

## EMERGENCY MANGEMENT – RAIL OPERATIONS

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Rail Operations at the National Rail Museum fall into three distinct categories.

- NRM operated trains carrying passengers
- Trains of other authorities (primarily PTS), potentially carrying passengers.
- NRM shunt operations – primarily to re-position display vehicles

The potential risks and outcomes of undesired incidents vary for these classes of operation and accordingly each is addressed in separate sections of this document.

Common to each however is the initial response procedure.

### **IMMEDIATE RESPONSE**

Involving serious (or potentially serious) personal injury, explosion, or major property damage.

- Assess the need for professional emergency service assistance and call **000** and request the support of FIRE, AMBULANCE, and/or POLICE.
- Protect the public from any further injury or danger
- Render first aid assistance if there is a qualified volunteer available.
- Secure the Train from any further movement
- Make contact with ....
  - Rail Safety Manager, or
  - Operations Manager, or
  - Duty manager,

who will attend the site and manage the ongoing recovery.

### **DETAILED PROTOCOLS**

Part 1: Evacuation from Main Line NRM Trains involved in an Emergency

Part 2: Evacuation from Main Line Trains of Other Operators, involved in an Emergency

Part 3: Management of an Emergency involving NRM Shunting Operations

These parts are drafted as discrete documents that can be mounted in appropriate locations in the relevant trains (eg Guards Van etc.)

# NATIONAL RAILWAY MUSEUM

## Part 1: Evacuation of Main Line Trains *involved* in an Emergency

The Museum only operates passenger carrying trains on an infrequent basis, and these operations are limited to 15kmh on tracks that are inspected before each day's activity and with vehicles that have a regular inspection protocol.

Accordingly, the risk of a serious accident involving these movements is deemed to be low.

Never-the-less there are a number of scenarios that are assessed as being potential accidents leading to the need for a structured response where the procedures for evacuation and care do not align with the general Museum's emergency protocols.

### Potential incidents:

- There are two roadway crossings (both crossing the Aviation Museum access roadway), and
- Two pedestrian crossings (at the Steam shed with active protection), and the public crossing in the outer yard.

The assessed risk for each of these situations is for a possible collision with a person or vehicle.

- A derailment is possible, but highly unlikely because of the inspection regime and the slow speeds involved, and
- A train to train collision is equally unlikely with single occupancy train operations and rigid train control. The assessed risk for these incidents is for infrastructure damage and possible secondary injuries.

### Issues:

Any of these possible incidents will occur away from the loading station.

The crew numbers are limited to three

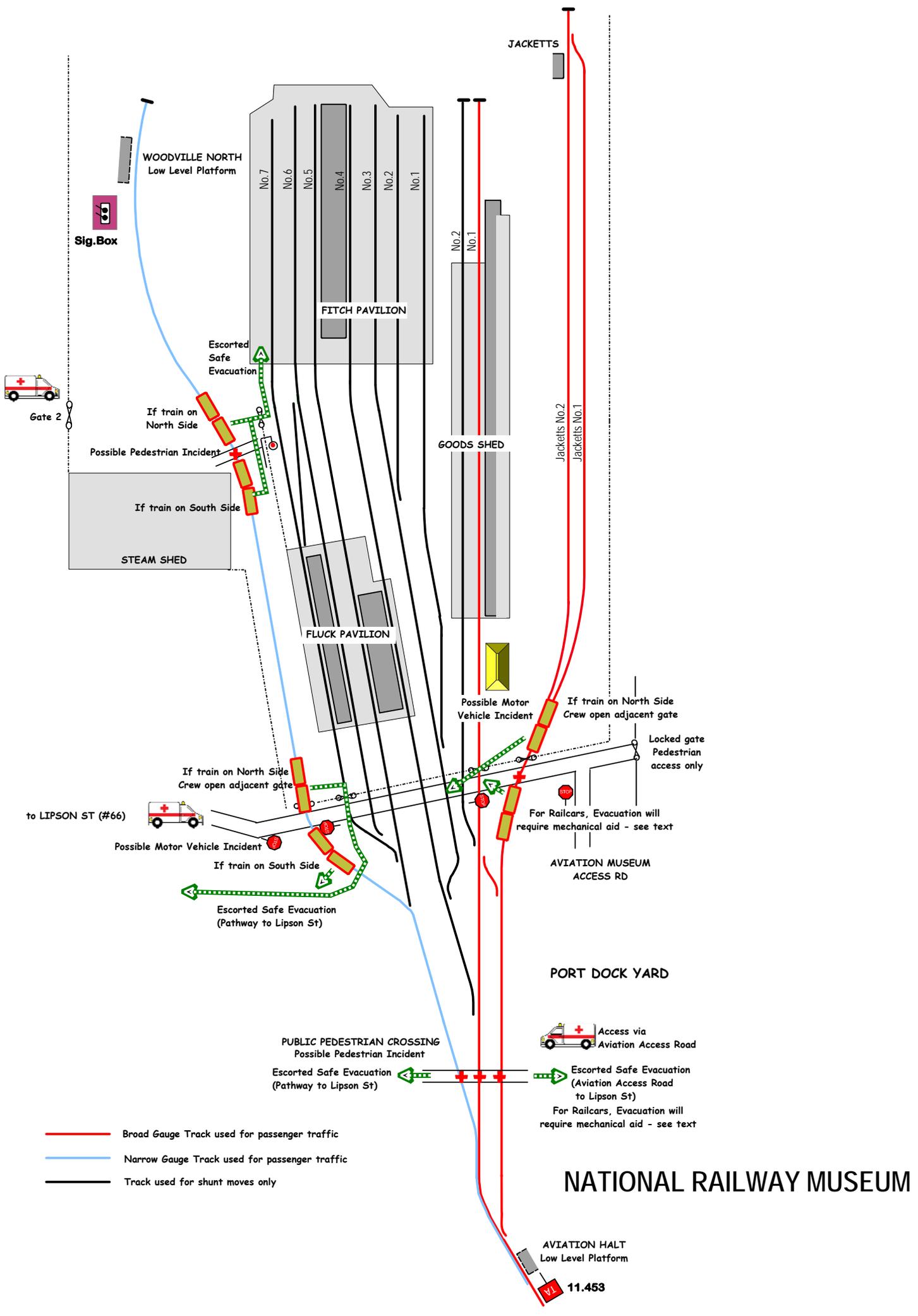
Both visitors to the Museum and the general public could be involved.

### Protocol

For all of these possibilities a similar protocol is to be observed.

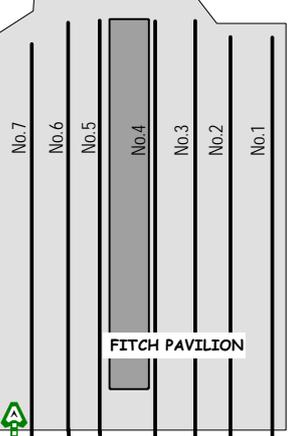
- Stop the train
- Loco crew shall remain with the loco and make it operational safe and braked/chocked against any movement
- The guard shall make immediate contact with the Rail Safety Manager, Operations Manager or Duty Manager.
- The guard will advise all passengers to remain on the train and, if there are any on-board injuries shall
  - Call for anyone on board with medical expertise,
  - Advise the Duty manager of the need for attention by the St John volunteers, and or
  - Call an ambulance on "000" (and if deemed necessary Fire and or Police)
- As soon as practical the second loco crewman (Peronne Fireman, Diesel Observer, or Railcar Second Driver) shall de-train and inspect the point of impact to determine if there is a need for medical assistance, and should such be necessary, co-operate with the Guard to call for the necessary support.
- Since an incident of this type will require significant investigation the train will need to remain in location. Brakes should be applied and if necessary wheels chocked to ensue no possible movement. If steam engine Peronne is involved, it may be necessary for it to be moved if water levels reach dangerous levels. This is to be done under the direction of the RSM or his delegate and a second check of the chocking of the consist is required before the loco departs.
- De-training of the passengers will be the responsibility of the guard when permission is given by the RSM, or when it is clearly safe to do so.

Where the passenger vehicle has low level steps for egress, the guard shall assist de-training and direct the passengers via a safe pathway to the Museum's entry, or via access route directly to Lipson St. For the Railcars, if the consist is required to stay on location, it will be necessary to assist passengers to ground level before directing them to a safe location
- Once all passengers have been evacuated and the train is deemed to be safe, the RSM will determine what actions are to be taken, including reporting and restoration.



WOODVILLE NORTH  
Low Level Platform

Sig.Box



Escorted Safe  
Evacuation

If train on  
North Side

Possible Pedestrian Incident

If train on South Side

STEAM SHED

FLUCK PAVILION

GOODS SHED

JACKETTS

Jackets No. 2  
Jackets No. 1



Gate 2

Possible Motor  
Vehicle Incident

If train on North Side  
Crew open adjacent gate

Locked gate  
Pedestrian  
access only

If train on North Side  
Crew open adjacent gate

to LIPSON ST (#66)



Possible Motor Vehicle Incident

If train on South Side

Escorted Safe Evacuation  
(Pathway to Lipson St)

For Railcars, Evacuation will  
require mechanical aid - see text

AVIATION MUSEUM  
ACCESS RD

PORT DOCK YARD

PUBLIC PEDESTRIAN CROSSING  
Possible Pedestrian Incident

Escorted Safe Evacuation  
(Pathway to Lipson St)



Access via  
Aviation Access Road

Escorted Safe Evacuation  
(Aviation Access Road  
to Lipson St)

For Railcars, Evacuation will  
require mechanical aid - see text

- Broad Gauge Track used for passenger traffic
- Narrow Gauge Track used for passenger traffic
- Track used for shunt moves only

# NATIONAL RAILWAY MUSEUM

AVIATION HALT  
Low Level Platform

11.453

# NATIONAL RAILWAY MUSEUM

## Part 2: Evacuation from Main Line Trains of other Operators, *involved in an Emergency*

Trains operated by other Accredited Above-rail Operators are permitted to travel on specific roads of the Museum's network for the purposes of:

- carrying passengers into, or out from, the Museum's network
- delivering rolling stock exhibits
- removing or returning items of NRM accredited rolling stock for inspection or maintenance.

The latter two are essentially shunt operations and are covered by Part 3 of this document

All movements of Other Operator's trains are provided with a Pilot who will set the road, inspect the path, then board the train and provide Authority to Proceed. The Pilot will accompany the driver to provide local knowledge and to identify specific areas of potential risk. The standing speed limit of 15 kmh applies.

The appointed Pilot will have NRM accreditation as a Shunter or Driver, or other accreditation approved by the RSM.

### Other-Operators Passenger carrying movements

#### Potential Incidents:

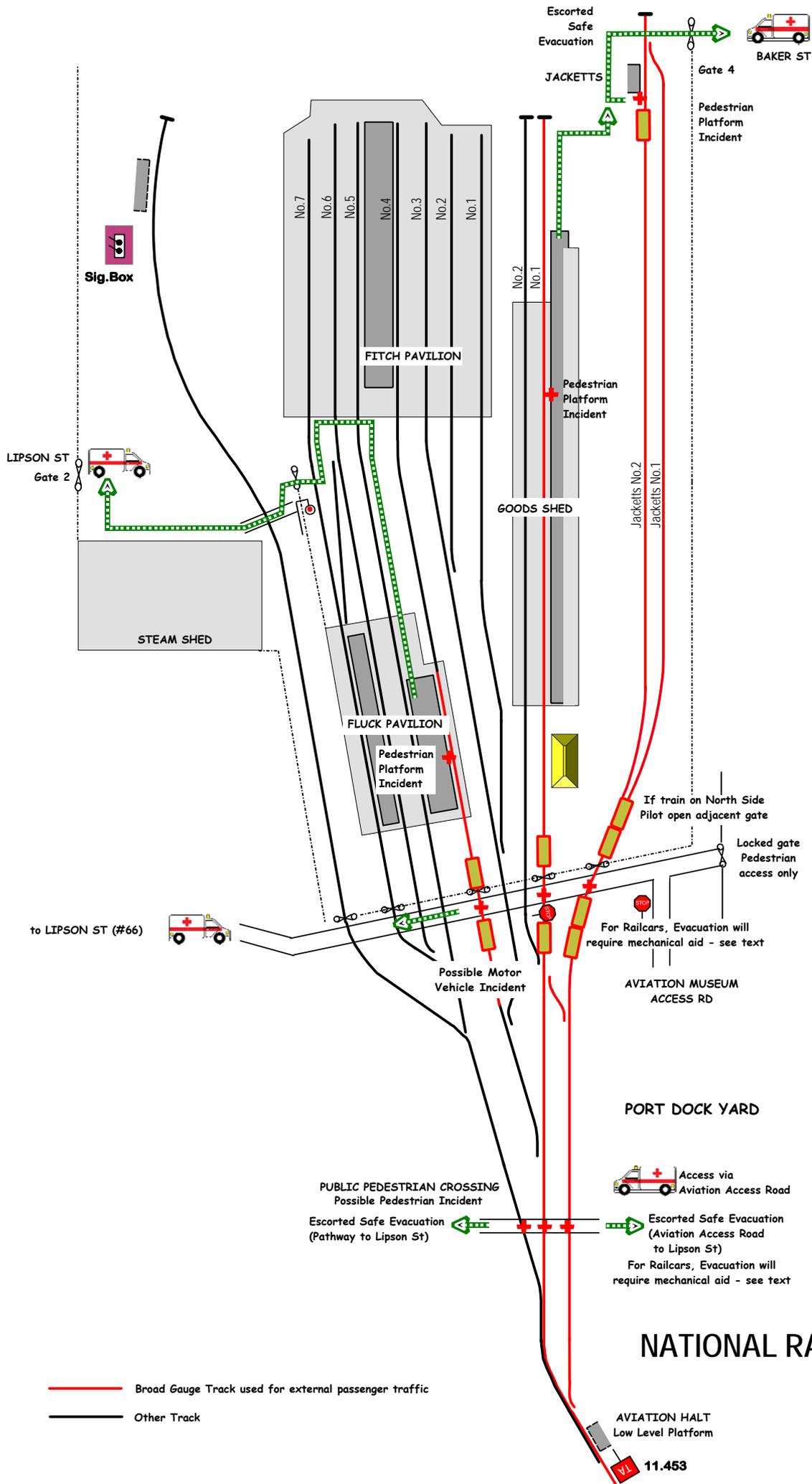
- There is one primary and two rarely used secondary roadway crossings (all crossing the Aviation Museum access roadway), and
- One public pedestrian crossing in the outer yard.  
*The assessed risk for each of these situations is for a possible collision with a person or vehicle.*
- All possible movements terminate at platforms  
*The assessed risk for platform situations is for a person to fall in front of a movement or between the platform and vehicle.*
- A derailment is possible, but highly unlikely because of the inspection regime and the slow speeds involved, and
- A train to train collision is equally unlikely with single occupancy train operations and rigid train control.  
*The assessed outcome for these incidents is for infrastructure damage and possible secondary injuries.*

#### Issues:

- Incident management involving trains of Other-Operators in NRM territory is the responsibility of NRM

#### Protocol:

- The NRM Pilot becomes the immediate link to the NRM RSM and will make contact with him at the earliest possible opportunity.
- The NRM Pilot as the only initial representative of NRM on board, shall implement the initial response
  - Assess the need for professional emergency service assistance and call **000** and request the support of FIRE, AMBULANCE, and/or POLICE.
  - Protect the public from any further injury or danger
  - Render first aid assistance if there is a qualified volunteer available.
- On arrival on site, the RSM (or his delegate) shall take charge of the ongoing requirements including interviews and incident recording.
- De-training of the passengers will be the responsibility of the crew of the visiting train when permission is given by the RSM, or when it is clearly safe to do so.
- NRM staff shall assist de-training and direct the passengers via a safe pathway to the Museum's entry, or via access route(s) directly to the nearest street location.



# NATIONAL RAILWAY MUSEUM

## Part 3: Management of an Emergency *involving* NRM Shunting Operations

Shunting is carried on the NRM network on an occasional basis predominantly for two purposes:

- to position/re-position (railway rolling stock) exhibits, and
- to position rolling stock to form a consist for train operations

It is confined to the overall speed limit of 15kmh but in practice is carried out at much lower speeds.

Motive power may be a Diesel Locomotive, Railcar or a Front end loader.

For Locomotive/Railcar powered movements the crew consists of Driver, Observer, and at ground level, one or more Shunters depending on the length of the consist and the complexity of the shunt. One will be deemed to be the Shunter-in-charge.

For Front end loader powered movements there shall be a Driver and two or more Shunters one of whom shall be adjacent to the FEL to ensure that the driver has continuous vision of the hand signals to be conveyed.

Should there be any Museum visitor present, or should a Museum visitor enter the area, shunting ceases until they are removed to a safe environment.

In this context the risk of an accident leading to an emergency is assessed as being low.

### Potential Incidents:

- There are nine roadway crossings (all crossing the Aviation Museum access roadway), and
- Two pedestrian crossings (at the Steam shed with active protection), and the public crossing in the outer yard.

The assessed risk for each of these situations is for a possible collision with a person or vehicle.

- A derailment is possible, generally unlikely because of the inspection regime and the slow speeds involved, but possible with the complexities of multigauge track and turnouts, and
  - A train to train collision is very unlikely since other movements would not be authorised
- The assessed risk for these incidents is for infrastructure damage and possible secondary injuries.

- A person (volunteer, museum visitor, railway photographer, or even a rostered shunter) may venture unseen into the path of a shunt in motion.

The worst case outcome assessed for this situation is that a person may be struck

### Issues:

Because there are no train-borne passengers in any of these circumstances there is no need for mass evacuation planning.

The appointment of Shunter-in-charge is always made from a pool of senior experienced accredited RSWs

There is a minimum crew of 3 and potential several more.

### Protocol:

For these possibilities a similar protocol is to be observed.

- Stop the train
- Loco crew shall remain with the loco and make it and the rake of shunted vehicles operational safe and braked/chocked against any movement
- The Shunter-in-charge shall follow the steps for Immediate Response.
  - Assess the need for professional emergency service assistance and call **000** and request the support of FIRE, AMBULANCE, and/or POLICE.
  - Protect the public from any further injury or danger
  - Render first aid assistance if there is a qualified volunteer available.
- On arrival on site, the RSM (or his delegate) shall take charge of the ongoing requirements including interviews and incident recording.

LIPSON ST CAR PARK Gate 1



Safe Evacuation

Safe Evacuation



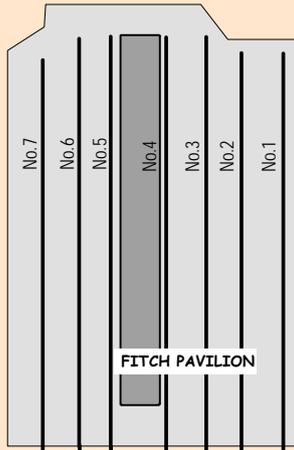
BAKER ST

Gate 4

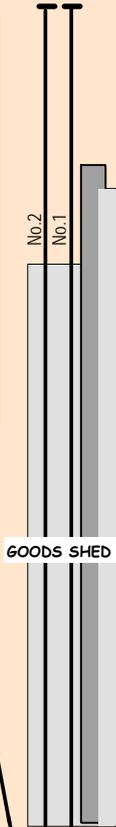
JACKETTS



Sig.Box



FITCH PAVILION



GOODS SHED

Jacketts No.2  
Jacketts No.1



ENCLOSED MUSEUM AREA  
MANAGED PEDESTRIAN ACTIVITY

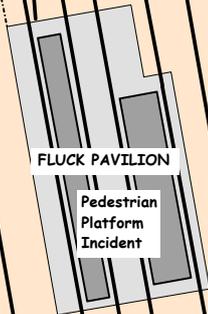
LIPSON ST  
Gate 2



Escorted Safe Evacuation



STEAM SHED



FLUCK PAVILION

Pedestrian Platform Incident

to LIPSON ST (#66)



Locked gate  
Pedestrian access only

AVIATION MUSEUM  
ACCESS RD



PUBLIC AREA  
UNCONTROLLED PEDESTRIAN TRAFFIC

PORT DOCK YARD

PUBLIC PEDESTRIAN CROSSING  
Possible Pedestrian Incident

Escorted Safe Evacuation  
(Pathway to Lipson St)



Access via  
Aviation Access Road

Escorted Safe Evacuation  
(Aviation Access Road to Lipson St)

# NATIONAL RAILWAY MUSEUM

AVIATION HALT  
Low Level Platform

11.453