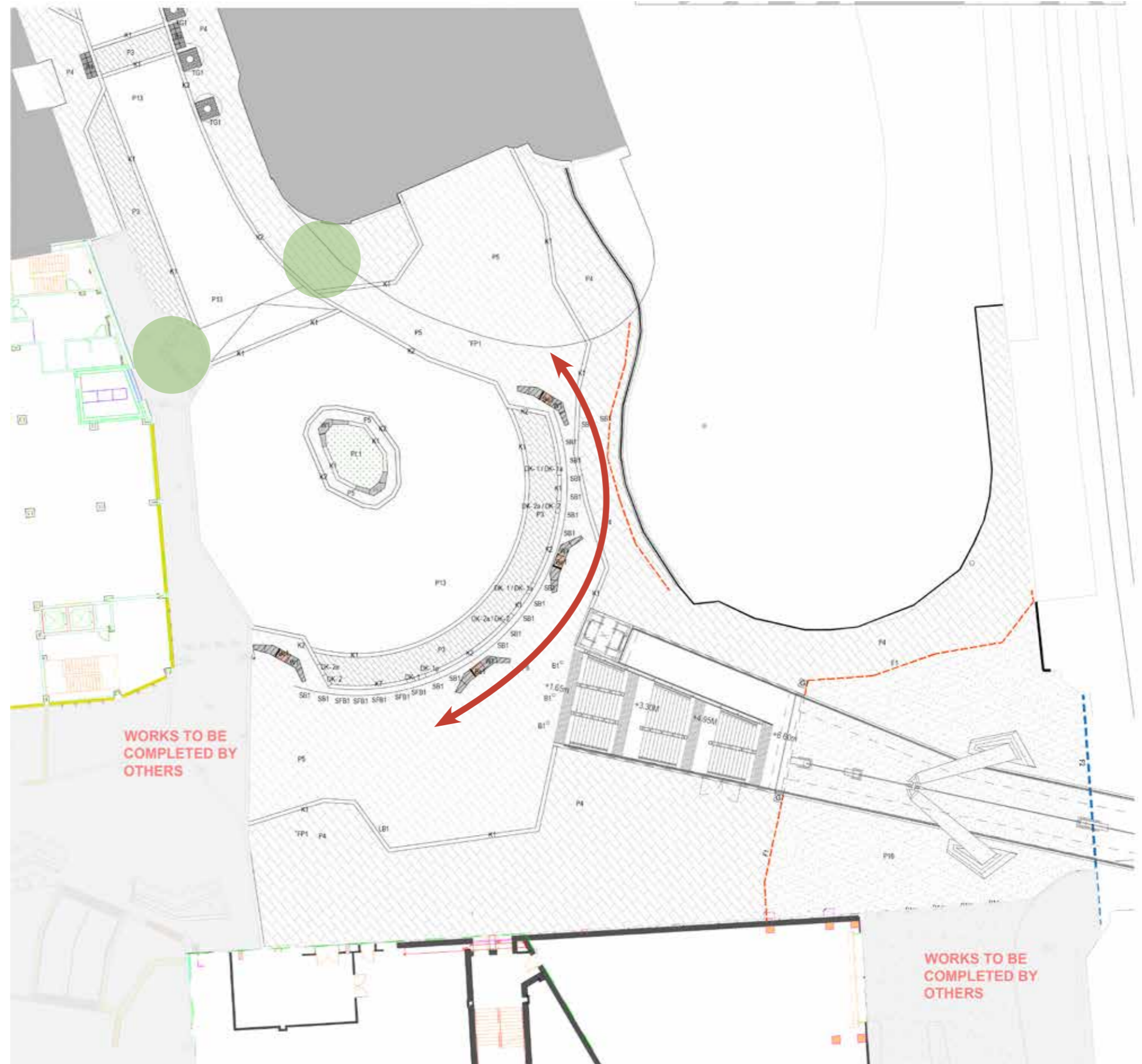
Following a Road Safety Audit commissioned by the Council, further design amendments were made to keep pedestrians away from the turning circle itself and encourage movement around and behind the taxi bays. The following design amendments were made to respond to the audit;

- the upstand kerb to the perimeter is retained
- the surfacing of the turning area was amended to tarmac to suit the surfacing used along Midland Street
- the island was made smaller to create more room for vehicles to turn in the space and to discourage people from crossing diagonally
- some of the bespoke street furniture and tree planting were omitted to provide more space for pedestrian and vehicular movement at locations either side of the ramp in the highway

It was agreed with all parties that the works immediately adjacent to ZA building would be undertaken as part of other Public Realm phases taking place.

 Street furniture and planting omitted

 Pedestrian Route



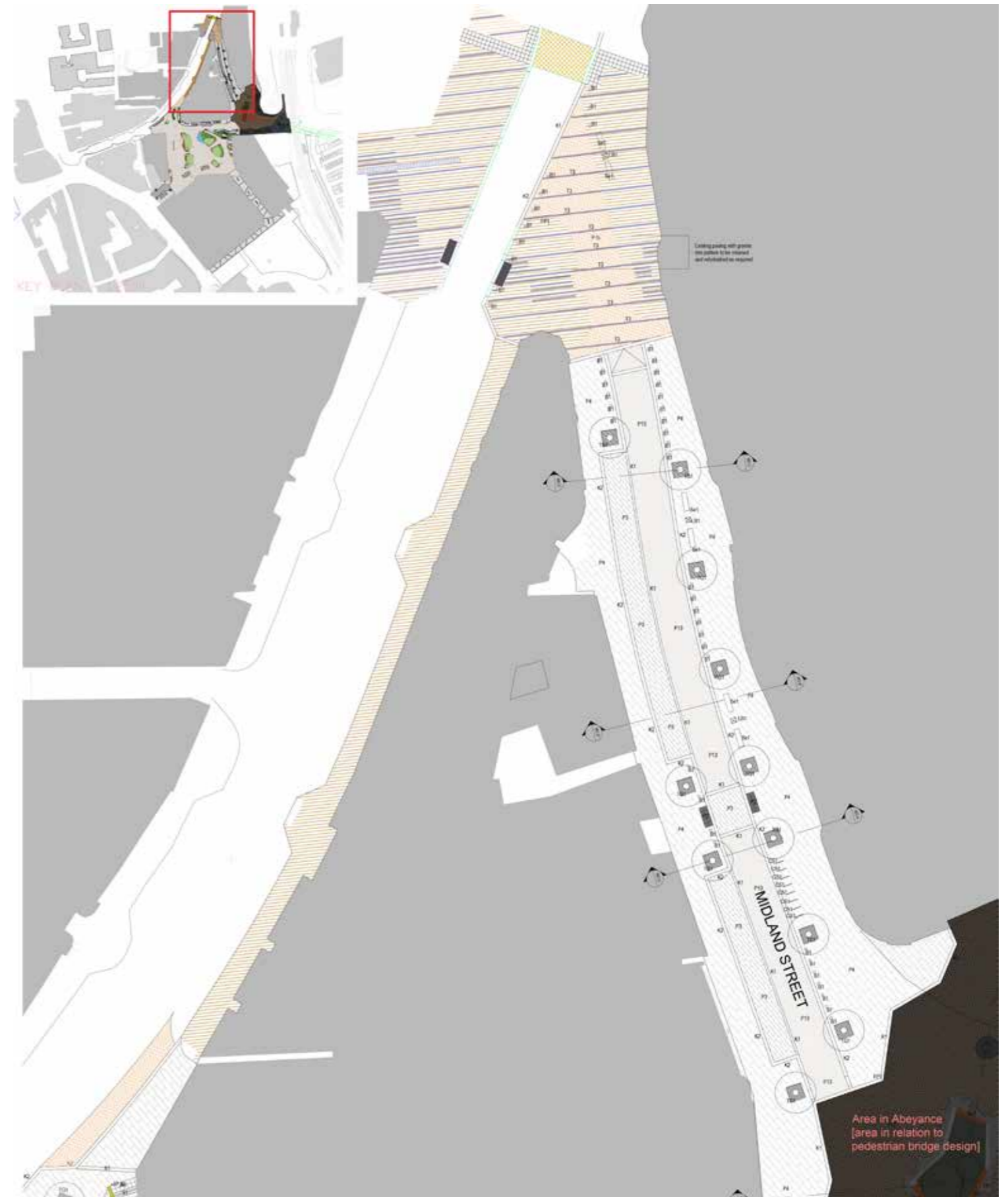
# Midland Street : Design Development

Feb 2018

The first version of the General Arrangement Plan for Midland Street carried some of the same principles and materials as used to the earlier phases of work on Cheapside and Queen Street.

The northern end of Midland Street / Eldon Street had already received some Public Realm input and as a result this space was designed in a way to turn it into a shared space where the paving remains flush throughout and only a change in paving size demarcates a vehicular route through the space. The yorkstone and the paving banding detailed to the previous scheme has also been carried across the space.

Further down Midland Street, the road width has been narrowed as much as possible to maximise the pedestrian pathway width on the eastern side of the road. Narrowing the road also allowed street trees to be located along the entire length of the road whilst maintaining the loading bays and crossing point required.



# Midland Street : Design Development

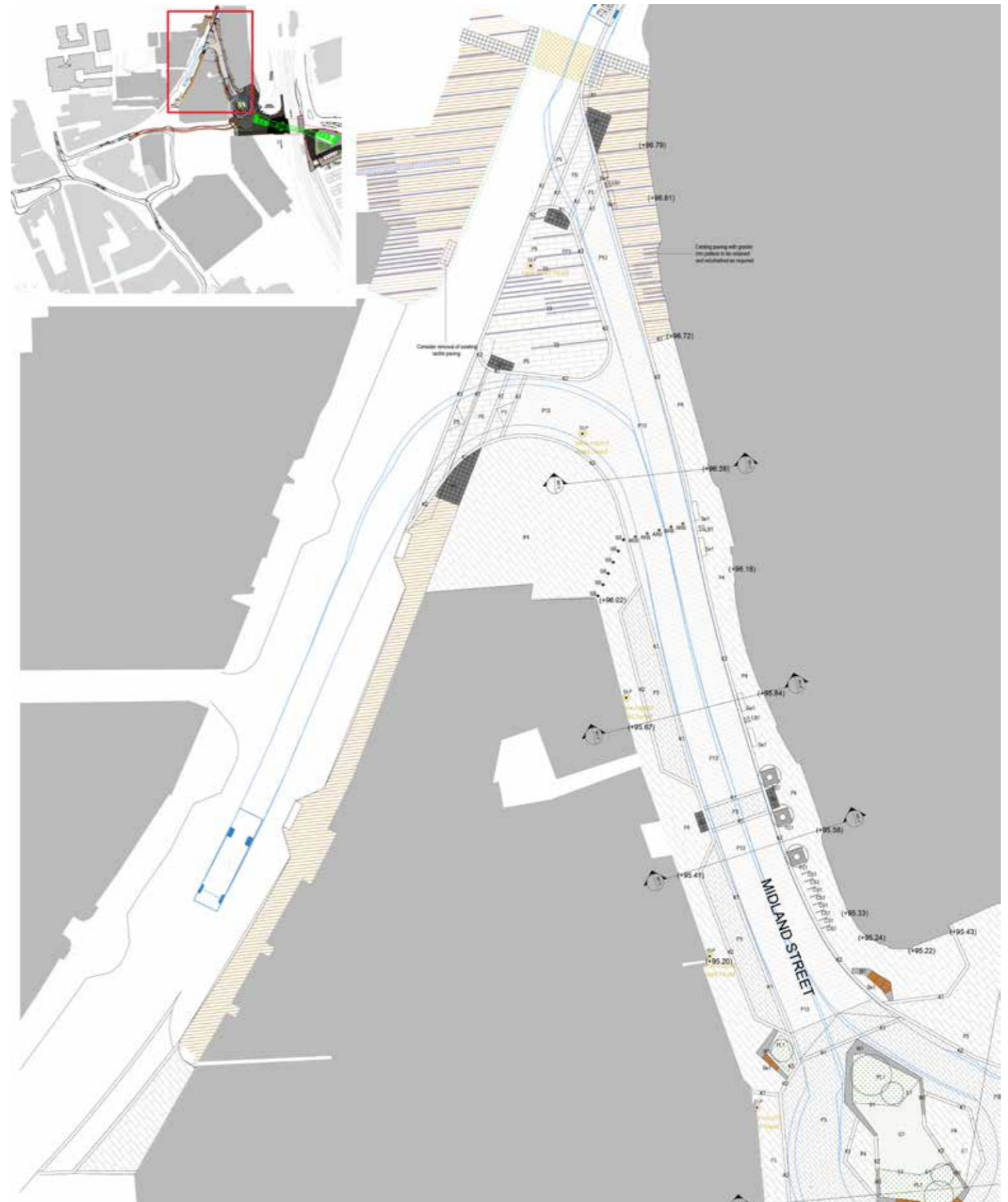
Dec 2019

It was confirmed that the Council had aspirations to purchase the Chip Shop to the northern end of Midland Street and for it to be demolished. It was felt that this would help to open up this space and create an opportunity to allow vehicles to exit back onto Eldon Street, which in turn made Midland Street a two-way road as explained on previous pages.

Vehicular tracking information undertaken by the Council informed a new kerb layout and other than where the pedestrian crossing points are shown were amended to an upstand kerb due to the size of the vehicles that would be using Midland Street.

At this stage in the design, bollards were shown to this end of Midland Street to control which vehicles could gain access.

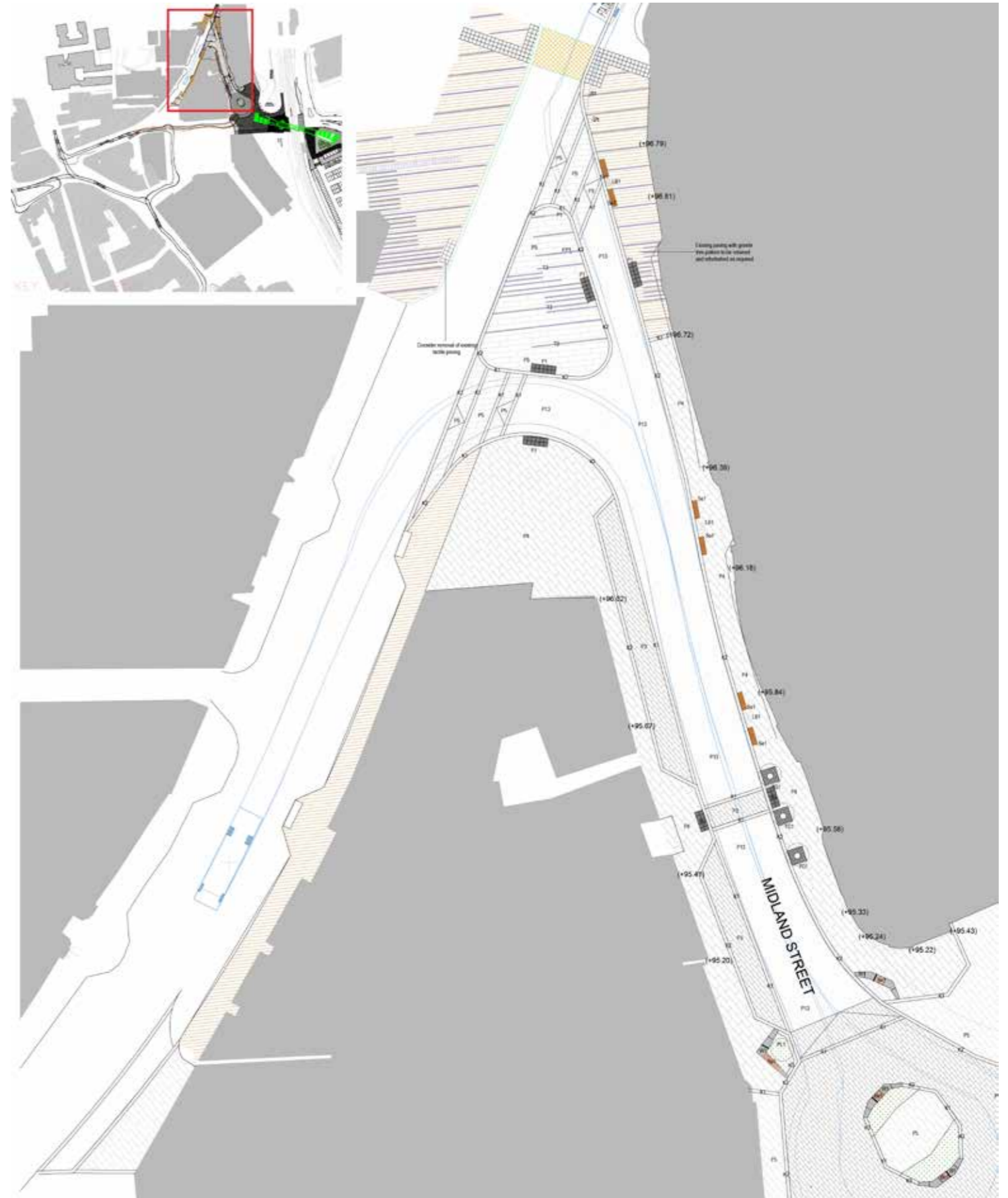
Making Midland Street as two-way as part of this revision meant the road was widened, the pedestrian paths were narrowed and the majority of the tree planting was lost.



# Interchange Square : Design Development

To arrive at the current design proposals, minor amendments have been made and included changes to the crossing point locations and the omittance of the bollards to the northern end of the road.

The large area of hardstanding to the north of Midland Street remains free of any specific use, street furniture or planting until further decisions are made by the Council outlining the brief and what the requirements are for the space.



### Interchange Square

This space has evolved from being a small square that is focused around pedestrian use, providing a welcoming gateway for people using the Interchange and Pedestrian bridge. An area where people can meet and rest but also potentially find entertainment whether that be events or markets. It was a shared space using high quality material. The series of amendments has lead it to become much more focused on vehicles and a large expanse of it is now carriageway. Pedestrian use and movement is now around the edge of the space and not through the middle of it. This has occurred to minimise the impact of vehicles [taxi's and service vehicles] taht would have otherwise have had to travel up Kendray Street and therefore through the Main Square.

### Midland Street North

Again, this space was proposed to be a small pedestrian space by trying to minimise the amount of vehicles needing to travel into Midland Street and reducing the speed at which they do travel. This space had already received some external works using high quality materials and the clients aspiration was to maintain this feel. As above, the amendments to the General Arrangement drawings has seen more focus being placed on the highway in order to control vehicles in a particular way. This has reduced the area available for pedestians to use who are now encouraged to make more use of the Main Square. The demolition of the Chip Shop may open up this space again sufficiently for a small pedestrian area to be re-introduced but this is subject to on-going studies.

Additional comments were received from Highways and the Urban Planning Officer after the design developments that have been explained on the previous pages.

In response to this, the following pages have been prepared to highlight some further considerations and constraints but to also show some opportunities of how the current design could be amended to alleviate some of the concerns.

### Highways Comments

- Consistent kerb line arrangement across the highway works and general arrangement plans that reflect the swept path – both planning copies do not reflect the swept path arrangements so I would be grateful if these could be supplied to both myself and Jason (copied in).

[To be confirmed with receipt of Highway drawing](#)

- Amendment of the 'highway works' plan so that the bushes between the southern entrance of the interchange and the bridge are annotated as removed (this is the case on the general arrangement plan - BGW2\_BMB\_PB\_xx\_PN\_C\_G100\_0500 snapshot below) –

[To be completed by others](#)

- Confirmation that the SFB1 bollards are approved by the Highway Authority or instruction that necessary approvals from the Highways Authority still need to be gained.

[All bollards with reference SB1, SB2 or SFB1 are part of the wider town centre Hostile Vehicle Mitigation scheme. Proposals have been prepared for this work with outstanding questions. It has been confirmed that these works will be submitted for planning under a separate planning application](#)

- As there are a lot of plans to consider with the potential for subsequent amendments, I would be grateful to receive a plan and supporting document register.

### Urban Planning Officer Comments

In summary my concerns were that the proposals for Interchange Square and for the area where the fish and chip shop on Eldon Street had been demolished were just empty, desolate spaces. They were not welcoming spaces for pedestrians and not up to the pedestrian-friendly standards of the rest of the Glass Works/ town centre public realm proposals. These areas form part of the first impressions of the regenerated town centre, (from the western exit of the Interchange, from the southern exit of the Interchange, from across the new pedestrian bridge and for passengers disembarking at the taxi rank), but they just seem to be characterless, 'leftover' spaces, dominated mainly by highways and then, secondly, by empty paving. The mining artwork and the pedestrian bridge appear to be left desolate in this featureless setting. I reminded them that the rest of the Glass Works scheme had been winning awards and so it was important that these two areas felt joined-up and integrated with the rest of the scheme- not appearing as 'weak' links.

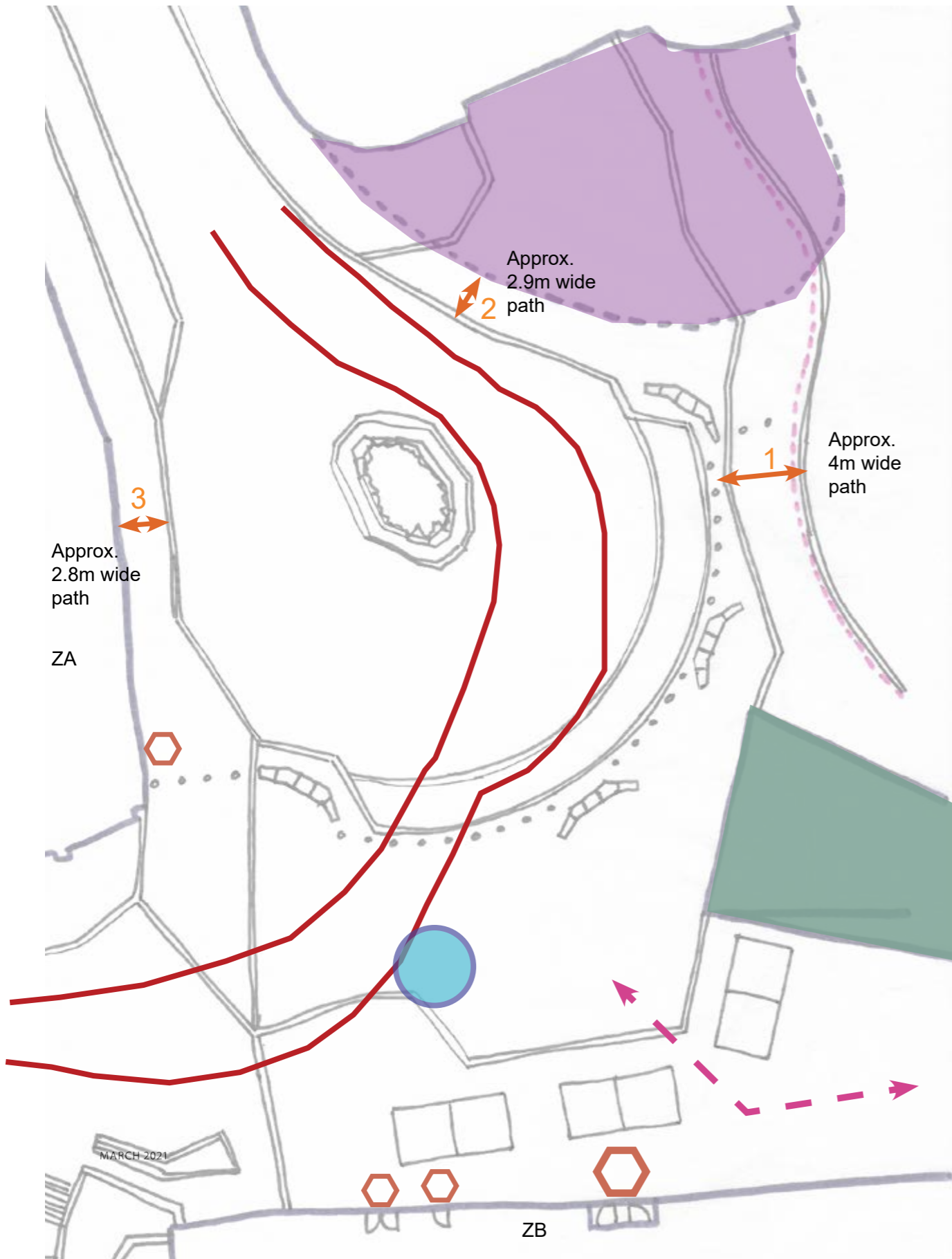
Among my suggestions were to add more trees into Interchange Square, (even if they had to be in planters due to underground service restraints), to help guide pedestrians to walk more safely in the direction of the adjoining, main public square, (rather than straight across the taxi rank/ servicing area in the centre of Interchange Square), to help soften and alleviate the base of the 'cliff-like' side elevation of the cinema, to provide a better setting for the mining artwork, (so it's not just surrounded by blank, empty paving when it's a non-market day and the temporary market stalls are not there), and to provide a better setting for the pedestrian bridge.

I also suggested that they re-look at the arrangement of the yorkstone paving so that it guides pedestrians leaving the southern exit of the Interchange more strongly along the side of the square and into the adjoining, main public square, (rather than guide them across the taxi rank/ service road in the centre of Interchange Square).







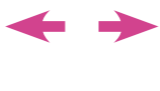


For the area left by the demolition of the fish and chip shop on Eldon Street I said that when this demolition was first mooted we were informed that it was proposed to provide a more welcoming gateway feature into Barnsley from this western exit of Interchange. However, from the current layout plan all that seems to have occurred is that a new left hand turn of highway has been provided out of Midland Street and then the rest of the new area will just be left as a big, empty space. Carl explained that Andrew Osborn thought that there was a possibility that in the future the buildings of the covered arcade, (linking the Interchange/ Midland Street to Eldon Street), may be redeveloped and so didn't want to make changes to this space which could then have to be redone. I responded that even putting some trees in planters as a temporary solution was better than leaving it as a big, empty space.

I said that if this public realm plan for Midland Street was put in front of the design panel, (the proposals for the Glass Works scheme has been to a total of eight design panels in the past), I did not think they would receive the proposals very well.

[Please see following pages with supporting information, illustrations and explanations provided to help with the above queries.](#)



The adjacent plan illustrates the constraints found within the Interchange area that are preventing the space from being more of a pedestrian friendly, inviting and attractive space.

-  Footprint of Pedestrian Bridge
-  Interchange Canopy overhang
-  Pedestrians encouraged to walk around this area to get from Interchange to Main Square. It is approximately 4m wide as shown.
-  Pedestrian footpath outside of Interchange Square canopy overhang approximately 2.9m wide.
-  Pedestrian footpath alongside ZA building approximately 2.8m wide.
-  Approximate vehicle tracking path for emergency access to Kendray Street
-  Access required through market stall locations to rear of bridge undercroft space
-  Access / egress points to ZA / ZB buildings. Consists of Emergency Access, access to plant rooms and basement level of ZB building as well as substation to ZA
-  Chosen location for Mining Artwork. This location provides sufficient below ground space without conflicting with services

**Market Strategy**

There are 6 No. market stalls proposed to the open space on the southern side of the Interchange Square. The original strategy for these stalls was for them to be permanent stalls that would be in-situ for up to 6 days a week. It has since been confirmed that the gazebos specified will be less permanent structures. However, it is understood that these stalls would still potentially be in the locations shown for the same amount of time per week [up to 6 days], restricting the space available for tree planting. Minor changes to the position of the market stalls may provide a clearer and better space for access / egress to ZB building as shown on the adjacent plan.

**Tree Strategy**

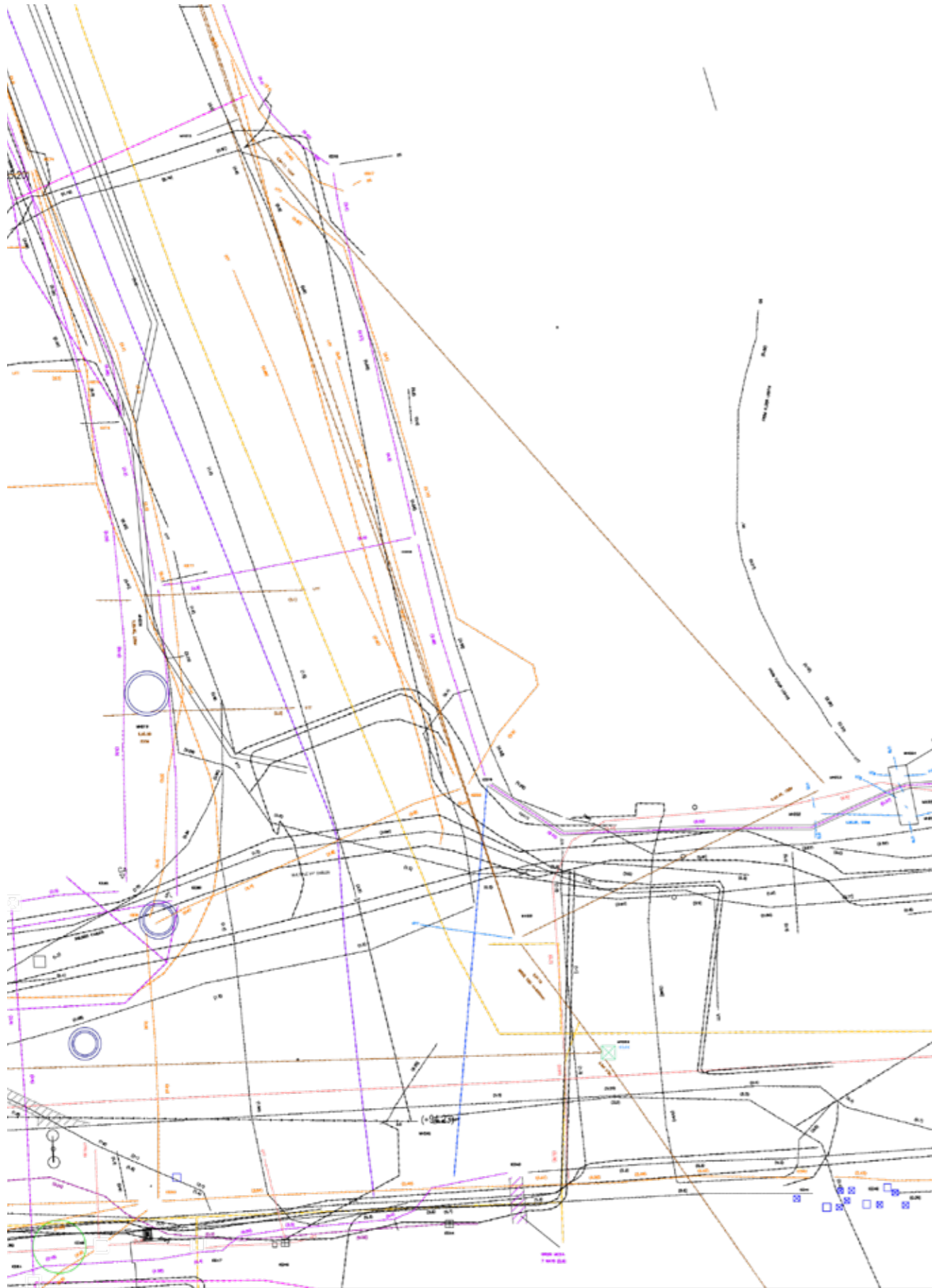
Across the wider public realm, trees have been located to avoid a number of constraints such as in-ground services and building canopies. Large tree sizes have been specified to maximise the impact from when they are first planted. Proposed trees have been given space to grow into as their canopy increases in height and diameter.

Only locating trees where they are able to be planted in the ground also allows the specification of cell systems to be included as part of the tree pit detail. This is advantageous as it helps with soil volumes and compaction, aeration, drainage and access to nutrients, all of which lead to the healthy growth and strength of the tree. The cell systems also provide a structural support for any vehicular movement adjacent to the pits. This is important as the trees have been positioned across the public realm to help control the movement and speed of vehicles along the pedestrianised areas.

The use of raised planters has been discussed previously but we would not recommend introducing tree planting in this way as;

- the raised planters will require more maintenance
- there is limited soil volume and drainage
- the trees that could be planted in them will only be able to be small trees and the visual impact from them will therefore be minimal
- the planters are likely to take up more space where there is already limited room along footpaths or there is a high chance that they will need to be moved in order to locate markets or gain appropriate access to certain areas and buildings.

Any raised planter proposed should stem from the ground to minimise the risk of tree failure long term. Suitable growing mediums and support systems should also be included.



### Existing Utilities

The adjacent plan illustrates the extent of the existing services. As with a traditional town centre street, most of the services can be found within the footways. However, the road layout is changing under the current proposals so this will no longer be the case.

It has previously been agreed that any diversions of these services should be avoided, but that some diversions may be required in order to achieve the desired outcome. This will need to be fully investigated and communicated as the design progresses.

Some of these services may have become redundant or diverted as a result of the extensive works being undertaken within the town.

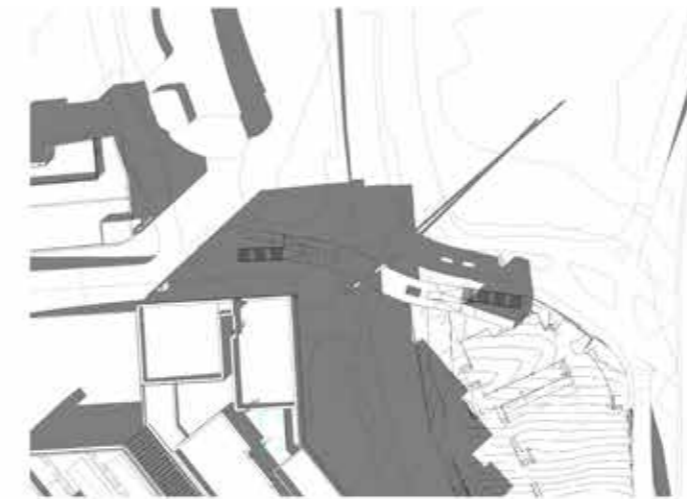
# Interchange Square - Shade Study Plans



Sun Path - Spring Equinox - 9am



Sun Path - Spring Equinox - 12pm



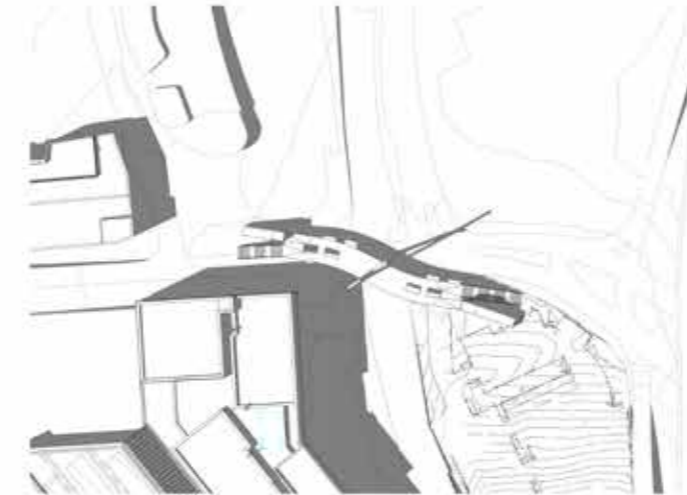
Sun Path - Spring Equinox - 3pm



Sun Path - Summer Solstice - 9am



Sun Path - Summer Solstice - 12pm



Sun Path - Summer Solstice - 3pm



Sun Path - Autumn Equinox - 9am



Sun Path - Autumn Equinox - 12pm



Sun Path - Autumn Equinox - 3pm

### Shade Patterns

A shade study has previously been carried out as part of the Pedestrian Bridge works. The adjacent plans shows an early concept for the bridge. However, its landing position within the Interchange area and the size and shape of the surrounding building has not altered significantly.

### Spring Equinox

The studies for this time of year shows that there is a large amount of shade cast over Interchange Square throughout the day. The area that would receive direct sunlight would be the turning circle and the area to the northern area. The square gets more sun in mid afternoon - evening as the sun travels round and can shed light through the gap found between the new development of buildings ZA and ZB.

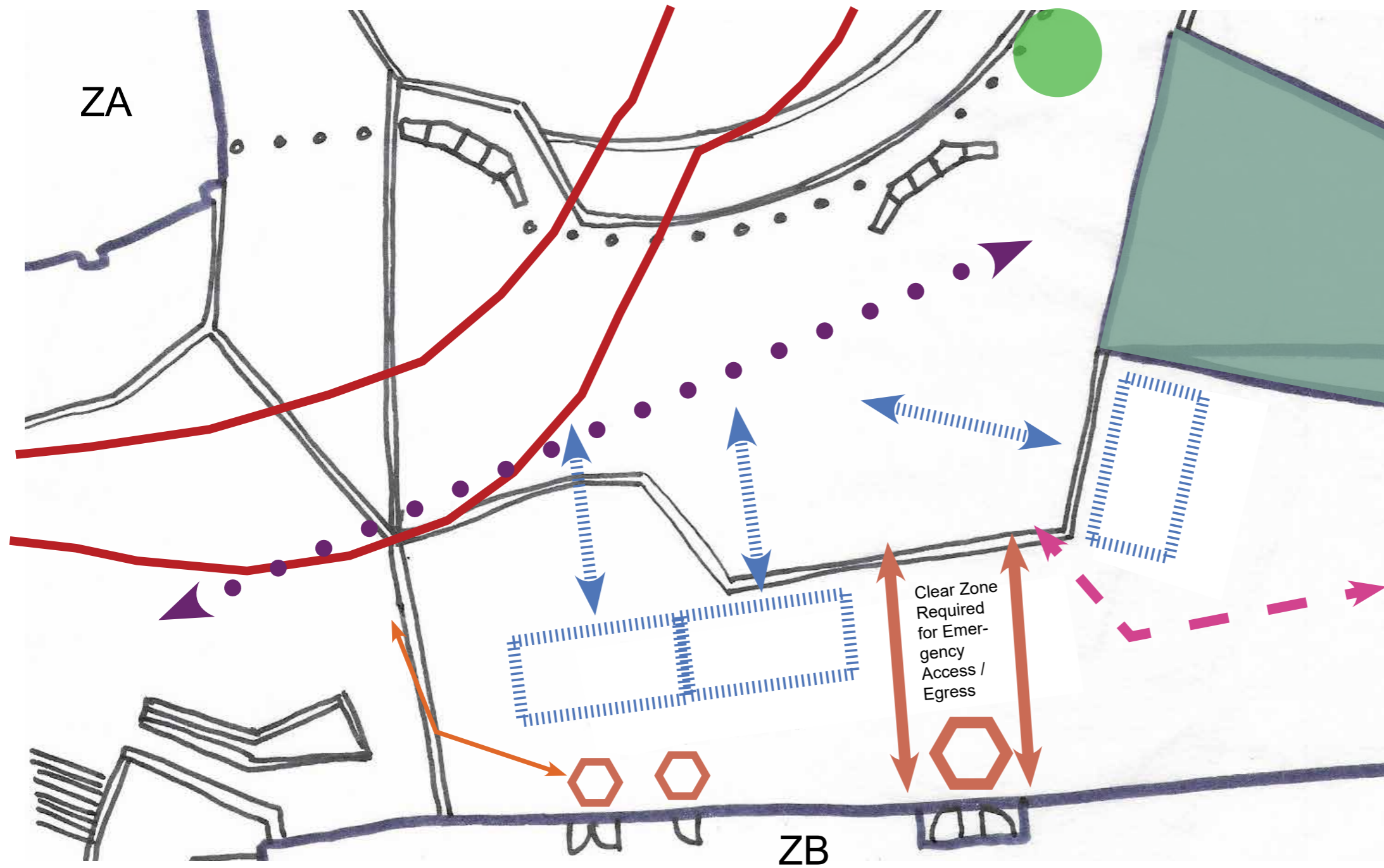
### Summer Solstice

This study shows that when the sun is highest, much more of the square receives direct light. The shade levels are reduced but due to the height of the ZB building some shade is still cast in the southern most part of the area. These sunlight levels will of course only be true for some of the year.


### Autumn Equinox

These studies follow a very similar pattern to those undertaken for the spring equinox, with a significant amount of shade cast across the southern half of the area.

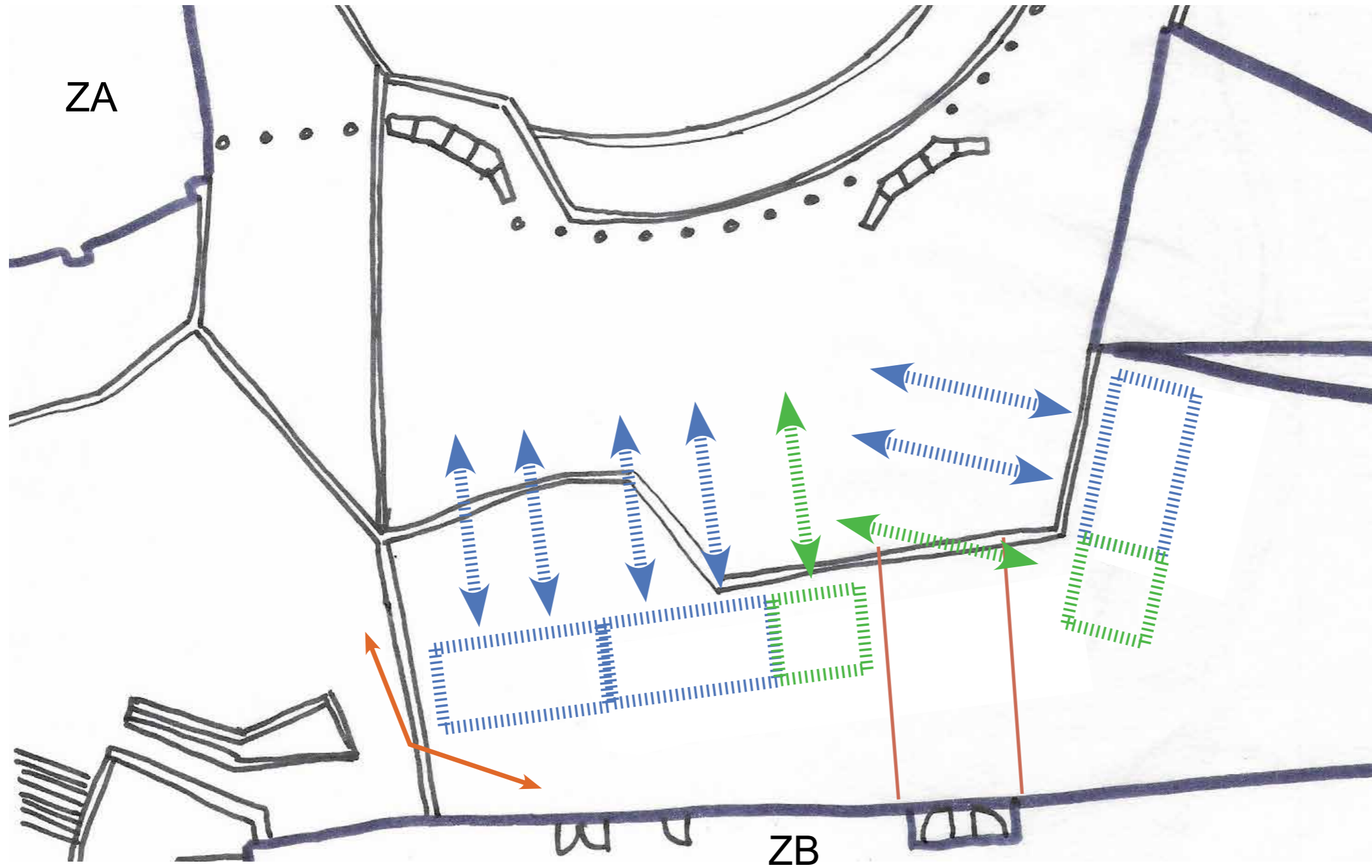
# Interchange Square : Detail Plan







The adjacent sketch plan should be used to help illustrate in more detail the response to planning comments regarding softening the facade of ZB building and the restriction that limit the proposals that would be possible.

-  Footprint of Pedestrian Bridge
-  Market stall positions - minor changes to locations to maximise space behind for access to building and bridge
-  Market stall access and visibility
-  Approximate vehicle tracking path for emergency access to Kendray Street
-  Clear line of sight retained from Main Square to Pedestrian Bridge
-  Access / egress points to ZB building
-  Access required through market stall locations to rear of Pedestrian Bridge
-  Access required around market stall locations from / to emergency exit of ZB building and Plant Room
-  Possible additional tree position.

# Interchange Square : Market Stall Locations



The previous page showed the proposed market stall positions as has currently been agreed. These locations have also been shown on a plan and used as information to discharge planning conditions associated to the public realm works. It has been confirmed that there is aspiration to have room for additional market stall locations as shown on the adjacent plan. This would mean condensing the stalls currently planned to bring them closer together and using more of the space available here.

-  Proposed Market stall positions - minor changes to locations to maximise space behind for access to building and bridge
-  Market stall access and visibility
-  Possible additional Market stalls
-  Access and visibility of possible additional Market stalls

# Interchange Square - Tree Strategy



MARCI


The adjacent plan and the details provided below illustrate where tree positions have been considered in an effort to provide interest, colour and soften building facades and interfaces with vehicular movement from the interchange and railway.

1 & 2 


Space here for two tree positions that could replace some of the existing trees that are shown to be removed. These tree positions would narrow the width of the pathway around the turning circle from 4m to approximately 2m.

3 


This location was shown previously under an earlier revision of the Interchange Square General Arrangement Plan. Shade levels, services and access around the north side of the bridge and onto the railway platform needs to be considered with this position.

4 

This tree position would be directly in front of the pedestrian bridge lift. It is important to ensure sufficient waiting space for taxi's and the lift is provided whilst maintaining a through route for pedestrian movement.

5 


There is an area here where the pathway widens and may be appropriate for an additional tree. However, the wind exposure funnelling between buildings ZA and ZB may be detrimental to the trees health and longevity. Also, the location of this tree is close to the entrance of the ZA substation and will therefore hinder access.

6 

There is plenty of space here where an additional tree could be located. This tree could offer some dappled shade to create a more inviting seat position. As above, the wind exposure funnelling between buildings ZA and ZB may be detrimental to the trees health and longevity.

7, 8 & 9 

All three of these tree positions would create a linear avenue helping to guide people from the Main Square to the bridge and then beyond up to the Interchange entrance. However, these trees will be in shade for a significant amount of time, could also be exposed to winds funnelling between the buildings and described above and would obstruct market stalls setting up, visibility and access here

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Visibility across the turning circle is required. With potentially large vehicles using this turning, even trees with a clear stem may not provide suitable visibility.

# Interchange Square : Tree Strategy - Suggested Improvements



Suggested additional tree positions.

These need to be reviewed against service clashes and sent to an appropriate specialist such as Green Blue Urban for tree pit details.

Some initial guidance on tree species that has been received which are more suitable for shade and exposure could include;

**Evergreen trees**

- Ilex 'Nellie R. Stevens'
- Ilex x aquipernyi Dragon Lady

**Strong growing tree that are shade tolerant**

- Acer campestre cultivars such as 'Elsrijk'
- Ulmus cultivards such as 'New Horizon'

**Narrow trees**

- Malus trilobata
- Prunus 'Sunset Boulevard'
- Ulmus 'Columella'



Amendment to proposed flush trim line to help direct people around the turning circle when exiting the Interchange from the southern exit

## Interchange Square : Summary Reponse to Planning Comments

A number of observations and constraints across this space have been identified on the previous pages which have been set out and summarised below;

### **Vehicular Movement**

Space is required to the southern half of the Interchange Square for vehicles to access Kendray Street and get close to the pedestrian bridge and market stalls. These areas will need to be kept clear at all times.

### **Market Stalls**

The market stall locations have now been agreed with the council and are shown on the sketch plans above. Despite these becoming less permanent structures, the planned gazeboes will still be erected and dismantled up to 6 days a week restricting the space further for any tree planting. We have wanted to maintain visibility of the market stalls so that the traders can always be seen.

### **Access**

An emergency exit is located on the northern facade of ZB building which needs to be kept clear at all times. There is also an access needed to the substation found on the corner of ZA building.

### **Tree Strategy**

Raised planters are possible. However, these take up more space at ground level and can cause an obstruction. The trees are also vulnerable to failure due to restricted growing conditions such as lack of soil volume and unbalanced water levels. This may lead to more maintenance. The tree species that would be suitable for growing in raised planters are likely to consist of smaller varieties that would provide much less impact against a large facade. It is likely that the planters will need to be movable too which will lead to more maintenance.

Suggested tree locations have been shown with further investigation needed before confirming any positions.

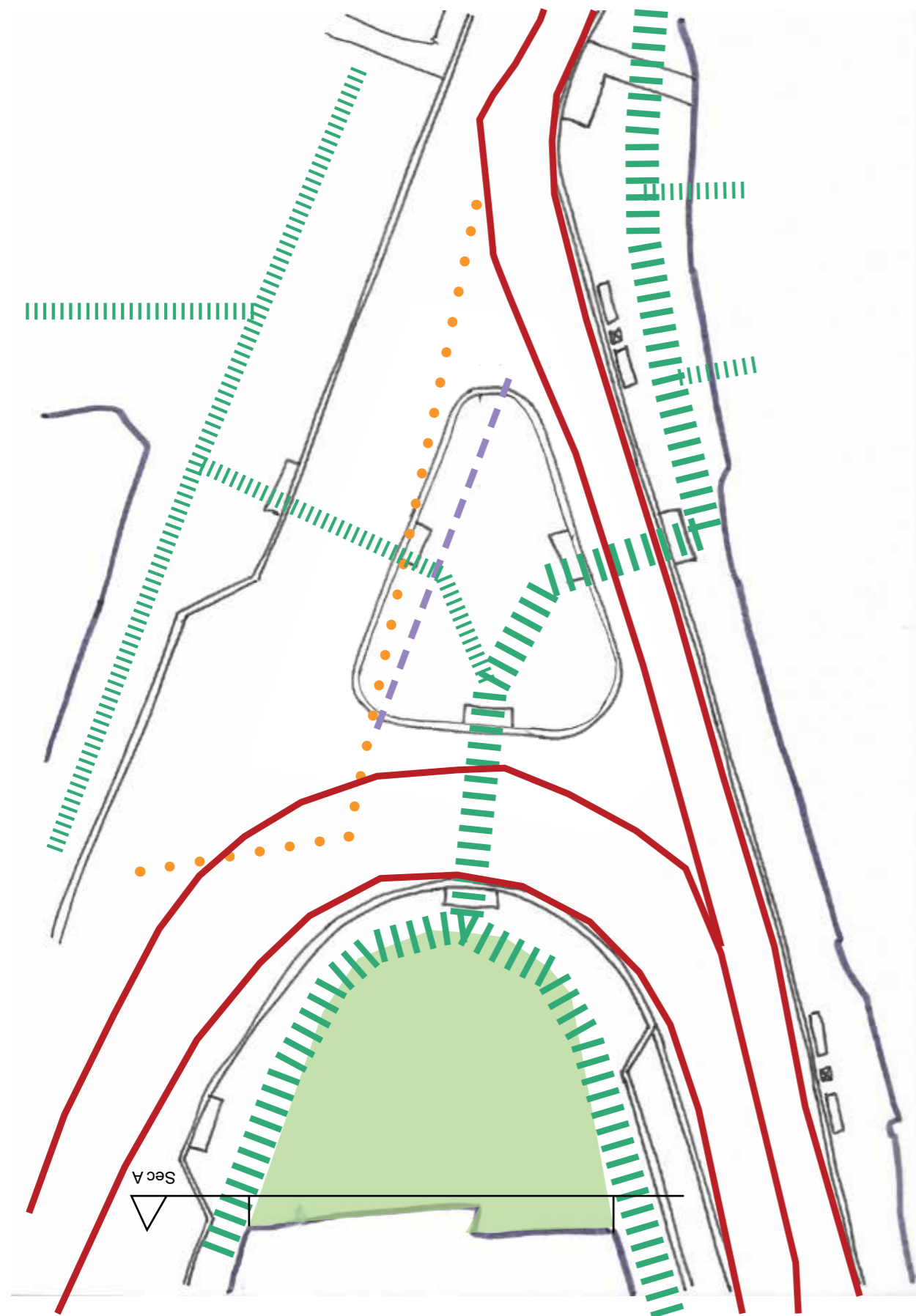
### **Shade Study Plans**

The shade study plans show that a substantial amount of the Interchange area is in shade for a lot of the year which doesn't help with tree growing conditions. Some suitable tree species have been listed but there is still a risk trees could fail, especially if wind is funnelled into the area.

### **Paving**

Simple adjustments to the paving and trims are possible to help direct pedestrians around the vehicular turning area rather than directly across. This is possible whilst still maintaining a high quality finish to one of the town's main arrival spaces

# Midland Street North - Analysis Plan



The adjacent plan illustrates the constraints found within the Midland Street North area that are limiting the space from being more of a pedestrian friendly, inviting and attractive space.



Key Pedestrians routes through space



2m offset from kerbline to provide sufficient clear path width for pedestrians



Approximate visibility splay for vehicles exiting Midland Street onto Eldon Street. Exact detail TBC.



Approximate zone outside of any underground services where additional planting may be possible. Other areas for tree planting may be possible with the correct tree pit details specified and cell systems used. Please see the following page showing services plan overlaid onto the layout [approximate position only]. The green hatch shows available space for additional soft works including planting areas and tree planting. Previous discussions have confirmed this space should receive minimal treatment until it has been decided what is happening to the Chip Shop and the wider retail area which encompasses Eldon Arcade

If the Chip Shop building is demolished to accommodate the current works, the level difference left adjacent to the building is as the section below. There is approximately 1.51m height difference across this width. This is approximately a 1:11 slope over this distance. Providing a temporary soft solution to this space will help;

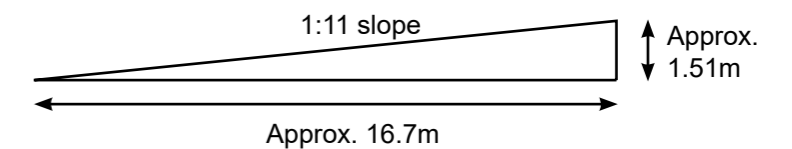
- alleviate this level difference
- pedestrian movement
- enhance a blank gable end of the existing retained building



Approximate vehicle tracking path for emergency access to Kendray Street

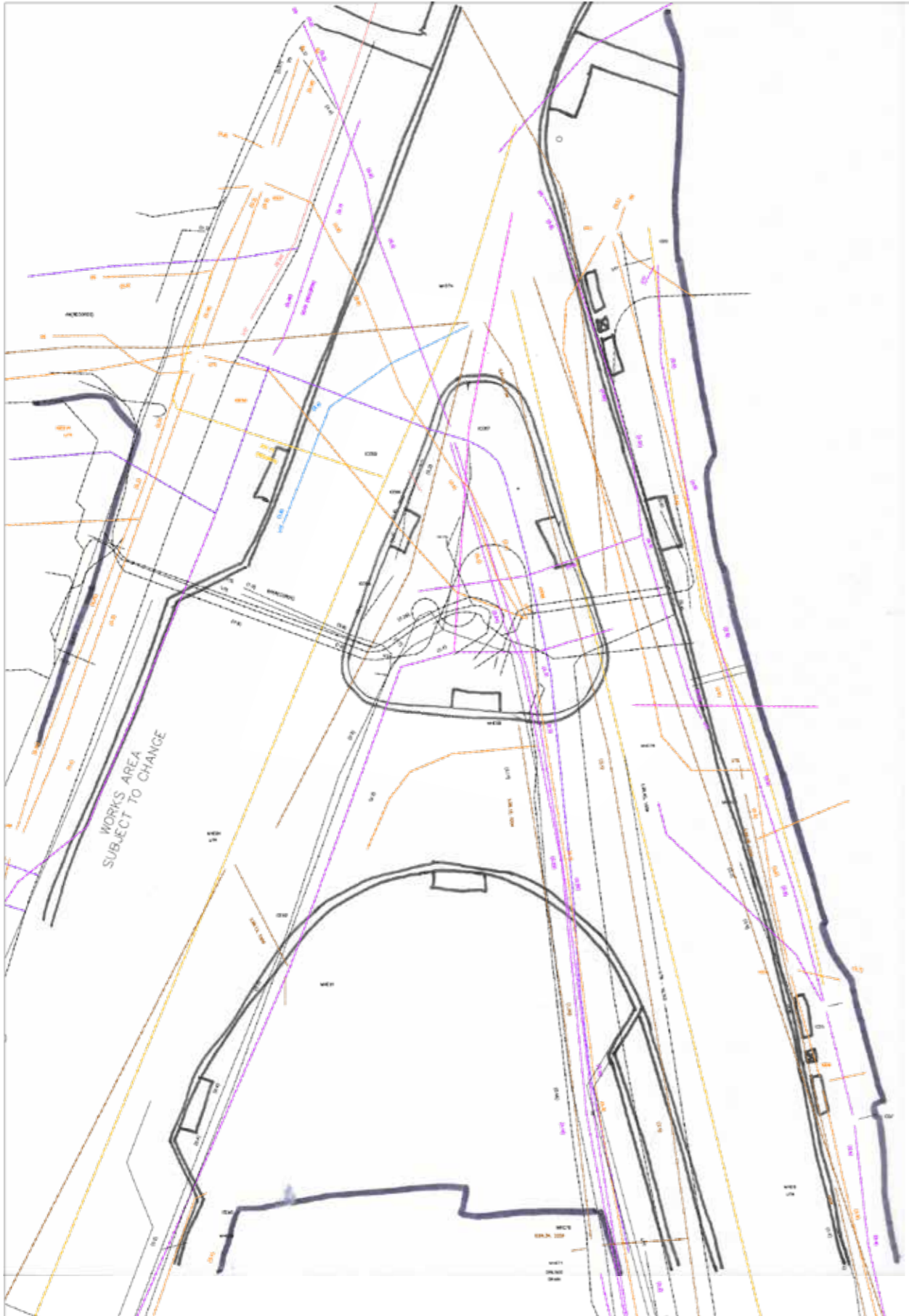


Proposed seating and bin position



Sec A  
NTS

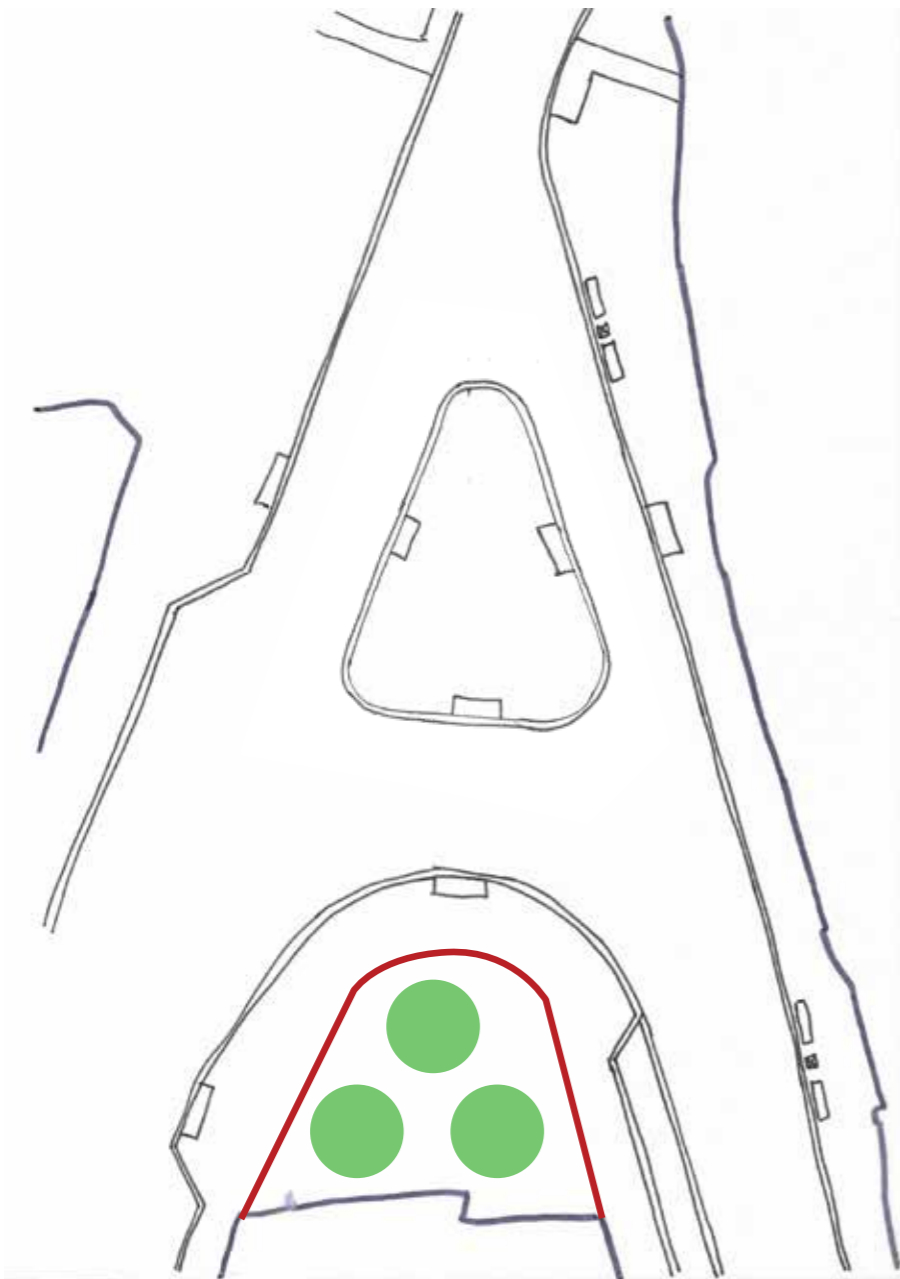
## Midland Street North : Services Plan

**Existing Utilities**

The adjacent plan illustrates the extent of the existing services. As stated before for Interchange Square, traditionally most of the services can be found within the footways of Midland Street and Eldon Street. However, the road layout is changing under the current proposals so this will no longer be the case.

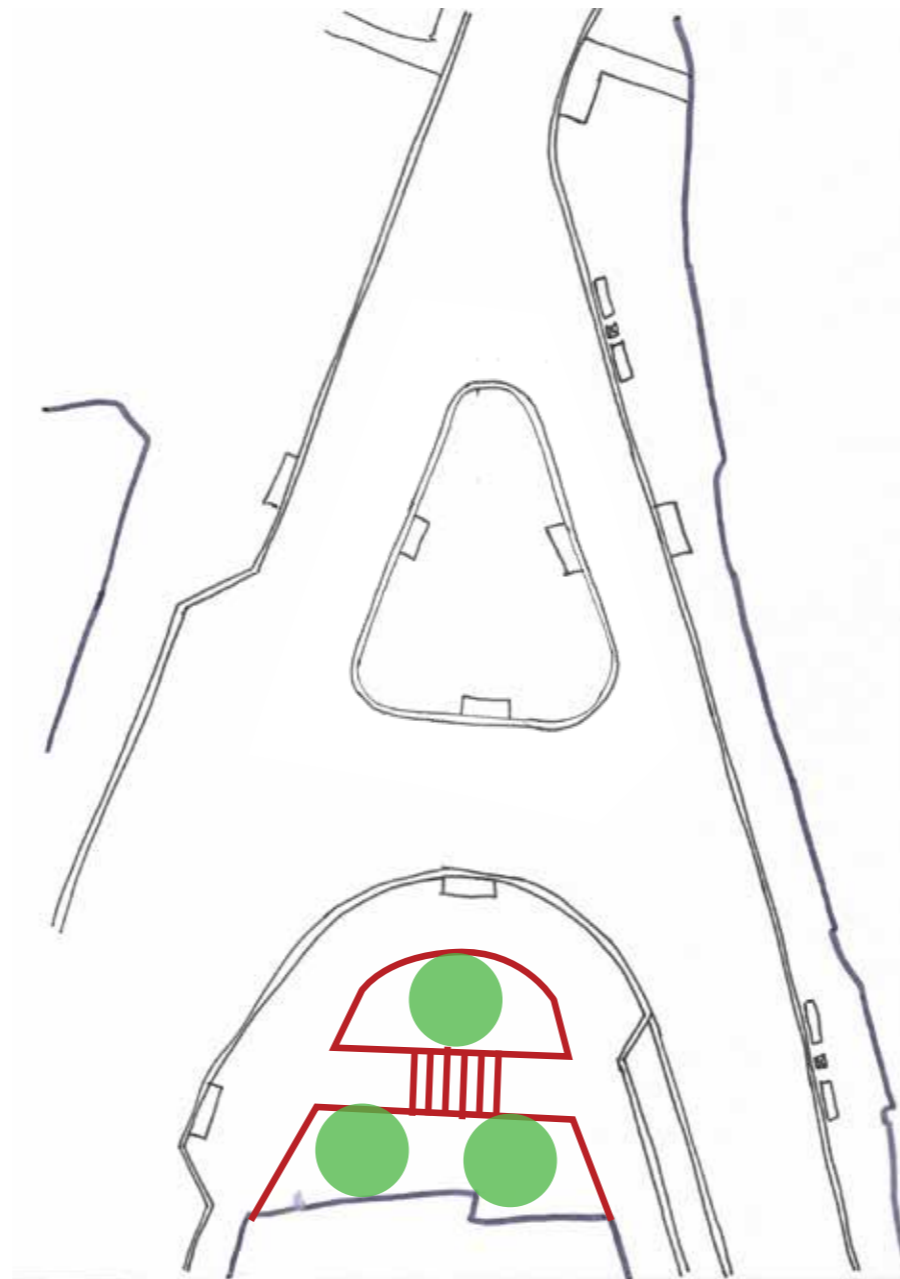
It has previously been agreed that any diversions of these services should be avoided, but that some diversions may be required in order to achieve the desired outcome. This will need to be fully investigated and communicated as the design progresses.

Some of these services may have become redundant or diverted as a result of the extensive works being undertaken within the town.



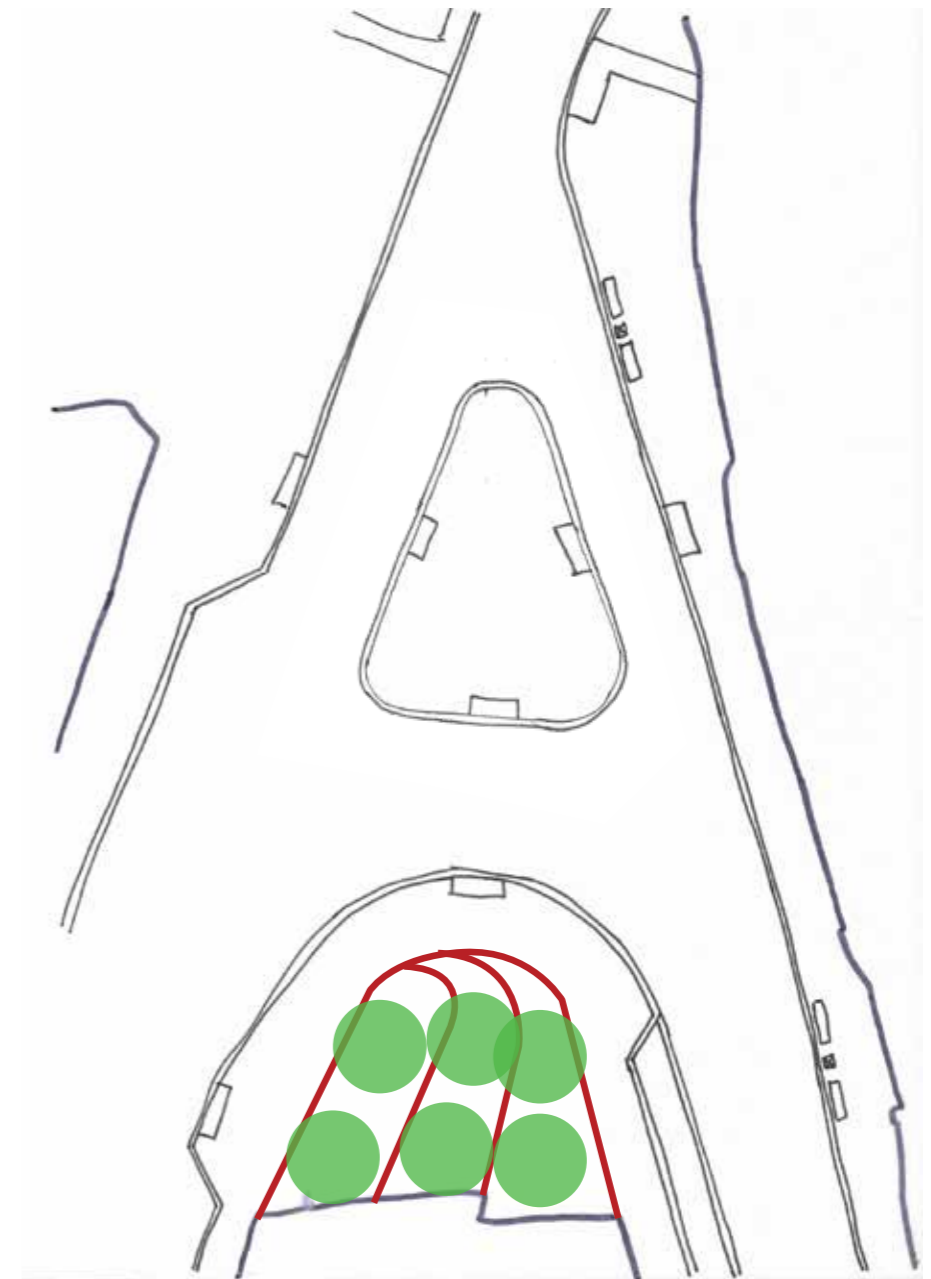
**Option 1**

Large planting area formed with consistent upstand edges to soften area. Planting sloped to take out level change and pedestrians encouraged to walk around planting close to road edge.



**Option 2**

Similar approach to option 1, with a more direct route through space using a single flight of steps to take out level change.



**Option 3**

A small square formed using a series of terraced levels. These terraces could be all soft or a mix of hard and soft allowing people to access the different levels from the northern side. Seating and artwork could be found in and around these terraces.

The preferred approach for this area may take a combination of two of the options above. It may also be advantageous to have a short and long term plan for this space as it is understood there may be more redevelopment / regeneration works to take place in the future.

## Midland Street North : Summary

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### Midland Street North

As with the Interchange Square analysis, a number of observations and constraints across this space have been identified on the previous pages. The main pedestrian desire lines and change in level from Eldon Street to Midland Street seem to be two of the key factors that will influence the eventual design of this area. This is subject to the current existing building on the corner being demolished as part of the public realm and pedestrian bridge works.

Some initial options have been provided to demonstrate approaches that could be taken forwards into more detailed design stages.

