

- The colour of poles must be carefully considered

In any length of street or section of route, a number of factors have to be considered to achieve an overall balance of visual appearance. Clause 5.92 of the Tram Design Manual identified the following issues to be addressed:

- Availability and suitability of buildings for the application of building fixings from a technical, aesthetic, and architectural/historic sensitivity point of view. Building fixings are included in the Tram Acts, and therefore Prior Approval is relevant.
- Numbers and sizes of poles. A greater number of smaller poles may well be preferable to a smaller number of larger poles;
- Position of poles in respect of highway safety (with consequential protection requirements) and rationalisation of street clutter;
- In areas of curvature there are likely to be trade-offs between the numbers of supports (poles and/or building fixings) and the quantity of support wiring. There may be more flexibility in areas of horizontal curvature than in areas of vertical curvature;
- To achieve maximum integration with street lighting, but typical spacing is usually different for the two requirements and height of street lighting must be considered in the visual impact of pole design;
- Colour and design. The selection of colour and design of both poles and lines should be consistent with other street furniture and should consider the visual appearance;
- Ancillary wires and other features should be co-ordinated and their effects considered holistically along with other trackside equipment

Principles of Design for Alignment in paragraph 4.31 include the following:

- Ensure a good relationship of the tram system with other modes of transport including pedestrians, cyclists, buses, taxis and private vehicles
- Contributing to a comprehensive approach to the public realm

Detailed guidance is contained in paragraph 5.89. These include:

- Take due cognisance of the particular sensitivities within the WHS and conservation areas
- Maximise the space for pedestrians

Poles may take a number of standard forms e.g. hollow circular; hollow circular and stepped; universal columns; hollow square (special fabrication). Circular options are generally preferred and allow easier attachment of equipment at different angles. The top of the pole needs a cap to prevent water ingress. This may be a decorative finial if required. The height of poles is dependent on the location and there is a preference to adopt a limited number of standard lengths of pole. Higher poles are generally of larger diameter/width and there are again a limited number of standard options available.

There are a number of alternative foundation options for poles. Some require the base of the pole to be bolted onto the foundation, which has advantages for future replacement. Disguise or treatment at the base must be addressed.

For safety reasons, OLE poles are not frangible, unlike street-lighting columns. Because of this, OLE cannot be mounted onto existing columns. Therefore consideration should be given to rationalisation of other elements onto the new OLE columns. The principal implication of this is for street lighting, requiring electrical safety and maintenance principles to be established. Signage may also be considered.

Poles may be placed centrally between tracks or to the side of a single track or of double track. Where poles are close to the track, rigid cantilever arms are normally used to support the contact wires. With central poles, the cantilevers are balanced to either side and pole height can be

minimised. Cantilevers can be used over two tracks from a side pole, although there is an effect on the height of the pole due to the greater length.

5.2 Site Development Proposal

This Prior Approval application is for approximately 0.3km of tram route along York Place from Elder Street to Picardy Place. Works include erection of the York Place tramstop and associated street furniture; the repositioning of two OLE poles to accommodate the tramstop, revised kerb lines and the repaving of footway.

The main impacts of implementing the tram will result in meeting the substantial geometric challenges arising with the existing carriageways and footways. The existing street has a significant cross slope, with the severity lessening from west to east.

Access and Security

As an island tramstop location, customers will only be able to access the York Place tramstop from either the western or eastern ends. Access to the western end of the tramstop will be via a staggered pedestrian crossing, whereby customers will cross the eastbound carriageway or the westbound carriageway and the tramline. Access to the eastern side of the tramstop will be via the pedestrian refuge island at the junction of York Place, Broughton Street and Picardy Place.

York Place tramstop is an island location within the carriageway but operates as a single sided tramstop. To ensure passengers waiting or alighting from the tram do not accidentally stray into the westbound carriageway, pedestrian guardrail will extend along the back of the tramstop between the pedestrian crossings at either end of the tramstop.

Street lighting will be utilised to illuminate the proposed York Place platform. Generally 'Best Practice' will be demonstrated in meeting the objectives set out in the document 'Edinburgh Standards for Sustainable Building'.

Along the north side of York Place, the levels will remain the same or be revised to make up to the geometric changes along the street which facilitate the tram. Steps along the south side of the street will be reduced or eliminated where possible.

Overall, the new layout will benefit the traffic management in the area. It is linked to traffic management in Picardy Place.

Maintenance

The need for low maintenance materials and finishes is implicit in the Tram System Operating Policy. It is recognised that vandalism, if not dealt with as it is perpetrated, will lead to a complete breakdown of the visual amenity in any urban location. In order to ensure that clean-up events are kept to a minimum, the specifications of all materials used in construction have been chosen to provide ease of cleaning without the use of toxic cleaning agents. Similarly, the OLE poles will require regular maintenance.

Routine maintenance of the tram facilities will be completed by the operator under a scheduled plan. Regular inspections of the facilities will occur to ensure that the infrastructure is kept to the required standards within the public spaces.

Landscaping

There is no existing vegetation in this area. With the space constraints, no new landscaping is proposed. The design ethos of this proposal is very much 'wall to wall' hard landscaping, in keeping with a historic Georgian street.

Surface Finishes

The tramstop materials have been specified to match the existing paving on York Place. The Roads Design Specification document *Appendix 11/1 Kerbs, Footways, Cycleways, Laybys and Paved Areas* defines the approved tramstop finishes for the entire tram route. However, this does not include the new additional of the York Place tramstop.

York Place tramstop will be constructed using pre-cast concrete coping plus upstand and pre-cast concrete 400mm square paving slabs in a grid pattern.

Where levels permit, the existing surface finish materials along the footways will be retained throughout this section. Where it is not possible to retain the existing footway material, the new footway will be constructed using natural coloured pre-cast concrete slabs, 600mm by 450mm.

The carriageway will be finished in black asphalt (as existing). The tramway, where not shared with other traffic, will be separated from the carriageway lanes by a low natural whin stone kerb, with a textured concrete finish to delineate the tramway from carriageway in a sympathetic manner through this important space. This design approach will minimise the need for multiple coloured asphalt surfaces and minimises the need for signs and road markings.

Tramstop Details

The platform structure, which is 40 metres long and 3 metres wide, is only 300 millimetres high, and it is therefore not going to be a dominant element within York Place, hence minimal visual impact. Fundamental aims are for efficient passenger pick-up and to de-clutter the area - hence to minimise and share elements of equipment. The positioning of all elements on the platform is done with purpose, taking a best practice approach to passenger comfort and use, and combining it with the technical constraints that are present at the tramstops, including locations for ducting, subsurface drainage, foundations for elements, etc.

The kit of parts will consist of: shelter, benches, bins, passenger information displays, ticket machines, CCTV, Public Announcement system, tramstop name / logo signs, and information displays. The elements on the tramstop will be derived from the same family, with similar materials and themes throughout. These will be selected around the shelter, which is the main feature of the tramstop. The consistent use of this kit, coupled with similar placement of these mandated elements around the Edinburgh Tram system at each tramstop will provide a consistent, de-cluttered, and coordinated approach to the tramstops, giving identity to the system, and making the system much more user friendly.

The tramstop shelter will be 7.2 metres in length and a cantilever construction. Ticket vending machines are strategically grouped on the platform at specific locations. In doing so, clutter will be minimal on the platform, little visual impact will arise, and the placements will effectively meet the operational requirements.

The bins on the platform will be free-standing. As they are considered a potential risk item for the tramstop with respect to vandalism (albeit they are designed to be secure), it is not appropriate to attach these to other elements which will create pole mounted obstructions in circulation areas.

Their placement at the ends of the platforms, in agreement with the operator, provides the most suitable location for the deposit of waste items when leaving the tram. This will preserve a de-cluttered approach, but to also maintain a commonality within the Edinburgh Tram Network at each of the tramstop locations for patrons and maintenance.

Overhead Line Equipment and Street Lighting

Overhead Line Equipment (OLE) is required to distribute electrical power to the trams, and consists of a contact wire running above the tracks, supported at intervals by posts. The design of the equipment has been carried out sensitively considering a number of factors in order to achieve an overall balance of visual appearance. A single 'trolley-wire' system is proposed, in preference to a heavier catenary type arrangement using two wires, and this gives the overhead wires a lighter visual appearance.

York Place, tapered centre poles with a painted grey finish are proposed. The operational requirement for a crossover in this location justifies the use of centre poles, as the visual impacts of the alternatives side pole arrangements would be substantial on the surrounding buildings. Building fixings were not considered appropriate due to the visual impacts on the buildings, where the fixings would appear at difference locations on the buildings as the system moved along the street. The height of the OLE poles will be 8m, as they are not shared with street lighting, which would require additional height.

Street lighting will remain from wall mounted units, replaced in their existing locations on the boundary buildings.



Figure 5. Proposed Wall Mounted Lighting Units along York Place

Noise and Vibration

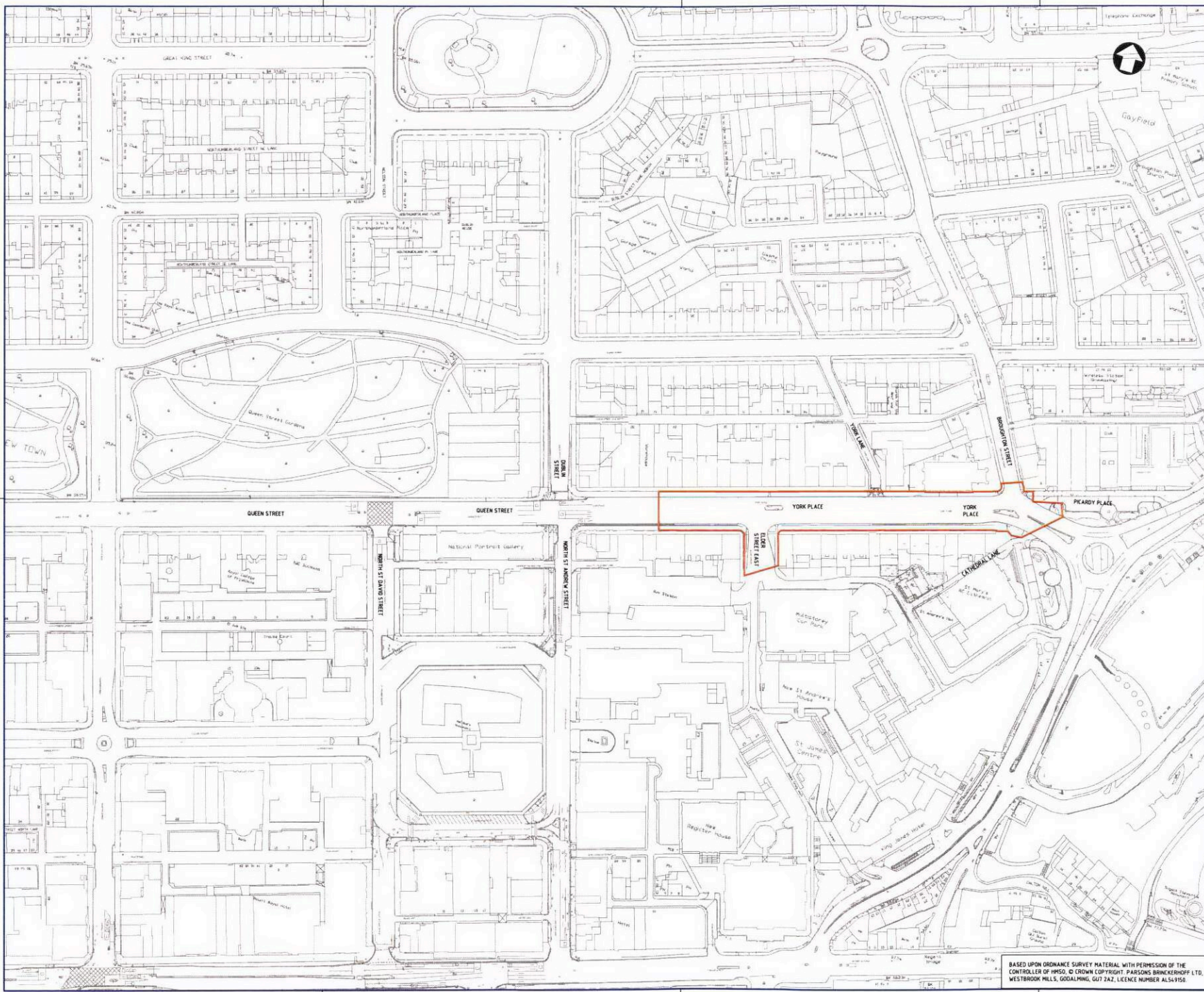
No elements for which this application is seeking Prior Approval will produce adverse noise or vibration impacts. There will be a public announcement system installed as part of the system. The noise levels produced by this element will comply with the Environmental Statement for Edinburgh Tram (Line One) Act and the Noise and Vibration Policy.

6 SUMMARY

This Design Statement has set out the background information and site details for this tramstop proposal at York Place. The statement has appraised the site, surrounding context and set out the key design principles to ensure the development is of a high quality and is integrated with its surroundings.

The proposed solution has been demonstrated to meet the relevant terms of the Tram Design Manual and Memorandum of Guidance. It is appropriately located and suitably designed and finished in accordance with the requirements for prior approval. It is therefore respectfully requested that City of Edinburgh Council as Planning Authority grant prior approval for this application.

APPENDIX A – DRAWINGS



NOTES

PLANNING BOUNDARY

LAND OWNERSHIP - CITY OF EDINBURGH COUNCIL



4	ISSUED FOR PLANNING APPROVAL	JL	PL	MT	23/03/06
3	ISSUED FOR PAPER APPROVAL	PL	VM	SN	12/05/06
2	ISSUED FOR TENDS	PL	VM	SN	02/05/06
1	PANEL ISSUE	PL	MR	SN	26/04/06
REV	DESCRIPTION OF REVISION	DRW	CHKD	APP	DATE

DRAWING STATUS

Issued For External Approval



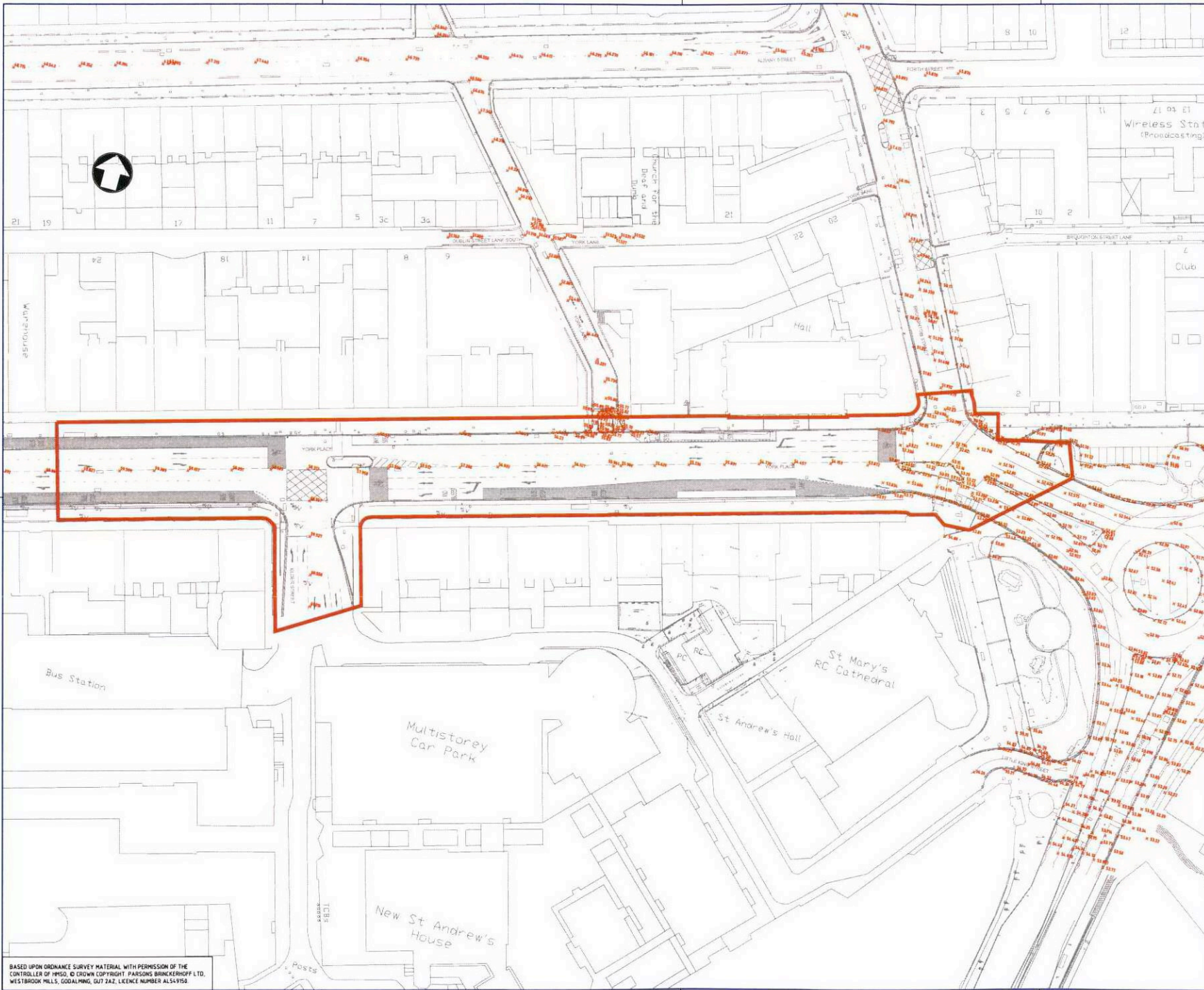
EDINBURGH TRAM NETWORK

555 CITY FORT
85 HAYMARKET TERRACE
EDINBURGH EH12 5SD

NEWHAVEN ROAD TO HAYMARKET
YORK PLACE
PLANNING DRAWINGS BATCH 1/13B
LOCATION PLAN

DRAWN BY	JANKOWSKIH	CHECKED BY	STACYM
APPROVED BY	NEY	ORIGINAL DRAWING SIZE	A1
DATE	15/11/2006	SCALE	1:250
DRAWING NUMBER	ULE90130-01-PLG-00007	REV	4

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NOTES

- PLANNING BOUNDARY
- LAND OWNERSHIP - CITY OF EDINBURGH COUNCIL
- 1:500m TOPOGRAPHICAL SURVEY SPOT LEVEL



1	ISSUED FOR PLANNING APPROVAL	D	MY	MY	01/03/10
2	ISSUED FOR PRIOR APPROVAL	PL	PL	SM	12/05/06
3	ISSUED FOR TEND	PL	PL	SM	12/05/06
4	FIRST ISSUE	PL	PL	SM	04/01/07
REV	DESCRIPTION OF REVISION	DRG	CHG	APP	DATE

Issued for External Approval



NEWHAVEN ROAD TO HAYMARKET
 YORK PLACE
 PLANNING DRAWINGS BATCH 1/13B
 TOPOGRAPHICAL SURVEY SHEET 1 OF 1

DRAWN BY	JANKOWSKI	CHECKED BY	STACYM
APPROVED BY	NEY	ORIGINAL DRAWING SIZE	A1
DATE	05/11/2006	SCALE(S)	1:500
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