

## **National Paediatric Hospital Development Board**

### **NPH Business Services**

**Project No.: 011782**

## **Emergency Department Concept Options Analysis**

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## **1. INTRODUCTION**

This purpose of this report is to summarise the key findings and conclusions in relation to the concept design for the Emergency Department at the new children's hospital, Eccles Street, and to make recommendations for the subsequent design stages.

Concept options, prepared by the Integrated Design Team (IDT), were presented and discussed with the cross hospital ED Group, the NPH Executive, the ambulance services, and HSE Estates on a number of occasions and the issues and comments raised have, insofar as possible, been considered in arriving at a design solution that will be progressed in subsequent design stages.

The report is further supported by submissions from the project Planning and Health and Safety Consultants.

## **2. OUTLINE OF REQUIREMENTS**

In line with the requirements of the project brief, the new children's hospital will provide Emergency Department services at Eccles Street.

In preparing the design brief, the capacity of the Emergency Department has been developed based on current and projected trends in activity. This projected activity and capacity has been translated into a schedule of accommodation which informs the IDT when planning the hospital.

The Emergency Department is an essential service in the hospital and shall be supported by appropriate physical links and facilities to enable it to function in a safe, efficient manner to deliver emergency services to children and young people.

## **3. INTERNATIONAL BEST PRACTICE**

To support the development of the design brief and concept options, the project team reviewed a number of ED design guidance documents and literature, and designs of other ED facilities internationally. Elements that informed the option appraisal included:

- Patient Safety and Security
- Access
- Operational efficiency
- Flexibility and future expansion
- Adjacencies and links

A list of references may be found in section 9.

#### **4. SCHEDULE OF MEETINGS & WORKSHOPS CONDUCTED**

During the concept design phase, the cross hospital ED Group met on the following dates, the design options produced by the IDT were informed by, and in response to comments and observations made by this group.

17 <sup>th</sup> December 2009	- Introduction
12 <sup>th</sup> January 2010	- Process Group Meeting 1
26 <sup>th</sup> January 2010	- Process Group Meeting 2
3 <sup>rd</sup> February 2010	- Speciality Model of Care Meeting 1
10 <sup>th</sup> February 2010	- Speciality Model of Care Meeting 2
24 <sup>th</sup> March 2010	- ED Layout Options Workshop 1
31 <sup>st</sup> March 2010	- ED Layout Options Workshop 2

Please refer to the ED Issues Log and Meeting notes previously issued.

#### **5. DESCRIPTION OF OPTIONS CONSIDERED**

Initial workshops / meetings on concept design options, included participation by the cross hospital ED Group, project health planners and the NPHDB Executive. The IDT, in response to a detailed briefing, prepared a number of design options for consideration and evaluation.

In reviewing these options, it is important that the geography of the site for the new hospital is understood in that there is a difference of one level/floor between Eccles Street and the North Circular Road. This creates a site constraint that impacts on the level at which access from Eccles Street and the Ambulance Yard can be achieved. The design solutions proposed have endeavoured to accommodate this site constraint within the context of both the Emergency Department and the entire hospital.

The following descriptions should be read in conjunction with the Architectural layouts in Attachment A

## 5.1 Option 1

ED Location	Level 0, below street
Ambulance Entrance / Resus	Level 0, off street
Public Entrance	Level 1, from Eccles Street

### Summary:

- Walk in entrance is highly visible, open, accessible and pleasant environment off Eccles Street. (Access, Safety/Security)
- The public entrance on Eccles Street will help to ensure children/families are separated from the public entrance to the adult ED. (Safety/Security)
- The public entrance is a floor above the department and lift / stairs access is necessary to reach ED reception following drop-off. (Access, Safety/Security)
- Ambulance entrance is at the same level as the ED (Access, Safety)
- Access to the car park following drop –off on Eccles St is very direct and accessible. (Access)
- The location provides a more efficient ambulance circulation and drop-off base across the site. (Operational efficiency, adjacencies and links)
- The location of the department is directly adjacent to Adult ED and will support the provision of major incident / disaster plan treatment across one site-wide ED. (Flexibility, adjacencies and links)
- This option caters for situations where an adult and child are brought together in one ambulance. (Access)
- There is a direct staff link between Paediatric and Adult ED. (Flexibility, adjacencies and links)
- Marginally higher internal circulation due to entrances on two levels.
- Public entrance is adjacent to the Metro entrance.

## 5.2 Option 2

ED Location	Level 1, street level
Ambulance Entrance / Resus	Level 0, off street
Public Entrance	Level 1, from Eccles Street

### Summary:

- Walk in entrance is highly visible, open, accessible and pleasant environment off the street. (Access, Safety/Security)
- The public entrance on Eccles Street will help to ensure children/families are separated from the public entrance to the adult ED. (Safety/Security)
- The ambulance entrance is one floor below the ED and lift / stairs access is necessary to reach the ED Resus area. (Access, Safety/Security)
- Access to the car park following drop –off on Eccles Street is very direct and accessible (Access)
- The ambulance base location adjacent to the Adult ED provides a more efficient ambulance circulation and drop-off base across the site. (Operational efficiency, adjacencies and links)
- The location does not support the provision of major incident / disaster plan treatment across one site wide ED. (Flexibility, adjacencies and links)
- This option caters for situations where an adult and child are brought together in one ambulance. (Access)
- There is no direct staff link between Paediatric and Adult ED. (Flexibility, adjacencies and links)
- The provision of OPD services at entrance level is compromised and OPD is likely to be dispersed across three floors. (Operational efficiency, flexibility, adjacencies and links)
- ED at Level 1 does not support future expansion potential (flexibility)
- Marginally higher internal circulation due to entrances in two levels.
- Public ED entrance is adjacent to the Metro entrance.

### 5.3 Option 3

ED Location	Level 1, street level
Ambulance Entrance / Resus	Level 1, street level
Public Entrance	Level 1, from Eccles Street

### Summary:

- Walk in entrance is highly visible, open, accessible and pleasant environment off the main street, although studies in the U.S have revealed that having the ambulance access adjacent may cause confusion to those arriving by car/foot. (Access, Safety/Security)
- There is no cross over internally or externally between Adult and Children's ED. The public entrance on Eccles Street will help to ensure children/families are separated from the public entrance to the adult ED. (Access, Safety/Security)
- Access to the car park following drop –off on Eccles Street is very direct and accessible. (Access)
- The ambulance entrance off Eccles Street will severely compromise the provision of a pleasant and accessible public environment at the main entrance to the hospital; this is likely to be viewed negatively by the planning authority. (Regulatory)
- The ambulance routes and drop-off locations do not cater for situations where an adult and child are brought together in one ambulance. (Access)
- The location does not support the provision of major incident / disaster plan treatment across one site wide ED. (Flexibility, adjacencies and links)
- There is no direct staff link between Paediatric and Adult ED. (Flexibility, adjacencies and links)
- The provision of OPD services at entrance level is compromised and OPD is likely to be dispersed across three floors. (Operational efficiency, flexibility, adjacencies and links)
- Standard internal circulation requirements.
- Public ED entrance is adjacent to the Metro entrance.

## 5.4 Option 4

ED Location	Level 0, off street
Ambulance Entrance / Resus	Level 0, off street
Public Entrance	Level 0 (adjacent Ambulance courtyard)

**Summary:**

- The walk-in entrance is not visible from the main street, and access is via an external pedestrian ramp to the ambulance yard area. (Access, Safety/Security)
- Studies in the U.S have revealed that having the ambulance access adjacent may cause confusion to those arriving by car/foot. (Access, Safety/Security)
- The location of the department is directly adjacent to Adult ED and will support the provision of major incident / disaster plan treatment across one site wide ED. (Flexibility, adjacencies and links)
- The location adjacent provides a more efficient ambulance circulation and drop-off base across the site. (Operational efficiency, adjacencies and links)
- Direct staff link between Paediatric and Adult ED. (Flexibility, adjacencies and links)
- Children/families arriving to ED are not separated from the public arrival / drop-off to the adult ED. (Access, Safety/Security)
- Loading of all ED access (Paediatric and Adult all ambulant and ambulance attendances) from one location at Level 0. (Access)
- Access to carpark following drop-off is compromised. (Access)
- The relocation of the Metro box will have a major impact on discussion and agreements to date but it could solve the RPA's escape requirements from the Metro.
- This option caters for situations where an adult and child are brought together in one ambulance. (Access)
- Standard internal circulation requirements.



## 6. COMPARISON OF OPTIONS

Following a number of reviews of the options with the ED Group, the following key criteria/requirements emerged, these have been tabulated below and each option has been examined/compared against these criteria/requirements for comparative purposes.

Option	1	2	3	4
<b>Location of Emergency Dept</b>	Level 0	Level 1	Level 1	Level 0
<b>Ambulance Entrance</b>	Level 0 (at rear)	Level 0 by lift (at rear)	Level 1 (from street)	Level 0 (at rear)
<b>Public Entrance</b>	Level 1 by lift/stairs/ramp (from street)	Level 1 (from street)	Level 1 (from street)	Level 0 (at rear)
<b>Public/ Ambulance entrances separate</b>	Yes	Yes	No	No
<b>Access to Carpark from public drop off.</b>	Direct from Eccles St	Direct from Eccles St.	Direct from Eccles St.	From Level 0 ambulance yard to car park problematic. Either right turn only and around the block or additional signals on ramp required to facilitate awkward u turn.
<b>Safety</b>	Separation of public from ambulance yard considered safer.	Separation of public from ambulance yard considered safer.	Safety issues around activity of ambulances crossing public footpath, impeding route from Metro to main Hospital Entrance.  Ref comments from project Health & Safety Consultants (attachment B)	Safety Issues around level of activity on and around end of ramp, All ambulances for Paediatric ED and transfers, some adult ambulances, possible adult ED car access, and pedestrians adjacent to the ramp.  Ref comments from project Health & Safety Consultants (attachment B)

<b>Presence on Eccles St.</b>	Yes, Public Entrance	Yes, Public Entrance	Yes Public Entrance and Ambulances on Eccles St.	No public entrance on street, signage only.
<b>Interface with Adult Emergency Dept</b>	Public Access completely separated from Adult ED.	Public Access completely separated from Adult ED.	Public Access completely separated from Adult ED.	Public Access to Paed ED around same external space as Adult ED.
<b>Operation in a major incident.</b>	Same level as Adult. Could operate as one unit.	Adult and Paed EDs on different levels. More difficult to operate together.	Adult and Paed EDs on different levels. More difficult to operate together.	Same level as Adult. Could operate as one unit.
<b>Night Time Access</b>	Public access from Eccles St considered better than ramp access at night time. Security issues at night adjacent to Metro	Public access from Eccles St considered better than ramp access at night time. Security issues at night adjacent to Metro	Public access from Eccles St considered better than ramp access at night time. Security issues at night adjacent to Metro	Public Access down ramp at night less attractive, possible mixing with clientele from Adult ED.
<b>Connection to retail /café facilities.</b>	Accommodated via main entrance lift and stairs to level 1 . Can connect to main Hospital Concourse and all related public facilities.	Access to retail facilities can be provided directly from department.	No room for retail and café facilities on ground floor due to location of Emergency Dept and ambulance drop off.	As entrance to ED is not on Eccles St, there is no direct access to the public concourse on level 1
<b>Impact on ED internal planning</b>	No particular issues.	Awkward shape to plan the department in. Short stay needs access to imaging.	Major treatment /resuscitation location in the middle of the major patient flow from reception/triage to minors and general assessment with no discrete route to the inpatient lifts.	No particular issues
<b>Access to Courtyard</b>	ED has direct access to courtyard area	Department will benefit from daylight	Department will benefit from daylight	ED has direct access to courtyard area

	as the landscaped level of the courtyard is at level 0. Can be incorporated into the design of the department accessible from waiting area.	provided by courtyard but will not have access to it as it is only accessible from level 0.	provided by courtyard but will not have access to it as it is only accessible from level 0.	as the landscaped level of the courtyard is at level 0. Can be incorporated into the design of the department accessible from waiting area.
<b>Flexibility/Adaptability</b>	More options for expansion available on level 0	Limited expansion opportunities available on level 1, main entrance floor, high demand for space from OPD and general whole hospital support spaces	Limited expansion opportunities available on level 1, main entrance floor, high demand for space from OPD and general whole hospital support spaces	More options for expansion available on level 0.
<b>Statutory Planning Issues</b>	No planning implications	No planning Implications	Contravenes Local Area Plan LAP Objectives. Refer to letter from project Planning Consultants (Attachment C)	No Planning Implications
<b>Hospital Planning Issues</b>	Works well with location of other departments.	Splits OPD over 3 levels, Complicates OPD way finding. Negative Impact on East West OPD concourse design.	Splits OPD over 3 levels, Complicates OPD way finding. Negative Impact on East West OPD concourse design.	Works well with location of other departments.

## 7. KEY CONSIDERATIONS

In determining the optimum solution for the new hospital, the following key considerations were applied to the various options:

a) Access/Entrances:

Discussions with the Ambulance Services and a review of International Best practice has revealed recommendations for dedicated ED entrances for walk in and Ambulance access, in addition, entrances should be separate and distinct to avoid congestion, reduce risk to patients/families from ambulance traffic/movements, and improve access for walk-in patients by providing a clear, dedicated route to the department.

b) Planning requirements and the Local Area Plan

Although the Mater/Eccles Street Campus is fully supported as a medical district under the terms of the Local Area Plan, there are certain expectations for Eccles Street in terms of the hospital entrances being orientated to enhance the public realm, create a vibrant and attractive urban environment and improve safety and security.

c) Health and Safety

In planning the walk-in and ambulance entrances to the Emergency Department, there are a number of health and safety considerations to be observed, these include the car park entrance, the metro entrance, ambulance movements, car movements, public movement along Eccles St.

d) Adjacency to the Adult Emergency Hospital

A key driver identified during the workshops with the cross hospital ED Group was to provide a distinct identity for the new children's hospital. In addition, it was agreed that mixing paediatric and adult ED patients, particularly in common external areas, was not preferred or advisable from a security and safety perspective.

## 8. CONCLUSION AND NEXT STEPS

Based on a comparison of the aforementioned key considerations and requirements, together with a comprehensive review of best practice literature and international design examples, the design team have recommended that we proceed with Option 1 at the next stage of design, and to support the first planning application to Dublin City Council.

Option 1 provides separate and clear entrances for walk-in and ambulance arrivals, with the added advantage of a highly visible walk-in entrance at Eccles St. It also removes the need for walk-in patients to find their way to the rear of the building as per Option 4, this also alleviates concerns regarding the mixing of Adult and Paediatric patients.

In terms of planning the hospital as a whole, and to allow future flexibility, locating the Emergency Department on Level 0 provides a better opportunity to position the ED to support potential expansion.

During the next design stage, there are a number of key areas that appropriately require further development in order to achieve a proposed efficient and safe detailed design solution. These include:

- design development to ensure safe access for walk-in patients from Eccles St
- developing the ambulance access at the rear of the building
- developing an efficient internal ED design
- ensure that natural light is maximised within the department
- ensure that the necessary links and adjacencies are provided

## **9. REFERENCES**

Australasian College of Emergency Medicine, Guidelines on Emergency Department Design

GBBN Article "In and Out of the Emergency Room - Streamlined design of patient flow"

Morgan Stanley Emergency Department in NYC

The Hospital for Sick Children, Toronto, Canada

DELL Children's Hospital, Austin, Texas

Children's Memorial Hospital Project, Chicago

Lucile Packard Children's Hospital at Stanford, California

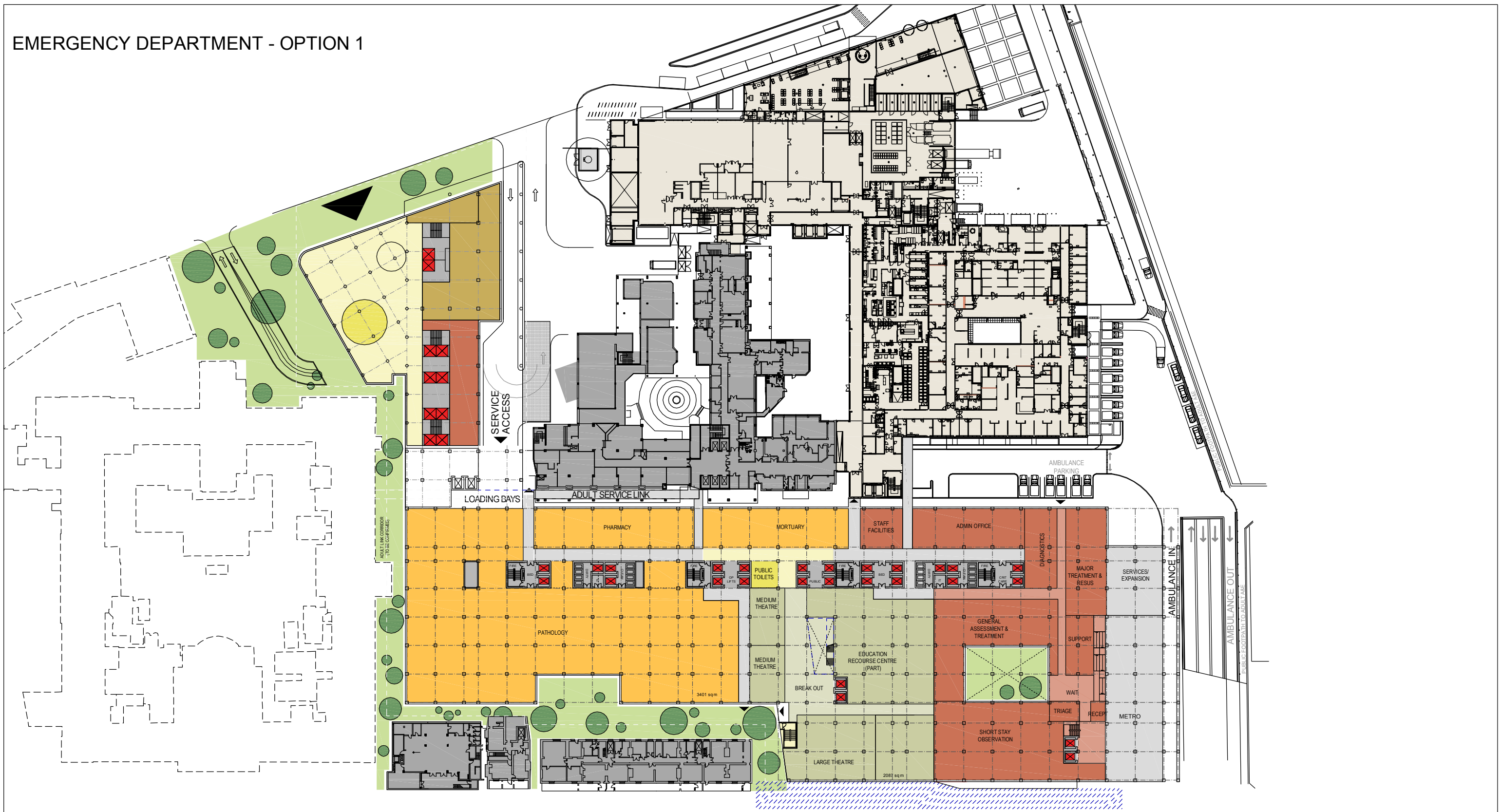
Children's Medical Centre, Dallas

NHS Guidelines

## **ATTACHMENT A**

### **ARCHITECTURAL LAYOUTS**

# EMERGENCY DEPARTMENT - OPTION 1

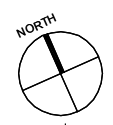


LEVEL 0

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**Children's Hospital of Ireland, Dublin**

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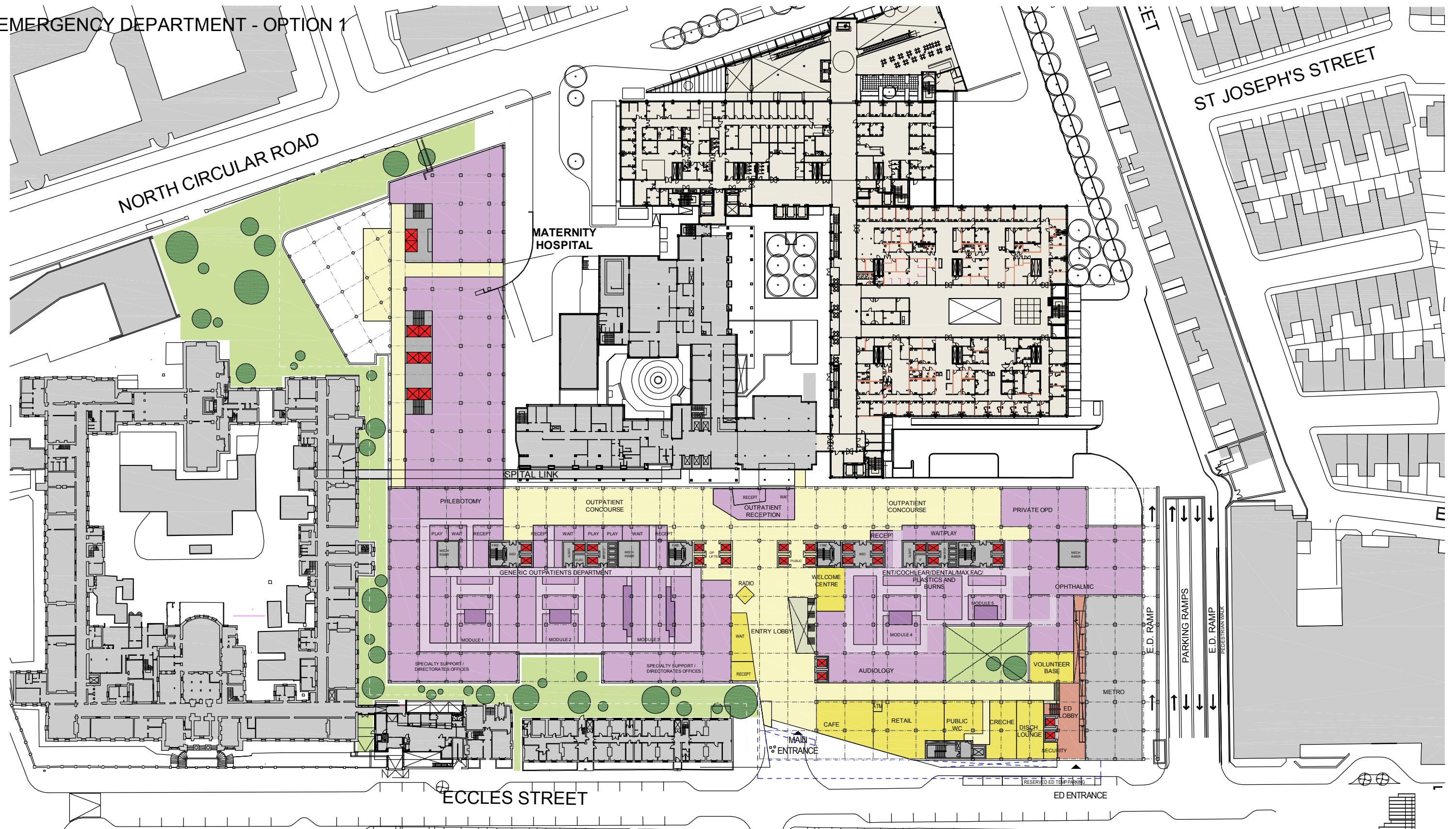
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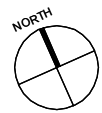


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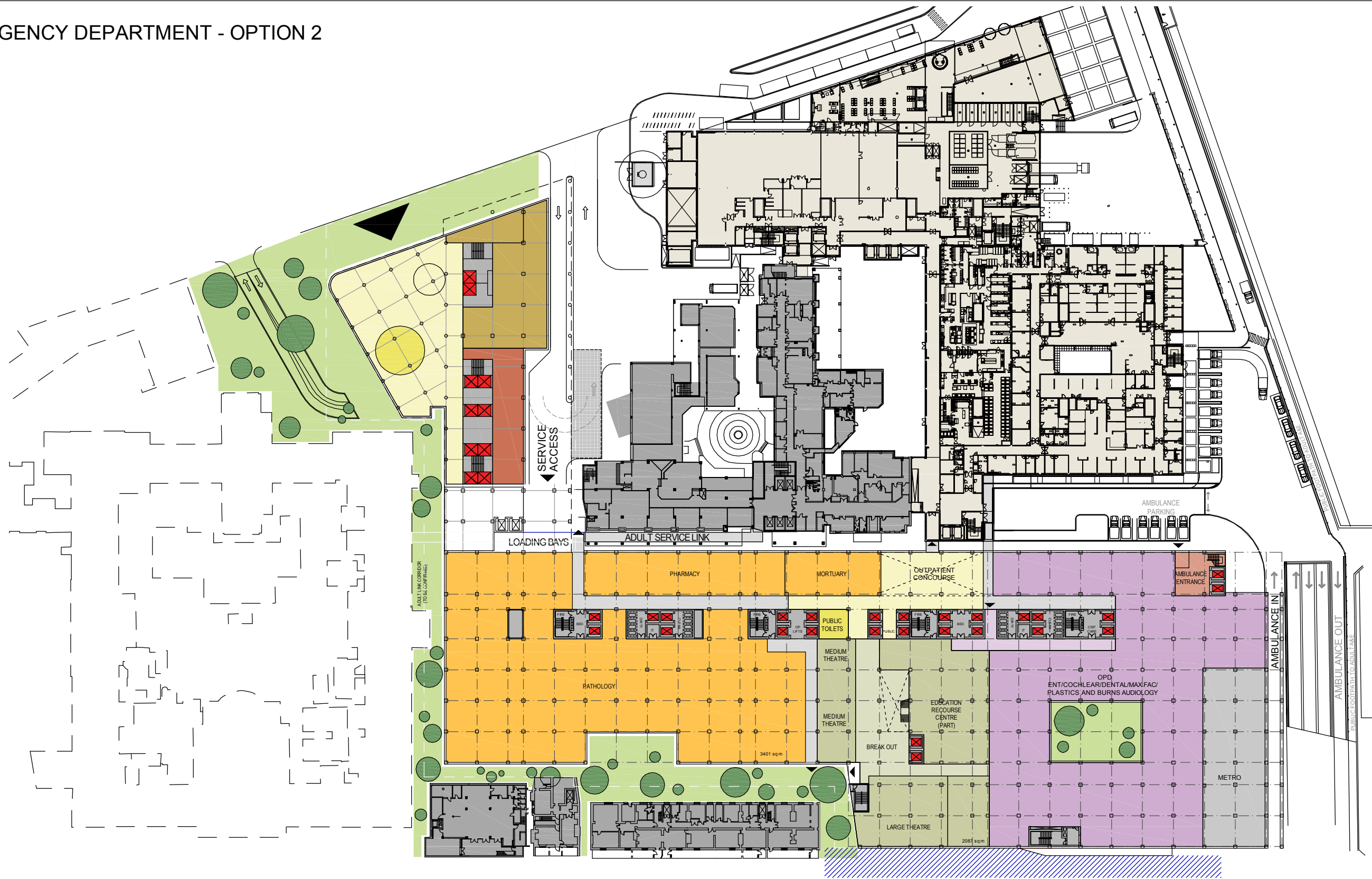
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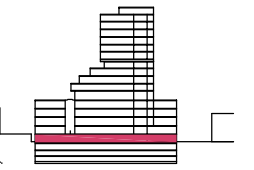
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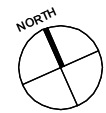
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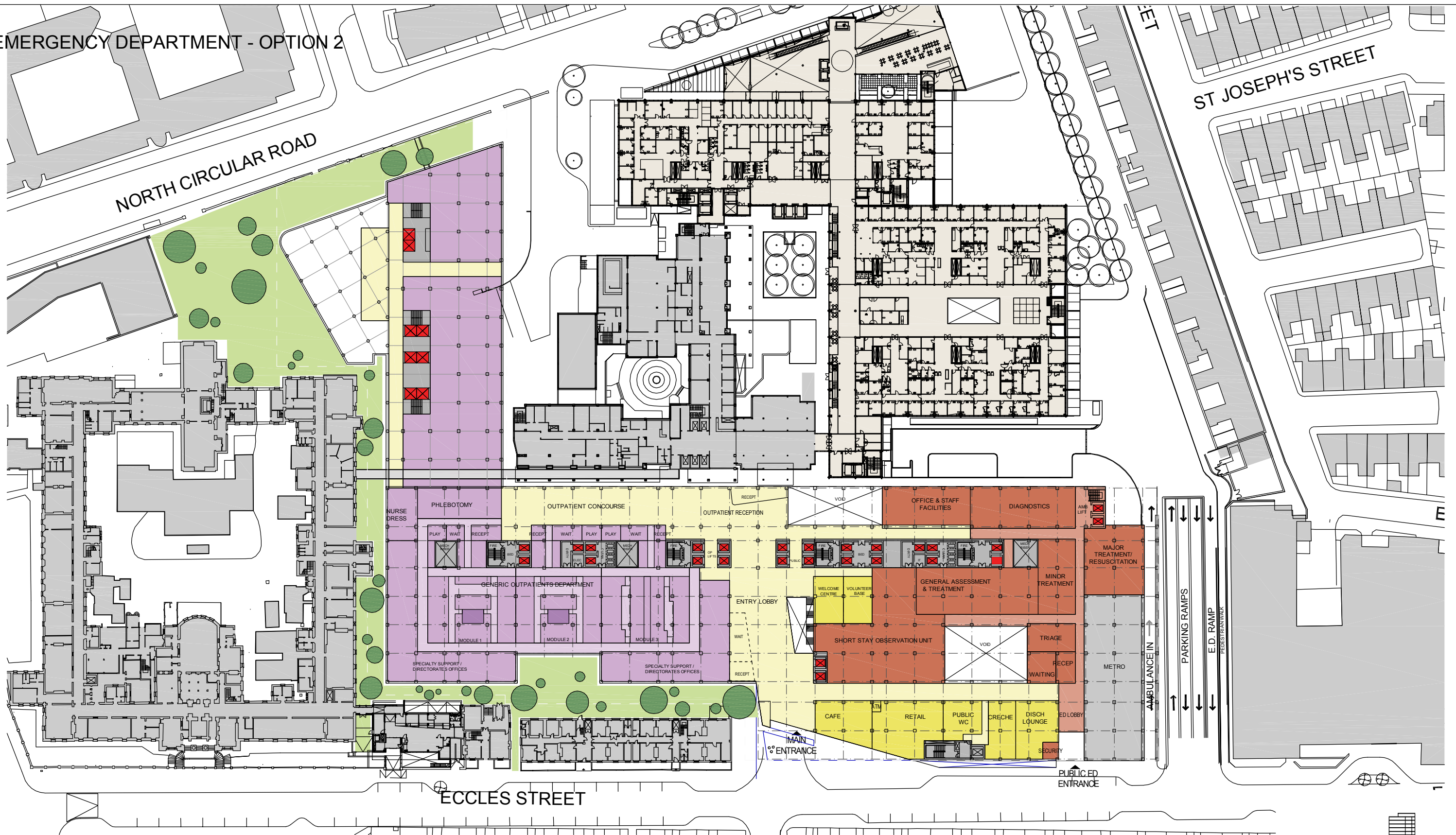
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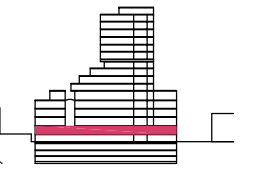
NORTH CIRCULAR ROAD

ST JOSEPH'S STREET

ECCLES STREET



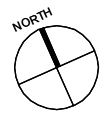
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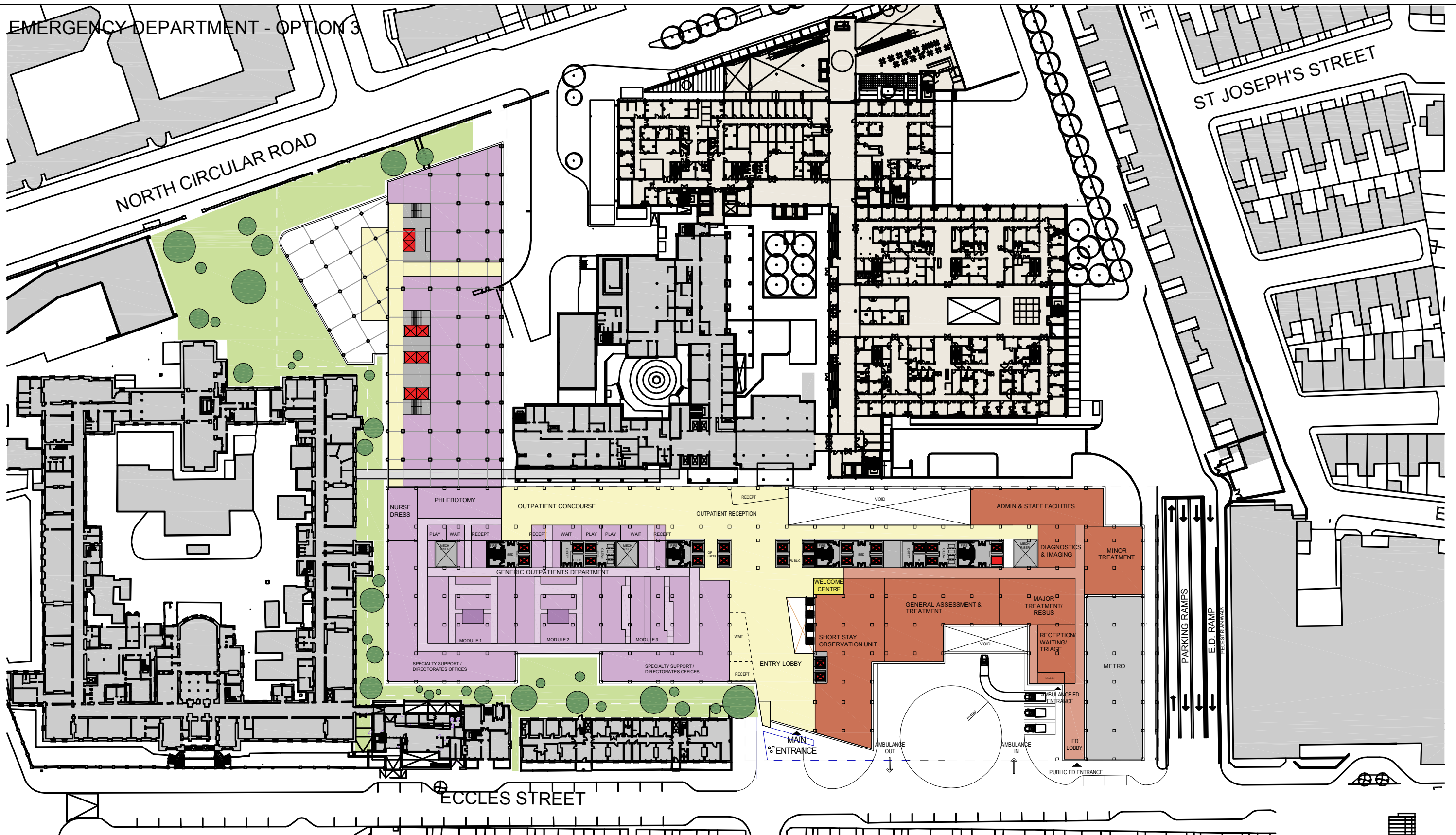
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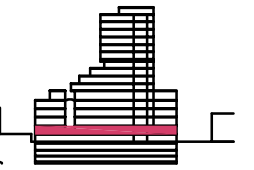
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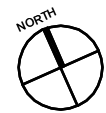
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CLIENT LOGO

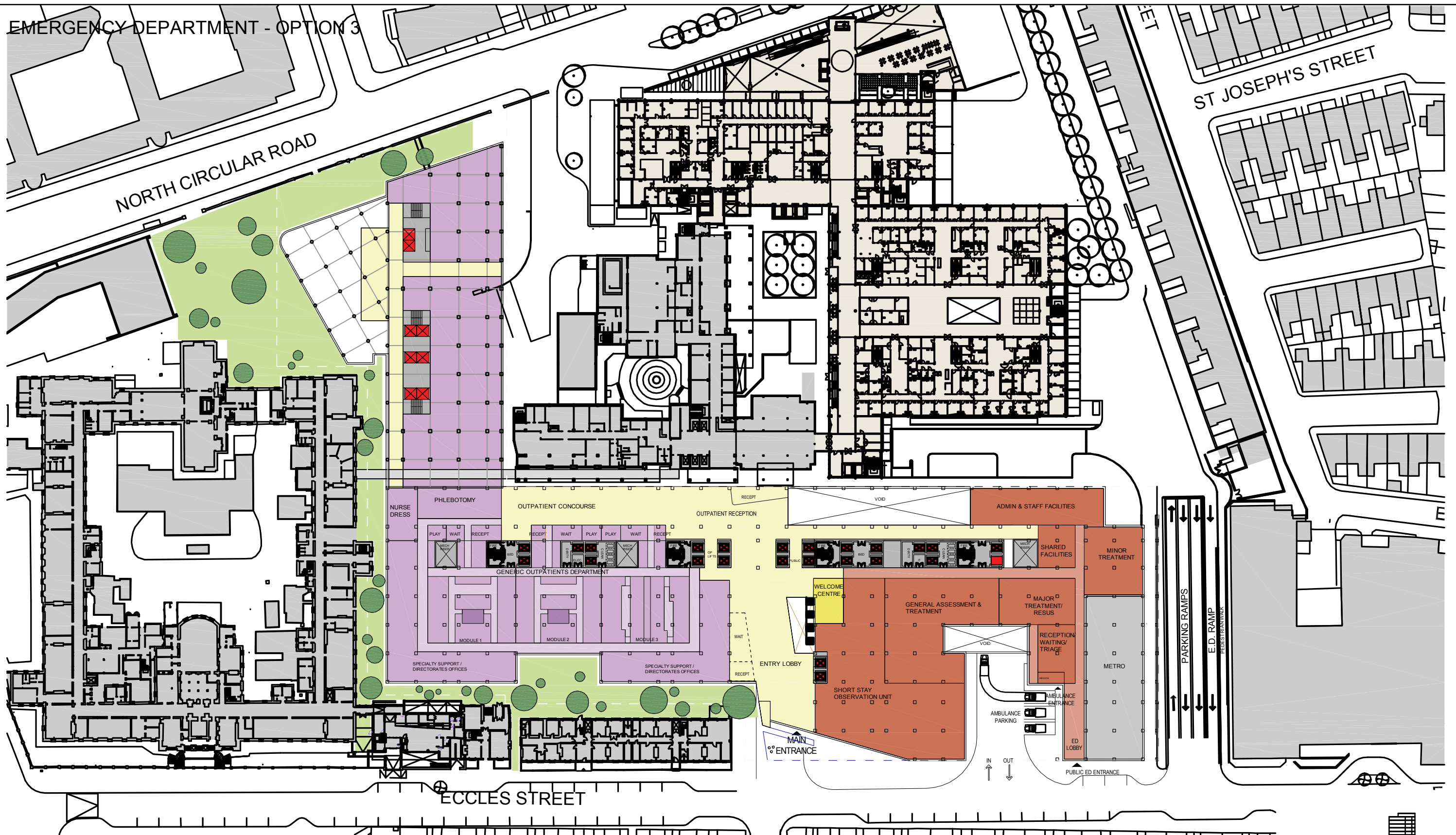
Project: Children's Hospital of Ireland, Dublin

Drawn By:	Date:	Site - Building:	Stage:	Discipline:	Level / Type:	DWG No:	Revision:
Approved By:	DEC 2009	E - CH	2a	A	01	1011	P01



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EMERGENCY DEPARTMENT - OPTION 3



LEVEL 1

NOTES / LEGEND

PLEASE NOTE THE LIGHT GREY AREA IS BASED ON THE ENGINEERING DRAWINGS RECEIVED WITH THE ITT FOR THE PROJECT.

THE IDT HAS REQUESTED THE OFFICIAL ARCHITECTURAL DRAWINGS TO ENSURE CO-ORDINATION AND THESE ARE AWAITED.



0 5m 10m 20m

Revision	Date	Description	By	Revision	Date	Description	By
P1	01.02.10	Issued with Stage 2a report	AM				

STAGE 2A							
GENERAL NOTE							
* DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.							
* THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS AND DRAWINGS.							
* ALL DIMENSIONS TO BE CHECKED ON SITE.							
* IN THE EVENT OF ANY DISCREPANCIES BETWEEN DRAWINGS, THE CONTRACTOR IS TO INFORM THE ARCHITECT IMMEDIATELY.							

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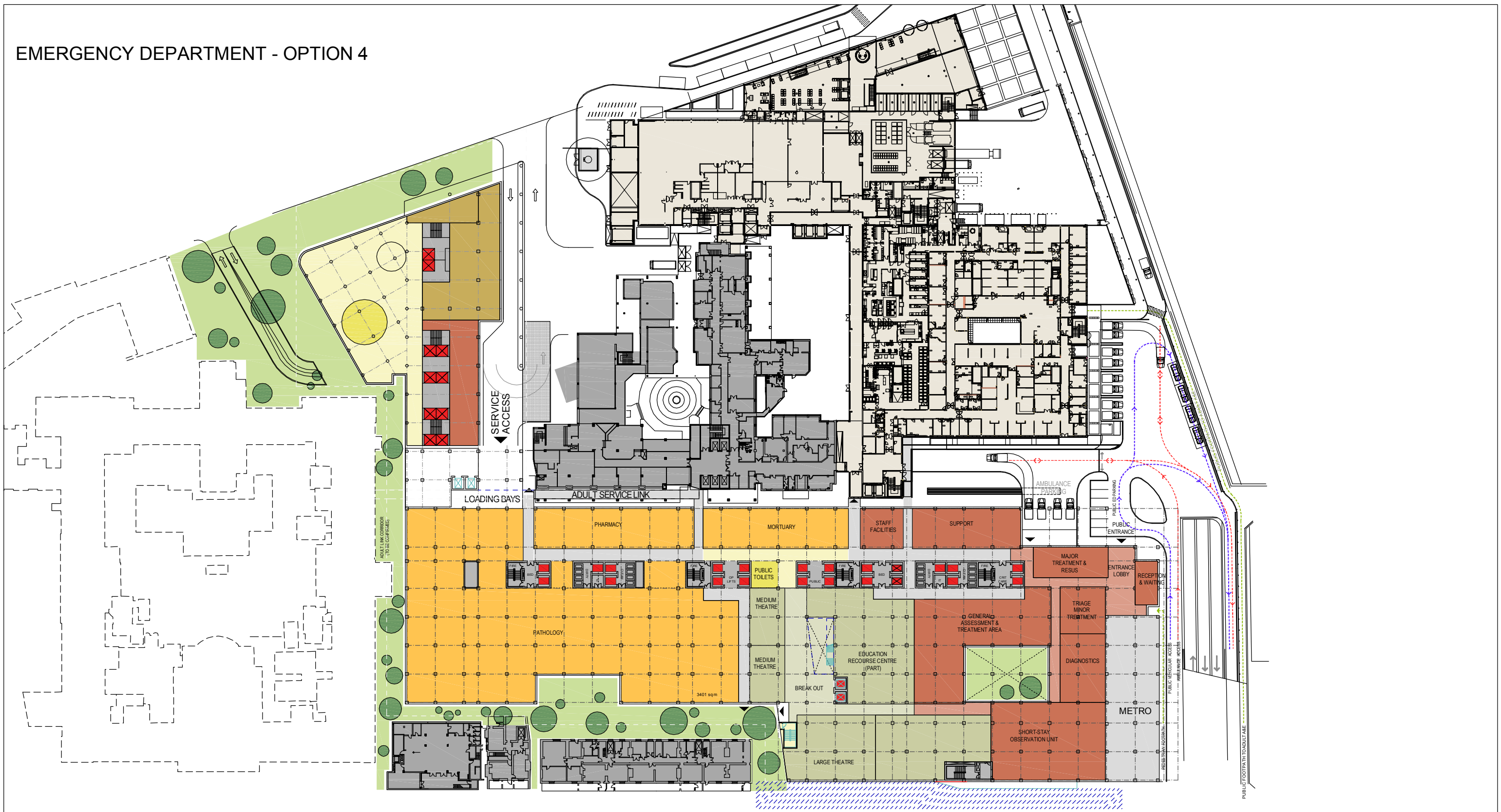
Project: Children's Hospital of Ireland, Dublin

Drawn By:	Date:	Site - Building:	Stage:	Discipline:	Level / Type:	DWG No:	Revision:
Approved By:	DEC 2009	E - CH	2a	A	01	1011	P01



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# EMERGENCY DEPARTMENT - OPTION 4

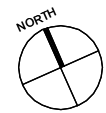


LEVEL 0

## NOTES / LEGEND

PLEASE NOTE THE LIGHT GREY AREA IS BASED ON THE ENGINEERING DRAWINGS RECEIVED WITH THE ITT FOR THE PROJECT.

THE IDT HAS REQUESTED THE OFFICIAL ARCHITECTURAL DRAWINGS TO ENSURE CO-ORDINATION AND THESE ARE AWAITED.



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Revision	Date	Description	By	Revision	Date	Description	By
P01	01.02.10	Issued with Stage 2a Report	GV				

STAGE 2A							
GENERAL NOTE							
* DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.							
* THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS AND DRAWINGS.							
* ALL DIMENSIONS TO BE CHECKED ON SITE.							
* IN THE EVENT OF ANY DISCREPANCIES BETWEEN DRAWINGS, THE CONTRACTOR IS TO INFORM THE ARCHITECT IMMEDIATELY.							

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CLIENT LOGO

Project: Children's Hospital of Ireland, Dublin

Drawn By:	Date:	Site - Building:	Stage:	Discipline:	Level / Type:	DWG No:	Revision:
Approved By:	Scale:	E - CH	2a	A	00	1010	P01

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Children's Hospital of Ireland

Emergency Department





## **ATTACHMENT B**

### **LETTER FROM PROJECT HEALTH & SAFETY CONSULTANT**





9<sup>th</sup> April 2010

Ms. Clare White,  
Murray O' Laoire Architects,  
Fumbally Court,  
Fumbally Lane,  
Dublin 2.

Telephone 00 353 (0)1 669 4489  
Fax 00 353 (0)1 669 4493  
Website www.willis.com

Direct Line 00 353 (0)1 669 4471  
Direct Fax 00 353 (0)1 669 4493  
E-mail cunninghamf@willis.com

**RE: CHol Emergency Department Traffic Management**

Clare,

In response to your request please see comments below.

1. Options 1, 2 and 4 are preferable over Option 3-2 for the following reasons:
  - a. In our view there is a higher risk associated with the proximity of the metro entrance and associated pedestrian traffic in Option 3-2 due to the requirement to cross the ambulance entrance bay.
  - b. Option 3-2 requires an additional extra significant pedestrian crossing point over options 1,2 and 4.
  - c. Due to the proximity of the metro entrance there is a higher probability of pedestrians trying to gain access to the Emergency Department through the ambulance bay and therefore mixing with vehicular traffic.
  - d. Considering that ambulances will already be exiting from the Mater Adult Acute Hospital using the exit for Options 1,2 and 4, Option 3-2 only serves to add an additional ambulance exit point and therefore an additional collision risk point.
  - e. Option 3-2 provides for a vehicle bay that is more open to the public and thus the risk of pedestrian/vehicle collisions and in particular from reversing vehicles is increased over the other three options due to the fact that the ambulance bay is more "private".
2. We do not see Options 1,2 and 4 significantly increasing the ambulance traffic to the Emergency Department on the ED ramp.
3. Option 4 does need to consider the issue of private vehicles dropping directly at the ED and how they will access the car-park. This may be in the form of a widened exit route on the ramp with a signal controlled junction that allows for "U-turns" or similar. Option 4 may have a disadvantage where private vehicles are using the same lane as the ambulances and therefore cause delay to emergency vehicles.
4. The adjacency of the public entrance and ambulance bay at Option 4 also introduces the risk of vehicle/pedestrian collisions though to a lesser extent than option 3-2. This is exacerbated by the fact that Adult Hospital Ambulances as well as private vehicles would also be using the area. Given the high likelihood of people been in a distressed state and communicating via mobile phone to family members people are more likely to be distracted increasing the risk of vehicle/pedestrian collisions.

5. Options 1 and 2 eliminate the concern raised in point 3 above (segregation of ambulance and private vehicles) and also negates the requirement for a “U-turn” from the ED ramp. However they have a cost implication in terms of concierge services and vigilance from hospital staff in ensuring that the area is only used for ED drop-off and is not used as a defacto waiting area for people collecting from the Hospital or nearby adjacent hospitals. We would have a concern that this system may not operate effectively or be reduced during competition for resources between hospital core activities and traffic management activities.
6. We believe that the choice between Options 1 and 2 is based on what works best for the operational hospital as we do not see that there are significant differences in safety issues for either option.
  - a. Option 1 has the added risk of requiring people to descend stairs/ramp and again due to the possible distracted state a higher risk of trip and fall hazards. We note that a lift is available.
  - b. Option 2 has the added risk of requiring lift access from the ambulance bay and therefore a requirement to ensure reliability of the lifts, assuming that the majority of ambulance admissions are not ambulant. The Hospital will also require procedures for coping with downtime during statutory testing.

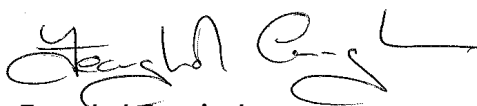
In conclusion Options 1 and 2 provide for a higher level of safety in terms of traffic management when compared to option 3-2 and option 4, however only if correctly supervised and adequate concierge facilities are in place.

Where there is a concern that such supervision cannot be maintained to adequate levels, option 4 would be considered as the next best alternative.

We do not recommend option 3-2 at all.

Should you have any queries in relation to this, do not hesitate to contact me.

Yours Sincerely,



**Fearghal Cunningham**

**Head of Risk Management**

## **ATTACHMENT C**

### **LETTER FROM PROJECT PLANNING CONSULTANT**

Project: Children's Hospital of Ireland  
RPS Project No. 09044

Note for: Mr. Sean Mahon & Ms. Clare White  
NPH Integrated Design Team

From: RPS Planning & Environment  
Date: 7<sup>th</sup> April 2010

**RE: PLANNING COMMENTARY REGARDING DESIGN OPTION  
WITH DIRECT ACCESS FOR AMBULANCES TO A YARD  
OFF ECCLES STREET**

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This commentary is in response to receipt of a 1:500 scale drawing of the Eccles Street Level (file name 'AEstudy\_Opt3.2.pdf') which shows a revised ambulance entrance and yard directly onto Eccles Street. This access yard is located to the west of the proposed Metro Station entrance onto Eccles Street. This yard would presumably replace the main use of the Emergency Department ambulance yard to the rear of this building (which would be accessed from the North Circular Road, with vehicular egress onto Eccles Street in a one-way system). However, it is not clear from the drawing whether the use of the ambulance yard to the rear will cease.

Our comments relate to the revisions made to the Stage 2A Drawing 1101\_Level 1 as posted on Buzzsaw ('the Stage 2A option'). We have not been furnished with any other design option drawings, except the current drawing being discussed. Additionally, we have not been made aware of the reasoning (operational or otherwise) for the location of the ambulance yard directly onto Eccles Street.

Our initial comment on 'the revised option' ('AEstudy\_Opt3.2.pdf') is that it would be a significant disimprovement on the prior Stage 2A design for that level at Eccles Street. While it has not been elaborated how the inclusion of the new Emergency Department yard fronting onto Eccles Street will impact on the floor plates of the levels above, or indeed the hospital's southern façade onto Eccles Street, it would be our opinion that this proposal would run contrary to objectives in the Phibsborough / Mountjoy Local Area Plan 2008 (the LAP), including objectives relating specifically to the Mater Hospital site.

LAP Objectives with particular relevance are listed below:

**Key Urban Design Objectives [Obj UD]**

*4. Develop innovative building typologies which have a greater engagement with the street and, in particular, requiring the predominant use of finer grained buildings and spaces which promote permeability.*

The revised option, which proposes the loss of a significant area of street frontage through the creation of a vehicular access yard, has a diminished engagement with Eccles Street, when compared with the Stage 2A option.

**Key Public Realm Objectives [Obj PR]**

*11. Provide a positive interaction between spaces and the built form, e.g. building frontages, windows and entrances should face onto and overlook the street and public spaces.*

The revised option's vehicular yard reduces the quantum of building frontages, windows and entrances which would face onto and overlook Eccles Street.

**Key Safety and Security Objectives [Obj SS:]**

1. Buildings should be positioned so that they front onto and overlook the public domain. Buildings should also form a perimeter around areas of communal or private open space.

The revised option reduces the quantum of building frontage overlooking the public domain. Additionally, the original proposal for the ambulance yard to the rear is complementary to the above objective requiring a perimeter around areas of communal or private open space, whereas the revised option is not.

It should be further noted that the LAP requires in its 'Architectural Design Principles' that:

*The optimum layout of buildings and spaces should be derived from a thorough site analysis, as part of the masterplan design statement; this collates information on the characteristics of the site and its context, and provides a clear rationale for the design concept proposed.*

While the updating of the Site Masterplan for the Mater Site is ongoing, it is unlikely that a clear rationale for the revised option could be provided in planning terms that would show it to be preferable to the Stage 2A option.

**Local Site Framework Strategies**

The LAP contains Local Site Framework Strategies for various 'Key Development Sites', including the Mater Hospital.

In this regard, the LAP acknowledges the proposed development of the site for the Children's Hospital of Ireland:

*Following the Government decision to locate the new National Paediatric Hospital at the Mater Hospital, the site will be the subject of major redevelopment which will consolidate it as a medical facility of national and international significance.*

**Indicative Site Uses (Mater Hospital Site)**

The LAP contains details of Indicative Site Uses specific to the Mater Hospital Site, including the following:

*Where possible, active ground floor uses should be provided and individual building entrances orientated to enhance the public realm, create a vibrant and attractive urban environment and improve safety and security.*

*It is considered appropriate that a medical campus of the scale proposed should also include ancillary retail, services and commercial units and these uses will be supported by the planning authority particularly at ground floor level adjacent to the main public arteries.*

The Stage 2A option contained a proposed café, retail area, crèche and other ancillary uses at ground floor level adjacent to the main entrance, with the ambulance yard to the rear of the building. The revised design has replaced these vibrant uses with a large vehicular access yard onto Eccles Street. The Stage 2A option is clearly preferable in this regard.

**Indicative Urban Structure / Public Realm (Mater Hospital Site)**

The LAP contains details of Indicative Urban Structure / Public Realm specific to the Mater Hospital Site, including the following:

*The proposed location of a new underground metro station adjacent to the Mater Hospital will add further positive dimension to the redevelopment of the hospital and the overall objectives of the LAP for permeability and accessibility. Dublin City Council will seek the provision of an entrance to this proposed underground Metro station on Eccles Street in order to allow for increased accessibility for the area as a whole, further integrating the hospital into the existing urban structure.*

The location of a large ambulance access yard between the main entrance of the hospital and the metro station will not assist in the integration of the hospital into the existing urban structure. In this regard, the Stage 2A option is preferable.

#### **Indicative Urban Form / Building Heights (Mater Hospital Site)**

The LAP contains details of Indicative Urban Form / Building Heights specific to the Mater Hospital Site, including the following:

*The form of the hospital buildings and the spaces between them shall be required to create an environment which is pleasant to use; easy to read and move around; and contributes to the overall quality of the urban experience. A rich variety of architectural expression is encouraged, creating a vibrant and stimulating environment.*

*The design of the individual building blocks shall make clear distinctions between public fronts and private backs with particular regard to the routes created through the hospital and buildings facing streets, squares and parks which shall be required to provide continuity of street frontage and where possible active ground floor uses.*

The revised option is not consistent with the objective to 'provide continuity of street frontage and where possible active ground floor uses'. The revised option has also replaced vibrant public 'front of house' uses (café, shop etc.) with the 'back of house' use of an ambulance access yard, which was indicated to be located to the rear of the hospital building in the Stage 2A option. In this regard, the Stage 2A option is preferable.

#### **Key Site Objectives (Mater Hospital Site)**

LAP's Local Site Framework Strategy for the Mater Hospital Site contains a number of 'Key Site Objectives', including the following:

*The LAP seeks to facilitate the optimum development of the Mater Hospital site in accordance with the following:*

*10. Contribute significantly to streetscape and public realm improvements along North Circular Road, Eccles Street and Berkeley Road.*

Having regard to the above, the Stage 2A option would contribute more positively to improving the streetscape and public realm along Eccles Street than the revised option. In this regard, the revised option, which introduces an ambulance access yard onto Eccles Street, is a disimprovement in design that would not be consistent with the abovementioned objectives of the statutory Local Area Plan for the development site.