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EGIP Strategic Review

Transport Scotland's Requirements

- Is it possible to deliver the key EGIP objectives whilst also substantially reducing the CAPEX and OPEX budgets?
- The key objectives for Transport Scotland are;
 - Increase capacity on the Edinburgh – Glasgow Route
 - Deliver a reduction in journey time
 - Reduce the Carbon footprint

Jacobs' approach

- Assess the existing Scheme
 - Are all the infrastructure schemes on the E and G route required?
 - Is it possible to defer some of the infrastructure elements by extending the construction programme 5, 10 or 15 years and thus deferring cost?
- Is there an alternative solution that could deliver Transport Scotland's objectives?

Conceptual foundation of the existing Scheme

- There is a clear message throughout all the documentation reviewed that the overwhelming majority of infrastructure enhancements are driven by a 6 trains per hour service pattern. There is no evidence to suggest that this situation has changed
- From the evidence available, the Programme as currently proposed appears robust and will deliver the benefits identified

Opportunities to cancel work packages

- With the possible exception of the electrification to Stirling / Dunblane / Alloa, all of the main proposed work packages are considered essential to deliver the identified benefits
- It has not been possible to identify how substantial savings could be achieved through the deletion of works packages from the existing Scheme without a major reduction in benefits

Extension of the existing Programme

- It is perfectly feasible to extend the Programme by deferring individual works packages. However, this will lead to;
 - Greater cost
 - Longer period of disruption
 - The risk that new infrastructure might be rendered redundant by a new High Speed Line between Glasgow and Edinburgh
- Most importantly, the main benefits of the existing Scheme will not be realised until all the main works packages are complete

Could there be an alternative solution?

- There are two ways to increase passenger capacity
 - Operate more trains
 - Run longer trains
- There is no evidence that any serious work has been undertaken to examine the option to run longer trains
- It is likely that the primary reason for this is that it was not considered possible to fit longer trains into Queen Street station.
- Intermediate stations and Waverley platforming also require addressing

A once in a generation opportunity

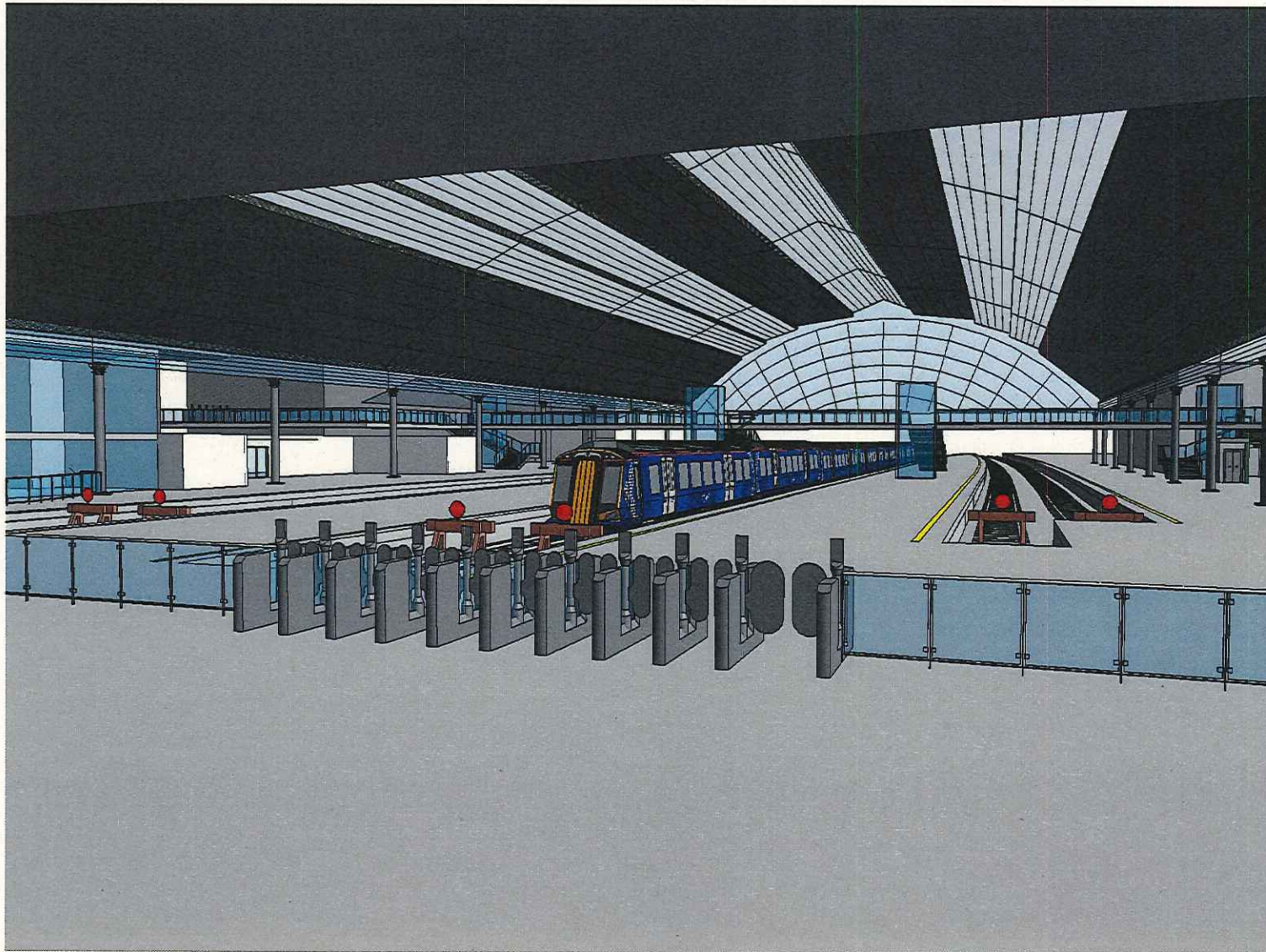


Network Rail announced proposals to redevelop Queen Street station

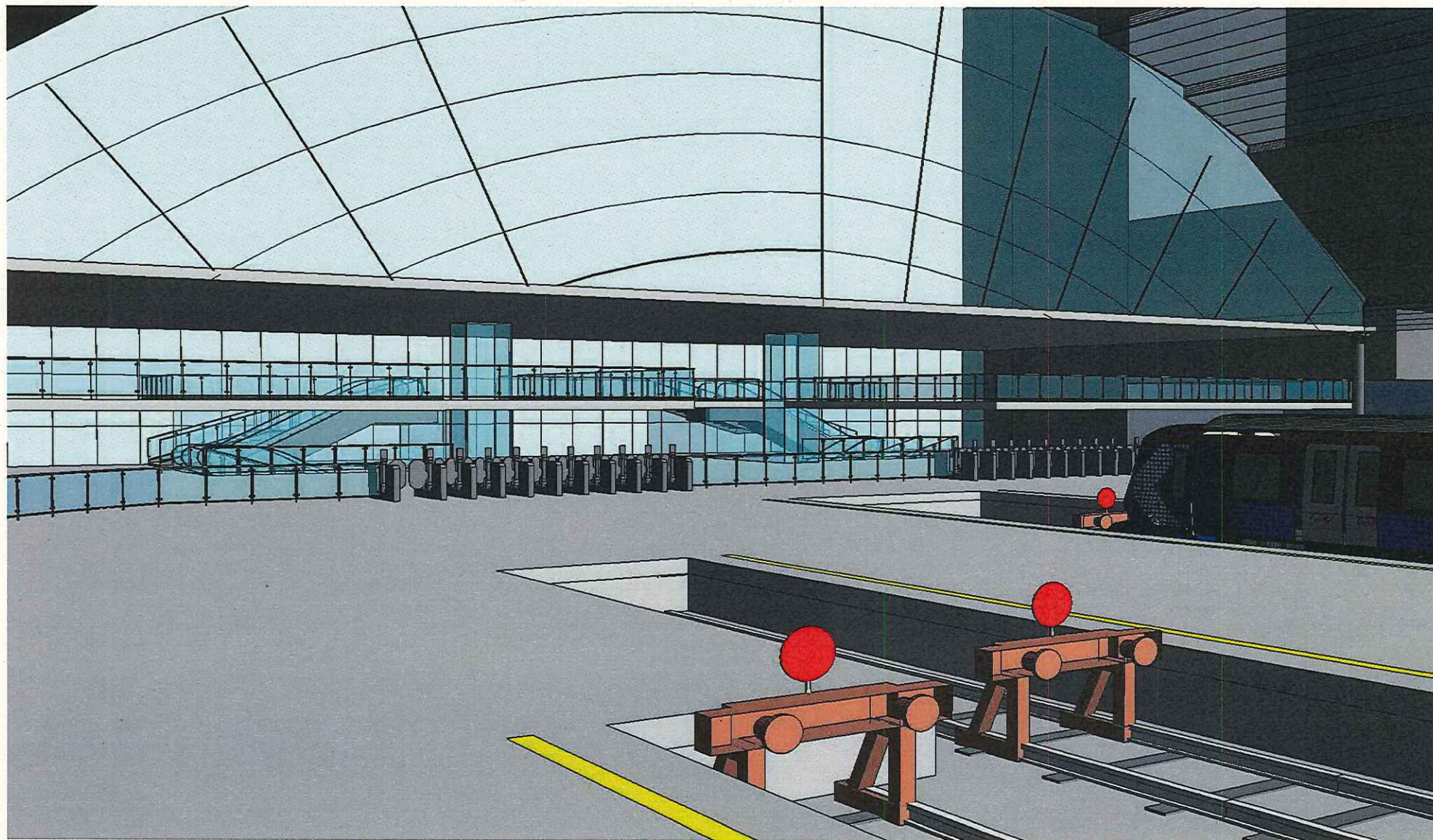
Queen Street Redevelopment

- Network Rail has published proposals to redevelop the station and demolish the Millennium Hotel extension
- Given this space, it would appear possible to remodel Queen Street station to accommodate 8 car trains for the Edinburgh service
- If 8 car trains could be introduced, a basic electric 4 train per hour timetable could be implemented, delivering improved journey times without requiring the majority of the infrastructure in the existing programme

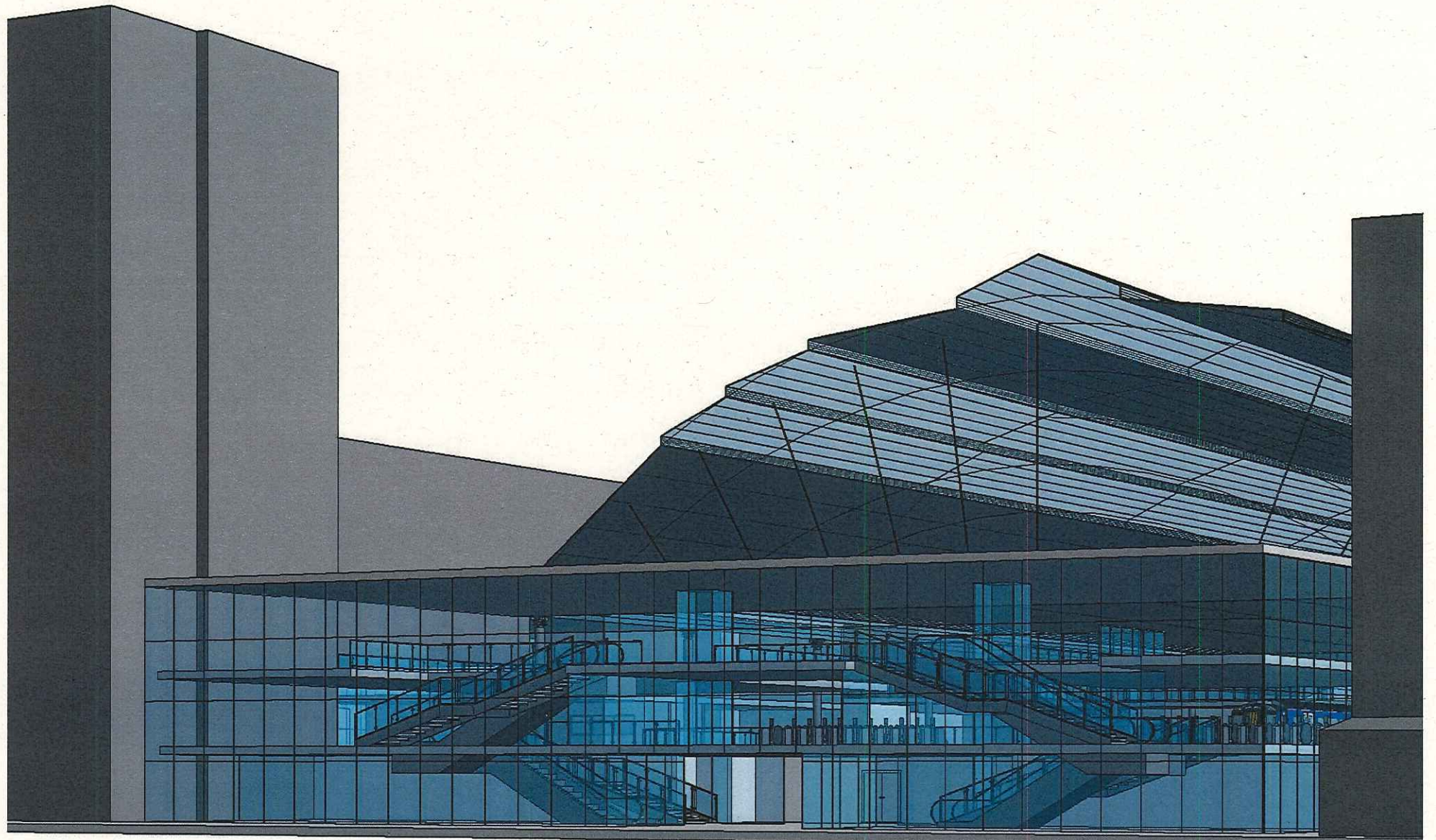
Alternative Design

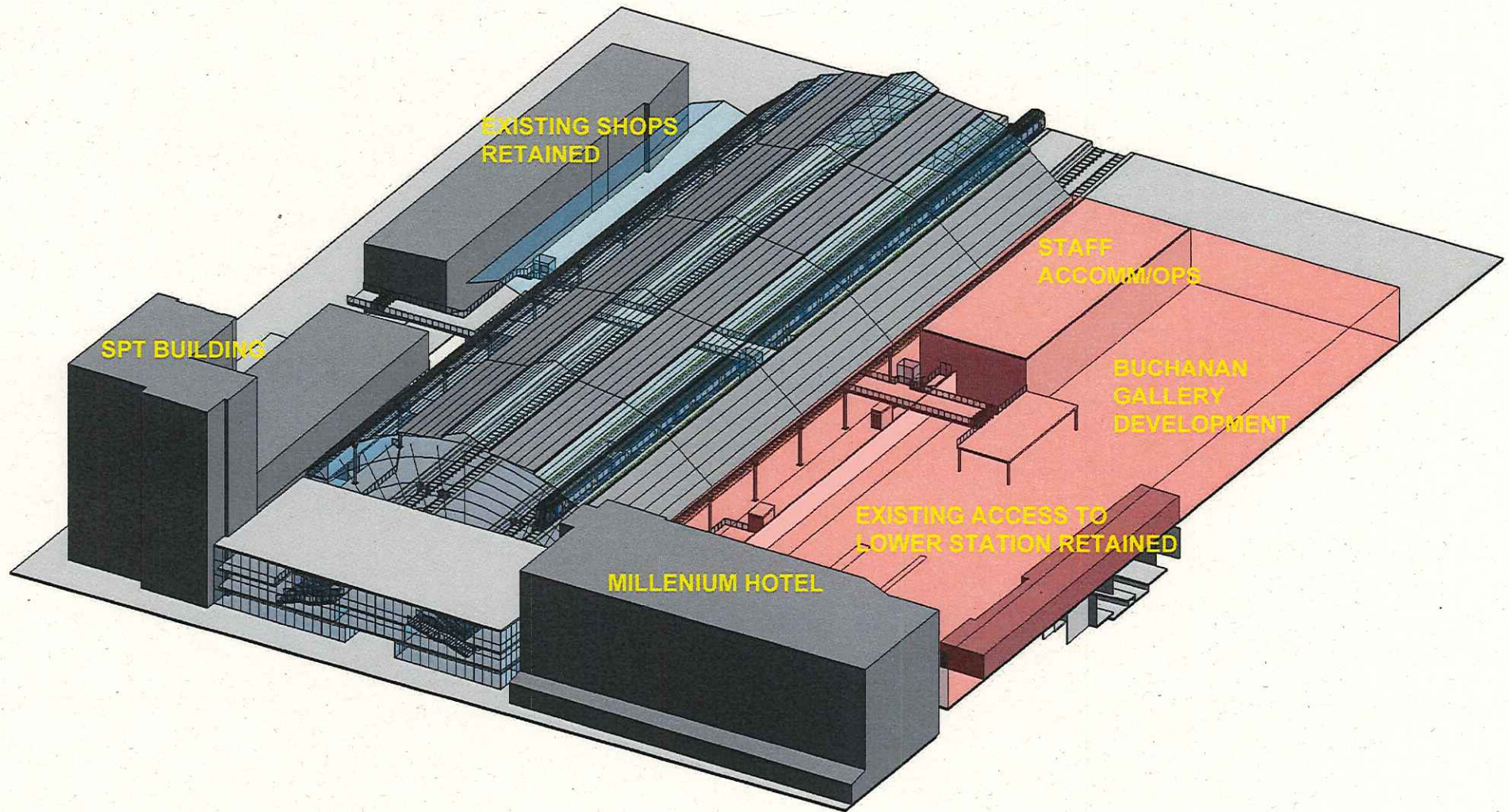


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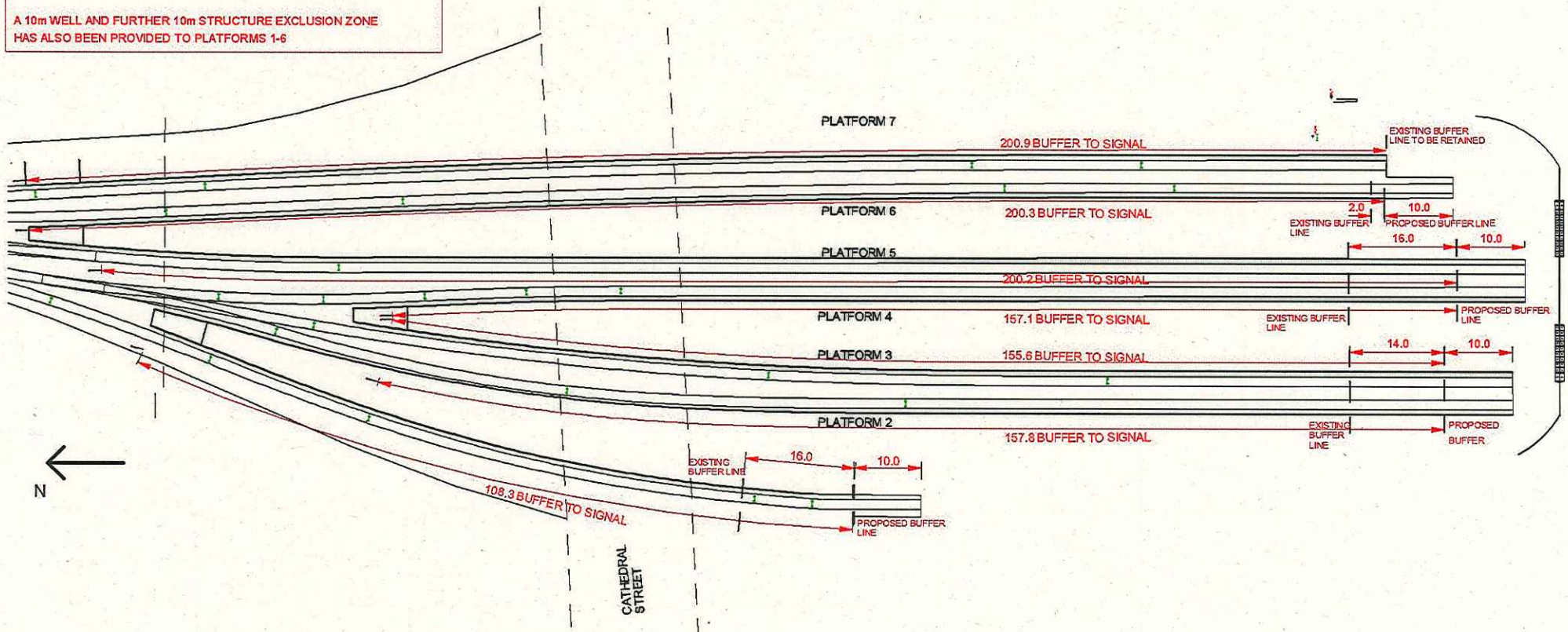


Platform Capability

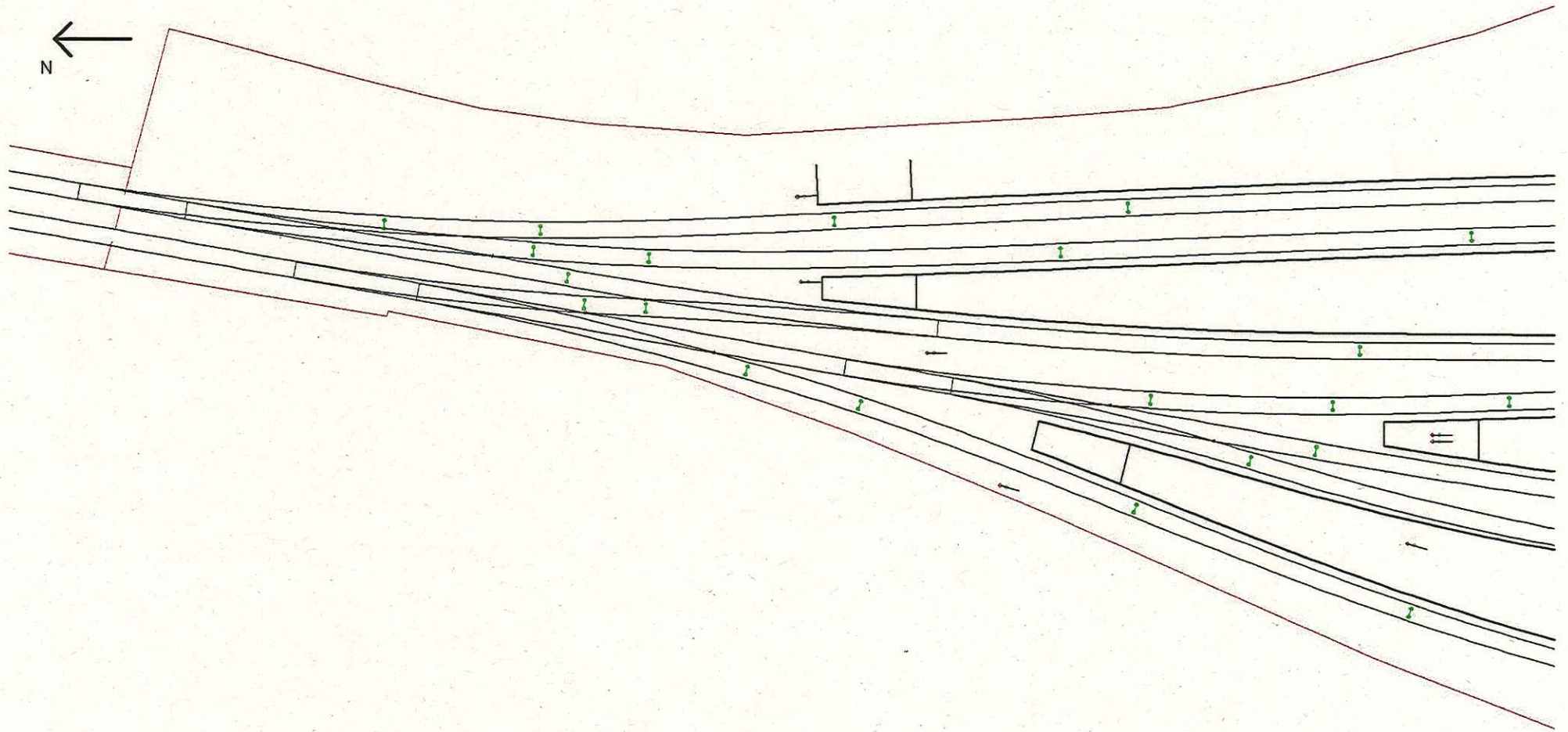
PROPOSED PLATFORM LENGTHS AND CAPABILITIES:

PLATFORM 1: 108.3m - 4 Car Class 170 capability
 PLATFORM 2: 157.8m - 6 Car Class 170 capability
 PLATFORM 3: 155.6m - 6 Car Class 170 capability
 PLATFORM 4: 157.1m - 6 Car Class 170 capability
 PLATFORM 5: 200.2m - 8 Car Class 380 capability
 PLATFORM 6: 200.3m - 8 Car Class 380 capability
 PLATFORM 7: 200.9m - 8 Car Class 380 capability.

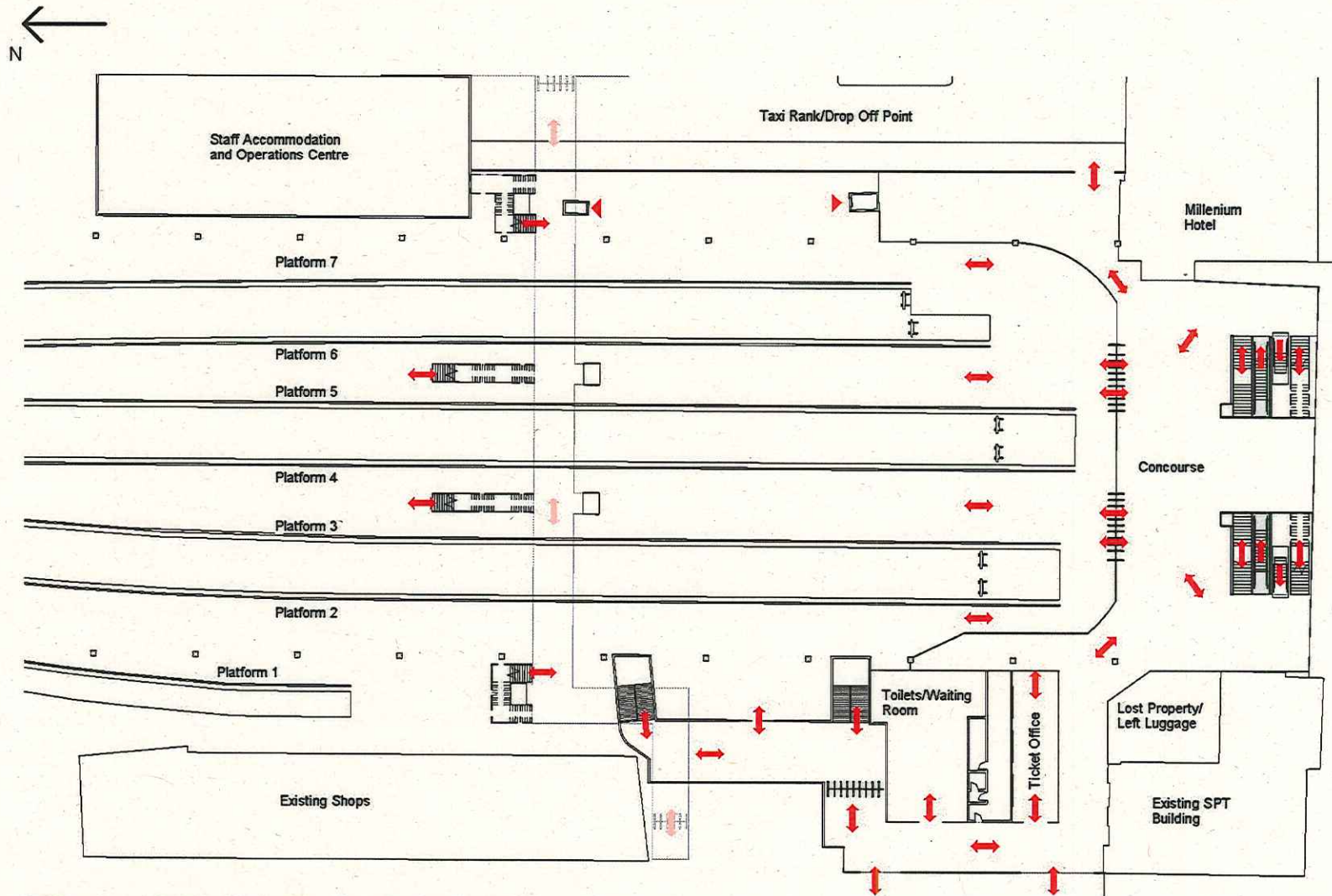
A 10m WELL AND FURTHER 10m STRUCTURE EXCLUSION ZONE HAS ALSO BEEN PROVIDED TO PLATFORMS 1-6



Station Throat

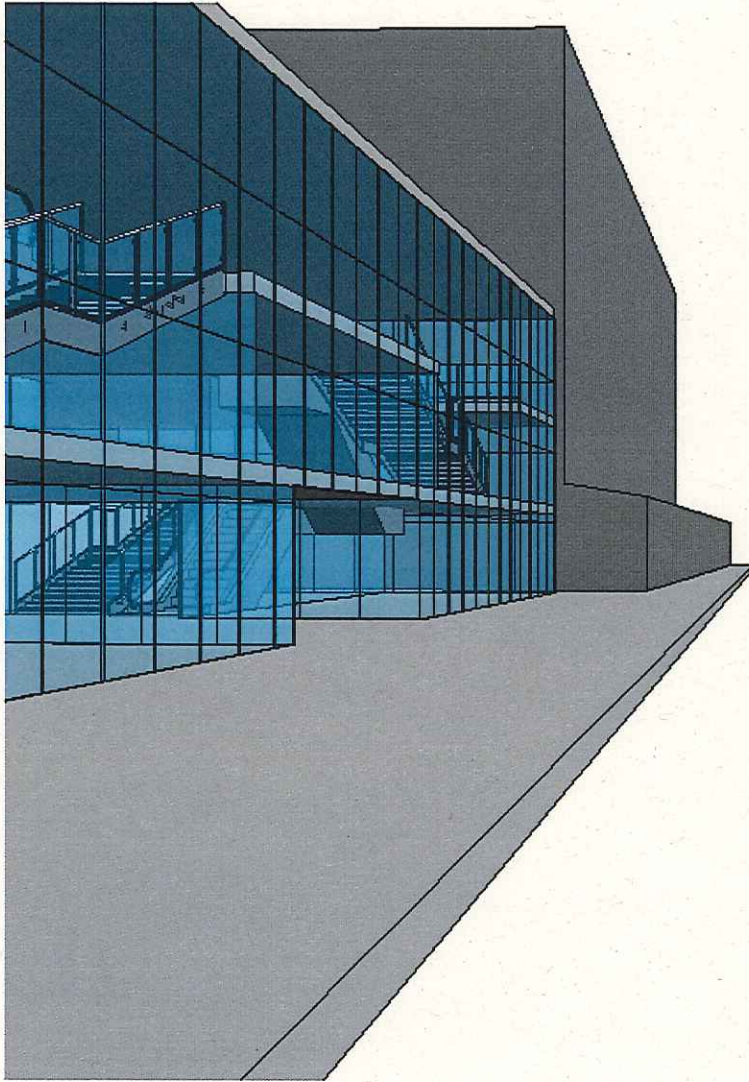


Revised Concourse and Passenger flows



Platform Level Predicted Pedestrian Flow Routes Overlayed onto Proposed Station Plan

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Additional Requirements

- Four intermediate stations require platform extensions or the agreement to use Selective Door Operation
- Options for platform extensions at each location have been identified
- Glasgow services would need to be focused on 8 car platforms at Waverley
- Analysis of the proposed timetable and Waverley Docker indicates that whilst difficult, a solution to the platform requirements should be possible.

Additional 5th Peak Service (The Flyer)

- Capacity issues appear to be focused on a specific period of time in the morning peak around 08:00
- 4tph x 8 Car increases capacity
- A further capacity increase around 08:00 could be delivered by a single fast service in each direction
- Analysis of the proposed timetables indicate that one fast train a day, each way should be possible
- This one train will allow the service to be advertised with times below 40mins

Potential Benefits

- An electric 4 train per hour, 8 car scheme could deliver;
 - Increased Capacity
 - Reduced Journey Time of around 42 mins
 - Improved Performance
 - Additional capacity and headline journey time from one fast train, each way, per day
- This scheme does not require, Greenhill Jct, Dalmeny Chord or Croy Turnback

Additional Issues

- This proposal assumes that electrification to Stirling is deferred
- Gogar Station (Edinburgh Gateway) is included in our costs even though no Glasgow services will call there
- This proposal is based on the existing calling pattern, speeded up by electrification but omits new stops at Edinburgh Park for Glasgow services

Conclusion

- If the existing EGIP scheme is considered unaffordable in the current economic circumstances, then an alternative proposal that appears to meet both Transport Scotland's and EGIP's objectives should be urgently considered