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WELSH GOVERNMENT TRUNK ROAD MAINTENANCE MANUAL 2016 (WGTRMM 2016)

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WELSH GOVERNMENT TRUNK ROAD MAINTENANCE MANUAL 2016 (WGTRMM 2016)

Part 1.1: SERVICE CODE - PERFORMANCE REQUIREMENTS

1.1.1 Introduction

1 This Section is intended to ensure consistency of standards and value for money in routine maintenance practice on the motorway and trunk road network. It sets out the operational objectives and the performance, inspection and service requirements in maintaining the network a safe and serviceable condition. A better understanding of the asset condition will enable a better understanding of the routine maintenance tasks to be carried out and, in some cases, the manner in which they are to be performed on motorways and all-purpose trunks roads (APTRs) for which the Welsh Ministers are responsible as Highway Authority. This approach should ensure better planning and management of the network which will ultimately result in fewer defects. Throughout this section, reference to trunk roads shall be taken as including both motorways and APTRs.

2 Part 2 of WGTRMM, the Network Management Manual (NMM), sets out more detailed requirements and additional guidance for how routine maintenance should be carried out. As such, the service and inspection requirements detailed in Part 1 must be read in conjunction with the detailed service requirements and guidance in Part 2.

3 This Section covers areas of activity in which work is generally short term or cyclic, necessary to keep the highway in good working order and to meet the Welsh Government (WG) objectives. It does not deal with the replacement or renewal of those parts of the highway which, over a longer term, have become unserviceable because of general wear and tear, or are life expired or unsupportable which would properly be dealt with by planned programmes of structural maintenance work. The inspection procedures will, however, assist in identifying the need for replacement or renewal under such programmes. The following infrastructure and operational groups are covered under their respective Service Areas:

1.1.7 Paved Areas;

1.1.8 Drainage;

1.1.9 Geotechnical Assets

1.1.10 Structures;

1.1.11 Tunnels;

1.1.12 Road Restraint Systems;

1.1.13 Technology Systems

1.1,14 Road Markings & Road Studs

1.1.17 Lighting

1.1.18 Fences, Walls, Screens and Environmental Barriers

1.1.19 Soft Estate and Environmental Management

1.1.20 Sweeping and Cleaning

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1.1.23 Incident Management and Contingency Planning

1.1.15 Road Traffic Signs

1.1.16 Road Traffic Signals

1.1.24 Network Occupancy and Streetworks

1.1.25 WG Owned Assets

1.1.26 Inventory and Asset Management Records

1.1.27 Third Party Claims

4 The environmental context and environmental impacts of activities will be taken into account when planning programmes and within all maintenance operations or network improvement projects, regardless of their scale and size. WG has a legal duty to comply with relevant environmental assessment and other environmental legislation, to protect and where appropriate enhance the environment. It also has to deliver commitments made through Environmental Statements, Public Inquiries and the planning process. Depending on the actual circumstances, the environment may include biodiversity features, cultural heritage assets, important landscapes, water resources, soils, designated sites, air quality and noise levels experienced by receptors; and general aesthetics. Service Providers must ensure that all necessary consents, licences, permissions and assents are identified, applied for and in place prior to commencement of maintenance operations, improvement schemes and programmes of work.

5 Management procedures for the routine maintenance of highways are implemented by the WG ISO 55000 compliant system enabling all inspection and other reports, complaints and third party claims to be assessed in conjunction with the inventory, previous maintenance actions and other relevant data. Further information is provided in WGTRMM Part 2.

6 It is important that efforts are made to compile as complete an inventory as possible and the Service Provider shall, as part of their routine and cyclic maintenance activities, undertake a program of asset verification throughout the period of the Agreement / Contract. This shall include all asset types inspected and maintained as part of their Agreement / Contract.

7 The Verification program shall verify and update existing Welsh Government asset records as well as capturing any new or previously unidentified assets. Also, any assets no longer present (e.g. via de-trunking or decommissioning) shall be identified and recorded.

8 The Service Provider is to submit a 5 year programme to capture data for a 100% inventory across all assets described in Part 2 of WGTRMM. The programme should quantify and cost the survey work to be undertaken and if fully funded will be completed within 5 years, a minimum length of at least 20% of the network being undertaken each year.

1.1.2 Service Requirements and Guidance Information

1 The Service Requirement sets out the operational objective for each element of infrastructure and operational activity on the network. All are mandatory and explicitly state the timescales relating to inspection and the maintenance activities to be undertaken. The format is as set out briefly below, with greater detail and additional guidance being provided in WGTRMM Part 2:

Welsh Government Operational Objective

2 The **Operational Objective** for each specified asset and operational group is the high level aim which the Service Provider will achieve if all the underlying Performance and Inspection Requirements are met.

Performance Requirement

3 **Performance Requirements** (PRs) are set for each asset and operational activity and establish the level of hazard response to be undertaken to maintain a safe network which also delivers WG's objectives.

Inspection Requirements
Safety Inspections and Patrols
Detailed Inspections

4 The I**nspection Requirements** (IRs) comprise Safety Inspections and Patrols and Detailed Inspections and are required to identify safety defects that compromise the efficiency and effectiveness of the network and data to design and organise maintenance programmes of work.

Maintenance Requirements

5 **Maintenance Requirements** (MRs) required by WGTRMM are listed with further information given in Part 2 where appropriate for the specific Service Areas.

1.1.3 Performance Requirements

1 Each Performance Requirement establishes a desired outcome, particularly as experienced by road users, and has up to 4 parameters that specify time constraints for the achievement of the Performance Requirements. These are:

1 **Identification Period** - Safety Patrol, Safety Inspection or Request for Service

2 **Hazard Mitigation Period**-The period specified to eliminate or mitigate the risk to users.
3 **Permanent Repair Period** (Category 1 defects)-long term mitigation/removal
4 **Permanent Repair Period** (Category 2 defects)-removal of the defect

2 The flow diagram in Figure 1.1.3 summarises the overall process for dealing with hazardous defects.

3 Where appropriate, each of the specific Performance Requirements are broken down further such that different sets of parameters apply to different parts of the requirement.

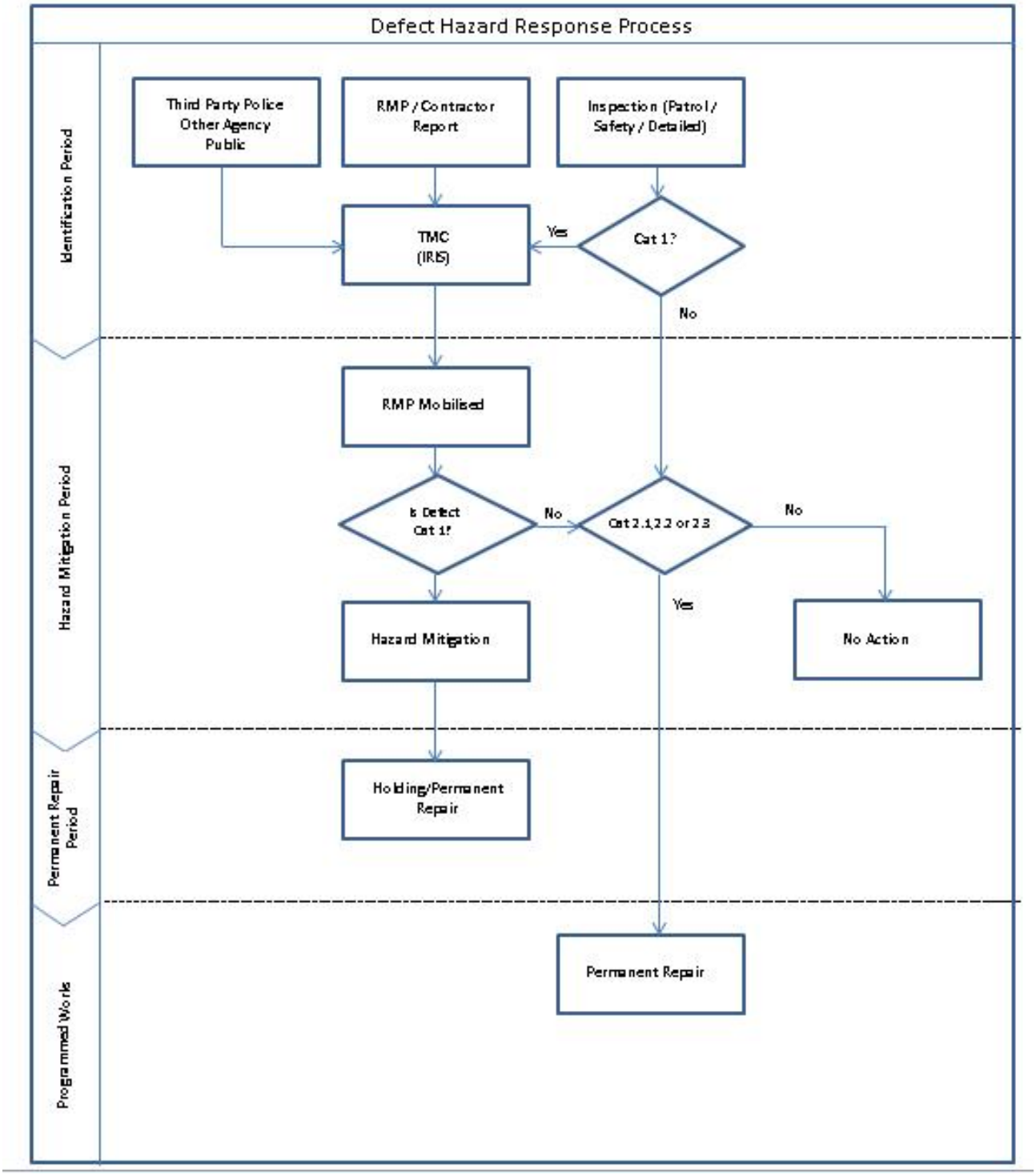
1.1.3.1 Identification Period

Category 1 defects

1 The Service Provider must identify whether defects exist on the Network within the Identification Periods stipulated in Table 1.1.3 below. Where defects are identified then these shall be recorded by the Service Provider in the IRIS RMMS System and the appropriate action instigated. Where no defects are identified then a NIL return must be recorded. The Identification Period for a Category 1 defect shall apply from the last time defects were found or not found to be present. The Identification Period for a Category 1 defect shall also apply from the receipt by the Service Provider of a third party report of a potential hazard. In addition the Service Provider must respond accordingly to urgent 3rd party requests for service where it is considered that they are Category 1 defects.

2 An Identification Period is given in Table 1.1.3 below for category 1 defects for each of the 3 road categories (A, B and C). Where the Identification Period differs for the road categories, the periods are shown associated with each category. Where categories are not shown, the Identification Period is the same for all roads in the Network. The Identification Period for slip roads and link roads within interchanges is the same as the main carriageway. The road category has no effect on the Permanent Repair times for these defects.

Figure 1.1.3



3. The Identification Periods (inspection and patrol frequencies) for Category 1 defects are summarised in Table 1.1.3

Table 1.1.3		**Safety Inspections and Safety Patrols** **Identification Period**		
		Inspection Priority A	Inspection Priority B	Inspection Priority C
Trafficked carriageways, restraint systems		24 hours	7	28
All other features including the above		7		
Lighting and Subways	Summer	28	28	28
	Winter	28	28	28
Tunnels		Immediate	Immediate	

- Periods are days unless stated otherwise
- For the 7 and 14 day periods there is an allowable tolerance of +/-1 day subject to the programme of annual inspections in order to allow for statutory holidays, network incidents or any other non-availability of network.
- For the 28 day periods there is an allowable tolerance of +/-3 days subject to the programme of annual inspections in order to allow for statutory holidays network incident or any other non-availability of network.
- Immediate is as defined within the individual tunnel contingency plans

4 Table 1.1.3.1 defines which sections of the network are within each inspection category as follows:

Table 1.1.3.1: Inspection Priority for Trunk Roads

Inspection Priority	**Motorways** (including slip roads)	**All-Purpose Trunk Roads** (including slip roads)
A	M4, M48, A48(M)	A470 Coryton to Pontypridd (Broadway Interchange) A550/A494 English Border to A55 Junction 34 Ewloe
B		A40 Monmouth to Abergavenny*

		A40 Carmarthen to St Clears A48 Pont Abraham to Carmarthen. A55 English Border to Junction 11 Llandegai ** A449 M4 Junction 24 to Monmouth English Border A470 Pontypridd to Cefn Coed. A465 Llandarcy to Abergavenny * A483 Junction 1 Ruabon north to its junction with the English Border A4042 Junction 25A to Little Mill A4232 Capel Llaniltern to Culverhouse Cross.**
C		All other trunk road routes. Category 1 footways and Category A cycletracks This category can also include for example underbridges and overbridges to A & B routes.

* Dual carriageway sections only
** Treated as inspection Priority A for Safety Patrols only

Category 2 defects

5 Category 2 defects will not be identified during Safety Inspections and Safety Patrols and therefore there is no Identification Period for Category 2 defects. These defects will be identified primarily from Detailed Inspections.

6 The Service Provider must investigate reports and complaints on the condition of the Network received from all sources.

1.1.3.2 Hazard Mitigation

1 When an actual or potential Cat 1 defect is notified from any source, the prompt response and assessment of the actual or potential hazard is key to its mitigation and managing the associated risk. In the case of those identified as a result of Safety Inspections and Safety Patrols, hazards detected should, where reasonably practical, be corrected when identified or verified. Where not reasonably practical, the Service Provider shall make safe or otherwise protect and report for action later. In this context, **making safe** may constitute:

- displaying warning signs and or,
- coning off or fencing off the defect to protect the public or,
- lane or carriageway closures or,

- other measures as appropriate

2 In the case of third party reports of potential Cat 1 defects, these should be responded to as an incident under Section 1.1.23.1 within the appropriate response time indicated in Fig 1.1.3.2

Inspection Category	Maximum Response Time	
	0700-1900 hrs	1900-0700 hrs
A and B	1hour	1.5hours
C	1.5 hours	2 hours

Note – Subject to variation for routes covered by WG Traffic Officers

Table 1.1.3.2 Maximum emergency Response Times

3. With regard to carriageway repairs an Emergency, Holding or Permanent Repair is to be completed within the time specified under Hazard Mitigation in the Performance Requirements for Paved Areas where possible or otherwise made safe. This is the same as defects traditionally recorded by a Safety Inspection. The Hazard Mitigation Period for defects commences from the point in time of Identification.

4. Where such repair is not possible or desirable, appropriate actions treatments and timings should be determined within the Hazard mitigation period by risk assessment taking into account relevant circumstances prevailing. These may include those listed at 1.1.3.3.

5. Treatments and timings for individual defects so identified and processed will supersede those identified in the Performance Requirements of Part 1.1. Service Provider's performance will be monitored against any revised periods specified.

6. Where Emergency or Holding repairs are adopted, these shall be monitored and results documented to evidence that the repair provides the required performance until a Permanent Repair is completed.

7. In some instances the performance of an emergency or holding repair may reasonably be expected to exceed that of its surroundings, eg filling a pothole around which adjacent surfacing is deteriorating. In this instance such a repair may be recorded as permanent although pre-emptive measures may be appropriate in addressing wider related asset condition issues.

8. Category 2 defects are, by definition, not hazardous so do not have a Hazard Mitigation Period.

1.1.3.3 Category 1 Permanent Repair

1 **Where possible the Permanent Repair should be made when the defect is identified or verified.** If this is not possible, it should be effected as soon as possible thereafter within the maximum time available for completing the Permanent Repair is as given in the Performance Requirement tables. The Permanent Repair Period shall commence from the commencement of the Hazard Mitigation Period. The Service Provider must adopt a pro-active approach in the repairing of Category 1 defects however it must be

recognised that in some circumstances it will be neither practical or possible or beneficial to undertake a permanent repair. The following are examples of where such circumstances may apply. These however are not exhaustive and in each instance an appropriate risk assessment must be undertaken:

i. Where there is a significant weather event e.g. snow
ii. Specialist materials cannot be procured within the required timescale
iii. Access to the Network is not possible due to works conflict or statutory process
iv. Programmed works may create safer or beneficial conditions
v. An approved design solution is required to update infrastructure to current standards

1.1.3.4 Category 2 Permanent Repair

1 Category 2 defects are sub-divided into three categories:

- Category 2.1 – Significant
- Category 2.2 – Minor
- Category 2.3 – Superficial
-

2 Category 2.1 defects are to be repaired within the time specified by the Permanent Repair Period shown in the Performance Requirements Tables unless:

- The defect is due to be repaired as part of a programmed renewal, improvement scheme or
- Forward Programme and delaying the repair will not lead to long term damage of the asset, or
- Repair of the defect is the responsibility of a public utility or other third party.

3 Category 2.2 Minor defects and Category 2.3 Superficial defects are not significant and are not likely to deteriorate significantly over the foreseeable future and therefore will not require intervention unless they are to be repaired as part of a programmed renewal or improvement scheme. The time periods available for the repair of Category 2 defects are as given in the appropriate Performance Requirement tables and shall apply from the time when a defect is identified or verified, whether that is through Safety Inspections, Safety Patrols, or Inspection Requirements (detailed inspections). The Service Provider must adopt a pro-active approach in identification of Category 2 defects. Monitoring of existing Category 2 defects will form part of the Detailed Inspection regime of the network.

1.1.4 Inspection Requirement

1 The Inspection Requirement comprises 3 types of Inspection; Safety Inspections, Safety Patrols and Detailed Inspections. Safety Inspections and Patrols are carried out at frequent intervals and are designed to identify Category 1 defects only whereas Detailed Inspections are designed to collect data on the condition of the asset which is then used to identify and programme renewal works.

1.1.4.1 Safety Inspections

1 Safety Inspections are designed to identify those defects which are likely to create a danger to the public and therefore require **immediate** or **urgent attention** (Category 1 defects). They are normally undertaken utilizing slow moving vehicles, at frequencies that reflect the characteristics of the particular highway and its use. In busy urban areas, particularly when inspecting footways, it may be difficult to obtain the necessary level of accuracy from vehicle-based inspections and inspections should be carried out on foot. The speed of the vehicle will have to be regulated by risk assessment appropriate to the nature of the route concerned.

2 It may be appropriate to undertake Safety Inspections at off-peak times in order to minimise traffic disruption and maximise the safety of both the inspectors and the public. It is important to remember that Safety Inspections also include highway structures and tunnels and must identify obvious deficiencies which represent, or might lead to, a danger to the public and therefore require immediate or urgent attention; details are provided in BD63 and WGTRMM. Additional Safety Inspections may be required in response to reports or complaints from the police, other organisations, and the public; as a result of major incidents; or as a result of extreme weather conditions. Safety Inspections are required for **all** asset types, including the Highway Verges, Embankments and Cuttings, which could affect the safety of the travelling public

1.1.4.2 Safety Patrols

1 The function of Safety Patrols is to supplement Safety Inspections by providing a structured, more frequent surveillance of sections of the road network to identify obvious hazards (Category 1 defects).

2 Safety Patrols must be undertaken on Category A roads and are normally carried out by an inspector at the speed of the slowest moving traffic primarily from Lane 1. These patrols are intended to identify obvious hazards such as Obstructions to safe use of the network which are identifiable at the patrol speed. Safety Patrols supplement Safety Inspections by providing a structured, more frequent surveillance of the road network to identify Category 1 Obstruction or Hazard defects as defined in this section. Safety Patrols must be undertaken on Category A roads (including weekends and bank holidays) between Safety Inspections.

3 Any hazards which are observed shall if reasonably practical be corrected, made safe or otherwise protected and reported to the base office for action, in the same manner as defects discovered by a Safety Inspection. They shall be recorded on the WG IRIS RMMS database as Category 1 defects.

4 A record must be made of all Safety Patrols undertaken, including the date, the inspector, the method, and the time that each section of the road was patrolled. These records shall be retained in the RMMS database format for a minimum of 12 years

5 Additional route based Safety Patrols known as **Flood Patrols** (see Adverse Weather Service) shall be undertaken during or immediately after periods of very heavy/prolonged precipitation to identify areas which may be prone to flooding. Service Providers are to put in place contingency plans which clearly define the trigger for such patrols and are informed by historic records of flood events. Flood Patrols are to be equipped to mitigate any significant risk to safety posed by water encountered by the Patrol on the network.

6 Flood Patrols will be carried out on drainage sensitive sites as identified in the Service Provider's Adverse Weather Plan and should be carried out in accordance with Service Providers' Operational Procedures. The patrol will record details of whatever is found at the drainage sensitive site on the Service Provider's pro-forma and erect flood signs as necessary.

1.1.4.3 Detailed Inspections

1 **Detailed Inspections** are carried out at less frequent intervals than Safety Inspections and are designed primarily to establish programmes of routine maintenance tasks not requiring urgent execution. They are generally employed to identify defects in all technical areas except for structures, tunnels and soft estate. In these latter instances, detailed inspection surveys are used for determining asset condition both technically and relating to its designated environmental function. For structures and tunnels, 'General' and 'Principal' and 'Special' inspections are used. For soft estate and environmental assets 'General Inspection' and 'Detailed Survey' are used. Arrangements for detailed inspections must seek to minimise disruption to traffic whilst providing adequate access for proper inspections and maintaining a safe working environment for the inspectors.

2 Specific requirements for the Detailed Inspection of each asset are set out in the Inspection Requirements which summarises the required frequencies of Detailed Inspections. Where a particular interval is specified between inspections, this shall be adhered to as closely as possible.

3 Wherever possible, inspections that require lane closures should be carried out when closures are in operation for other maintenance work. A tolerance of up to two months prior to the due inspection date is permissible. Where separate lane closures are necessary, inspections should be undertaken during off-peak periods and consideration given to night-time working or mobile lane closures to keep delays to road users to a minimum and to reduce the risk of accidents.

4 Detailed Inspections for defects to items in and along the edges of D3M and D3APTR or wider should be carried out from the hard shoulder or grass verge/nearside lane respectively. The condition of the carriageway surface, road studs and road markings in all lanes should also be observed from these locations at frequencies laid down for these areas of activity. Additionally, gullies, kerbing and edgings adjacent to the nearside verge and central reservations should be inspected from these locations at the appropriate frequencies.

5 At intervals of 2 years (or less if lane closures for other purposes allow or a risk assessment has demonstrated it to be necessary), a Detailed Inspection shall be carried out from the central reserve with the offside lane coned off. This inspection shall cover all items within and adjacent to the central reserve and those items scheduled for inspection at 2 yearly intervals or less. Additionally the centre and offside lanes of the carriageway, as well as the road markings and road studs between, shall be inspected.

(Note: The function of and need for detailed pavement inspections will be the subject of review. It will consider whether the current regime provides value for money and whether any alternative approaches exist which are more beneficial.)

6 The Detailed Inspection record shall include details of the manner of inspection (e.g. off-side lane closure or hard shoulder), the weather conditions and any other unusual features of the inspection. Nil returns shall also be recorded onto the WG's IRIS system.

Within WG's IRIS system for recording and managing detailed inspections, "all activities" in respect of Non Specialist Detailed Inspections, would mean all activities that are visible and contained within the highway boundary at the time of inspection. This may include an indicative inspection of assets that are subject to a specialist detailed inspection.

1.1.5 Defects

1.1.5.1 Defect Definitions

1 Defects occur in the condition of all aspects of the Network. The general definition of a defect to an asset is that it:

- Represents a deterioration from the normal condition,
- Prevents an item from acting in the intended manner,
- Is damaged,
- Is likely to increase the rate of deterioration of another item, or
- Causes an unintended hazard or nuisance.

2 Definition of Performance Required for each technical area comprising the service is given in sections 1.1.7 to 1.1.27 following. As well as direct measurements of performance, the presence and number of defects arising on the network gives an indication of the overall health and condition of the network asset and condition trends. Performance by the Service Provider in managing the network safety risk will be achieved however if defects are identified, categorised and repaired within the Hazard Mitigation and Permanent Repair Periods given in the Performance Requirement tables within these sections or within those determined by risk assessment as described at 1.1.3.2

3 There are two categories of defects.

Category 1 - those which require prompt attention because there is an **immediate** or **imminent safety hazard** including the risk of short term structural deterioration of an asset that creates an imminent hazard to life and limb. An obstruction in this context would be anything that significantly impedes the passage of the highway user or requires the user to divert from the intended direction of travel.

Category 2 - are all other defects.

1.1.5.2 Defect Risk Assessment

1 The principles of the WG system of defect risk assessment for application to inspections are based on that used in *Well Maintained Highways – A Code of Practice for Highways Maintenance Management* and are thus similar to that used by other highway authorities in Wales.

1.1.5.3 Defect Risk Identification

1 The principal risk to be identified by inspection is the **safety risk** affecting road users, the workforce or any other persons who may be affected by a safety risk.

1.1.5.4 Defect Risk Evaluation

1 All risks identified through this process have to be evaluated in terms of their significance, which means assessing the likely impact should the risk occur and the probability of it actually happening. This process enables the vast majority of all risks actually encountered to be assessed with risks previously identified through comparison, interpolation or extrapolation.

1.1.5.5 Safety Risk Impact

1 The **impact** of a risk occurring should be quantified on a scale of 1 to 4 assessed as follows:

1	little or negligible impact	virtually no danger or potential disruption
2	minor or low impact	possibility of minor damage or disruption
3	noticeable impact	significant damage and disruption
4	major, high or serious impact	considerable damage and serious injury/fatality

2 The impact is quantified by assessing the extent of the damage likely to be caused should the safety risk become an incident. As the impact has the potential to increase with increasing speed, the amount of traffic and type of road are clearly important considerations in the assessment.

1.1.5.6 Safety Risk Probability

1 The **probability** of a risk occurring should also be quantified on a scale of 1 to 4 assessed as follows:

1	very low probability	defect is unlikely to affect any highway users
2	low probability	defect may be encountered by a low number of users
3	medium probability	likely to affect a significant number of users
4	high probability	likely to affect most users
5	almost certain	almost certain to affect users

2 The probability is quantified by assessing the likelihood of users, passing by or over the defect, encountering the risk. As the probability is likely to increase with increasing vehicular or pedestrian flow, the network and defect location are, consequently, important considerations in the assessment.

1.1.5.7 Safety Risk Factor

1 The risk factor for a particular risk is the product of the risk impact and risk probability and is therefore in the range of 1 to 16. It is this factor that identifies the overall seriousness of the risk and consequently the appropriateness of the speed of response to remedy the defect.

2 Accordingly, the priority response time for dealing with a defect can be determined by correlation with the risk factor, as shown in the Safety Risk Matrix in Table 1.1.5.7 below. The defect response category is represented by the coloured cells.

Table 1.1.5.7 Safety Risk Matrix

Probability → **Impact ↓**	**Very Low (1)**	**Low (2)**	**Medium (3)**	**High (4)**	**Certain (5)**
Negligible (1)	1	2	3	4	5
Low (2)	2	4	6	8	10
Noticeable (3)	3	6	9	12	15
High (4)	4	8	12	16	20

1.1.5.8 Risk Management

1 Having identified a particular safety risk, assessed its likely impact and probability and calculated the risk factor, the defect response category and thus the timescale to rectify the defect should be either defined as a Category 1 response or allocated to one of the timescales for rectifying Category 2 defects. Table 1.1.5.8 below summarises the relationship between the Safety Risk Factor, the Defect Response Category and the Response Timescale.

Table 1.1.5.8

Safety Risk Factor	**Defect Response Category**	**Safety Risk and Response Timescale**
1 to 3	Category 2.3	**Superficial** -The safety risk is considered low to very low and can be tolerated over an undetermined timescale. On-going risk is managed by further inspection. Repair is to be considered during a planned maintenance scheme and is subject to available funding.
4 to 6	Category 2.2	**Minor** - The safety risk is considered to be low to medium and can be tolerated over a timescale of greater than 12 months. On-going risk is managed by further inspection. The defect is to be repaired during cyclic maintenance or the next planned maintenance scheme and is subject to available funding.

8 to 10	Category 2.1	**Significant** - The safety risk is considered to be medium-high and cannot be tolerated over increasing time. On-going risk is managed by further inspection. The defect is to be repaired during cyclic maintenance or within a target time as defined in the Performance Requirements.
12 to 20	Category 1	**Obstruction or Safety Hazard** -The safety risk is high and intolerable. This is a defect which requires prompt attention because it represents an **immediate** or **imminent safety risk** to the public or workforce including the risk of short term structural deterioration of an asset that creates an imminent hazard to life and limb. Risk reduction options available to the Service Provider for managing Category 1 Defects are found in WGTRMM Part 2.

Examples of Category 1 Defects.

2 The following defects are examples of the type that constitute a Category 1 defect. The list is indicative and should not be regarded as exhaustive. They can apply to any situation that impacts directly on live carriageway lanes and footways / cycleways in such a manner that any traffic has to divert from its intended path to avoid conflict with any obstruction created or where a threat of personal injury is created.

Cat 1 defects

a) Damaged lighting columns and other street furniture which have been displaced or are structurally unstable.
b) Excessive standing water and a large volume of water discharging on to and/or flowing across the road eg by blocked or ineffective drainage
c) Faults in road structures e.g. impact damage to superstructures, supports or parapets and structural failures that render supported carriageway unusable or impeded or insecure or displaced expansion joints.
d) Earthslips, rock falls and swallow holes where debris has encroached onto the carriageway or which is unstable and there exists an imminent danger that debris will fall onto the carriageway and thus creating an obstruction
e) Vegetation including trees which has fallen into the carriageway and creates an obstruction which requires users to deviate from their intended path to avoid conflict with the defect
f) Material from boundary fences or walls which has fallen into the carriageway and creates an obstruction which requires users to deviate from their intended path to avoid conflict with the defect
g) Exposed wires posing a risk from electrocution within areas normally accessible to highway users
h) Overhead apparatus or other feature or item overhanging live lanes that is insecure and in imminent danger of falling onto the carriageway
i) Traffic signal failure that will cause vehicular conflict

j) Debris deposited on live lanes that presents an obstruction to the highway user, which requires users to deviate from their intend path to avoid conflict with the defect, this includes large animals, debris that would cause damage to vehicles if overrun and displaced road stud housings.
k) Spillage deposited on live lanes that presents an obstruction or significant hazard to the highway user, which requires users to deviate from their intend path to avoid conflict with the defect,
l) damaged and/or displaced fencing and road restraint systems that obstruct live carriageway lanes
m) Potholes in excess of 40mm deep which cover an area of the carriageway/footway/cycle track in excess of 100mm by 100mm and other defects such as displaced or otherwise defective ironware,
n) displaced or otherwise defective kerbing, edging and channel which presents an obstruction to the highway user, or which requires users to deviate from their intend path to avoid conflict with the defect.
o) Items of debris and spillage in or near traffic lanes
p) Kerbing, edging and channel defects which create an unsafe hazard condition;
q) Damaged, defective, displaced signs that create a hazard to the road user;
r) Missing or obscured regulatory or warning traffic signs or failure of illumination if appropriate.;
s) Difference in level (exceeding 20mm) between cracks, joints or abutting concrete slabs at transverse or longitudinal joints in the carriageway/footway/cycle track;
t) Loose or rocking gratings or covers that cause a hazard to road users;
u) Electrically unsafe sign lighting
v) Overhead wires in an unsafe condition, which are adjacent to the highway;
w) Items such as road gulleys whose function would clearly be prevented by the accumulation of debris or detritus at locations prone to flooding ;
x) Damaged road restraint systems and other barriers;
y) Damaged boundary fences where animals or children could gain access;
z) Exposed wires that may pose a risk from electrocution if damaged;
aa) Rocks or unstable rock faces that may constitute a hazard to road users
bb) Debris and spillage in hard shoulder;
cc) Trees, shrubs and hedges which by virtue of their position or condition constitute a visibility hazard to road users or which may become structurally unstable and fall within the highway when inclement weather next occurs;
dd) Individual missing road studs in sections of double white lines or sections of missing road studs in other carriageways which are a Category 1 defect by definition;
ee) Traffic signal failure or other defect that that has the potential to cause vehicle conflict.
ff) Blocked gulleys, gratings and obstructed channels, grips and slot drains causing standing water which causes users to deviate from their intend path.
gg) Local depressions in excess of 80mm in the carriageway/footway/cycleway surface due to sunken ironware, rutting, fretting or the like
hh) Badly worn road markings not meeting the requirements of DMRB TD26 in sections of double white line systems
ii) Defective, missing, loose or displaced road studs lying in the carriageway, hard shoulder or laybys
jj) Unstable walls or roadside features that constitute a hazard to road users.

1.1.6 Emergency Incidents

1 Emergency incidents are described in Section 1.1.23 and Part 2

Inspection Requirements: Summary

For consideration - Table similar to WGTRMM 2000 2.1.2 to be prepared to summarise inspection requirements – will prepare for inclusion in for published final.

1.1.7 Paved Areas

Scope

1 The requirements for paved areas relate to carriageways, footways, cycle tracks, paved pedestrian areas, hardstanding paved areas, paved central reserves and cross-overs, covers, gratings, frames, boxes, kerbs, edgings and preformed channels.

WG Operational Objective

A safe, even and comfortable surface for all users, without standing water, obstructions and slippery conditions

Ref	Performance Requirement	Category 1	
		Hazard Mitigation Period*	Permanent or /holding Repair Period
PR 1.1.7.1	Carriageways are free from obstructions (including vegetation).	2 hours	24 hrs
PR 1.1.7.2	Footways, cycle tracks, paved pedestrian areas, hardstandings, paved areas, paved central reserves and cross-overs are free from obstructions (including vegetation)	2 hours	7 days
PR 1.1.7.3	Carriageways have a safe running surface free from Category 1 defects	24 hours	28 days
PR 1.1.7..4	Footways and cycle tracks have a safe running surface free from category 1 defects	24 hours	28 days
PR 1.1.7.5	Hard-standings, paved central reserves and cross-overs have a surface free from Category 1 defects	24 hours	28 days
PR 1.1.7..6	Covers, gratings, frames and boxes are free of Category 1 defects	24 hours	28 days
PR 1.1.7.7	Paved areas are free from water that would represent a hazard by virtue of its position or depth	24 hours	28 days
PR 1.1.7..8	Paved areas are free of defective kerbs, edgings and preformed channels	24 hours	28 days
PR 1.1.7.9	Carriageways are clear of materials that could	2 hours	28 days

	give rise to slippery conditions		
PR 1.1.7.10	Footways and cycle tracks are clear of debris and spillages which could give rise to slippery conditions	24 hours	28 days

*Maximum – Actual mitigation period should be risk assessed

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.7.11	Assess and record the condition of paved areas-Motorways/APTR's (other than footways or cycleways)	As tables 1.1.3 and 1.1.3.1
IR 1.1.7.12	Assess and record the condition of paved footway areas- Footway Category 1 Footway Category 2 Footway Category 3 Footway Category 4	 28 days 3 months 6 months 12 months
IR 1.1.7.13	Assess and record the condition of paved cycle tracks- Cycleway Category A Cycleway Category B Cycleway Category C	 As for carriageway 6 months 12 months
Detailed Inspections		
IR 1.1.7.14	Assess and record the condition of paved areas-Motorways/rural APTR's Urban APTRs	24 months 24 months
IR 1.1.7.15	Assess and record the condition of urban paved footways and cycle tracks.	24 months
IR 1.1.7.16	Assess and record the condition of rural paved footways and cycle tracks.	24 months

1.1.8 Drainage

Scope

1 The requirements for drainage relate to all elements of the drainage system from the point at which water drains from the paved or other areas, structures and subsoil, to the outfall or soakaway.

2 The requirements for drainage also relate to the prevention and mitigation of the effects of flooding.

WG Operational Objective

The drainage system is structurally sound and removes water from trafficked surfaces and sub-layers, without causing pollution and flooding on the road or surrounding areas. The effects of any flooding are mitigated.

Ref	Performance Requirement	Category 1	
		Hazard Mitigation Period*	Permanent Repair Period
PR 1.1.8.1	The highway drainage system is maintained by cleaning, clearing and/or emptying from the point at which water drains from the paved or other areas, structures and subsoil to the main carrier system.	2 hours	28 days
PR 1.1.8.2	Drainage flow, treatment and balancing systems and spillage control devices function correctly.	24 hours	28 days
PR 1.1.8.3	The location and means of operation of all parts of the drainage system are recorded adequately to permit the correct operation in an Emergency.	24 hours	28 days
PR 1.1.8.4	Surface water discharge systems perform their proper function and the discharge to groundwater complies with legislation.	24 hours	28 days
PR 1.1.8.5	Water is removed from paved areas such that the flooding hazard is mitigated to minimize the risk from standing water.	2 hours	7 days

*Maximum – Actual mitigation period should be risk assessed

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.8.6	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
IR 1.1.8.7	Piped drainage systems	10 years (10% per year)
IR 1.1.8.8	Soakaways, manholes, filter drains, fin/narrow filter drains, ditches and cattle grids	4 years (25% per year)
IR 1.1.8.9	Balancing ponds, retention tanks	12 months
IR 1.1.8.10	• Linear drainage systems, grassed SW channels, grips, • gullies, catchpits, grit traps, • culverts, headwalls and tidal flaps, aprons, pump wet wells • trash screens	24 months 12 months 24 months 12 months
IR 1.1.8.11	Interceptors	12 months
IR 1.1.8.12	Vegetative Treatment Systems, sluices and tidal flaps	6 months
IR 1.1.8.13	Pumps, valves, penstocks and other specialised equipment	12 months or in accordance with manufacturers recommendations

Maintenance Requirement	
MR 1.1.8.14	The minimum cyclic maintenance to drainage systems is as follows: a) Pressure jet kerb-block drains and slot drains- 1 per year b) Clean gullies, catchpits, channel systems, soakaways and Cattle grids 1 per year c) Attenuation tanks and oil separators 2 per year d) Clear drainage grips 1 per year e) Service pumping stations 1 per year f) Cleanse Swales/attenuation ponds 1 per year g) Cleanse culvert trash screens 2 per year
MR	It is essential that trash screens are regularly inspected and maintained to

1.1.8.15	ensure that the capacity of the culvert inlet is not blocked or impaired. Trash screens should be routinely cleansed every 6 months but local knowledge may require this interval to be much shorter depending on the characteristics of the inlet watercourse and its propensity to accumulate debris, branches etc that could block the grid. **The Service Provider should prepare a schedule of inspection and maintenance frequencies for all trash screens.** Notwithstanding the above it may appropriate to inspect problematic screens and undertake preventative maintenance when high rates of rainfall are forecast.
MR 1,1,8.16	Cleaning out of ditches normally requires a machine excavator. Service Providers should be aware of the potential nature conservation interest of ditches, particularly close to protected sites, natural watercourses, wetland areas and balancing ponds/flood alleviation areas. Such areas may be used by otters and other protected species. **Before ditch clearance is undertaken advice must be sought from the Service Provider's Environmental Co-ordinator or an ecologist.**

1.1.9 Geotechnical Assets

Scope

1 The requirements for geotechnical assets relate to pavement sub-grades, embankments and cuttings, and generally any subsoil conditions that may affect the Network. The requirements relate to identifying potential problems and carrying out routine maintenance only. Any large scale maintenance work needed would be classed as Renewal Maintenance. (Remedial Earthworks)

WG Operational Objective
Geotechnical assets are safe, stable and aesthetically pleasing, with potential problems identified early.

Ref	**Performance Requirement**	**Category 1**	
		Hazard Mitigation Period*	**Permanent Repair Period**
PR 1.1.9.1	Geotechnical assets are assessed, documented, maintained and repaired in accordance with DMRB and maintenance manuals and match adjacent surroundings where possible	24 hours	In accordance with DMRB

*Maximum – Actual mitigation period should be risk assessed

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.9.2	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
IR 1.1.9.3	Assess and record condition of geotechnical assets - biennial Inspection	24 months with local variations
IR 1.1.9.4	Assess and record condition of geotechnical assets-Principal Inspection	5 years completing at least 20% of the Network each year in accordance with DMRB

Ref	Maintenance Requirement
MR 1.1.9.5	**Service Providers must ensure that they have updated and agreed their GAMP with WG and WG Geotechnical Adviser.** These plans must include a future (5 year) programme and forecasts for all associated activities, including future remedial and preventative works and associated surveys, as well as targets for Geotechnical Asset Data population and quality assessment.

1.1.10 Structures

Scope

1 The requirements of this section apply to structures as defined in the DMRB, BD 62

WG Operational Objective

Structures are safe for use and fit for purpose, maintained at minimum whole-life cost.

Ref	Performance Requirement	Category 1	
		Hazard Mitigation Period*	Permanent or holding Repair Period
PR 1.1.10.1	Structures and their constituent parts are free from defects that present a hazard to the public	2 hours	28 days
PR 1.1.10.2	Structures are free from offensive graffiti and material deleterious to the condition of the structure	24 hours	28 days
PR 1.1.10.3	All non-structural items including hoists, winches and electrical fixings are safe, operate correctly, are clean and lubricated as appropriate	24 hours	28 days
PR 1.1.10.4	BD2 culverts are to be managed in a suitable condition to maintain the original flood design flows and statutory environmental requirements.	24 hours	28 days

*Maximum – Actual mitigation period should be risk assessed

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.10.5	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
IR 1.1.10.6	Assess and record condition of structures in accordance with DMRB-General inspection (not using ancillary equipment)	2 years
IR 1.1.10.7	Assess and record condition of structures in accordance with DMRB-Principal Inspection (including use of ancillary equipment)	Period determined by risk assessment-up to a maximum of 12 years
IR 1.1.10.8	Assess and record condition of structures in accordance with DMRB-Special Inspections as paragraphs 3.39 to 3.45, BD 63/07	Event driven as agreed with WG
IR 1.1.10.9	Assess and record condition of structures in accordance with DMRB-Underwater Inspection as paragraphs 3.46 to 3.49, BD 63/07	Programme to be agreed with WG

Ref	Maintenance Requirement	
MR 1.1.10.10	**Routine maintenance schedules must be held in the Structures Manual**. Each structure must have its own individual manual and schedules which are individual to that structure and stored on EDDMS. The manual shall include provision for the maintenance and inspection of integral access systems and gantries when present.	
MR 1.1.10.11	The minimum cyclic maintenance to structures is as follows:	
	a) Remove inoffensive graffiti-	24 months
	b) Cleanse drainage systems-	24 months
	c) Removal of vegetation and debris-	24 months
	d) Cleanse expansion joints-	24 months
	e) Repair defective gap sealant to movement joints-	24 months
	f) Weed control-	24 months
	g) Check (Rectify where necessary) parapets (including infill mesh)	24 months
	h) Check pedestrian fences and repair where required	24 months
	i) Clear drain holes to box sections (e.g. parapet posts)	24 months
	j) Check operation of flap valves and grease where required	24 months

	k) Remove general dirt and debris from bearings and bearing shelves (where access can be achieved without specialist equipment) 24 months l) Ensure correct operation of ancillary equipment 24 months m) Check (and rectify where necessary) seating of drainage Gratings or covers 24 months n) Check clean and repair where necessary safety features for pedestrians (e.g. handrails and non-slip surfaces) 24 months o) Check for scour damage 24 months p) Check holding down assemblies for loose or missing bolts 24 months q) Address superficial defects in surface protection systems where access can be achieved without specialist equipment 24 months r) Remove all loose debris that could be used as missiles to drop from structures 24 months The minimum frequencies provided above may be increased on a per asset basis. The Service Provider is to provide a schedule of those assets requiring an enhancement of the minimum and submit to WG for approval.
MR 1.1.10.12	The complexity and accessibly of below deck drainage systems will vary considerably. **A maintenance interval must be agreed with the TAA and recorded in the relevant structure file on EDDMS.**
MR 1.1.10.13	To address the above issues **Service Providers are reminded they must:** • review and update Interim Measures for the management of substandard structures for their network and keep this data regularly maintained in the Structure Manual and structures database to provide an auditable record • ensure that Interim Measures are added/updated in the Structure Manual and structures database within 2 weeks of any change on the network and that the expected end date is revised should the Interim Measure be expected to remain in place for longer; • ensure that Interim Measures are deleted from the Structure Manual and structures database within 2 weeks of being removed from the structure; • comply with all the requirements of the several documents relating to concrete half joint and hinge deck structures; • ensure that all relevant bridge record information for sub-standard highway structures, concrete half joint and hinge deck structures and other risk items as directed by WG is gathered, held and maintained within the Structure Manual and structures database. • provide a structures risk dashboard report on a monthly basis

1.1.11 Tunnels

Scope

1 The requirements for Tunnels relate to highway tunnels and portals, associated equipment, service buildings, drainage sumps and plant rooms. For the purpose of classification, BD2 defines a road tunnel as any subsurface highway structure enclosed for a length of 150 metres or more. In addition to the requirements that are unique to tunnels, where appropriate, requirements for items contained in other sections of WGTRMM (e.g. paved areas) apply within tunnels.

WG Operational Objective
Tunnels are clean, safe, sound, and operate as intended.

Performance Requirement
These assets are to be managed in accordance with the Operation and Maintenance Manual for each tunnel.

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.11.1	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
See O&M Manuals for Inspection regime.		

Ref	**Maintenance Requirement**
MR 1.1.11.2	Due to the enclosed nature of a tunnel, an incident within the tunnel bore can have major consequences that are significantly more severe than those for a similar incident on the open road. This is particularly relevant for incidents involving fire or the spillage of hazardous materials. **Contingency plans for emergencies must be covered in the O&MM for each tunnel. Training and exercises, both desktop and a full rehearsal, in association with the emergency services are required.**

MR 1.1.11.3	The principal areas of responsibility for the operation of tunnels are for normal, maintenance and emergency operation. Projects may require a separate state of operation and responsibility. **The allocation of responsibility and duties must be set out in the tunnel O&MM** **An O&MM must exist for each tunnel and its specific requirements must generally be followed, along with any system manufacturer's recommendations for mechanical and electrical equipment.** However, the Service Provider and others directly involved in the maintenance of tunnels must review the tunnel operational, emergency and maintenance procedures and update the O&MM accordingly. This must be carried out on a continuous basis and linked to changes in risk assessment and analysis. Records of tunnel performance must be reviewed by the Service Provider and be an integral part of the inspection entity regime. The review process must include updating risk assessments, risk analyses, reviewing emergency procedures and liaising with the emergency services.
MR 1.1.11.4	**Training and exercises, both desktop and a full rehearsal, in association with the emergency services are requirements of BD53, BA72 and the RTSR and must be undertaken.**

1.1.12 Road Restraint Systems

Scope

1 The requirements for Road Restraint Systems (RRS) includes both vehicle restraint systems and pedestrian restraint systems and relate to all types of vehicle safety barriers, crash cushions, end terminations, transitions and pedestrian guard-rails. They also relate to parapets and guard-rails on bridges and other structures.

Operational Objective
Road Restraint Systems function in accordance with their intended design and performance

Ref	**Performance Requirement**	**Category 1**	
		Hazard Mitigation Period*	**Permanent Repair Period**
PR 1.1.12.1	RRS are maintained such that they perform in accordance with their design requirements at the time of installation.	2 hours	**As AMM68**
PR 1.1.12.2	Ensure all tensioned road restraint systems are re-tensioned every 2 years or in accordance with manufacturers recommendations	N/A	N/A

*Maximum – Actual mitigation period should be risk assessed

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.12.3	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
IR 1.1.12.4	Assess and record condition of road restraint systems	2 years

Ref	Maintenance Requirement
MR 1.1.12.5	The criteria for the provision and design guidance for Road Restraint Systems (RRS) can be found in TD19 Requirements for Road Restraint Systems. **TD19 supersedes all or part of previously relevant standards in respect of RRS, including IRRRS (Revision 1) and must be used for all new highway work and maintenance renewal schemes (for details of superseded and amended documents refer to TD19**, Lists A and B.** For minor maintenance replacement works (e.g. due to accident damage) the use of TD19 is not mandatory. For further exceptions refer to TD19 Chapter 1, implementation.
MR 1.1.12.6	**Posts that are found to be cracked must be replaced as soon as is reasonably possible with new posts incorporating correctly placed drainage holes** (10mm diameter holes above the weld line, clear of the mortar bed.)

1.1.13 Technology Systems

1 The requirements for the technology systems cover, but are not limited to, safe access and general, non-specialised maintenance of technology systems sites and electrical installations and their surroundings, which form part of the Network technology system. Where appropriate this includes emergency roadside telephones, matrix signals, loop detectors / Bluetooth , meteorological and CCTV camera surveillance equipment, ANPR sites, transmission stations, cabinets, power distribution equipment, generators, communication cables and ancillary equipment.

2 This also includes access to and maintenance of the civil infrastructure that technology depends on, such as (but not limited to) sign/signal bases, columns, camera poles, cabinets, ducts and gantries and immediate surrounding areas. Also, the Service Provider is responsible for ensuring that all of the traffic cameras/CCTV have clear views of the carriageways, hard shoulders and verges i.e. not obscured by new structures or vegetation. This also includes matrix signs, to ensure views from the carriageway are not obscured.

3 Maintenance and management of WGs specialised electrical/electronic plant is undertaken by specialist Contractor and Consultancy Service Providers respectively whose services are procured separately by WG. These activities fall outside the scope of this section, but the duties of the Service Provider include undertaking civil engineering works (e.g. debris/vegetation clearance cable laying, traffic management arrangement/coordination) to support the technology service providers in any emergency works or operations.

WG Operational Objective

To ensure that technology systems equipment is readily accessible, adequately labeled, clean, structurally safe and functional.

Ref	Performance Requirement	Category 1	
		Hazard Mitigation Period*	Permanent Repair Period
PR 1.1.13.1	Technology systems equipment has clear, safe, well drained and unobstructed access (including paths, steps and handrails)and operational areas	24 hours	7 days
PR 1.1.13.2	Cabinets , buildings and sites are kept clean and clear of vegetation, well drained, structurally sound and functional	24 hours	7 days

*Maximum – Actual mitigation period should be risk assessed

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.13.3	Safety Inspection/Patrol	As tables 3.2.1 and 3.2.2
Detailed Inspections		
IR 1.1.13.4	Technology systems cabinets Drainage adequate, accesses (including paths, handrails and steps) are safe and unobstructed.	24 months
IR 1.1.13.5 IR 1.1.13.6	Transmission station buildings and sites. Accessibility. Structural condition including leaking roofs, door fitting, gutters and downpipes, accessibility and security.	24 months 24 months
IR 1.1.13.7 IR 1.1.13.8	Other equipment (e.g. variable message signs, and gantries, fog detection, ice detection, CCTV, other cameras, camera cabinets etc Accessibility. Structural condition, including mountings and posts and damage	24 months 24 months

1.1.14 Road Markings and Road Studs

Scope

1 The requirements for road markings and road studs relate to road markings in paint or thermoplastic materials and reflective and non-reflective road studs of all types and colours.

WG Operational Objective
Road markings and Road Studs are safe, visible, tactile where applicable and clean

Ref	Performance Requirement	Category 1	
		Hazard Mitigation Period*	Permanent Repair Period
PR 1.1.14.1	Road markings achieve the stated performance over each length of 100 metres of carriageway in terms of the requirements of the DMRB TD 26/07and subsequent revisions	24 hours	28 days
PR 1.1.14.2	Road studs achieve the stated performance in terms of the requirements of the DMRB	24 hours	24 hours

*Maximum – Actual mitigation period should be risk assessed

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.14.3	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
IR 1.1.14.4	Assess and record condition of road markings and road studs	2 years
IR 1.1.14.5	Assess and record conspicuity of road studs during night time	12 Months / TD26

1.1.15 Road Traffic Signs

Scope

1 The requirements for road traffic signs include traffic signs, bollards and mechanical variable message signs, together with associated electrical equipment where appropriate. They do not relate to structural aspects of road traffic signs classified as structures.

WG Operational Objective
Road traffic signs are safe, clearly visible , clean and accessible

Ref	**Performance Requirement**	**Category 1**	
		Hazard Mitigation Period*	**Permanent Repair Period**
PR 1.1.15.1	Signs are clearly visible in terms of the requirements of the DMRB	24 hours	7 days
PR 1.1.15.2	Signs and supports are free from structural and electrical defects in terms of the requirements of the DMRB	24 hours	7 days
PR 1.1.15.3	All structures, equipment and elements of the signing system are kept clean and accessible and free from obstruction in terms of the requirements of the DMRB	24 hours	7 days

*Maximum – Actual mitigation period should be risk assessed

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.15.4	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1

Detailed Inspections		
IR 1.1.15.5	Assess and record condition of road signs as TD25/15, all aspects except those listed below:. Rrflectivity Electrical Safety and Operation Illuminated and non illuminated	 ***TBC*** 2 years 2 years
IR 1.1.15.6	Moving parts electrical safety and operation (visual inspection including opening doors)	2 years
IR 1.1.15.7	Electrical testing in accordance with the relevant British Standard	6 years
IR 1.1.15.8	Structural Testing in accordance with the guidelines set out in ILP TR22	6 years

Ref	**Maintenance Requirement**
MR 1.1.15.9	Bulk Lamp change interval 2 Years (see note) However the safety risk matrix to be applied where roads are restricted to cyclic maintenance closures only.
MR 1.1.15.10	Cleanse traffic sign faces at 2 yearly intervals (illuminated), 3 yearly intervals non-illuminated

Note - For technology that is not included in DMRB, seek manufacturers guidelines

1.1.16 Road Traffic Signals

Scope

1 The requirements for road traffic signals relate to permanent traffic signals sited at junctions, outside emergency vehicle stations or at controlled pedestrian crossings. They also relate to associated monitoring equipment installed at or remote from the site, and to regulatory signs associated with traffic signals.

WG Operational Objective
Road traffic signals are fully operational, safe, clean and efficient

Ref	Performance Requirement	Category 1	
		Hazard Mitigation Period*	Permanent Repair Period
PR 1.1.16.1	Traffic signals and their associated equipment are free from damage, visible, clean, correctly aligned and operational	2 hours	24 hours
PR 1.1.16.2	Traffic Signals and supports are free of structural and electrical defects	24 hours	28 days
PR 1.1.16.3	Remote monitoring systems are fully operational where fitted	N/A	24 hours
PR 1.1.16.4	Signals have identification markers are correctly located, clearly visible, clean and legible	N/A	N/A
PR 1.1.16.5	Repeat faults are eliminated Signal timings are optimised	N/A N/A	N/A N/A
PR 1.1.16.6	Equipment cabinets contain up to date records, in good condition, of traffic components. Independent records shall be kept and maintained by the Service Provider	N/A	N/A

*Maximum – Actual mitigation period should be risk assessed

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.16.7	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
IR 1.1.16.8	Assess and record condition of traffic signals:	1year
IR 1.1.16.9	Electrical testing in accordance with the relevant British Standard by undertaking the recommended periodic testing which must include continuity, polarity, earth fault loop impedance and functional tests and performed as in Traffic Control Users Group Guidance note 1. *	6 years
IR1.1.16.10	Structural testing of traffic signals in accordance with guidelines set out in TR22	6 years

* Should problems which cannot be resolved arise during these tests and checks, advice should be sought from a competent person with the necessary expertise in traffic signals and control systems.

Ref	Maintenance Requirement
MR 1.1.16.11	There will be occasions when a failure of a set of signals, whilst not sufficient to invoke a full scale emergency, may cause significant problems. **In order for such failures to be dealt with effectively the Service Provider must develop a 'Traffic Signal Failure Plan'**. This plan will detail the Service Provider's actions to mitigate the effects of the failure in order to maintain a reasonable flow of traffic through any junction until such time as the permanent repair is carried out.
IR 1.1.16.12	Signal aspect cleaning in accordance with DMRB TD24 1 year

IR 1.1.16.13	Lamp changes in accordance with the DMRB TD24 Note - For technology that is not included in DMRB, seek manufacturers guidelines

1.1.17 Lighting

Scope

1 The requirements for road lighting relate to luminaires, lighting columns, and other supports and associated electricity supply. High masts (>20m column height) and catenary lighting systems are classified as structures although the electrical elements are covered by this Section.

WG Operational Objective
Lighting is fully operational, safe, clean and efficient

Ref	Performance Requirement	Category 1	
		Hazard Mitigation Period*	Permanent Repair Period
PR 1.1.17.1	The illumination is uniform, free from defects and to the appropriate levels as defined in the DMRB and other relevant standards	24 hours	28 days
PR 1.1.17.2	Lighting is structurally and electrically free from defects	2 hours	28 days
PR 1.1.17.3	All structures, equipment and elements of the lighting system are kept clean and free from debris (lanterns are clean, lighting units are free from accidental damage or vandalism)	2 hours	28 days
PR 1.1.17.4	All lighting equipment to have identification markers that are correctly located, kept visible and legible	N/A	N/A
PR 1.1.17.5	Equipment cabinets contain up to date records, in good condition, of lighting components. Independent records to be kept and maintained by the Service Provider	N/A	N/A

*Maximum – Actual mitigation period should be risk assessed

**Where roads are restricted to cyclic /programmed maintenance closures, then the defect shall be repaired under these closures if risk assessment permits.

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.17.6	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
IR 1.1.17.7	Assess and record structural condition of lighting	6 years
IR 1.1.17.8	Electrical testing in accordance with the relevant British Standard	6 years
IR 1.1.17.9	Records contained in feeder pillars, switch rooms and other electrical equipment (including corresponding centrally held records) are up to date and good condition	6 years

Ref	Maintenance Requirement
MR 1.1.17.10	Bulk clean interval. 3 year (>=IP54) However the safety risk matrix to be applied where roads are restricted to cyclic maintenance closures only.
MR 1.1.17.11	Lamps not to be bulk changed but will be burnt to extinction.

1.1.18 Fences, Walls, Screens and Environmental Barriers

Scope

1 The requirements for fences, netting, walls, screens and environmental barriers relate to all types of fences, walls, screens and environmental barriers that are known and documented the property of the Welsh Government and are not classed a structures. They do not relate to Road Restraint Systems.

WG Operational Objective
Fences, walls, screens and environmental barriers serve the purpose for which they were intended

Ref	**Performance Requirement**	**Category 1**	
		Hazard Mitigation Period*	**Permanent Repair Period**
PR 1.1.18.1	Fences, walls, netting, screens and environmental barriers, inclusive of stock proofing, are maintained.	2 hours	28 days

*Maximum – Actual mitigation period should be risk assessed as appropriate

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.18.2	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
IR 1.1.18.3	Assess and record condition and purpose of fences, walls screens and environmental barriers for Integrity, Structural Condition and Purpose	24 months 24 months

1.1.19 Soft Estate and Environmental Management

(Note -15 July amendments included - subject to further revisions – In preparation by John Byrne)

Scope

1 The requirements for the soft estate relate to safety and appropriate management of defects for the natural part of the highway estate including verges, embankments, cuttings, planted areas, water bodies, naturally occurring vegetation, hedges, woodlands and areas of land held for environmental reasons; that may have the potential to compromise the safety of the travelling public and occupiers of neighbouring property.

2 The scope of the requirements includes appropriate and proportionate management of the environmental and landscape elements present to meet the functions they perform in order to effectively manage risks and maximise value for money in terms of 'whole life costs' considerations. Management and maintenance requirements are further defined in the DMRB, Volume 10 'Environmental Design and Management'.

WG Operational Objective

The soft estate is managed so as to ensure the safety of the highway user, to protect and where appropriate enhance the environment, to minimise risks to third parties and to ensure the features (elements) are managed to meet their designated functions.

Ref	Performance Requirement	Category 1	
		Hazard Mitigation Period*	Permanent Repair Period
PR 1.1.19.1	**Highway Verges, Embankments & Cuttings** Vegetation does not constitute a hazard (to the road user or Service Providers) so long as • Visibility at junctions, access points and bends not restricted. Sight lines and stopping distances are kept clear. • Visibility of signs, lights, signals, safety cameras and marker posts is not obstructed. • Verges and central reservations are maintained. (see PR 3.17.2, SE.1 Safety Cutting) • Hazardous trees are identified and made safe. Any tree identified as having the potential to fall on the highway is made safe.	24 hours	28 days
PR 1.1.19.2	**Soft Estate** The soft estate is managed in an environmentally sensitive manner to achieve the objective/functions as set out in the appropriate Route Environmental Management Plan (REMP), in accordance with DMRB, including but not limited to: • Woodlands, trees and hedgerows.	N/A	N/A

	• Grasslands. (Excluding 'Safety Cut' areas). • Water bodies. • Hardened landscape areas • Species and habitats covered by legislation or defined in the relevant Biodiversity Action Plan (e. g. WG/UK/local) • Where statutory designated sites lie within or adjacent to the highway, the soft estate is managed in agreement with the appropriate statutory environmental body. • Injurious and invasive weeds are controlled in relation to an assessment of the risks involved. • Pests and diseases are managed in relation to an assessment of the risks involved. • Risks to third parties are minimised		
PR 1.1.19.3	**Soft Estate** The soft estate is managed to help deliver any commitments/targets made through Environmental Statements, Public Inquiries and the planning process; or contained in the Trunk Road Estate Biodiversity Action Plan (TREBAP) or its successors..	24 hours	28 days*

*Maximum – Actual mitigation period should be risk assessed

**Where carrying out a Permanent Repair is likely to have an adverse impact on the environment, prior specialist and expert advice must be sought to minimise such impact. Licences or consents may be needed in some situations.

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.19.4	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
IR 1.1.19.5	Assess and record condition of highway verges, embankments, cuttings, landscape and amenity	2 Years

	areas on all motorways and APTRs	
IR 1.1.19.6	Assess and record condition of the soft estate, and collect and record asset inventory information in accordance with Section 2.2.19.3.2 "Detailed Survey"	5 years- at least 20% of the Network each year, in accordance with DMRB
IR 1.1.19.7	Assess and record condition of trees within the soft estate and third party trees within falling distance of the highway.	5 years

Ref	Maintenance Requirement
MR 1.1.19.8	**Highway Verges, Embankments & Cuttings** Grass cutting is carried out in accordance with DMRB volume 10's 'Landscape Management Handbook' in relation to the Landscape Element designation and the Landscape Function it performs The minimum cyclic maintenance grass cutting requirement is undertaken as follows: • **SE.1 Safety Cutting** - All Verges, Embankments and Cuttings. 1 or more cuts per year depending on local conditions, to maintain vegetation to a height to a height to maintain required visibility. • **LE1.1 Amenity Grassland.** A minimum of 1 cut per year with additional cuts according to local context when appropriate (for example in urban areas where the visual and operational benefits can be demonstrated). • **LE1.2 Grassland with Bulbs** A minimum of 1 cut per year timed in accordance with the bulb species present. • **LE1.3 Species Rich Grasslands and Wildflower Verges.** • In accordance with the environmental objectives for the grassland/verge. • **LE1.4 Rock and Scree** As appropriate to maintain safety. • **LE1.5 Heath and Moorland.** As appropriate to maintain the desirable plant species diversity. • **LE1.6 Open Grassland.** As appropriate to maintain it as grassland and according to its designated function. Local context should also be considered in determining frequencies, for example in maximising efficiencies by taking advantage of other scheduled maintenance operations or as a cost effective means of scrub

	or invasive species control.
1.1.19.9	**Siding** Where grassed areas adjoin carriageways, footways and cycle tracks, **siding** shall be carried out at a frequency normally not greater than **once every 3 years .** Details of siding frequencies shall be noted on the records of the grassed areas.
MR 1.1.19.10	**Highway Verges, Embankments & Cuttings** Apply appropriate total herbicide to footway, paved areas, hardened central reserves and filter drains of the highway once per year during April, May or June
MR 1.1.19.11	**Notifiable Pests and Diseases** Notifiable pests and diseases subject to statutory controls will be managed in accordance with the conditions of any 'served' Statutory Plant (or Pest) Health Notice or on the instructions of the relevant statutory authority; and in accordance with any guidance issued from the Welsh Government and in accordance with the conditions of statutory instruments or instructions.
MR 1.1.19.12	**Soft Estate - Reporting** In March each year the Service Provider will provide an annual report relating to their environmental management activities as detailed in 2.2.19.5

1.1.20 Sweeping and Cleaning

Scope

1 The requirements for sweeping and cleaning relate to the Welsh Government's responsibility under the Environmental Protection Act 1990 (EPA) where the levels of cleanliness after cleaning are specified. Local Authorities are responsible for cleaning and removal of litter from Trunk Roads however the Welsh Government has retained the duty for cleaning litter and refuse or detritus on the following routes:

M4 Junction 23 to Junction 49
M48 Junction 2 to M4 Junction 23
A48(M) Junction 29 to Junction 29A
A55 Junction 23 Llanddulas to Junction 17 Conwy Morfa (Special Road Section)

WG Operational Objective
A Network that is clean and free from litter, refuse and/or obstructions

Ref	Performance Requirement	Category 1	
		Hazard Mitigation Period*	Permanent Repair Period
PR 1.1.20.1	Comply with the standards of cleanliness given in the EPA: Code of Practice on Litter and Refuse, for the sweeping and cleaning of all channels and hardshoulders on motorways only	24 hours	28 days
PR 1.1.20.2	Amenity areas are clear of litter and detritus, litter bins are emptied to prevent overspill and all litter is removed to a licensed tip	24 hours	24 hours
PR 1.1.20.3	WG toilet blocks are clean and hygienic with regular cleaning, emptying and disposal of waste matter, replenishment of consumables repair and servicing of buildings , fixtures and fittings	24 hours	24 hours

*Maximum – Actual mitigation period should be risk assessed

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.20.4	Safety Inspection/Patrol	As tables 1.1.3 and 1.1.3.1
Detailed Inspections		
IR 1.1.20.5	Assess and record condition of carriageways, verges, footways, slopes and amenity areas on all motorways, special roads and APTRs	2 years

Ref	Maintenance Requirement
MR 1.1.20.6	**The Service Provider is responsible for discharging the EPA responsibilities on behalf of WG and in doing so must maintain the routes indicated clear of litter and refuse and in a state of cleanliness as recommended in the Environmental Protection Act 1990: Code of Practice on Litter and Refuse.** This relates to the sweeping and cleaning of all channels and hard shoulders, clearing and removal of debris from traffic lanes, hard shoulders, verges and central reservations as indicated below. Scavenge patrols on motorway and slip roads: Fortnightly Mainline sweeping: Category A roads 6 months Category B roads 12 months Mainline litter collection: Category A roads 6 months Category B roads 12 months Slip Roads sweeping: Category A roads 6 months Category B roads 12 months Slip Roads litter collection:

	Category A roads	Monthly
	Category B roads	12 months
	Removal of litter, and footway and cycle track sweeping is the responsibility of the Unitary Authority except for the M4 motorway and designated lengths of trunk road identified within Route Management Plans	

1.1.21 Traffic Management

Scope

1 The requirement to put in place temporary traffic management (TTM) or emergency traffic management (ETM) measures to facilitate safe roadworks, temporary closures or incident management, whilst keeping the traffic flowing as safely and freely as possible.

WG Operational Objective

To maximise the safety of the workforce and the travelling public and to keep traffic flowing as safely and freely as possible

Reference	Performance Requirement
PR 1.1.21.1	The Service Providers is required to implement the requirements of 'Safety at Street Works and Road Works - A Code of Practice' for all works on highways and roads, except motorways and dual carriageways with a speed of 50mph or more. The Service Provider is also required to implement the requirements of TSM Chapter 8 for all works on motorways and all-purpose trunk roads. The Service Provider must satisfy themselves that the requirements of these documents are being fully met and that safe systems of work are implemented. Should it be deemed by the Service Provider that a substantial variation from the WG requirements is required then the Service Provider may submit details and obtain approval from WG.
PR 1.1.21.2	The Service Provider is required to ensure that all signs take into account the provisions of the Welsh Language Act, conform to the *Traffic Signs (Welsh and English Language Provisions) Regulations 1985 and* are authorised by Welsh Government.
PR 1.1.21.3	Where Temporary Traffic Regulation Orders (TTRO) are required by Chapter 8 or may be required in certain other circumstances, Service Providers must submit requests for temporary traffic orders in hard signed copy on form TON and must allow for the preparation and publication of the necessary orders in accordance with Chapter 8 and the *Road Traffic Regulation Act 1988*. Requests for permanent orders can be made using the WG electronic submission system.
PR 1.1.21.4	All persons involved in the installation, maintenance and removal of temporary traffic management on the motorway and trunk road network must hold the

	relevant Highway Sector Scheme Certificates.
PR 1.1.21.5	Lane closure information signs in accordance with Chapter 8 of the Traffic Signs Manual: Part 1: Design, Section D4.13.10 to 16 should be used where the temporary traffic management design identifies that there are likely to be traffic delays of two minutes or greater or if there is a need for specific driver information. All full list of approved signs for use in Wales to diagram WAG/P 7004 can be found on the WG website.
PR 1.1.21.6	The Service Provider is to create and manage Temporary Traffic Management Manuals for the planning, management and monitoring of all inspection, maintenance and improvement works on the A, B & C Inspection Priority roads in Wales.
PR 1.1.21.7	The Service Provider is to monitor third parties and other Service Providers' planning, implementation, maintenance and removal of temporary traffic management on the network in ensuring consistency of standards and safe working practices for both maintenance and major improvement works on the network

Inspection Requirement		
Ref		**Interval**
Safety Inspection and Safety Patrols		
IR 1.1.21.8	Routine Safety Inspection / Patrols are to include all temporary traffic management in place at time of inspection regardless of Provider.	As tables 1.1.3 and 1.1.3.1

1.1.22 Winter and Adverse Weather Service

1.1.22.1 Scope

1 The scope of the Adverse Weather Service comprises:

- Operational arrangements that seek where reasonably practicable to protect the safe movement of traffic on the motorway and trunk road network.
- An Adverse Weather Plan that details the Service Provider's response to adverse weather which includes freezing conditions, snow, heavy rainfall, flooding, high winds, fog and heat wave.
- A Winter Service that provides operational arrangements to respond to freezing conditions and snowfall to cover the period from 1 October to 30 April and a contingency provision to account for unusual events which might occur just outside the season.
- The responsibility for Winter Service resources which will include the management and maintenance of WG owned; vehicles, depots, strategic salt stores operational and strategic salt stocks, as well ensuring the adequacy of Service Provider service provision.
- Salt management arrangements for all operational and strategic salt stocks to meet the Winter Service objectives.
- Precautionary salting and snowfall response arrangements to provide in so far as reasonably possible an effective response to predicted forecasts or as reactive measures on trafficked carriageways and, where appropriate, footways and cycleways on the Network.
- Flood response arrangements to potential incidence of flooding or standing water on the carriageway (from heavy rainfall or watercourses) to ensure as far as reasonably practicable the safe movement of traffic.
- Arrangements to manage high winds/gale events which may also affect the safe movement of traffic over structures.
- Arrangements to respond to incidents of fog on the Network.
- Arrangements to respond to incidents of heat wave on the Network.

WG Operational Objective

To provide where reasonably practicable the safe movement of traffic on the motorway and trunk road network in Wales and to keep delays to a minimum during periods of adverse weather conditions, including:

- Snow;
- Freezing (including ice and frost)
- Heavy rainfall
- Flooding;
- High winds;
- Fog;
- Heat wave.

Reference	Performance Requirement
PR 1.1.22.1	The Service Provider is to provide an Adverse Weather Service (AWS)
PR 1.1.22.2	a. The Service Provider is to develop an Adverse Weather Plan (AWP) in order to implement the Adverse Weather Service and to effectively manage a wide range adverse weather related events affecting the network. The AWP is a form of contingency plan and will include the Winter Service Delivery Plan(s) (WSDP). b. Within the WSDP, Service Providers are to identify the management arrangements for limited local treatment of footways, cycleways and other areas used by the public (ranked on a risk based prioritisation) and the co-ordination and co-operation with adjacent Service Provider and Highway Authorities. c. The AWP is to be updated annually and submitted to WG by the end of July each year to include the forthcoming Winter maintenance season. Acceptance by WG should normally be forthcoming by the end of August subject to review of contents, for implementation from 1 September.
PR 1.1.22.3	a. The Service Provider is to provide a Winter Service based on a calendar period from 1st October to 30th April (to include marginal contingency arrangements) and the performance requirements of the WSDP. b. The Adverse Weather Plan will cover the whole calendar year.
PR 1.1.22.4	The Service Provider is to ensure suitably trained and competent personnel are provided to implement the AWP.
PR 1.1.22.5	The Service Provider is to ensure that the required resources and operational arrangements are in place to implement the AWP.
PR 1.1.22.6	Where provided, the Service Provider is responsible for the management and maintenance of all WG resources provided to undertake the Winter Service including: • WG vehicles; • Plant and equipment • WG motorway depot operations; • WG operational salt stocks; • Strategic Salt Stock. • Strategic Salt Storage Facilities. • Strategic Salt Storage Facility Operations. Refer to WGTRMM for management of WG motorway depots and strategic salt storage facilities.
PR 1.1.22.7	The Service Provider is responsible for implementing WG management procedures associated with the WG strategic reserve salt stocks.

	(Refer to WGTRMM Part 2)
PR 1.1.22.8	The Service Provider is to define salt management arrangements within the WSDP. This will include both: • minimum allocated capability thresholds for WG motorway depots; • capability thresholds where salt is provided by Service Provider supply chains • rotation and restocking of salt held within strategic reserve storage facilities.
PR 1.1.22.9	The Service Provider is to apply salt (or other) additional precautionary treatment to the network in accordance with the Welsh Government Salt Treatment Matrix.
PR 1.1.22.10	The Service Provider is to provide situation reports for ongoing situations, copied to adjacent Agents / Service Providers, until an event has ceased and maintain AWS records as per WGTRMM.

Reference	Inspection Requirement	Interval
IR 1.1.22.11	The Service Provider is to provide additional safety patrols as appropriate to the perceived circumstances, including: • inspection Category A, B and C routes; • whole routes or affected parts of routes; • verifying third party reports e.g. by emergency services.	Risk based as determined by the Service Provider based on ad hoc reports, forecasts or prevailing conditions

Reference	Maintenance Requirement
Winter Service: General	
MR 1.1.22.12	Service Provider to develop a schedule of known sites and areas of high risk from flooding and seepage onto carriageway together with contingency plans for those sites.

MR 1.1.22.13	Service Provider to develop a schedule of known sites affected by high winds together with contingency plans for those sites.
MR 1.1.22.14	Service Provider to develop a winter service plan to ensure that adequate facilities and resources are available to react to conditions over the period October to April (and contingency period)
MR 1.1.22.15	With regard to the initial first treatment, the Service Provider shall undertake precautionary salting at an appropriate spread rate in advance of predicted / forecast freezing temperatures where reasonably practicable.
MR 1.1.22.16	Where two gritting runs are necessary to deposit more that 20gm/m2, the second treatment shall be commenced no later than 1 hour after completion of the first treatment which would facilitate sufficient time for the reloading and refuelling of the vehicle
MR1.1.22.17	The Service Provider must take account of the installation and removal of temporary traffic management and other maintenance and construction activities in the planning and execution of winter maintenance activities in ensuring adequacy and timeliness of treatments
MR 1.1.22.18	The Service Provider must keep full documentation and records regarding inspections, evaluation of alternative treatments, risk assessments, residual salt calculations, determination of reduced spread rates and actions undertaken together with normal winter service records.
MR 1.1.22.19	The methodology for delivering winter service treatments on footways and cycleways shall be developed by Service Providers through liaison with Local Authorities and adjacent Agencies to maintain consistency of approach where practical and appropriate to do so.
MR 1.1.22.20	The Service provider shall take into account physical features (such as concrete central reserve barriers and railway bridge parapets) in determining appropriate strategies and procedures for snow clearance and ploughing.
Salt and Fuel	
MR 1.1.22.21	To ensure adequate exclusive stocks are available and maintained for the continuation of the motorway and trunk road

	network winter service until salt stocks are replenished, minimum threshold levels shall be applied to salt stocks controlled by the Service Provider and those held by Service Providers' supply chains. A capability assessment technique will be applied to establish the required minimum threshold levels where capability is expressed in days (heavy salting level) and is the number of days of continuous treatment across all routes, assuming six treatments per day at 20 g/m^2, and also assuming no re-supply.
MR 1.1.22.22	Motorway Depot minimum salt and fuel stock levels at the beginning of the winter season shall be agreed with the Welsh Government. These shall include salt start and replenishment levels for brine saturators.
Vehicles & Depots	
MR 1.1.22.23	WG supplied vehicles must be washed down using copious amounts of water to remove deposited salt, this is especially necessary where pre-wetted salt systems are used
MR 1.1.22.24	Responsibility for Welsh Government vehicles and plant shall rest with the Service Provider
MR 1.1.22.25	Service Providers shall report all accidents involving Welsh Government vehicles to Welsh Government
MR 1.1.22.26	Service Providers using Motorway Compounds shall provide regular reports regarding the level of all fuel stocks held at the compounds and ensure that adequate levels of fuel are held throughout the winter season and identify ownership of the fuel
MR 1.1.22.27	With regard to WG supplied resources, salt stock records shall be provided at the same frequency as fuel stocks
MR 1.1.22.28	Service Providers shall arrange for the carrying out of the day to day routine maintenance and repair of the vehicles allocated to them by the Welsh Government as instructed in the Service and Maintenance booklets
MR 1.1.22.29	Each WG supplied vehicle shall be driven once every two weeks when not subject to operational use, for a minimum distance of 20km and subject to safety inspections at not greater than 6 week intervals

MR 1.1.22.30	Where winter service delivery employs WG owned depots, during April or at the end of winter use Service Providers shall empty and clear away all salt from the hopper loading equipment and adjacent area. The equipment shall be washed down thoroughly and lubricated and a detailed examination arranged

(Note - Salt treatment Matrix shown is that for 2015/16 Season, 2016/17 matrix will be issued prior to 2016/17 season and following review of 2015/16 season in 2016))

This matrix has been reproduced from WGTRMM 2015 Section 1.1.22 (2015/16)

Table 1.1.22 - Welsh Government Salt Treatment Matrix

Weather Conditions, Road Surface Conditions, Road Surface Temperature (RST)	Air Temperature	Required Treatment				
		Dry Salting (g/m^2)	Pre-wetted Salting (g/m^2) (see Note 1)	Pre-Coated Salting (g/m^2)	Pre-coated / Pre Wetted combination	Ploughing
(MARGINAL CONDITIONS) Frost or forecast frost, RST at or above minus 2°C and dry or damp road conditions. (Note 4 if porous / open textured surfacing)		10 (12)	10 (12)	10 (10)	10 (12)	No
Frost or forecast frost, RST at or above minus 2°C and wet road conditions. (Note 3 if wet and lightly trafficked) (Note 4 if porous / open textured surfacing)		10 (15)	12 see Note 2 (15)	10 (12)	12 see Note 2 (15)	No
Frost or forecast frost, RST below minus 2°C and above minus 5°C and dry or damp road conditions (Note 3 if damp and lightly trafficked) (Note 4 if porous / open textured surfacing)		15 (20)	15 (20)	10 (15)	15 (20)	No
Frost or forecast frost, RST below minus 2°C and above minus 5°C and wet road conditions (Note 3 if wet and lightly trafficked) (Note 4 if porous / open textured surfacing)		20 (25)	20 see Note 2 (25)	15 (20)	20 see Note 2 (25)	No

Frost or forecast frost, RST at or below minus 5°C and above minus10°C and dry or damp road conditions (Note 3 if damp and lightly trafficked) (Note 4 if porous / open textured surfacing)		20 (25)	20 (25)	15 (20)	20 (25)	No
Frost or forecast frost, RST at or below minus 5°C and above minus 10°C and wet road conditions (existing or anticipated) (Note 3 if lightly trafficked) (Note 4 if porous / open textured surfacing or particularly low temperatures at lower end of temperature band)		2x15 (2x20)	2x15 see Note 2 (2x20)	25 (2x15)	2x15 see Note 2 (2x20)	No
Light snow forecast (<10mm)		10-20	10-20 see Note 2	10-15	10-20 see Note 2	No
Medium / heavy snow or freezing rain forecast (>10mm)		2x20	see Note 2	2x15	see Note 2	No
Freezing rain falling		20 (successive)	see Note 2	15 (successive)	see Note 2	No
After freezing rain		20 (successive as required)	see Note 2	15	see Note 2	No
Ice formed (minor accumulations)	above minus 5°C	20	see Note 2	15	see Note 2	No
Ice formed	at or below minus 5°C	2x20	see Note 2	2x15	see Note 2	No
Snow covering exceeding 30mm		10-20 (successive)	see Note 2	10-15 (successive)	see Note 2	Yes
Hard packed snow / ice	above minus 8°C	20 (successive)	see Note 2	15 (successive)	see Note 2	No
Hard packed snow / ice	at or below minus 8°C	Salt/abrasive (successive)	see Note 2	Salt/abrasive (successive)	see Note 2	No

- *Undertake precautionary salting at an appropriate spread rate in advance of predicted / forecast freezing temperatures.*
- *Rates of spread for precautionary treatments may be adjusted to take account of residual salt or surface moisture. Refer to WGTRMM 2.2.22*
- *If the indicated spread rate cannot be accurately applied due to limitations of the equipment or calibration difficulties the next higher spread rate should be used. (For example: when indicated 12g/m^2 use 15g/m^2).*
- *Equipment shall be calibrated and adjusted to ensure that the required spread rates throughout the salting route (with varying loads) does not fall below the minimum rate specified, this is particularly important for the lower spread rates indicated.*
- *Where a double treatment is necessary the initial first treatment shall be at the highest spread rate possible within the limitations of the spreader for the route length. For example 2x15g/m² applied as 1x20g/m² +1x10g/m².*

Notes:

1) Spread rates for pre-wetted salt is the combined weight of dry rock salt and brine combined at 70:30 proportion by weight respectively. Refer to WGTRMM Part 2 regarding the addition of Agricultural By Products (ABP's) within the brine (10% by volume maximum) or use of pre-coated salt (3% by weight of salt).

2) When ice has formed or snow is lying, dry or pre-coated salting is the preferred treatment unless the road is closed to traffic when pre-wetted salting may be used. Pre-wetted and pre-coated salting is a more effective treatment in advance of such conditions. Pre-coated and dry salting should be undertaken when roads are wet from recent or anticipated precipitation.

3) Treatments should be carried out, whenever possible, after traffic has dispersed standing water. Successive normal or half rate treatments (for pre-wetted, pre-coated and dry salt) may be considered, based on operational experience for lightly trafficked roads at the lower end of the temperature bands indicated and climatic variations experienced.

4) Where a surfacing is of an open texture and /or porous or surface water is evident the higher spread rate (indicated in brackets) should be used. Where temperatures may reach the lower end of the temperature bands, light traffic or a more cautious approach to treatment is required based on operational experience, local knowledge, uncertainty of weather forecast and timings the higher spread rate (indicated in brackets) may be used.

1.1.23 Incident Management and Contingency Planning

1.1.23.1 Incident Management

Scope

1 The requirement to deliver a service to manage traffic incidents that may occur on the motorway and trunk road network.

WG Operational Objective

The Welsh Government aims to keep delays to a minimum and provide the safe movement of traffic and reliable journey times on the Motorway and Trunk Road network throughout Wales

Ref	Performance Requirement
PR 1.1.23.1	The Service Provider is to provide suitably competent staff on a 24 hours a day, 7 days a week basis to implement Emergency Response Processes and Procedures in accordance with the Service Providers Network Contingency Plan.
PR 1.1.23.2	The Service Provider is required to support and liaise with the Emergency Services.
PR 1.1.23.3	Where dictated by the nature of an incident the Service Provider is to undertake monitoring and inspection to ensure that the road is safe to traffic prior to re-opening.
PR 1.1.23.4	The Service Provider is to provide records for all incidents where notification is received. The incident related information is to be included in the WG IRIS or WG CRM databases as appropriate.
PR 1.1.23.5	The Service Provider is to provide appropriate resources, plant and materials to implement the Service Provider's Emergency Response Processes and Procedures
PR 1.1.23.6	The Service Provider is to implement the requirements of the Welsh Government Traffic Management Centre Control Room operations including delegated functions relating to the Traffic Wales service.
PR 1.1.23.7	The Service Provider is to implement the requirements of the Welsh Government Traffic Officer Service.

1.1.23.2 Contingency Planning

Scope

1 The requirements for emergency management planning (hereafter referred as contingency planning) relates to the identification of threats and hazards that might occur on or adjacent to the trunk road network and the production of both specific or generic plans and procedures, training and exercising in order to mitigate against the risks presented.

WG Operational Objective

To ensure that emergency response arrangements on the trunk road and motorway network in Wales are in accordance with:

- the principles of the *Civil Contingencies Act and;*
- the statutory requirements of *The Road Tunnel Safety Regulations*

Ref	Performance Requirement
PR 1.1.23.8	Service Provider to create, maintain and manage network Contingency Plans required to respond to incidents on the trunk road and motorway network in Wales
PR 1.1.23.9	Service Provider to liaise with the Emergency Services, participate in the Local Resilience Forums in Wales and provide operational representatives to attend the Strategic Command & Control Centres when required.
PR 1.1.23.10	Service Providers are to create appropriate Emergency Response Processes and Procedures covering in-house and supply chain service provision to meet all Contingency Plans
PR 1.1.23.11	Service Provider to provide suitably competent staff to provide Strategic (Gold), Tactical (Silver) and Operational (Bronze) responses in accordance with Contingency Plans, Emergency Response Processes and Procedures.

1.1.23.3 Data Management for Fatal Collisions

Scope

1 Requirement to collect and record information relating to each fatal collision and prepare reports for all such incidents on the motorway and trunk road network.

WG Operational Objective

To ensure that all fatal collisions are investigated in order to assess the scope for road safety improvements.

Ref	Performance Requirement
PR 1.1.23.12	The Service Provider is to implement the requirements of Traffic Incident Management.
PR 1.1.23.13	For each fatal collision, the Service Provider is required to : a) create an Initial Managing Service Provider Statement including the Police Notification; b) create a Detailed Fatal Collision Report and forward to WG in accordance with agreed format and timescales (14 days from incident)
PR 1.1.23.14	Where appropriate to the circumstances, the Service Provider will undertake post-incident site inspections within the required timeframe in line with Police requests

1.1.23.4 Liaison and Communications

Scope

1 Requirement to ensure the provision of effective communication channels during periods of extreme weather and incidents

WG Operational Objective
To ensure that information is communicated effectively both for operational purposes, ministerial briefing and for release to the media.

Ref	Performance Requirement
PR 1.1.23.15	The Service Provider is to ensure that information is communicated in accordance with the requirements of the Adverse Weather Plan
PR 1.1.23.16	The Service Provider shall provide periodic updates in relation to weather and road conditions in accordance with the *Welsh Government Incident Communications Protocol.*
PR 1.1.23.17	The Service Provider is to coordinate response activities with adjoining Service Providers and Unitary Authorities
PR 1.1.23.18 The	The Service Provider is required to maintain records of sufficient detail for auditing or reference purposes
PR 1.1.23.19	The Service Provider is required to develop a format and criteria for the provision of information in response to incidents and emergencies
PR 1.1.23.20	The Service Provider is required to communicate information to the designated Welsh Government Operational Duty Officer on call 24/7 to manage the communication.

1.1.23.5 Incident Reporting for the Network

Scope

1 A biennial strategic safety report for TERN Routes is to be prepared identifying incidents trends over the preceding 5 year period commencing 01 April 2014.

WG Operational Objective
To identify trends in the occurrence of incidents for the purpose of informing long-term planning.

Ref	Performance Requirement
PR 1.1.23.21	The Service Provider is to undertake a *Biennial Strategic Route Safety Report* for the routes shown in Table 2.2.23.5 WGTRMM Part 2 in accordance with the EU Directive

1.1.23.6 Incident Reporting for Tunnels

Scope

1 Service Providers are required to implement the incident reporting requirements of the Road Tunnel Safety Regulations, Regulation 9 (3) and (4) for tunnels on the trunk road and motorway network in Wales. This requirement is to apply to the tunnels as indicated. Incident Reports are those managed by the WG CRM system

WG Operational Objective

The compilation of information on the frequency and causes of fires and accidents, and provide information on the role and effectiveness of the safety facilities and measures in the tunnel.

Ref	Performance Requirement
PR 1.1.23.22	In accordance with Regulation 6 of the Road Tunnel Safety Regulations 2007, a report shall be prepared for every 2 year period The Service Provider is to arrange for: • RTSR Regulation 9(3) - Incident Reports; • RTSR Regulation 9(4) - Investigative Reports; • RTSR Regulation 6 - Fire and Accident Reports. As per Table 2.2.23.6 WGTRMM Part 2

1.1.24 Network Occupancy and Streetworks

Scope

1 The Welsh Ministers or Welsh Government (WG) are the Highway Authority, Traffic Authority, Traffic Manager and Street Authority for the motorway and trunk road network in Wales and responsible for its safe, environmentally sensitive operation and maintenance in accordance with UK, Wales and EU legislation. This Part is intended to ensure consistency of approach for co-ordinating network operations to meet legislation and WG policy requirements.

2 The scope of this Part is intended to cover works undertaken directly for or on behalf of Welsh Government as Highway Authority and those activities lawfully undertaken by other parties on the network. It also includes abnormal load movements on the network.

WG Operational Objective

The primary objective is the safe and efficient movement of traffic and compliance with the requirements of the:

- Highways Act 1980,
- Road Traffic Regulation Act 1984 [RTRA],
- New Roads & Street Works Act 1991 [NRSWA],
- Traffic Management Act 2004 [TMA],
- Traffic Signs Regulations & General Directions 2002 [TSRGD]
- Equality Act 2010.

Reference	Performance Requirement
PR 1.1.24.1	The Service Provider is required to manage network Operations Co-ordination to meet legislative and WG policy requirements
PR 1.1.24.2	The Service Provider is to create and manage a Network Occupancy Management Plan (NOMP) for approval by WG.
PR 1.1.24.3	The Service Provider is required to implement the Network Occupancy Management Process.
PR 1.1.24.4	Service Providers are to identify conflicts arising during the Network Occupancy Management Process and use the escalation (Stages 1, 2 or 3) processes as appropriate.
PR 1.1.24.5	The Service Provider is required to implement the functions delegated by WG. These include: • co-ordination of works; • inspection of works; • implementation of restrictions;

	• identify offences; • recovery of fees; • issue of licences.
PR 1.1.24.6	The Service Provider is to escalate (and assist with) statutory offences to enable Welsh Government to use their powers as highway authority, traffic authority or street authority.
PR 1.1.24.7	The Service Provider is to reduce the impact of congestion and delays as required the WG *Traffic Management Act 2004 Network Management Guidance (November 2006)*
PR 1.1.24.8	The Service Provider is required to implement the street works functions and data requirements of the WG IRIS street works module.
PR 1.1.24.9	The Service Provider is required to provide abnormal loads management.
PR 1.1.24.10	The Service Provider is required to manage Motorway Passes .
PR 1.1.24.11	The Service Provider is required to provide publicity and communications for roadworks events in accordance with WG requirements

Ref	Inspection Requirement
IR 1.1.24.12	The Service Provider is required to implement on trunk roads and motorways the requirements of The *Code of Practice for Inspections October 2006* issued by Welsh Government.

Ref	Maintenance Requirements
Mr 1.1.24.13	The Service Providers must liaise with WG in the preparation of the Service Provider's Network Occupancy Management Plan.
MR 1.1.24.14	Service Provider are to complete the activity promotion process for those activities where they are identified as having responsibility for notification.
MR 1.1.24.15	Service Providers are to complete activity booking or updates for any activity which is to take place on the network, in so far as this is practicable.
MR 1.1.24.16	Service Providers are to attend and participate in local and regional HAUC and other co-ordination meetings.

1.1.25 Welsh Government Owned Assets

1.1.25.1 Offices

Scope

1 The requirements apply to all Welsh Government owned or leased property assets that are generally (but not always) outside of the Trunk Road highway boundary but are available to or managed by the Service Provider - see Appendix 1.

WG Operational Objective
To ensure that office premises are managed and maintained in a safe and secure manner to provide a comfortable working environment in accordance with legal requirements

Ref.	Performance Requirement
PR 1.1.25.1	The Service Provider will prepare, review and update a Property Management Plan for all offices occupied. The plan will identify all licences required such as discharge consents, and identify areas for potential improvement and energy savings and make provision for maintenance emergency response.
PR 1.1.25.2	The Service Provider will ensure that all offices are secure.
PR 1.1.25.3	The Service Provider shall prepare risk assessments for all operations undertaken in each office and ensure safe systems of work are employed
PR 1.1.25.4	The Service Provider will undertake periodic testing and inspection as required by Health and Safety legislation, including: PAT testing Earth leakage testing Legionella Fire alarm/means of escape Asbestos Management Mechanical and Electrical equipment

Ref.	Inspection Requirement
IR 1.1.25.5	The Service Provider will conduct routine Health and Safety inspections of the offices structure, fabric and equipment and maintain a record of the inspections, maintenance, faults and repairs in an electronic format.

1.1.25.2 Operational Maintenance Depots and Strategic Salt Stores

Scope

1 The requirements relate to all WG owned operational maintenance depots (listed in Appendix 1)

WG Operational Objective
To ensure that operational depots and strategic salt stores are managed and maintained in a safe and secure manner to provide an effective and efficient working environment.

Ref.	Performance Requirement
PR 1.1.25.6	The Service Provider will prepare, maintain and implement O & M manuals for all operational motorway maintenance depots and strategic salt stores.
PR 1.1.25.7	The Service Provider will prepare review update and implement a Depot Management Plan for all operational motorway maintenance depots and strategic salt stores. The plan will identify all licences and required such as discharge consents, and identify areas for potential improvement and energy savings and make provision for maintenance emergency response.
PR 1.1.25.8	The Service Provider will ensure that risk assessments are prepared for all activities undertaken at the motorway maintenance depots and strategic salt stores to include safe systems of work.
PR 1.1.25.9	The Service Provider will undertake periodic testing and inspection as required by Health and Safety legislation, including: • PAT testing • Earth leakage testing • Legionella • Fire alarm/means of escape • Asbestos Management • Mechanical and Electrical equipment • Consents and licence

Ref.	Inspection Requirement
IR 1.1.25.10	The Service Provider will conduct routine Health and Safety inspections of the operational maintenance depots and strategic salt stores and maintain a record of the inspections, maintenance, faults and repairs in an electronic format.

1.1.25.3 Picnic Amenity Areas

Scope

1 The requirements cover all picnic areas listed in Appendix 1.

WG Operational Objective
To ensure that picnic amenity areas associated with the motorway and all-purpose trunk road network are fit for purpose, provide a pleasant environment for all users and meets all legal requirements

Ref.	Performance Requirement
PR 1.1.25.11	The Service Provider will prepare, review and update a Property Management Plan for all picnic amenity areas. The plan will identify all licences required such as discharge consents, identify areas for potential improvement, energy savings and make provision for maintenance emergency response.
PR 1.1.25.12	The Service Provider will ensure that the picnic amenity areas including waste bins are regularly serviced and cleaned as follows: • twice daily Saturday and Sunday June to September inclusive • twice daily Monday to Friday, June to September inclusive • twice daily on all Bank Holidays, April to August inclusive • twice per week, October to May inclusive
PR 1.1.25.13	The Service Provider will ensure that the grass on amenity areas is cut at a frequency such that its length does not exceed 100mm. Grass cutting will take place: • on the main area • on the bank surrounding the main area • in all other areas with the amenity area and on the highway verges 50m either side of the amenity areas.

Ref.	Inspection Requirement
IR 1.1.25.14	The Service Provider will conduct routine Health and Safety inspections of the picnic areas and associated assets and maintain a record of the inspections, maintenance, faults and repairs in an electronic format.

IR 1.1.25.15	The Service Provider will ensure that the picnic amenity areas are inspected weekly to check for vandalism and damage to furniture, fences and trees.

1.1.25.4 Public Toilets

Scope

1 The requirements cover all public toilets listed in Appendix 1.

WG Operational Objective
To ensure that the public toilets associated with the motorway and all-purpose trunk road network are fit for purpose, provide a healthy environment for all users and meet legal requirements

Ref	Performance Requirement
PR 1.1.25.16	The Service Provider will prepare, review and update a Property Management Plan for all public toilets and associated features. The plan will identify all licences required such as discharge consents, identify areas for potential improvement, energy savings and make provision for maintenance emergency response.
PR 1.1.25.17	The Service Provider will ensure that the public toilet buildings and facilities are regularly serviced and cleansed twice daily every day of the year including Bank Holidays.
PR 1.1.25.18	The Service Provider will ensure that waste bins are emptied and cleansed twice daily every day of the year including Bank Holidays.
PR 1.1.25.19	The Service Provider will ensure that the disposal of effluent and the maintenance of sewage treatment systems is carried out once every month.
PR 1.1.25.20	The Service Provider will undertake periodic testing and inspection as required by Health and Safety legislation, including: PAT testing Earth leakage testing Legionella Fire alarm/means of escape Asbestos Management Mechanical and Electrical equipment

Ref.	Inspection Requirement
IR 1.1.25.21	The Service Provider will ensure that weekly inspections of the public toilet buildings and facilities are carried out and records kept for a period of 12 years

IR 1.1.25.22	The Service Provider will conduct routine Health and Safety inspections of the public toilets and maintain a record of the inspections, maintenance, faults and repairs in an electronic format.

1.1.25.5 Buildings Housing Pumping Chambers

Scope

1 All buildings housing pumping chambers within the highway boundary and those outside of the highway boundary that pump effluent emanating from within the highway boundary or from offices, depots and facilities relating the maintenance of the Network.

WG Operational Objective
To ensure that buildings housing pumping chambers associated with the motorway and all-purpose trunk road network are fit for purpose, maintained to the requisite standard and meet all legal requirements

Ref.	Performance Requirement
PR 1.1.25.23	The Service Provider will prepare, review and update a Property Management Plan for all buildings housing pumping chambers and associated features. The plan will identify all licences required such as discharge consents, identify areas for potential improvement, energy savings and make provision for maintenance emergency response.
PR 1.1.25.24	The Service Provider will undertake periodic testing and inspection as required by Health and Safety legislation, including: PAT testing Earth leakage testing Legionella Fire alarm/means of escape Asbestos Management Mechanical and Electrical equipment

Ref.	Inspection Requirement
IR 1.1.25.25	The Service Provider will conduct routine Health and Safety inspections of the pumping chamber buildings and maintain a record of the inspections, maintenance, faults and repairs in an electronic format.
IR 1.1.25.26	The Service Provider will ensure that the Pumping Chamber and associated control cabinets are inspected in conjunction with the fabric of the building and associated services.

1.1.25 Appendix 1

(Note The following have been provided by NMWTRA, SWTRA controlled assets to be added)

1 Offices

Route	Name	Address	Function	Lead Service Provider
A55	North Wales Traffic Management Centre (NWTMC)	Ffordd Sam Pari, Morfa, Conwy LL32 8HH	Agent Office (provided by WG)	WTTC
A483	Llandrindod Wells Office	Automobile Palace, Temple Street, Llandrindod Wells, Powys, LD1 5HU	Agent Office (leased from WG)	NMWTRA

2 Operational Maintenance Depots and Strategic Salt Stores

Route	Name	Address	Function	Lead Service Provider
A55	Llandygai SSS	Unit 25, Llandygai Industrial Est., Bangor, Gwynedd, LL57 4YH	Strategic Salt Store (SSS)	NMWTRA
A55	Waen SSS	Holywell Road, Waen, St Asaph, Denbighshire, LL17 0DS	Strategic Salt Store (SSS)	NMWTRA
A55	Halkyn SSS [PENDING]	Fulbrook Buildings, Halkyn, Holywell, Flintshire, CH8 8BY	Strategic Salt Store (SSS)	NMWTRA
A470	Llanidloes SSS	Unit 1 Parc Hafren Industrial Estate, Llanidloes, Powys, SY18 6RB	Strategic Salt Store (SSS)	NMWTRA
A470	Blaenau Ffestiniog SSS	Gwynedd Council Depot, Salt Yard, Salem Place,	Strategic Salt Store (SSS)	NMWTRA

		Blaenau Ffestiniog, Gwynedd, LL41 3LG		

3 Picnic Amenity Areas

Route	Name	Address	Function	Lead Service Provider
A483	Llananno Toilets 1xPicnic Table	Llananno LD1 6TS Powys	Picnic Amenity Area	NMWTRA
A470	Pontyrdaf, Storey Arms Toilets 1xPicnic Table	Storey Arms, Brecon, Powys, LD3 8NL	Picnic Amenity Area	NMWTRA
A40	Llanspyddid Toilets 3xPicnic Table	Llanspyddid LD3 8PJ Powys	Picnic Amenity Area	NMWTRA
A40	Llansantffraed Toilets 2xPicnic Table	Llansantffraed LD3 7JQ Powys	Picnic Amenity Area	NMWTRA

4 Public Toilets

Route	Name	Address	Function	Lead Service Provider
A483	Llananno Toilets	Llananno LD1 6TS Powys	Public Toilets	NMWTRA
A470	Pontyrdaf, Storey Arms Toilets	Storey Arms, Brecon, Powys LD3 8NL	Public Toilets	NMWTRA
A40	Llanspyddid Toilets	Llanspyddid LD3 8PJ Powys	Public Toilets	NMWTRA
A40	Llansantffraed Toilets	Llansantffraed LD3 7JQ Powys	Public Toilets	NMWTRA

5 Buildings Housing Pumping Chambers

Route	Name	Address	Function	Lead Service Provider

	NONE			

6 Buildings Housing M&E Systems

Route	Name	Address	Function	Lead Service Provider
A55	Britannia Bridge Tx	Mainland Side LL57 2NX	Transmission (Tx) Building	WTTC
A55	Llandygai Tx	Llys y Gwynt A55 J11 LL57 4BG	Transmission (Tx) Building	WTTC
A55	Pen y Clip West TSB	Adjacent Tunnel West Portal LL33 0PT	Tunnel Service Building (TSB)	WTTC
A55	Pen y Clip East TSB	Adjacent Tunnel East Portal Bangor Road LL34 9TS	Tunnel Service Building (TSB)	WTTC
A55	Penmaenbach Tunnel FCP West	Adjacent Tunnel West Portal LL34 6UF	Forward Command Post (FCP)	WTTC
A55	Penmaenbach Tunnel FCP East	Adjacent Tunnel East Portal LL32 8DN	Forward Command Post (FCP)	WTTC
A55	Penmaenbach TSB	Adjacent Tunnel East Portal LL32 8DN	Tunnel Service Building (TSB)	WTTC
A55	Unit 7 Conwy Morfa Store	Ffordd Sam Pari, Morfa, Conwy LL32 8HH	M&E Spares Store (private lease)	WTTC
A55	Conwy West TSB	Morfa Drive Conwy LL32 8EP	Tunnel Service Building (TSB)	WTTC
A55	Conwy East TSB	Adjacent Tunnel East Portal LL31 9SN	Tunnel Service Building (TSB)	WTTC
A55	Colwyn Bay Station Road Underpass Building	Station Forecourt, Princess Drive, Colwyn Bay, Conwy LL29 8DF	Lighting Control Building	NMWTRA
A55	North Wales Police HQ Basement Room Tx	Glan-y-Don, Abergele Road, Colwyn Bay, LL29 8AW	Transmission (Tx) Building	WTTC
A55	Bodelwyddan Tx	Between A55 J25 & J26 LL18 5UY	Transmission (Tx) Building	WTTC
A55	Halkyn Tx	A55 J32a	Transmission	WTTC

		Pentre Halkyn Holywell CH8 8BA	(Tx) Building	
A55	Ewloe Tx	Old Liverpool Road Ewloe Green CH5 3EA	Transmission (Tx) Building	WTTC

1.1.26 Inventory, Asset Management Records and Planning

1.1.26.1 Inventory and Asset Management Records

Scope

1 The WG IRIS system is provided to the Service Providers by WG. Service Providers may set up and develop asset databases and systems in support but not as an alternative.

2 The electronic document and data management system, EDDMS, is also provided by WG as a shared depository for information, record drawings, manuals and miscellaneous documents between WG and its Service Providers.

WG Operational Objective

Effective management of asset records for the Approved Network ensuring WGs asset inventory and condition databases are current, up to date and accurate.

Reference	Performance Requirement
PR 1.1.26.1	The Service Provider is required, on a day to day basis, to continuously operate and populate the IRIS Routine Maintenance and Management module (RMMS).
PR 1.1.26.2	The Service Provider is required to utilise all other IRIS modules to hold inventory data, asset condition data and to manage operational and engineering functions as and when IRIS modules are made available by WG.
PR 1.1.26.3	The Service Provider is required to provide information in supporting WG's Network Referencing Manager (NRM) in managing the Approved Network on IRIS.
PR 1.1.26.4	The Service Provider is to maintain inventory databases and record and enter all asset repairs, upgrades changes or removals.
PR 1.1.26.5	The Service Provider is required to retain and manage operational maintenance and asset records in accordance with the WG highway records retention policy

Ref	Maintenance Requirement
MR 1.1.26.6	The Service Provider will validate the accuracy and content of the current inventory database by carrying out a complete survey of the network over a period of five years from the introduction of WGTRMM 2015 surveying not less that 20% of the network per year.

1.1.26.2 Asset Management Planning

Scope

1 Asset management is a strategic approach that identifies the optimal allocation of resources for the management, operation, preservation and enhancement of the trunk road & motorway infrastructure in Wales, to meet statutory and policy requirements.

2 The Service Provider shall manage the network on the principles of Asset Management Planning which will, over time, be adopted by Welsh Government for:

- Environmental Management
- Road Pavement
- Structures Management
- Tunnels
- Technology Assets
- Highway Drainage Systems
- Road Restraint Systems (RRS)
- Road Signs, Road markings & Traffic Signs
- Street Lighting
- Environmental Barriers, Fences & Walls
- Buildings, Depots & other operational land.

3 The Performance Requirements reflect the Asset Management Planning which is currently in place or being developed.

WG Operational Objective

Implement an Asset Management approach to motorways and all-purpose trunk roads in Wales.

Reference	Performance Requirement
PR 1.1.26.7	The Service Provider is required to populate the IRIS, Mayrise, WADDMS and WAGDMS inventory and management systems as apropriate
PR 1.1.26.8	The Service Provider is required to report to WG on the completeness of SCRIM, Deflectograph and Scanner data in the WG Pavement Management System, following the annual loading of new data by the WG Service provider.

1.1.26.3 Asset Management involving WG Major Projects and Road Improvement Schemes.

Scope

1 The incorporation of inventory and asset management information for improvement schemes upon completion and handover from third parties.

WG Operational Objective

All Asset Management records are to be updated subsequent to the opening of any major project or road improvement scheme.

Reference	Performance Requirement
PR 1.1.26.9	On the receipt of the major projects and road improvement information the Service Provider is to: a. populate the relevant IRIS and other databases with the new inventory items. b. Manuals, Schedules, Orders and Reports are to be uploaded to WG EDDMS. c. Digitized drawings are to be held under the supervision of the Service Provider's Asset Manager.
PR 1.1.26.10	The Service Provider is to manage legacy records for trunk road major projects and road improvement information as follows: a. collate, catalogue and store paper and other media legacy records at suitable archive information stores agreed with WG; b. legacy records are to be under the supervision of the Service Provider's Asset Manager. b. arrange a programme of digitisation of legacy records for agreement with WG; c. upload digitised legacy records to IRIS, EDDMS or other databases as appropriate.

1.1.27 Third Party Claims

Scope

1 There are 2 types of third party claim as follows:

(i) Rechargeable claims which are claims by the Welsh Ministers against third parties for damage to or interference with any trunk road (including motorways/and associated infrastructure and amenities) which is part of the Agency Area and any property of the Welsh Ministers in or on such a trunk road associated infrastructure or amenities or used in conjunction with it or any rights or duties in or over it or for damage to or interference with any land which has been acquired by the Welsh Ministers in connection with such a trunk road (including motorways) under sections 239(2) or (4) or section 246 Highways Act 1980 and additionally or independently interruption of the working said Agency Area.

(ii) Third Party Claims against the Welsh Ministers which are claims from highway users for damages due to injury, property or vehicle damage as a consequence of Welsh Government not fulfilling its obligations as highway authority as set out in the Highways Act 1980 and other relevant legislation.

WG Operational Objective
To process third party claims in the stipulated timescale in a fair, equitable manner,

Ref	**Performance Requirement**
PR 1.1.27.1	To process rechargeable claims in a fair and timely manner. See WGTRMM Part 2
PR 1.1.27.2	To process third party claims against the Welsh Ministers in a timely manner and in accordance with court protocols and timescales.