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Boston
Architects**



Reading
Borough Council
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Rivermead Leisure Centre, Reading

ELEVATION DESIGN DRIVERS

Greenwich Leisure Limited



SBA Job Number; 1790

Document Number: SBA-RM-XX-RP-A-002

Date; 2021-03-12



Reading
Borough Council
Working better with you

Elevation Design Drivers
Addendum to the Integrated Planning, Design and Access Statement

for

Rivermead Leisure Centre

at

Richfield Avenue, Reading, RG1 8EQ

on behalf of

Greenwich Leisure Limited (GLL)

QA

Revision:	Purpose:	Prepared by:	Date:	Checked by:	Date:
P01	For information	CW	12.03.2021	MNL	12.03.2021

Note: The image to the front cover is an artistic rendering to indicate design intent only.

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ELEVATION DESIGN DRIVERS

Introduction:

This statement has been produced as an Addendum to the Integrated Planning, Design and Access Statement (DAS) for the proposed new leisure centre at Rivermead, Reading.

It is intended to serve as a detailed explanation for the design of the elevations of the new leisure centre, supporting the general design principles for the centre outlined in the DAS.

3D MASSING

Key to the elevations is the massing of the new centre. As outlined in the DAS, the new building is divided into the entrance hub, with the dry sports and wet sports housed in perpendicular volumes off this hub.

This hub is designed to be the most visible part of the project, being higher than the two halls (sports and pool) lying off it, and facing directly onto Richfield Avenue. This makes the hub more visually prominent. This has been included to highlight the fact that this will be the entrance and social hub of the building.

One of the key drivers to the design of the new centre is to allow the public glimpses of activities within the centre, to create interest in participation in these activities and to attract people into the centre. The use of glazing has been carefully considered to achieve this, whilst also being designed to allow visual security of swimming activities. Sport England state in their Design Guidance Note for Swimming Pools that reinforcing a building's external identity is key to making any centre an attractive place to visit and use. At Rivermead, it is proposed that the tallest part of the centre is located on the corner facing into Richfield Avenue, and is to be fully glazed. This will show internal activities such as soft play (double height) and fitness gym to the general public, and will act as a shop window to the centre. This, rather than physical signage, will attract the public into the building.

The internal arrangement of this hub also allows for the main building entrance to face onto the car park from where all users of the building will approach. This car park is to the west of the hub, with the entrance directly facing onto the car park but highlighted through the use of a vibrant and welcoming gold / yellow colour to the entrance canopy.

The hub is "crowned" with a canopy at a height greater than the two halls. This canopy will be supported by angled columns. This canopy is intended to provide some degree of solar shading to the glazing below, with the columns echoing the trunks of new tree planting to the pedestrian plaza outside the main entrance.

The two main activity volumes are the sports and pool halls, and are designed to be less transparent than the hub.

The sports hall is more enclosed, requiring no natural lighting (interferes with activities such as badminton), and has therefore been located to the north of the hub, away from Richfield Avenue.

The pool hall is located on the east side of the hub, with ground floor glazing allowing both natural light in (carefully controlled to mitigate glare on water surfaces) and views out, and views in (but from a distance in order to maintain visual security of swimmers). As the pool hall runs parallel to Richfield Avenue, this allows glimpses of the activities inside, including diving. Again, the intent is to provide a natural advert to the building, encouraging more people to use the facilities.

SOUTH ELEVATION:

Glazing:

The south elevation has elements of full height glazing for the two-storey hub, and ground floor glazing to the pool hall.

The glazing to the pool hall has been deliberately designed to rise up at an angle to double height glazing framing the dive tower. The ground floor glazing allows views in / out of the pool hall, with attention drawn to the dive tower externally.

Again, the intent is to advertise the building by showing the dynamic activity of diving. Glimpses of the two highest diving boards are afforded through the use of “picture windows”. This will allow the public views of diving from Richfield Avenue, with the diving glazing emphasised by the angled ground floor glazing.

This angle to the glazing / cladding is then repeated around the building, and becomes one of the major drivers to the elevations.

Activity:

To naturally advertise the activities within the building, and to attract more people to use the facilities, glazing has been used to signpost and advertise these activities. The activities visible on the south elevation will be the double height activity zone (soft play, potentially future use as a climbing wall), fitness gym at first floor level, and both swimming and diving within the pool hall.

Screening:

As this elevation is south facing, solar gain / glare can impact on the activities behind glazing. The double height activity zone will have a vertical brise soleil screen of timber slats, again echoing the proposed tree planting in the pedestrian plaza in front of the building.

In order to protect visual security of swimmers in swimming costumes, the pool surrounds leading to the elevation are screened by opaque cladding panels.

Between these panels, running along the length of the pools, will be the ground floor glazing, allowing natural light into the pool hall and allowing views out. In order to again protect visual security of swimmers, the glazing will be “softly” screened through the use of landscaped beds outside the pool hall. These will prevent people getting close to the glazing and will screen users from the overflow car park to the south.

Grading / Cladding:

The pool hall is a large volume to allow for the activities within, including diving and spectator seating at first floor. In order to avoid solar gain to the pool hall, this volume is to be mainly clad in a simple, opaque cladding system, with glazing limited to the ground floor and dive tower. This mass of cladding also balances the open, transparent glazing to the adjacent hub.

This cladding will prevent excessive glare on the surface of pool water. As noted by Sport England in their Design Guidance Note, glare can prevent lifeguards seeing any swimmer in trouble below the water surface, and is a vital consideration in any design of elevations to pool halls. Limiting the amount of natural light through the use of opaque cladding is therefore a key design driver.

The cladding has also been carefully selected due to its performance within the atmosphere of a pool hall, where there will be relative humidity of up to 80% and a temperature of 30°C. This is an efficient way of enclosing such a corrosive atmosphere.

The cladding also provides:

- High levels of thermal performance without hot and cold spots or any areas of cold bridging
- High levels of air tightness to reduce heat loss and aid thermal performance
- A high speed of construction reducing cost and disruption to neighbours

In order to break up the expanse of this cladding, it is proposed to grade the colours of the cladding. The principle is to use upper cladding consisting of white composite cladding with intermittent grey panels in a random pattern, with the intent of visually breaking up the elevation from a distance, blending the building better with the background / sky, with the cladding getting gradually darker the closer to the ground through more grey panels.

Book Ending:

Parts of this elevation will have plantrooms / stores behind the elevation (east side of the pool hall). To screen these rooms from public view, the elevations have been designed to have the main cladding system “wrap” round the glazing adjacent, forming a book end to the main cladding.

Layers:

The three main elements of the elevations, cladding, blue screening and glazing are all set out at different depths within the elevation. The lighter cladding sits furthest out, with the blue screening set back slightly, Finally the glazing is the element closest to the areas / activities within the centre.

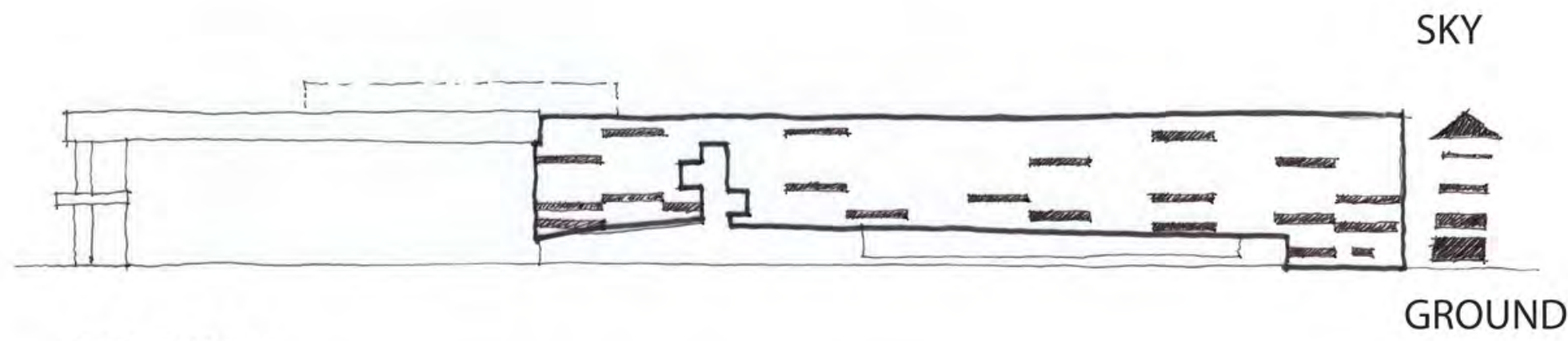
This serves to emphasis the glazing “punched” into the elevation, and allows for the book ending / wrapping of the lighter cladding down to the ground floor, screening the plantroom / stores behind.

Colour:

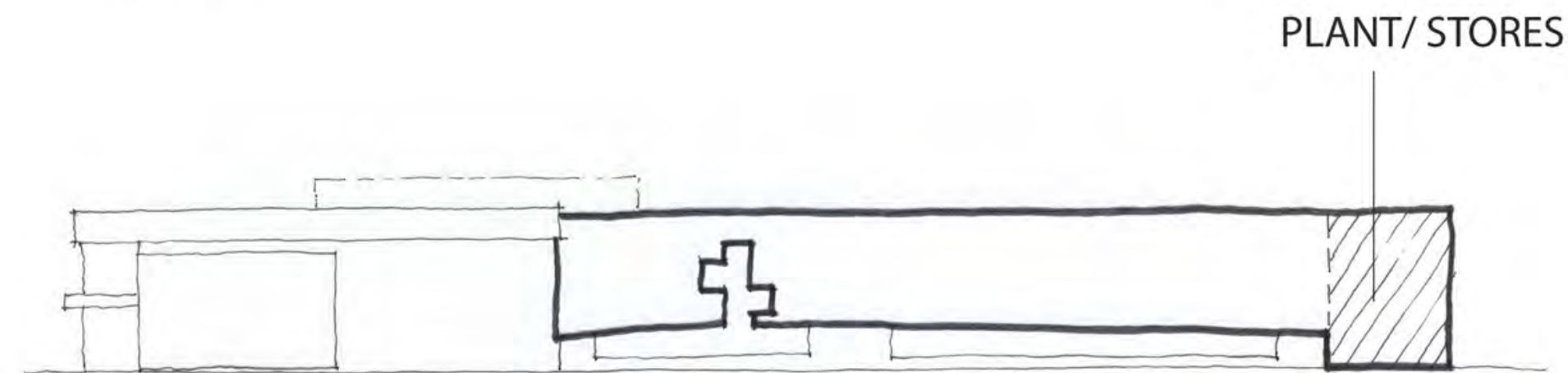
The preferred Kingspan cladding system contributes to the BREEAM rating of “Excellent”, is one of the best cladding systems as determined by the life cycle assessment analysis for BREEAM, and is a suitable system for pool hall environments. The screening elements at ground floor to the pool hall are the “solid” elements within the elevation at this level. It is proposed to clad these in a darker blue colour, selected from the Kingspan Spectrum range, to balance the lighter cladding above, and to highlight that these are “screening” elements. In the same way that the canopy / columns and brise soleil echo elements of the surrounding landscape (trees), the blue coloured cladding is intended to mirror both nearby watercourses and the pool water behind the elevation.

This dark colour is then extended to those elements in the hub such as kitchen and fire escape stair, where glazing is not installed. This reinforces the impact of glazing to the hub, with shop windows “punched” into this dark blue screening.

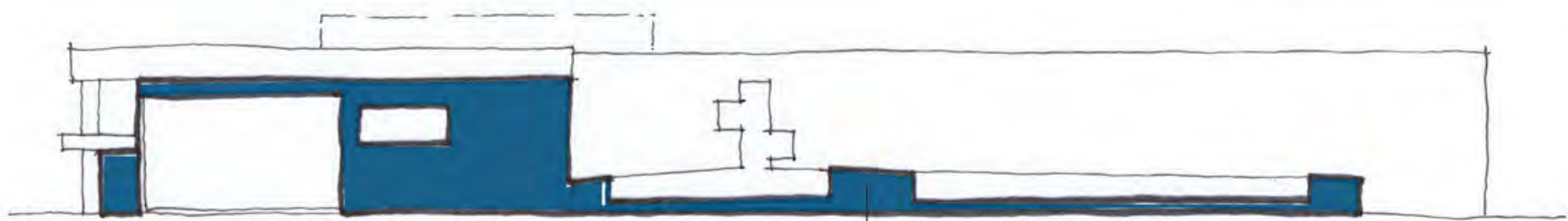
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GRADING

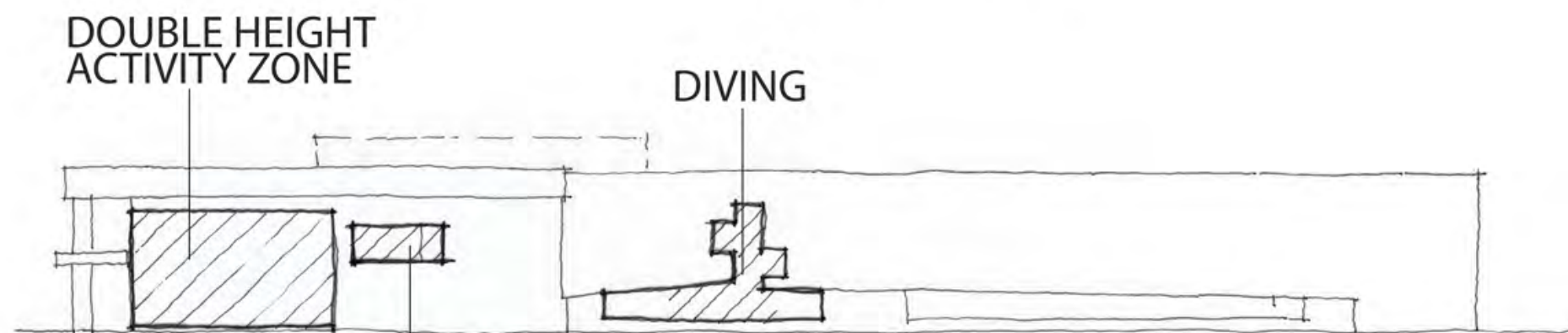


BOOK ENDING



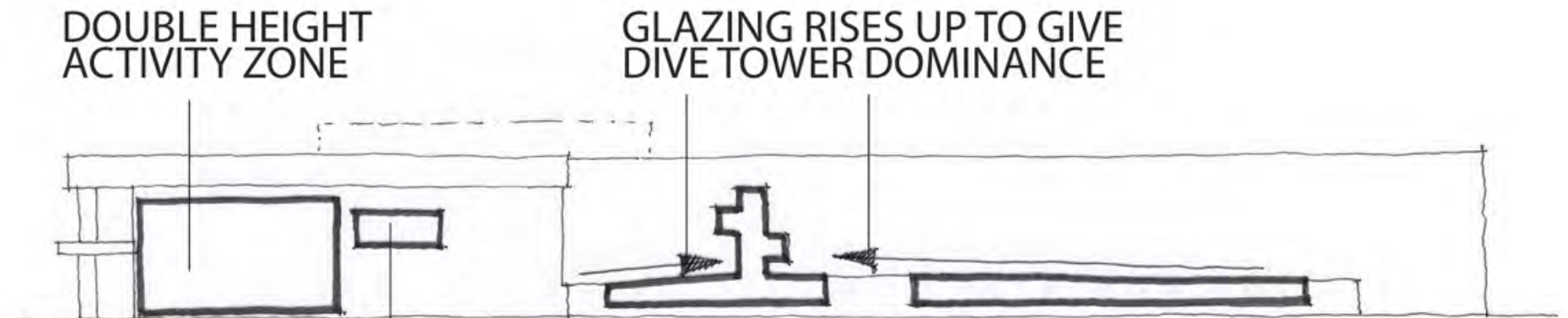
COLOUR

SOLID BLUE BASE



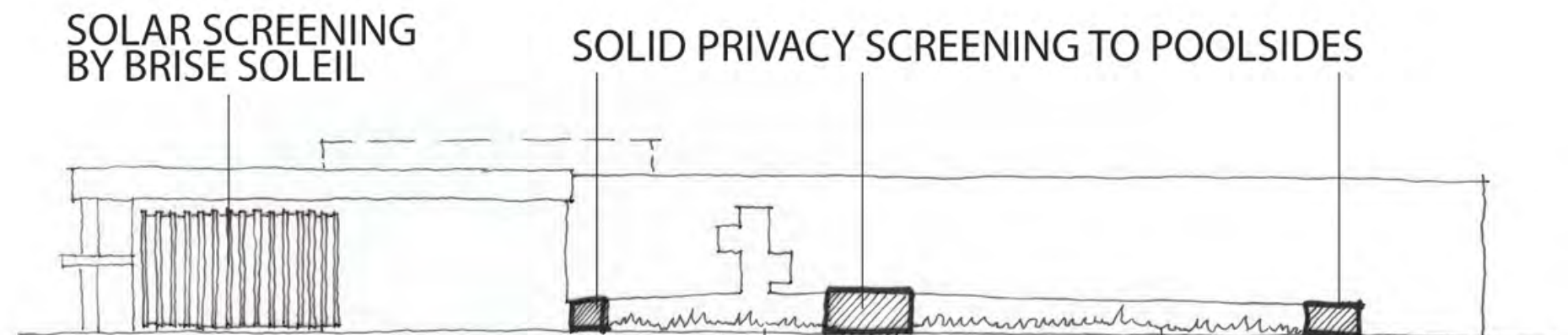
ACTIVITY

FITNESS SUITE



GLAZING

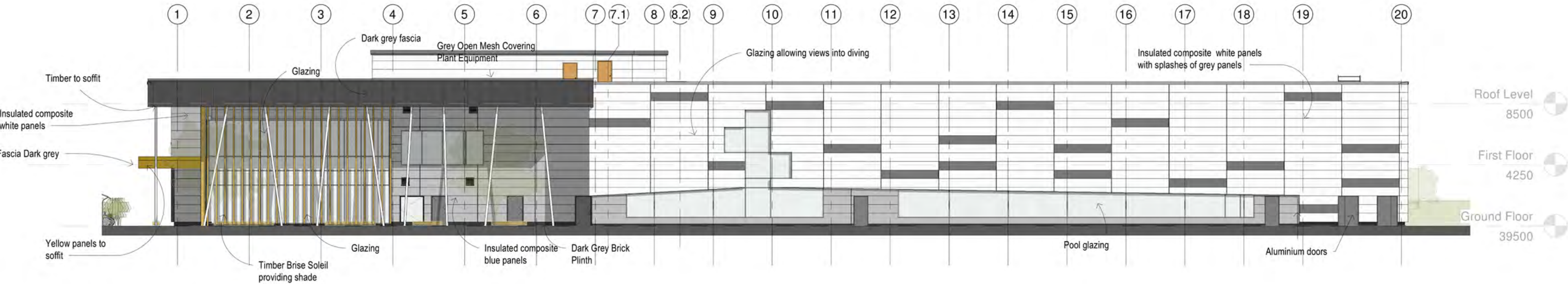
SHOP WINDOW



SCREENING

SOFT LANDSCAPED SCREENING TO POOL WALL

Proposed South Elevation



**Saunders
Boston
Architects**

Client
GLL

Job
Reading Rivermead Leisure Centre

Drawing
Proposed South Elevation

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PLANNING

SBA Project Code
1790

Drawn
TZ

Checked
CW

Date
09/03/21

Subsidiary
Code

NOT TO SCALE

Scale

Revision

project originator zone level type role number
1790-SBA-RM-ZZ-DR-A-2501

WEST ELEVATION:

Glazing:

Similar to the south elevation, the west elevation also has elements of full height glazing for the two-storey hub, with glazing to other zones such as first floor fitness gym, ground floor party rooms and entrance / signing in.

Again, the intent is to advertise the building by showing the dynamic activity of soft play in the double height activity zone.

Activity:

The double height glazing is once again intended to advertise activity within the building, and to attract more people to use the facilities. With the double height activity zone currently containing soft play, the intent is to entice more families with young children to use the facilities. The glazing to the party rooms also serves the same purpose.

The large “shop windows” above the main entrance are to advertise the fitness gym activities, signposting and advertising the gym facilities.

The main entrance is also glazed, in order to provide natural light into the signing-in area for the centre. As signing-in is not necessarily a dynamic and attractive activity, the entrance has been located away from the highly visible corner zone of double height glazing.

Screening:

The double height activity zone wraps around the building from the south to the west facing elevation. Solar gain to this area is countered by the continuation of the brise soleil solar shading to this elevation.

Book Ending:

Parts of this elevation will have stores behind the elevation (north end of the sports hall). To screen these rooms from public view, the elevation has been designed to have the main cladding system “wrap” round the lower, darker blue cladding at ground floor, forming a book end to the main cladding.

Grading / Cladding:

The sports hall is another large volume to allow for the activities within. Again, duplicating the design of the pool hall / south elevation, this volume is to be clad in a simple, opaque cladding system. This balances the open, transparent glazing to the adjacent hub. As the sporting activities within could be negatively impacted by natural lighting (i.e. badminton shuttlecocks being visibility “lost” against windows), no glazing is included to the sports hall, only to the fitness gym / gym at first floor.

The choice of Kingspan, as noted for the south elevation, as a cladding system contributes to the BREEAM rating of “Excellent”.

Once again it is proposed to grade the cladding through use of more grey panels towards the ground, reducing in number toward the roof / parapet.

Colour:

The architectural detailing and choice of colours to the south elevation is replicated on the west elevation for consistency, and links the two large “non-transparent / opaque” volumes together. The stores to the north of the sports hall are “book-ended” with the lighter cladding extending down to ground floor level, “wrapping” over the darker blue cladding used at ground floor level.

This dark colour extends through to the hub, allowing the “punching” through of glazing, forming shop windows to the areas behind.

The angled junction between the upper and lower levels of cladding articulated on the south elevation, is duplicated on the west. Again, the intent is to use a common language of detailing, design, material and colour, linking the large volumes together against the “transparent” entrance hub.

Layers:

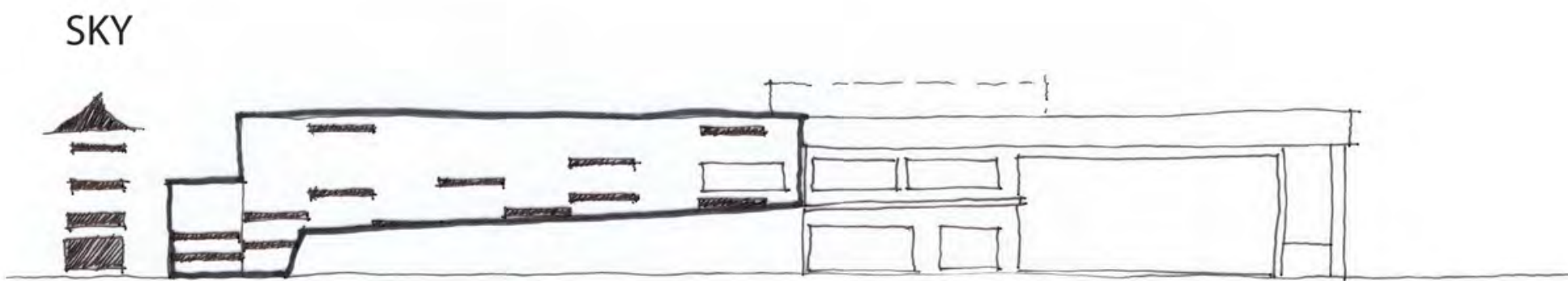
The three main elements of the elevations, cladding, blue screening and glazing are all set out at different depths within the elevation. The lighter cladding sits furthest out, with the blue screening set back slightly, Finally the glazing is the element closest to the areas / activities within the centre.

This serves to emphasises the glazing “punched” into the elevation of the hub, and allows for the book ending / wrapping of the lighter cladding down to the ground floor, screening the stores behind.

Entrance:

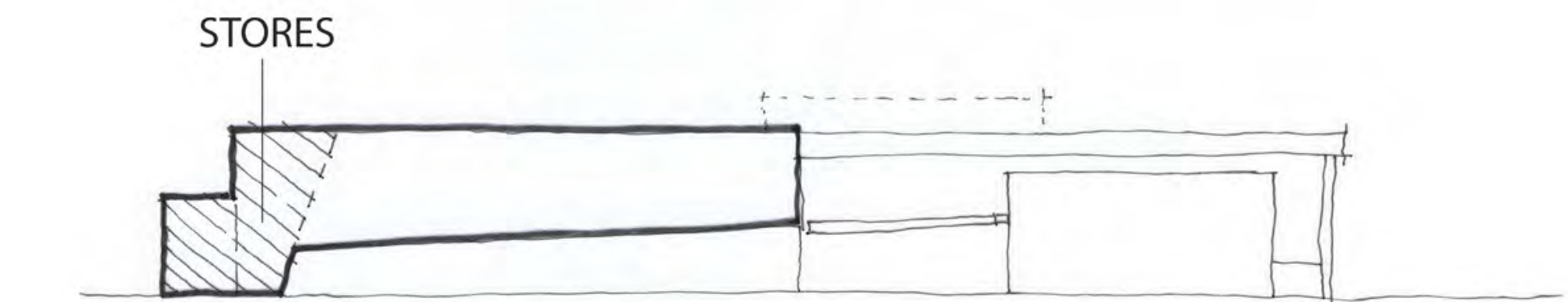
The angled line of the junction of the upper and lower cladding, allows articulation of the main entrance, through leading to the main entrance canopy set at the same angle over the main entrance doors. This canopy will be in a warm gold / yellow cladding, standing out visually from the darker blue cladding behind.

The angled line rises up along the pedestrian plaza, towards the main entrance. This will also visually draw the eye to the main entrance, attracting people into the building.

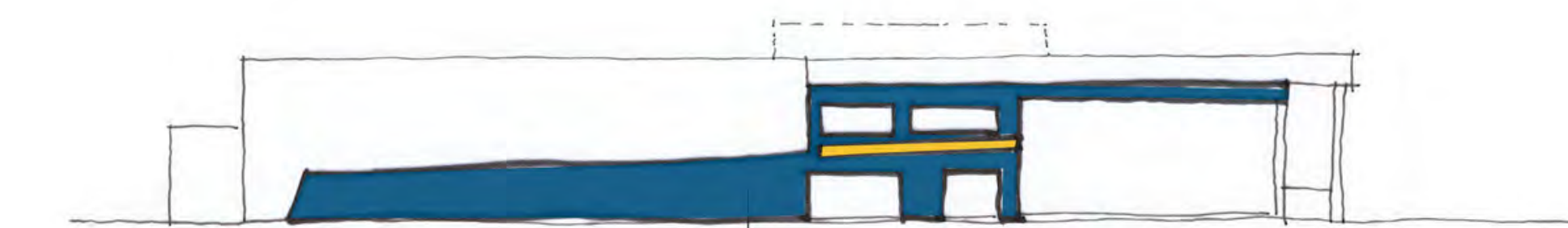


GROUND

GRADING

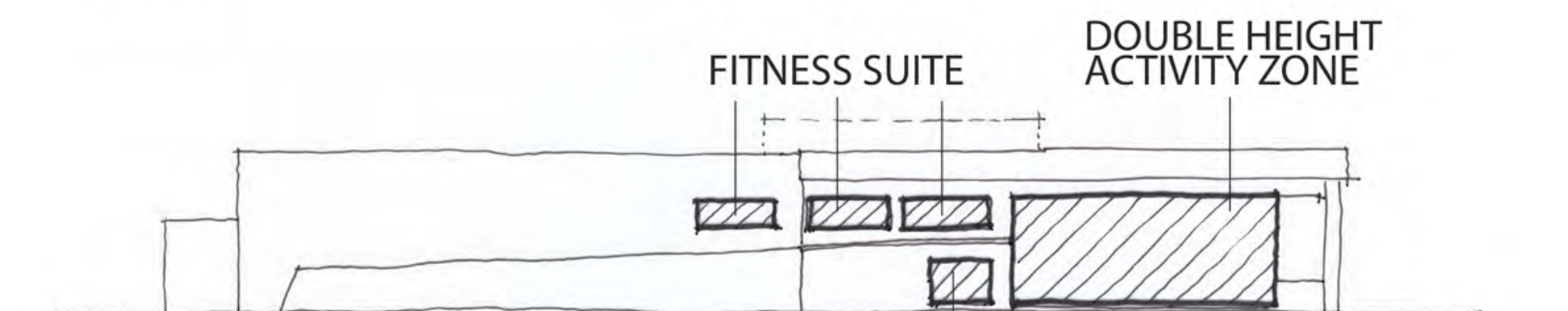


BOOK ENDING

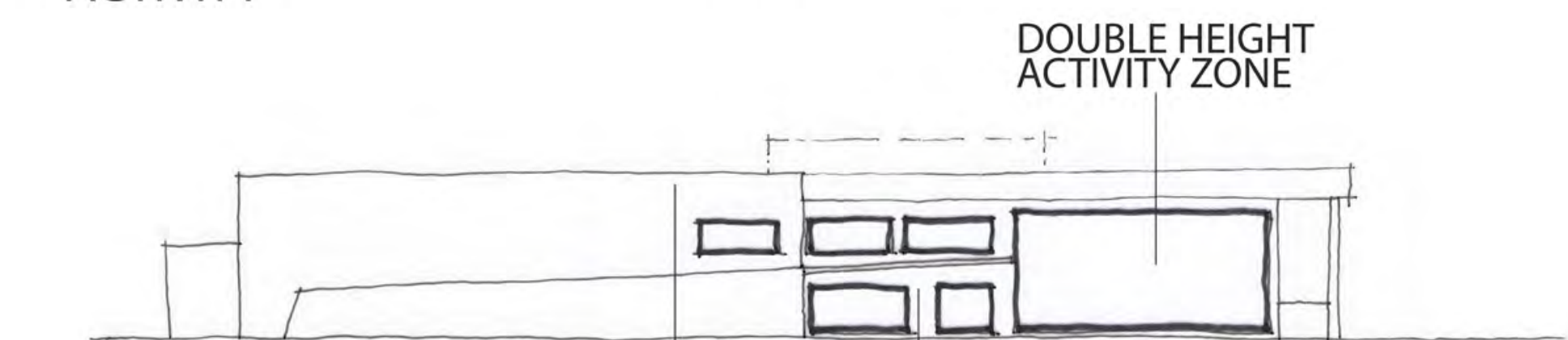


COLOUR

SOLID BLUE BASE

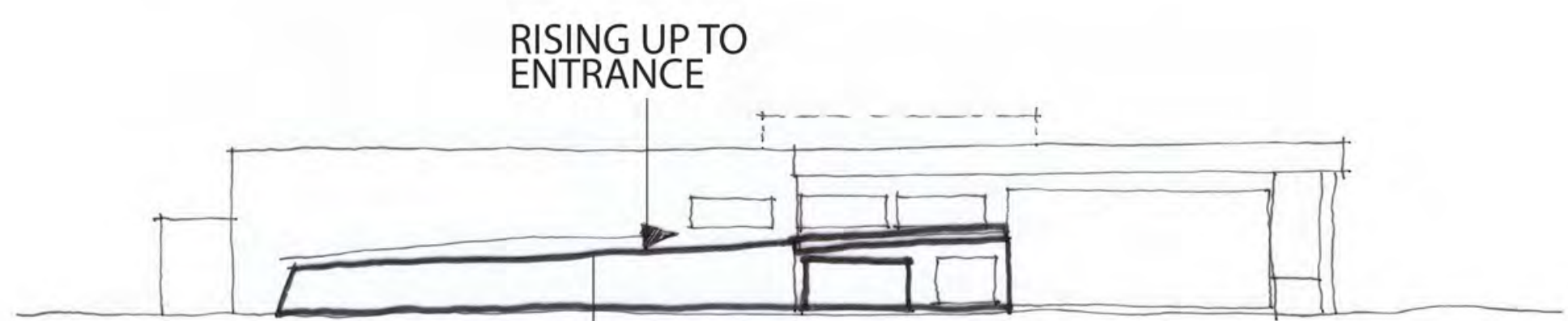


ACTIVITY



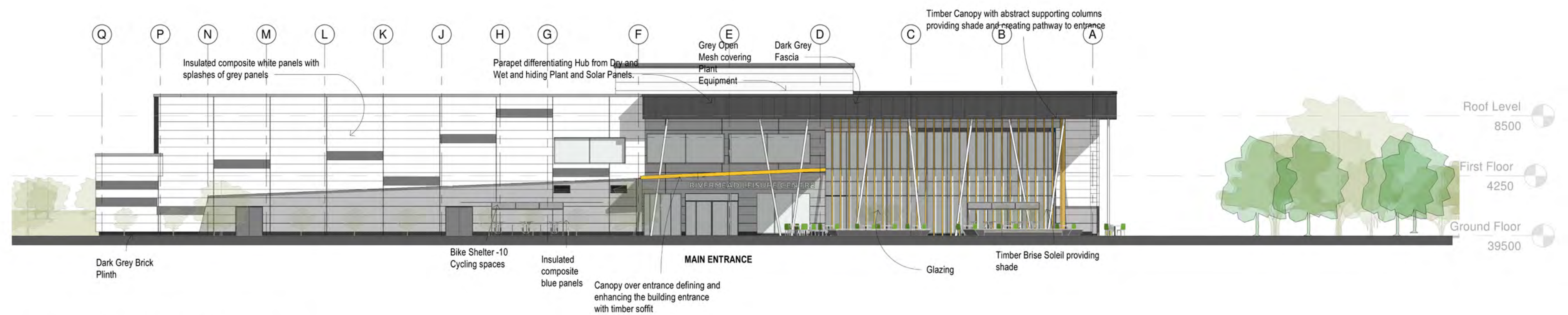
GLAZING

ENTRANCE ELEVATION



ENTRANCE

ANGLE SAME AS SOUTH ELEVATION



Proposed West Elevation

- | No. | Note |
|-----|--|
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| 6 | It is assumed that all works will be carried out by a competent contractor who will be working, where appropriate, to an approved method statement. |

No.	Revision	Date	Chk.	Auth.

Client	GLL
Job	Reading Rivermead Leisure Centre
Drawing	Proposed West Elevation



PLANNING

NOT TO SCALE

SBA Project Code	Drawn	TZ	Date	09/03/21	project	originator	zone	level	type	role	number
1790	Checked	CW	Submittal Code		1790-SBA-RM-ZZ-DR-A						2502

NORTH ELEVATION:

Screening:

Of particular significance to the project is that the building lies within the Thames Valley designated Major Landscape Feature (MLF), in close proximity to the River Thames and adjacent to the Local Green Space of the Rivermead and Thameside Promenade.

Consideration has also been given to the surrounding properties located to the north across the Thames, in St. Peter's Conservation Area, and the views of the north elevation seen from this location.

In order to minimise the visual impact of the new building, and the north elevation, a number of screening measures have been included in the design.

Firstly, a tree belt running along the Thames path to the north will initially break up the view of the north elevation.

Next, an existing tree belt just to the north / east of the new centre will provide another line of screening of the north elevation.

Between this second tree belt and the north elevation of the building will be an existing mound which will be landscaped even higher with excavated material and new soft landscaping / trees on top. This will have the visual impact of bringing the ground level higher towards the first floor of the building, screening most of the ground floor.

All of these screening measures are intended to reduce the visual mass / height of the building within the landscape of the MLF, and is a key driver to the north elevation.

Glazing / Activity:

A common design driver for all of the elevations is to have glazing advertising dynamic activities behind, attracting people into the building, using the facilities and getting fit. Glazed "shop windows" have been punched through the first-floor cladding. This allows park users to see the exercise studios in use, and allows those exercising in the studios views out over the parkland to the river Thames.

Book Ending:

Parts of this elevation will have changing areas behind them, at both floors. Again, the intent is to keep the architectural language developed primarily on the south elevation, and create a "book end" to the elevation, screening these private areas, with the lighter cladding coming down to ground floor level at the west end of the elevation.

Grading / Cladding:

Using the architectural language developed on the south elevation, the north elevation is treated similar to the other elevations. This elevation is to be clad in a simple, opaque cladding system, forming a calm background behind the new trees planted on the raised mound in front.

The cladding will again be "graded" through use of more grey panels towards the ground, reducing in number toward the roof / parapet.

This upper cladding will sit at the same angle as the other elevations for consistency, but with the lower, darker blue cladding being partly screened by the raised mound to the north.

Colour:

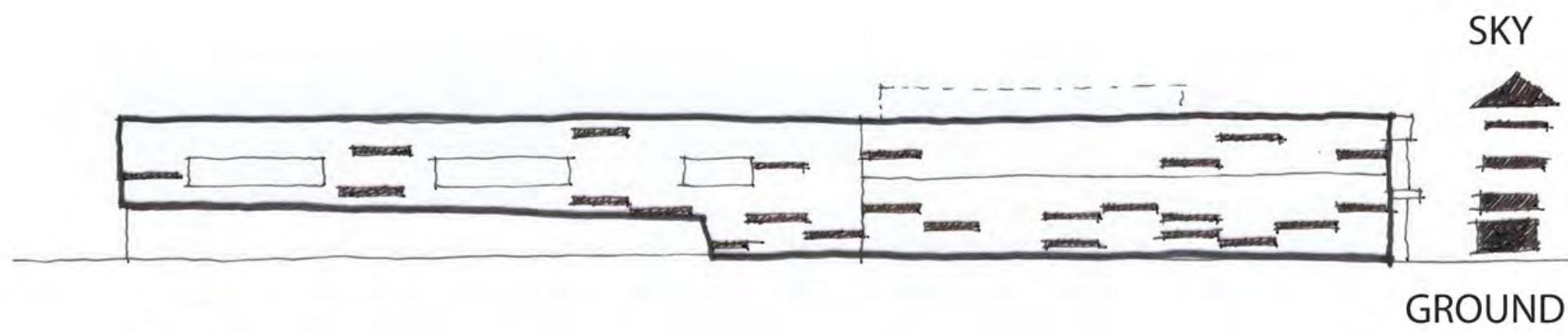
The common architectural language of colours, detailing, angles of cladding etc. is used on the north elevation to provide consistency around the building, and to tie the various elevations of the two halls together. The private changing areas at the junction of the pool and sports halls will be "book-ended" with the lighter cladding extending down to ground floor level, "wrapping" over the darker blue cladding used at ground floor level.

The angled junction between the upper and lower levels of cladding articulated on the south elevation, is duplicated on the north for consistency. This also allows for the darker cladding to wrap around the north east corner of the building, linking these two elevations together.

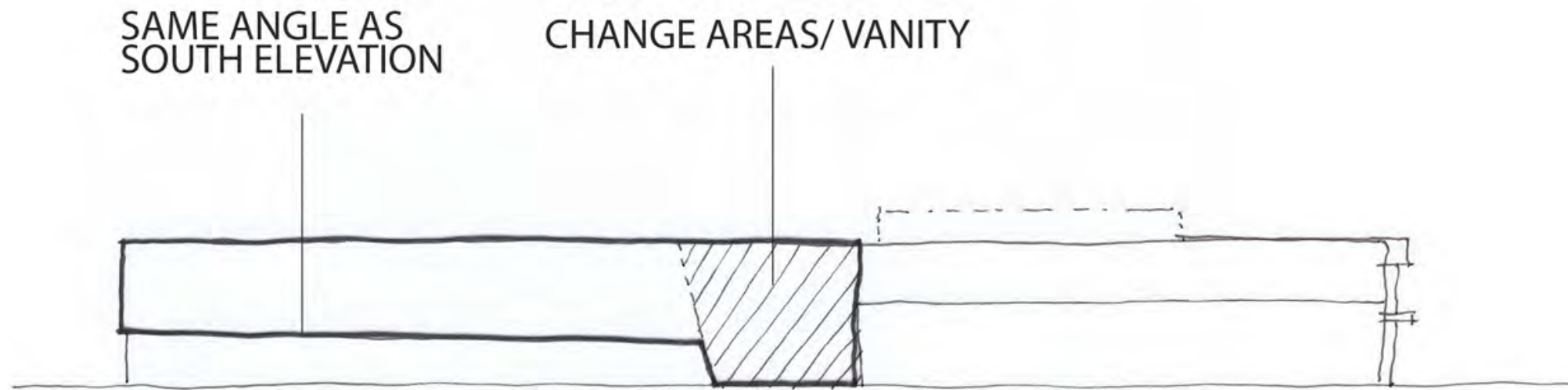
Layers:

The three main elements of the elevations, cladding, blue screening and glazing are all set out at different depths within the elevation. The lighter cladding sits furthest out, with the blue screening set back slightly, Finally the glazing is the element closest to, and opening onto, the studios.

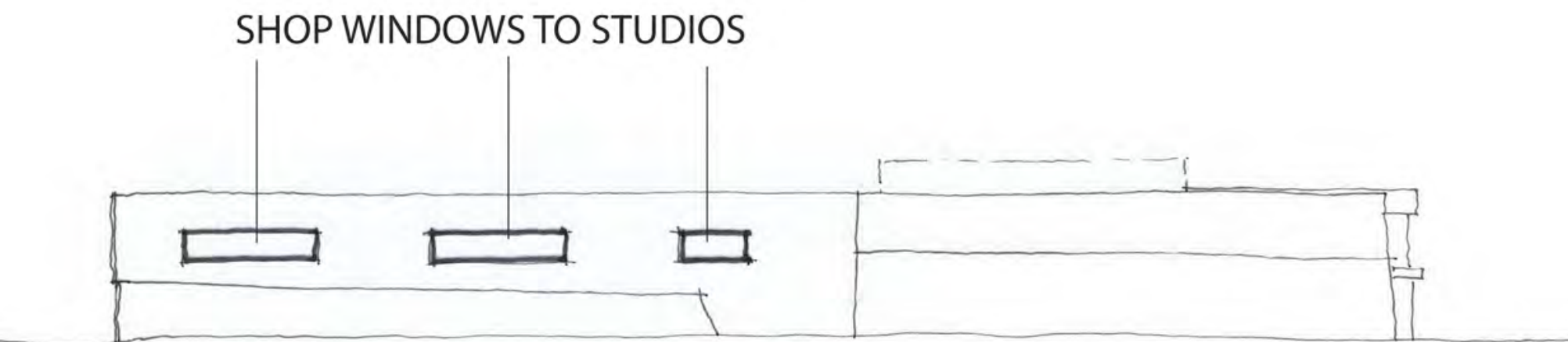
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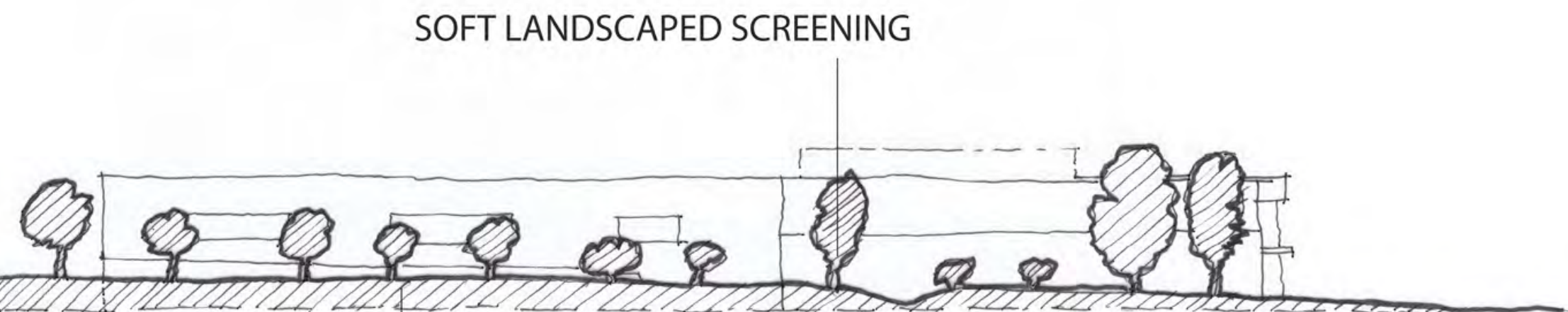
GRADING



BOOK ENDING

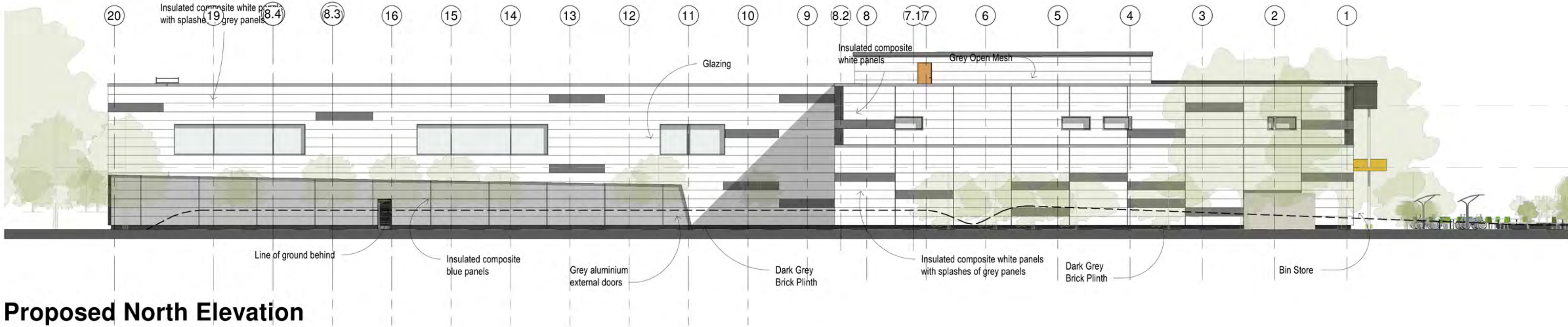


ACTIVITY



BUNDING TO REDUCE HEIGHT OF BUILDING

SCREENING



Proposed North Elevation

 Saunders Boston Architects		Client GILL	
Eastern Gate House, 119 Newmarket Road, Cambridge CB5 8HA T: 01223 367133 office@saundersboston.co.uk		Job Reading Rivermead Leisure Centre	
The Generator, The Gallery, King's Wharf The Quay, Exeter EX2 4AN T: 01392 348627 www.saundersboston.co.uk		Drawing Proposed North Elevation	
PLANNING		Scale NOT TO SCALE	
SBA Project Code 1790	Drawn TZ Checked CW	Date 09/03/21 Suitability Code	Revision project originator zone level type role number 1790-SBA-RM-ZZ-DR-A-2500

EAST ELEVATION:

Screening:

The angled line between the two elements of cladding (lighter at upper level, and darker at lower level) draws the eye to the raised mound and new tree planting, screening the north elevation to the north. This angled line leads to this mound, and visually links this elevation with the surrounding landscape.

Glazing:

Once again, glazing “punches” shop windows at the first-floor level. Whilst the glazing on this elevation is to staff areas such as staffroom and managers office, the glazing still serves a purpose through allowing visual security of the service road at ground floor. This road leads to areas such as plantrooms / external staff seating area, and is important to be kept secure

During Reading Festival periods, monitoring of pedestrian traffic can also occur from this elevation.

This visual security also contributes to the relevant BREEAM credit for security of the building.

Book Ending:

Both air handling plant and pool stores are located in the south east section of this elevation. These can be screened through the common detail of “book ending” the elevation. It is intended that this “book-end” to the elevation will also house the louvres to the air-handling plantroom at first floor level.

Grading / Cladding:

Using the architectural language developed on the south elevation, the east elevation is treated similar to the other elevations, being clad in the simple Kingspan opaque system described elsewhere.

The cladding will again be “graded” through use of more grey panels towards the ground, reducing in number toward the roof / parapet.

This upper cladding will sit at the same angle as the other elevations for consistency. This also allows for wrapping of the lower, dark blue cladding around to the north elevation. Again, this links the elevations together, forming a coherent design to all of the elevations.

Colour:

Dark blue cladding is included for, as per the other elevations, at ground floor level, This is duplicating the language of the other elevations. The angle in the cladding is taken from the south elevation again.

Layers:

The three main elements of the elevations, cladding, blue screening and glazing are all set out at different depths within the elevation. The lighter cladding sits furthest out, with the blue screening set back slightly, Finally the glazing to the staff areas is set back furthest into the elevation.

- No. Note
- 1

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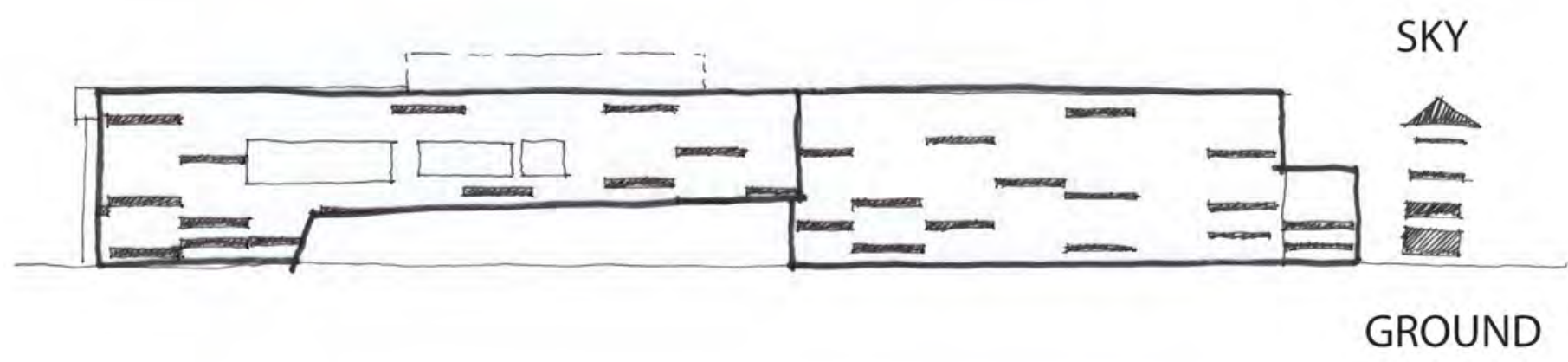
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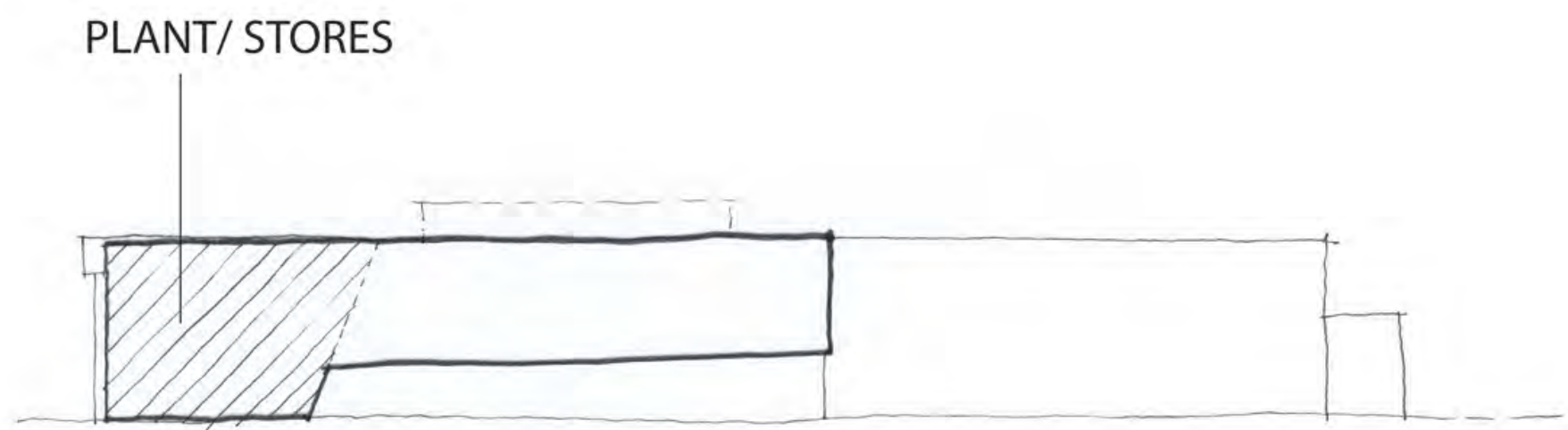
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Drainage has not been surveyed and any/all pipe locations and below ground drainage runs are indicative.
- 6

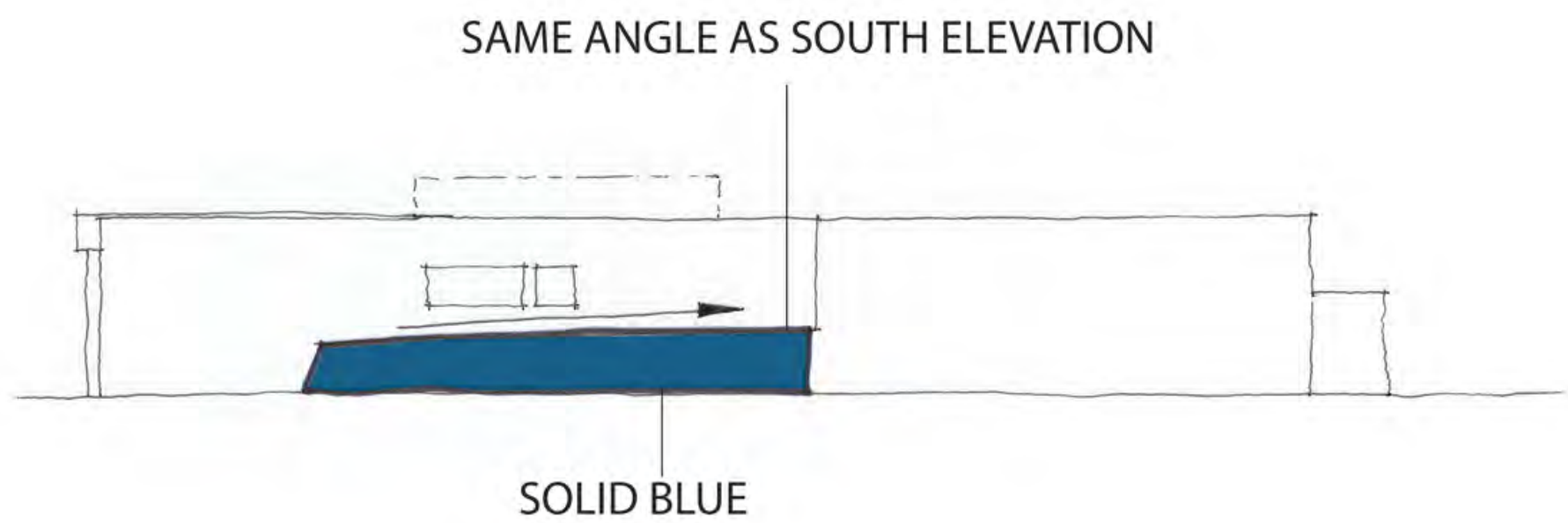
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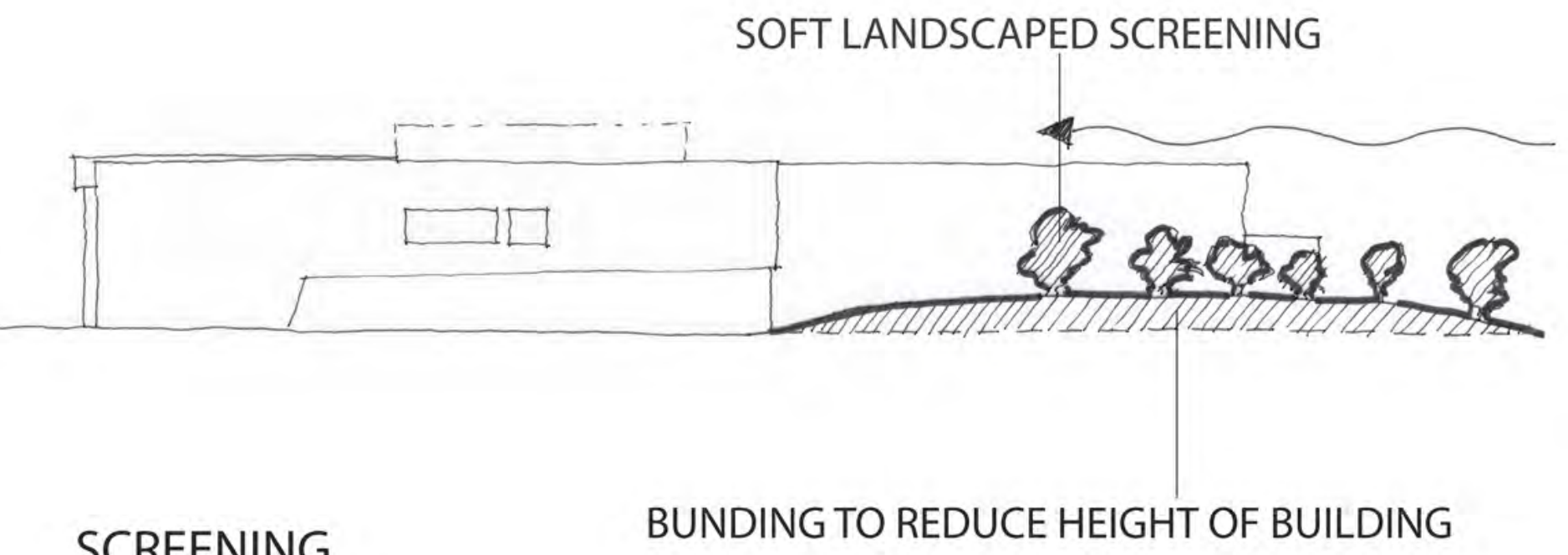
GRADING



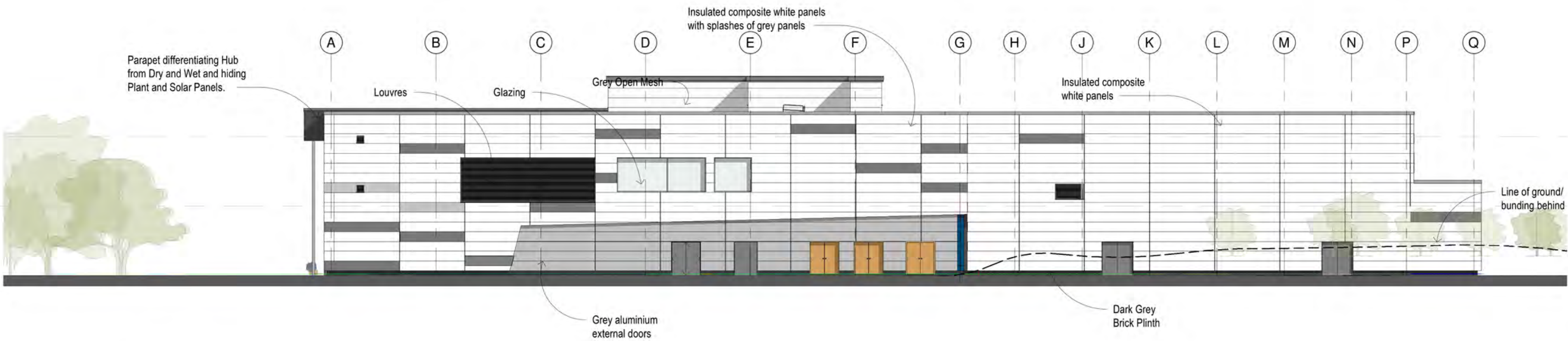
BOOK ENDING



COLOUR



SCREENING



Proposed East Elevation



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Architects**

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The Quay, Exeter EX2 4AN
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www.saundersboston.co.uk

PLANNING

NOT TO SCALE

SBA Project Code	Drawn	TZ	Date	09/03/21
1790	Checked	CW	Suitability Code	

project	originator	zone	level	type	role	number
1790-SBA-RM	-ZZ	-DR	-A	-2503		

SUMMARY:

In summary, the following are the key design drivers for the elevations to the new leisure centre at Rivermead:

- Ensuring that the entrance hub is the dominant and most visible part of the building by making it higher and more transparent
- Advertising the activities within the building through the careful use of glazing, and by “punching” glazing through cladding
- Emphasising the diving activity through the use of angled cladding / glazing
- Emphasising the main entrance through the use of this angled cladding
- Facing the main entrance onto the car park and making it stand out visually from the building
- Echoing elements of the surrounding landscape through structure and colour (trees and water)
- Selecting the most appropriate cladding system for the centre to deal with the pool hall environment and to assist in the BREEAM Excellent rating
- Screening activities where required through the use of hard cladding element and soft landscaping
- Screening glazing where require to mitigate glare on pool surfaces and solar gain in general
- Screening the building from the north, to minimise the visual impact from the Thames and conservation area to the north.
- Detailing the cladding with the intent of blending it at higher levels with the sky / background
- Book-ending and screening off those areas behind the elevation s such as changing, plantrooms and stores
- Layering the three main elements of cladding (glazing, dark blue cladding and lighter upper cladding) to create definition on the elevations