

Obligations

For

Working on or Near the Tramway

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1. Introduction

This document:

- Provides the necessary information about the procedures that need to be followed in order to obtain authorisation to undertake works on or near the Edinburgh Tram System and to provide advice on protection of the tram infrastructure.
- Defines the process to be followed by external and internal parties to ensure the safety of their employees and that the structural integrity of the tram infrastructure is protected and maintained.
- Applies to all sections of track. The applicant should note that an application may require to be deferred to avoid interference and or disruption to the Edinburgh Tram operation.
- Should be read in conjunction with other guidance available on the City of Edinburgh Council (CEC) website relating to applications for consent to excavate the road, construct footway dropped crossings, road occupation, scaffolding, tower cranes, hoists, mobile cranes, cherry pickers and hi-abs.

In order to ensure that work on or near the tramway is carried out safely, it is necessary to obtain authorisation from Edinburgh Trams and agree a safe system of work before the work starts. Application for Authority to Work (AtW) must be accompanied with a documented safe system of work including Method Statement, Risk Assessment and where applicable Traffic/Pedestrian Management Plan.

The safe system of work must recognise and take cognisance that the contractors have considered the impacts of working on or near the tram lines and live power cables. **Failure to do so may mean the work will be suspended.**

Unauthorised work can be dangerous and is contrary to the Edinburgh Tram Byelaws, New Roads and Street Works Act (Scotland) 1991 Section 152, and the Health and Safety at Work Act and may be subject to a penalty fine under Byelaw 10 of the Edinburgh Tram Bylaws.

It is the relevant parties' responsibility, to ensure that they have in place, adequate and appropriate safe systems and processes to identify and manage any associated risks, plan and control their works on or near the tramway, in line with this document and current Health and Safety legislation.

Any employee, contractor, subcontractor or persons under their control must be aware of the risks and hazards identified within or adjacent to the worksite and must comply with the agreed safe system of work and the obligations identified within this document.

2. Purpose

The purpose of this document is to ensure that for any work carried out adjacent to the tramline taking full cognisance of:-

- the risk of injury to the public, contractors, Edinburgh Trams' staff and others caused by moving trams, live overhead line equipment, structural weakening and the work itself is adequately controlled while work is being carried out on or near the tramline
- the risk of damage to trams, the Edinburgh Tram Network and third party property caused by the method of working and the equipment associated with the work and the worksite is adequately controlled
- the structural integrity of the Edinburgh Tram Network is not compromised
- the disruption to the tram service caused by works on or near the tramline is minimised
- there are no undue delays or restrictions to work being carried out on or near the tramline caused by Edinburgh Trams' processes, particularly if the works are associated with an emergency, and
- adequate advice and assistance is readily available from Edinburgh Trams to those wanting to work on or near the tramline

3. Scope

The scope of this document covers all work (including emergency works) that might have an effect on the operation or infrastructure of the Edinburgh Tram Network; such work includes work carried out by, or on behalf of third parties and their contractors, CEC, utility companies, Edinburgh Trams and occupiers of properties adjacent to the tramline. It details how work must be planned, co-ordinated and authorised.

4. Definitions and Abbreviations

4.1 Definitions

Term	Definitions
Work	Activity involving mental or physical effort done in order to achieve a result OR as a means of earning income through employment
Operator	Edinburgh Trams (ET), who are responsible for the management of the Edinburgh Tram Network
CEC	City of Edinburgh Council
Duty Holder	'Duty holder' means the person responsible for carrying out a particular duty under the The Railways and Other Guided Transport Systems (Safety) Regulations (ROGS)

Term	Definitions
Edinburgh Tram Network	All elements of the tram infrastructure including trams, track, structures, tram stops, the depot and ticketing systems
Hazard Zone	The area within which there is the potential for coming into contact with the tramway infrastructure.
Overhead Equipment (OLE) Line	The arrangement of electrical conductors, supporting poles and cables supplying electrical power to the trams.
The Applicant	The person responsible for planning the work and who is in a position to ensure that the safe system of work agreed with Edinburgh Trams is adhered to by those carrying out the work
Control Room	The place in Gogar Depot from where the operation of the Edinburgh Tram Network is managed
Scottish Roadworks Register	The register of works by statutory undertakings that is maintained by the Scottish Roadworks Commissioner.
Authority to Work	The form issued by ET to give a person permission to carry out work on or near the tramway
CEC Permit	A consent issued by CEC giving permission for scaffold erection, skip placement, road occupation, road excavation etc.
Routine Works	Works which are not intrusive and where the operation will be required to be carried out on
Intrusive Works	Works which will have a significant effect on the operation of the tramway by delays or cessation of service or an effect on the structural integrity of the infrastructure
Emergency Works	Works that need to be carried out to control an immediate risk of death, injury or significant property damage (e.g. a major gas leak, a dangerous building, a significant loss of supply etc.)
Hot Work Permit	<p>Hot Work Permits are required when any hot work, that is any activity or process that generates a flame, heat or an incendive spark and introduces (or presents) a foreseeable risk of fire or explosion through a source of ignition by means of tools or equipment either:</p> <ul style="list-style-type: none"> • Intentionally arising from working methods (with or without the use of a naked flame) such as welding, flame-cutting, soldering, brazing; or • The unintentional generation of heat or sparks, by the use of power/hand tools e.g. grinding and the use of disc-cutters. <p>The intention of the Hot Work Permit is to check that certain actions and precautions are in place to reduce the risk of a fire occurring as a result of a hot process.</p>

Term	Definitions
HSE	The Health and Safety Executive (HSE) is the body responsible for the encouragement, regulation and enforcement of workplace health, safety and welfare in Great Britain
ROGS	The Railways and Other Guided Transport Systems (Safety) Regulations (ROGS) provide the regulatory regime for rail safety, including the mainline railway, metros (including London Underground), Tramways, Light Rail and Heritage Railways.
Building Fixings Agreement	A legal agreement between CEC and building owners, giving consent for OLE apparatus to be permanently attached to buildings adjacent to the tram line.

5. Responsibilities

5.1 Edinburgh Tram (ET)

Is the Duty Holder for the Edinburgh Tram Network, as defined in ROGS, Edinburgh Trams is responsible for ensuring that risks to the tram infrastructure, Edinburgh Tram Network's operation or injury to persons thereon as a result of works taking place on or in the vicinity of the tramway, are adequately mitigated.

5.2 The Applicant

The applicant must, when planning any works on or near the Edinburgh Tram Network provide the following;

- Give adequate details of the intended works and allow sufficient time for Edinburgh Trams to coordinate the work and ensure all potential safety and operational issues have been considered. A minimum of 21 working days' notice prior to work commencement is normally required.
- Requests for an AtW for planned works should be made at least 21 calendar days before work is planned to start so adequate time is available to coordinate the work and ensure all potential safety and operational issues have been considered.
- Obtain all necessary CEC permits and other third party permissions.
- Supply supporting information for all AtW requests.
- Cooperate with Edinburgh Trams to plan and coordinate AtW requests.
- Attend Gogar Tram Depot prior to starting works on site, to sign on to the AtW.

6. Procedure

6.1 Principles

The Edinburgh Trams' AtW, and the requirements of the processes associated with it, is additional to any requirements (e.g. Health and Safety, NRSWA, CEC Permits, SRWR) that someone wanting to carry out work would have to meet if there was no tramline in the vicinity.

The AtW is the document that indicates that the person carrying out the work has the permission of Edinburgh Trams to carry out specified works at a particular location and time. The Request, Safety Assessment and Access Authorisation elements of the form provide a record of discussions which will have taken place between Edinburgh Trams Engineering team, the applicant and any other relevant parties, prior to the forms being completed.

Where Edinburgh Trams need to authorise works on or near the tramway, [See Figure 1] the scrutiny of the request and the restrictions placed on the works will be commensurate with the risk to, or caused by, the Edinburgh Tram Network as a result of the works taking place. The approach will not be unnecessarily bureaucratic but will be sufficient to ensure that adequate mitigation of the risks is in place. Minor routine works (e.g. emptying of litter bins) may be authorised to be carried out as and when required for up to a year, while intrusive (e.g. adjacent lane occupations), or non-repetitive works (e.g. scaffold erection) will need to be authorised on a case by case basis.

For all work that requires an authorisation, the AtW must be issued prior to any work starting. For non-repetitive works, and works involving isolation of the overhead line, the AtW must be given up when the work is completed.

A hot works permit will also be required to be completed when said works are within 10 m of the depot building, substation, tram or any tramstop. Hot works within 10m of a tram is only permitted if the tram cannot be moved or the works are on board the tram itself.

The hot works form will be completed by the applicant and countersigned by Edinburgh Trams staff depending on the time and location.

7. When Authorisation is required for Planned Work

7.1 ETN Hazard Zone

The Hazard Zone defines the area within which there is the potential for coming into contact with the tramway infrastructure and is defined in the drawing below.

Authorisation is required for all work carried out within the Red Hazard Zone and other situations as described in points (a) to (i) below. Authorisation may be required for work carried out in the Amber Hazard Zone. If authorisation is required then the relevant party must obtain an Authorisation to Work from Edinburgh Trams.

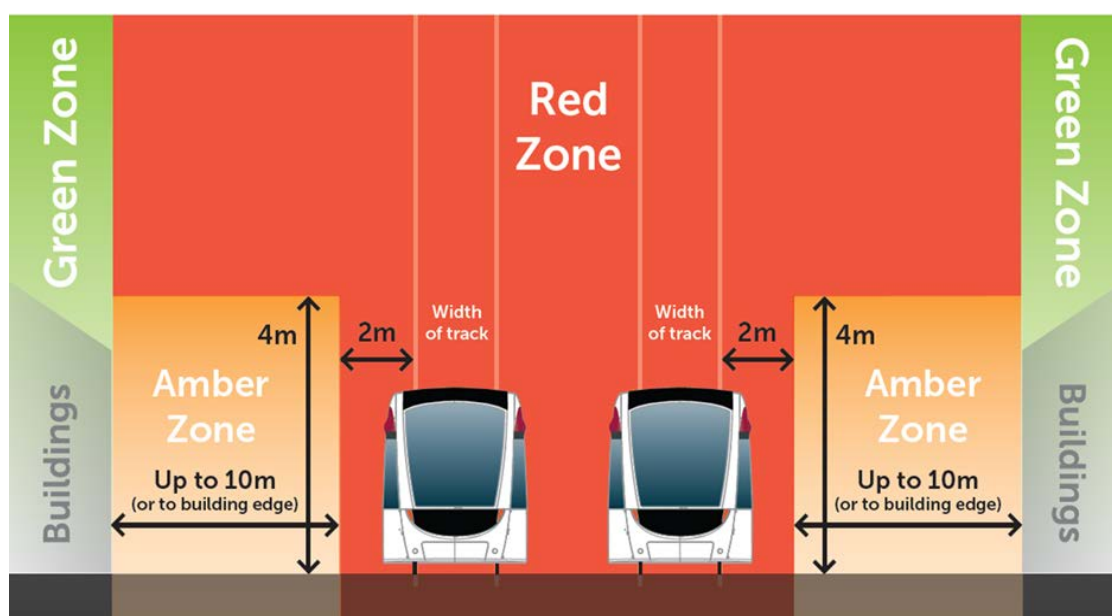


Figure 1 – ETN Hazard Zone

Red Zone:

Work within this zone **will require prior authorisation** and will interface with the tram network. Work may require isolation of the network.

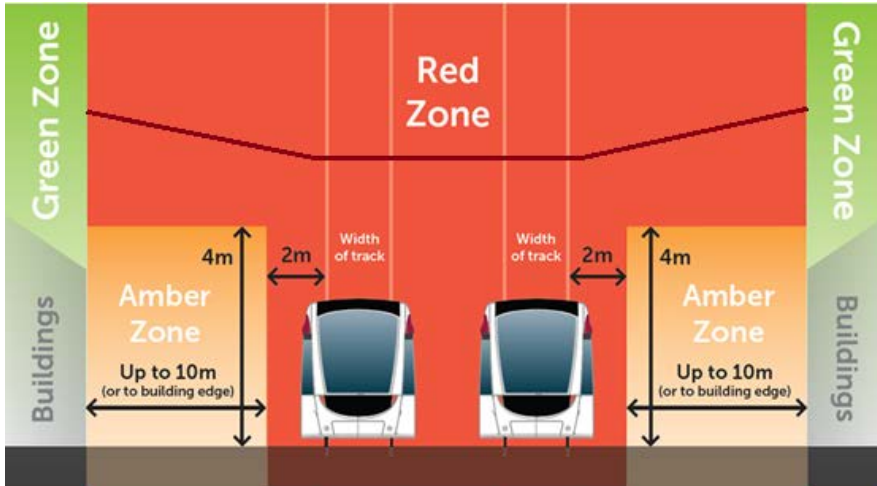
Amber Zone:

Work within this zone **may require prior authorisation** and may interface with the ET network or pose a risk of injury or fatality to persons.

Green Zone: Work within this zone will **not normally require prior authorisation**.

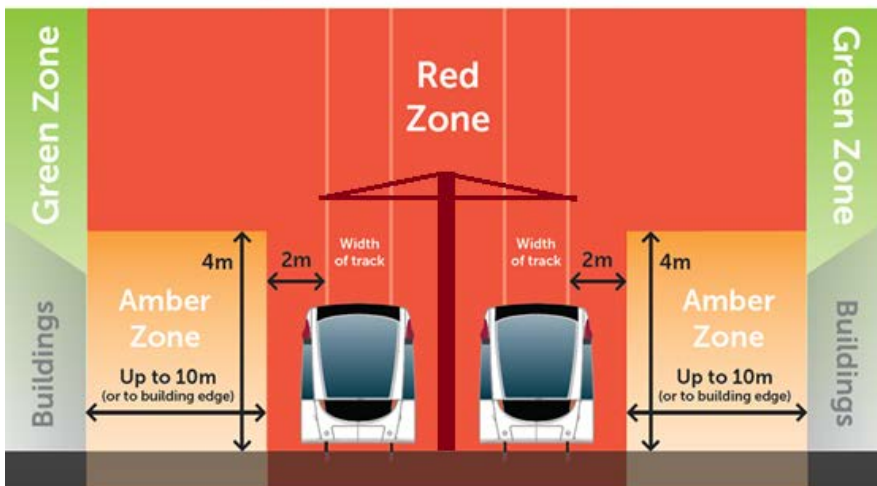
- The Overhead Line Equipment (OLE) supplies power to trams at **750v D.C.**
It must be assumed that any overhead line equipment is live at all times.
Cables attached to these structures must be considered to be live as well

NOTE: Metallic structures (temporary or permanent) including HERAS or similar fencing, scaffolding, welfare cabins may require an earth connection to prevent risk of induced voltages or in case of OLE failure.



Overhead Line Supported by Span Wire Attached to Adjacent Building Fixings

NOTE: The height of the OLE is not constant and can vary throughout the Route of the tram



Overhead Line Supported by Central Pole





Authorisation is needed for any of these activities:

- a) Any work where any part of the site, any tools or materials, any machine, suspended load, or any person, could come within the ETN Hazard Zone

NOTE: This could include deliveries to and from a site, although the site itself is out with the Hazard Zone.

- b) Any work involving use of a ladder or window cleaning poles, where any part of the equipment could come within the space 2m measured horizontally to a point vertically above the nearest tramway rail.
- c) Any work which will force traffic or pedestrians to be diverted onto a tram line (because of road or footway occupation)
- d) Piling or excavation over 2m deep with a risk of rendering the roadway or the tramway unstable.
- e) Any excavation within 3m of any tramway structure including poles and spanning wires supporting overhead wires.
- f) Erecting and dismantling scaffolding or use of a crane, within 5m of the nearest tram rail or overhead wires including spanning wires.
- g) Any work where any structure or equipment will be placed above the overhead line.
- h) Even if the site itself is outside the 2m distance from the nearest tram rail, authorisation will still be required if vehicles fitted with cranes, tipping bodies or skip loaders could come within this distance when this equipment is in use.
- i) Authorisation is also required if abnormal vehicle loading or static loading is placed on the track.

- j) Work that have an effect on traffic flow through a signalised junction used by the trams
- k) Work at or near Edinburgh Airport

7.2 Building Fixings

The overhead wires within the city centre are attached directly to buildings rather than to separate poles. These fixings and the supporting wires **MUST** not be disturbed without prior agreement.

Individual fixings are covered by Building Fixings Agreements between The CEC and the individual building owners and should be referred to if planned works will interfere with the fixings.

7.3 Authority to Work Request

To apply for authorisation for any works in proximity of the Hazard Zone, an AtW request must be submitted 21 days prior to the works in the first instance saying when and where the work will be carried out, and describing the work to be done.

This document can be downloaded at: <https://edinburghtrams.com/information/atw>

Further information in regard to working in proximity to power lines and cables can be obtained from the HSE, Guidance Note GS6 'Avoiding Danger from Overhead Power Lines'.

An AtW request must be submitted by the applicant to Edinburgh Trams at: requests@edinburghtrams.com

This will set out the planned work activities and this must detail the measures to be taken to avoid damage to the infrastructure, secure safety of staff operatives and other persons by minimising interference with tram operations and include supporting documentation such as method statements, risk assessments and traffic management plans.

Edinburgh Trams may wish to contact the Applicant to discuss the submission or to arrange a site meeting. This will automatically be the case if the works appear to Edinburgh Trams to require an isolation of the overhead line equipment. This meeting will be arranged by the relevant CEC Roads Team and will be attended by a competent person appointed by the applicant. The purpose of a site meeting will be to discuss and agree the safe system of work prior to authorisation being given.

If as a result of this meeting, the Applicant has to meet any specific requirements, they must ensure that they have understood the precautions they agree to take.

The application should be submitted in advance of any work being scheduled unless it is defined as emergency works under the New Roads and Street Works Act (Scotland) 1991 (NRSWA) in which case contact should be made as soon as possible with the Roads Authority and also Edinburgh Trams Control Room - **0131 622 8910**

For non-emergency scheduled works under the New Roads and Street Works Act (Scotland) 1991, the relevant Statutory Utility Company should follow the process to obtain authorisation to work on or near the tramway as set out in this guidance.

When a safe working method has been agreed, Edinburgh Trams will issue an AtW.

The applicant may also require additional permits as prescribed in the Roads (Scotland) Act 1984 for road occupation. Should the Roads Authority permit be refused for the dates applied then the Applicant will be required to contact the Edinburgh Trams to review and re-schedule the dates when they will carry out the works.

The Roads Authority permit will be conditional on receipt of an AtW issued by Edinburgh Trams. The applicant should; therefore, be familiar with other timescales associated with Roads Authority permits for occupation of road or footway.

Applicants should note that all works on or near the tram lines is dependent on ensuring there is minimal impact on the tram operation. Any intrusive works that may impact on the tram operation by a third party may be refused or deferred.

To request an AtW, the applicant is required to complete the AtW form in line with the guidance given in Appendix A. Once complete, the request should be submitted to Edinburgh Trams electronically but may be sent in hard copy; appropriate addressees are given in Appendix B. Any relevant supporting documentation (such as method statements, risk assessments, site plans, traffic management plans) should be submitted at the same time.

On receipt, Edinburgh Trams' Engineering Representative will review the request and decide how the request should be dealt with. Examples of types of work and how they might be dealt with are given in Appendix C.

Requests for an AtW for planned works should be made at least 21 calendar days before work is planned to start so adequate time is available to coordinate the work and ensure all potential safety and operational issues have been considered.

On agreement of an AtW, The applicant will be required to visit Gogar Tram Depot prior to starting works on site, to sign on to the AtW.

7.4 Works requiring Isolation and Earthing of the Overhead Line

Where work requires isolation and earthing of the overhead line, the isolation and earthing will be carried out in accordance with the requirements of Edinburgh Trams isolation procedure.

7.5 Emergency Works

By their nature, Emergency Works need to be executed in a manner which does not usually allow for the strict scrutiny normally expected prior to works starting. The work must still be carried out with minimum risk to those carrying out the work, the general public, vehicles and infrastructure.

For Emergency Works on or near the Tramway, the Applicant will contact ET Control Room; as soon as soon as possible. Typically this would be before arriving on site but it should be done before any intrusive work starts.

7.6 Damage to ET Infrastructure

Anyone working on or near the tramway that causes unintentional contact with any tramway infrastructure must advise Edinburgh Trams **Immediately**.

7.7 Hot Works

Hot Work Permits are required when any hot work, that is any activity or process that generates a flame, heat or an incendive spark and introduces (or presents) a foreseeable risk of fire or explosion through a source of ignition by means of tools or equipment either:

- Intentionally arising from working methods (with or without the use of a naked flame) such as welding, flame-cutting, soldering, brazing; or
- The unintentional generation of heat or sparks, by the use of power/hand tools e.g. grinding and the use of disc-cutters.

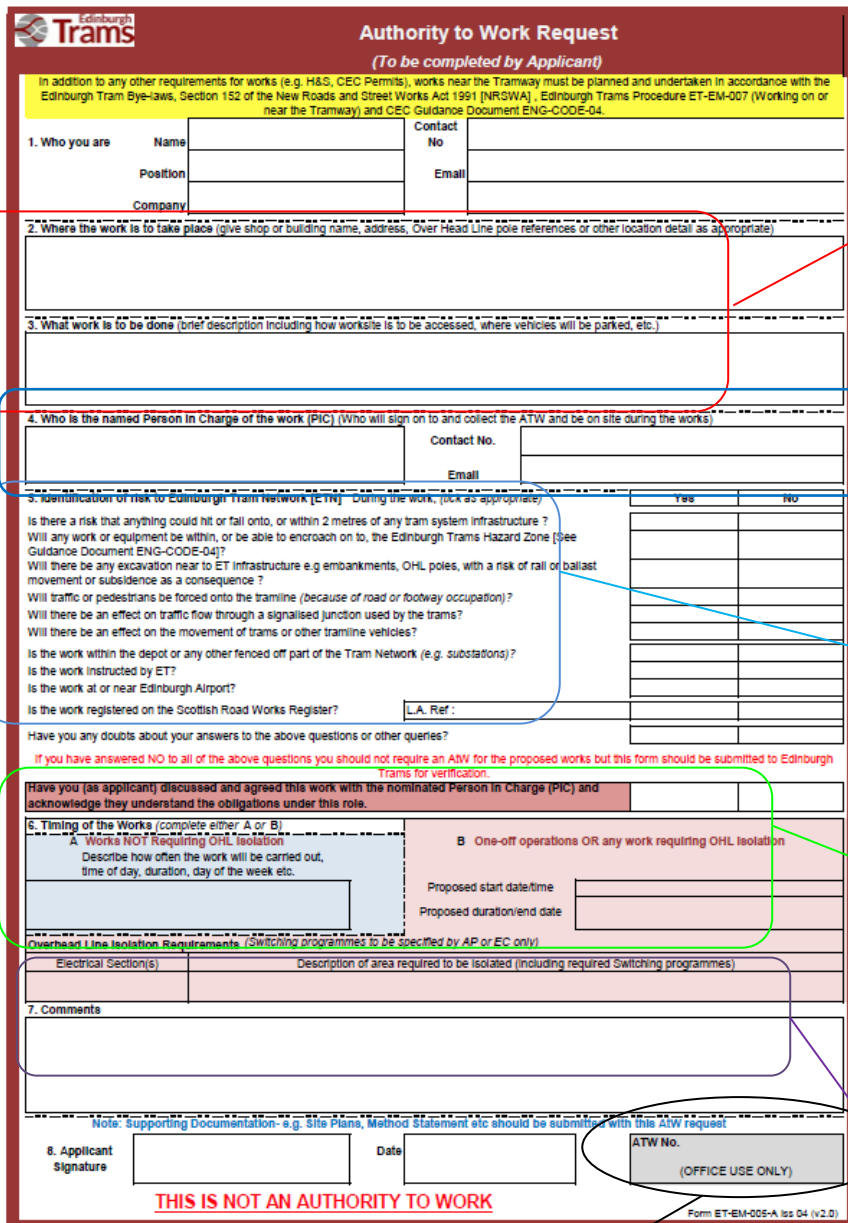
The intention of the Hot Work Permit is to check that certain actions and precautions are in place to reduce the risk of a fire occurring as a result of a hot process.

Any hot works should be identified on the application form and detailed in the attached method statement and risk assessment.

Appendix A Guidance to completing Form

The applicant only needs to complete sections 1 to 7 initially. The remaining sections will be completed by Edinburgh Trams in conjunction with the applicant. All supporting documentation should be submitted with the request.

The applicant should answer these questions based on their knowledge of the work



Authority to Work Request
(To be completed by Applicant)

In addition to any other requirements for works (e.g. H&S, CEC Permits), works near the Tramway must be planned and undertaken in accordance with the Edinburgh Tram Bye-laws, Section 152 of the New Roads and Street Works Act 1991 [NRSWA], Edinburgh Trams Procedure ET-EM-007 (Working on or near the Tramway) and CEC Guidance Document ENG-CODE-04.

1. Who you are: Name, Position, Company, Contact No, Email

2. Where the work is to take place (give shop or building name, address, Over Head Line pole references or other location detail as appropriate)

3. What work is to be done (brief description including how worksite is to be accessed, where vehicles will be parked, etc.)

4. Who is the named Person in Charge of the work (PIC) (Who will sign on to and collect the ATW and be on site during the works): Contact No, Email

5. Identification of risk to Edinburgh Tram Network (ETN) - During the work, tick as appropriate:

	Yes	No
Is there a risk that anything could hit or fall onto, or within 2 metres of any tram system infrastructure?		
Will any work or equipment be within, or be able to encroach on to, the Edinburgh Trams Hazard Zone (see Guidance Document ENG-CODE-04)?		
Will there be any excavation near to ET Infrastructure e.g embankments, OHL poles, with a risk of rail or ballast movement or subsidence as a consequence?		
Will traffic or pedestrians be forced onto the tramline (because of road or footway occupation)?		
Will there be an effect on traffic flow through a signalised junction used by the trams?		
Will there be an effect on the movement of trams or other tramline vehicles?		
Is the work within the depot or any other fenced off part of the Tram Network (e.g. substations)?		
Is the work instructed by ET?		
Is the work at or near Edinburgh Airport?		
Is the work registered on the Scottish Road Works Register? L.A. Ref:		

Have you any doubts about your answers to the above questions or other queries?

If you have answered NO to all of the above questions you should not require an ATW for the proposed works but this form should be submitted to Edinburgh Trams for verification.

Have you (as applicant) discussed and agreed this work with the nominated Person in Charge (PIC) and acknowledge they understand the obligations under this role.

6. Timing of the Works (complete either A or B)

A. Works NOT Requiring OHL Isolation: Describe how often the work will be carried out, time of day, duration, day of the week etc.

B. One-off operations OR any work requiring OHL Isolation: Proposed start date/time, Proposed duration/end date

Overhead Line Isolation Requirements (Switching programmes to be specified by AP or EC only)

Electrical Section(s)	Description of area required to be isolated (including required Switching programmes)

7. Comments

Note: Supporting Documentation- e.g. Site Plans, Method Statement etc should be submitted with this ATW request

8. Applicant Signature, Date, ATW No. (OFFICE USE ONLY)

THIS IS NOT AN AUTHORITY TO WORK

Form ET-EM-005-A Iss 04 (v2.0)

These sections are intended to give the reviewer an initial understanding the impact on Edinburgh Trams of the proposed works.

A Person in Charge must be nominated and named here. Contact details must also be provided

The applicant should answer these questions based on their knowledge of the work

The applicant should answer these questions based on their knowledge of the location of the worksite and planned dates. Details will be confirmed as the application progresses.

The (AtW) number is the unique reference number for the application which will be generated by ET

This section should be used to add any relevant information e.g. previous occasions when the task has been done next to the tramway, additional documentation supplied e.g. site photographs.

Appendix C Examples

Task	Means of requesting AtW	Safety Assessment	Other considerations	(AtW)	Contact ET Control Room before starting work
Street cleaning/Bin Emptying	e-mail completed form	No		One (AtW) issued for repetitive works to cover all areas near the tramway	No
Window cleaning where operation can be carried out non-intrusively (e.g. Routine Works)	e-mail completed form	Yes	Site survey of all properties in applicant's contracts	One (AtW) issued for repetitive works to cover all properties cleaned by the applicant's organisation for a period of up to a year	No
Repair to workshop doors at Gogar Depot	e-mail completed form	Yes		(AtW) issued for duration of works	Yes
Scaffolding erection	e-mail completed form	Yes	Site meeting to discuss where vehicles will be parked and how scaffolding will be delivered and erected.		Yes
Emergency water leak	Phone ET Control Room	As soon as practical; can be done by Duty Manager		Authority Number issued before work starts; (AtW) issued as soon as practical after work has started	Yes