

**INTERIM ADVICE NOTE 63/05
Second Revision –
September 2009**

**Asbestos Management as
applicable to the Strategic
Road Network.**

Summary

This advice note relates to the systems and procedures developed in relation to the Highways Agency's approach to asbestos identification, risk management and ongoing management.

Instructions for Use

This IAN 63/05 supersedes the version issued in April 2005 and also the subsequent revision in February 2007.

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ABBREVIATIONS

AAMP	Area Asbestos Management Plan
AAP	Asbestos Action Plan
ABB	Asbestos Bulletin Board
ACM	Asbestos Containing Material
APM	Area Performance Manager
CAR	Control of Asbestos Regulations
CDM	Construction, Design and Management Regulations
COSHH	Control Of Substances Hazardous to Health
CPO	Compulsory Purchase Order
ECI	Early Contractor Involvement
GAMP	General Asbestos Management Plan
HA	Highways Agency
HAPMS	Highway Agency Pavement Management System
HRS	Human Resource Services
IAN	Interim Advice Note
MAC	Managing Agent Contractor
MPD	Major Projects Directorate
NOACC	Network Operations Audits for Contract Compliance
NOD	Network Operations Directorate
PCF	Project Control Framework
PFI	Private Finance Initiative
PFM	Property Facilities Management
SAMP	Scheme Asbestos Management Plan
SMIS	Structures Management Information System
TCC	Traffic Control Centre
TechMAC	Technology Managing Agent Contractor
TNAMP	Technology National Asbestos Management Plan
TPMS	Technology Performance Management System
WwW	Way we Work

1. INTRODUCTION

- 1.1 Asbestos is the single largest occupational health killer in the UK with approximately 4000 people a year dying from asbestos related diseases. In the UK the Control of Asbestos Regulations 2006 (CAR 06) came into force on 13th November 2006, bringing together three previous sets of regulations covering the prohibition of asbestos, the control of asbestos at work and the asbestos licensing regulations.
- 1.2 Asbestos Containing Materials (ACMs) are known to exist within the highway boundary, in roads, drainage, structures, associated buildings and other assets. Road tunnels, depots and other buildings are considered to pose the highest risk for highway works. ACMs only pose a risk to health if the material is disturbed and the fibres become airborne and can then be inhaled.
- 1.3 Regulation 4 of CAR 06 places a specific duty on those persons (named hereafter as the Dutyholder) who have responsibility for maintenance or repair, to ensure that a suitable and sufficient assessment is carried out as to whether ACMs are likely to be present in their premises and in the case of the Highways Agency (HA) a Premise is defined as any asset, (a full definition can be found in section 3.2). If this assessment shows that asbestos is likely to be present then the associated risk should be assessed and an appropriate written plan prepared detailing the controls required to effectively manage the risk.
- 1.4 The HA strategy for asbestos is defined within the HA General Asbestos Management Plan (GAMP) this is a controlled document. This Interim Advice Note (IAN) supports the GAMP by setting out the duties and actions needed for compliance with the "Duty to Manage" as defined by Regulation 4 of CAR 06.
- 1.5 The HA has the primary responsibility as Dutyholder in relation to Regulation 4 of CAR 06 and has developed a GAMP and this IAN to allow HA Providers to deliver the actions necessary for the HA to meet its responsibilities. This applies to the HA Network as controlled by HA and managed by HA Providers, except where the HA Network is controlled under a Private Finance Initiative (PFI). In PFI contractual arrangements the Dutyholder is the PFI Company and it is their responsibility to fulfil the requirements of Regulation 4 of CAR 06. If the terms of the PFI contract include the requirements of this IAN, or the PFI Company has chosen to adopt this IAN, then it must be adopted in its entirety.
- 1.6 Where the HA is the Dutyholder, their responsibilities are delivered utilising the systems outlined within this IAN through the various HA Providers.
- 1.7 As asset owner, the HA will audit and monitor HA Providers and carry out regular reviews of the GAMP to determine the effectiveness of the compliance measures outlined within this IAN.
- 1.8 The HA asbestos management system complements existing requirements under the Construction (Design and Management) Regulations (CDM) 2007. It will form the basis for ensuring asbestos issues are included in Health and Safety Plans and Files, design risk assessments and other assessments as required by the Control of Substances Hazardous to Health Regulations (COSHH) 1992, as detailed in the appropriate HA standards.

2. REFERENCES AND FURTHER READING

2.1 Legislation and Guidance Documents

- Statutory Instrument 2006/2739: The Control of Asbestos Regulations 2006.
- Approved Code of Practice and guidance LI27 (Second edition): The management of asbestos in non-domestic premises. Regulation 4 of the Control of Asbestos at Work Regulations 2006.
- Statutory Instrument 2007/320: The Construction (Design and Management) Regulations 2007.
- Approved Code of Practice and guidance HSG224: Managing health and safety in construction: Construction (Design and Management) Regulations 1994.
- Health and Safety Executive (HSE) A Comprehensive Guide to Managing Asbestos in Premises (Health and Safety Guidance 227).
- HSE Method for the Determination of Hazardous Substances 100: Survey, sampling and assessment of asbestos-containing materials.

2.2 Internal HA Documents

- Asbestos: An introduction: PR 211/08.
- Interim Advice Note 105/08: Implementation of Construction (Design and Management) 2007 and the withdrawal of SD 10/05 and SD11/05
- Design Manual for Roads and Bridges Volume 3, Section 2, Part 1: BD 62/07 "As built, Operational and Maintenance records for Highway Structures".
- General Asbestos Management Plan (GAMP).
- Manual of Contract Documents for Highway Work Volume 6, Section 2, Part 1: SA8/94 "Use of Substances Hazardous to Health in Highway Construction".
- Area Management Memorandum No XXX/09 Asbestos Management Applicable to the Strategic Road Network – Use of HAPMS database. This document is currently being finalised prior to issue.

3. Documentation Overview

3.1 The HA GAMP sets out HA strategy for compliance with Regulation 4 of the CAR 06 and details the requirements to be adopted by HA Service Providers. It also outlines the review and approval processes by which the HA and its Providers can achieve compliance with the Regulations. The GAMP covers all schemes, routine maintenance and emergency incidents (including fly tipping). This IAN contains processes, procedures, flow charts and information to address these elements of the GAMP and the details can be found in the following annexes.

Annex No 1:	Generic format for Asbestos Management Plans (e.g. Area Asbestos Management Plan (AAMP), Scheme Asbestos Management Plan (SAMP). This does not include the Technology National Asbestos Management Plan (TNAMP) which is a standalone document.
Annex No 2:	Generic Asbestos Action Plan (AAP)
Annex No 3:	Process for dealing with third parties
Annex No 4:	Asbestos Control Checklist associated with all work activities
Annex No 5:	Process for works following an emergency incident or fly tipping
Annex No 6:	Asbestos survey specification
Annex No 7:	Management Flow Chart No.1 – Asbestos management for all maintenance works (schemes, compounds and other buildings)
Annex No 8:	Management Flow Chart No.2 – Asbestos management for major schemes
Annex No 9:	Management Flow Chart No.3 – For asbestos management of all maintenance works, major schemes
Annex No 10:	Examples of asbestos containing materials discovered in highway infrastructure

Definitions

3.2 Premises: Includes every asset within the highway boundary and also infrastructure and other assets outside the highway boundary associated with the highway where the current or future Provider organisation is responsible for maintenance or design work on these assets as part of the contract between the HA and the Provider organisation. Assets within and outside the highway boundary include but are not limited to: roads, bridges and other highway structures, tunnels, masts, communications and electrical items, control rooms, maintenance compounds, depots, stores, workshops and picnic sites (including toilet blocks).

3.3 HA Providers: Includes Managing Agent Contractor (MAC), Regional Maintenance Contractor, Technology Managing Agent Contractor (TechMAC), Early Contractor Involvement (ECI), Framework Contractor and other Consultants, Contractors and Suppliers.

3.4 Area Providers: The Providers working under the direction of the HA's Network Operations Directorate (NOD), an Area Performance Manager (APM) or other managers, including Regional Technology Managers responsible for maintenance and improvement schemes.

- 3.5** Major Projects Providers: The consultants (Framework or otherwise), contractors and their designers (ECI or other Design and Build Contracts) working under the direction of the Major Projects Directorate (MPD) - Project Managers.
- 3.6** GAMP Owner: The NOD Director through their nominee.
- 3.7** Provider Plan Owners: Senior members of the Provider organisation and part of local management teams.

4. Relationship of this IAN to other HA Documents

- 4.1 The management system outlined in this IAN does not supersede any of the requirements in the following Departmental Standards and Advice Notes, which give effect to the health and safety regulations shown:
- Interim Advice Note 105/08 Implementation of Construction (Design and Management) 2007 and the withdrawal of SD 10/05 and SD11/05
 - Manual of Contract Documents for Highway Work Volume 6, Section 2, Part 1: SA8/94 "Use of Substances Hazardous to Health in Highway Construction.
- 4.2 It should be noted that IAN 105/08 and SA8 will be required to reference CAR 2006 and the GAMP. A particular example arises in SA8, which currently refers to an option to use asbestos cement pipes for surface water drainage construction in Annex D. Asbestos cement products were finally banned from use in the UK in 1999.
- 4.3 It is important to note that the management system introduced by the GAMP should not duplicate or replace CDM requirements and processes in any respect.
- 4.4 Technology Performance Management System (TPMS) have generated a Management Procedure in relation to asbestos risk within technology assets. Technology asset records asbestos risk documentation (reference MCH 2478) can be found via <http://www.tssplansregistry.org/> and should be utilised by those maintaining or working with technology assets.
- 4.5 The HA national Health and Safety team has also published a Site Safety Manual, entitled "Working away from the office". This document contains references to asbestos as a hazard and the risk associated with it and necessary control measures to be implemented.
- 4.6 HA Traffic Officers have their own procedures manuals and information in relation to asbestos (Traffic Officer Manual Version 32, held on the Traffic Officer Service's (TOS) Way we Work (WwW) website).
- 4.7 This IAN does not apply to HA staff. They are required to conduct an appropriate risk assessment when they could potentially come into contact with ACMs.

5. Scope of Highways Agency Strategy for Compliance

5.1 The GAMP and associated supporting procedures within this IAN, detail the procedures and strategy to be adopted by HA Providers.

5.2 The GAMP requires that:-

- Information is passed onto those likely to disturb any known or presumed asbestos containing materials.
- Risk assessments are updated as appropriate.
- Regular reviews and updates are undertaken to assess the effectiveness of the compliance measures.

5.3 The GAMP applies to all assets likely to be included in future work streams where there is the possibility to disturb known or potential ACMs. Currently these work streams include:

- National road programme schemes as managed and delivered by MPD.
- Major maintenance involving the highway carriageway and/or structures.
- Developer generated Section 278 agreement schemes.
- Minor schemes for highways and structures maintenance.
- Local network management schemes.
- Technology projects for traffic management and driver information systems.
- Routine maintenance as a regular ongoing programme of repairs, preventative maintenance, renewals and upgrading.
- Principal or other bridge inspections and other intrusive inspections/investigations.
- Emergency works, including road traffic accident damage, fires and unforeseen safety defects.
- Winter maintenance.
- Equivalent work to maintenance compounds depots and other buildings.

6. Assets excluded from this IAN and GAMP

6.1 Building Type Assets on the HA Estate

The building fabric and associated assets and infrastructure are managed separately by the HA Human Resources Services Directorate (HRS) Estates and Property and Facilities Management (PFM) teams. They have developed their own asbestos management procedures. These elements are therefore excluded from the scope of this IAN and the GAMP.

In addition the following building assets are excluded from the HA GAMP:

- All HA regional offices.
- The Yate Bulk Purchase Store, Bristol and its replacement in Sharpness, Gloucestershire.
- All current or future Regional Control Centres.
- All Traffic Officer Outstations.

For highways assets housed in these buildings/infrastructure, where ACMs could be disturbed by maintenance/improvement/demolition activities (e.g. communications equipment), relevant information is to be passed to HRS Estates and PFM teams for incorporation into their facilities documentation.

6.2 Land and properties acquired by the HA under blight or Compulsory Purchase Order (CPO)

Typically this is land and property owned and maintained by HA as a result of past or future road schemes. This land and property is managed separately by MPD through their National Property Management and Disposal (PMD) Team. Land and property are outside the remit of the GAMP and this IAN.

6.3 Other properties managed by a third party

These currently include Police Control Centres and Traffic Control Centres (TCCs). These properties are independent of the HA and are either owned or managed by others (e.g. by a Private Finance Company in the case of the TCC). However, they may include highway equipment or infrastructure managed by the HA or its Providers. For highways assets housed in these premises where ACMs could be disturbed by maintenance/improvement/demolition activities, and highway infrastructure, relevant information on this highway equipment is to be passed to the building manager or Dutyholder. These properties do not fall under the remit of the GAMP.

7. Overview of the GAMP

7.1 The GAMP is the HA controlled document that outlines how the HA will comply with the Duty to Manage under Regulation 4 of CAR 06, through its various HA Providers. It is an 'umbrella' plan outlining how the HA Providers are given the responsibility for producing an Asbestos Management Plan (e.g. SAMP) and its associated AAPs.

7.2 The HA GAMP is based on agreements reached with the HSE to cover all highway network assets with AAPs (see generic template within Annex 2) within a 20 year timescale from April 2005. The agreed timescales take account of potential risk from ACMs related to work activities on the network assets and the availability of specialist surveyors within the industry. It also takes into account the size of the network, number of assets, the controlled nature of all maintenance and improvement works and the balance of risk from ACMs and the traffic management required to carry out the necessary survey work prior to producing the AAPs.

7.3 In light of the agreement with the HSE the following targets are required to be met by HA Providers.

- For schemes and programmed works to be delivered by MPD, AAPs are required in advance of all planned schemes and other work activities where disturbance of a known or potential ACM within Assets affected by the Scheme is possible.
- For highway assets a maximum 20 year programme for full coverage has been agreed. The running total must be equal or greater than an average of 5% of the total assets per annum. The 5% target applies only to NOD Providers and the process commenced from the financial year beginning 2005/06. The 5% target will, in the first instance, be achieved by undertaking AAPs associated with assets for which works are planned. Any outstanding balance is to be met on a prioritised basis determined by (in priority order):-
 1. Age (oldest first).
 2. The need for Principal Bridge or other Inspections or surveys utilising planned Traffic Management.
 3. Assets which have a known or suspected asbestos content.
 4. Giving due consideration to routes to be de-trunked.

IMPORTANT NOTE: The contribution made from the production of AAPs in advance of major projects schemes cannot be utilised by the NOD Providers to demonstrate progress towards their required annual targets.

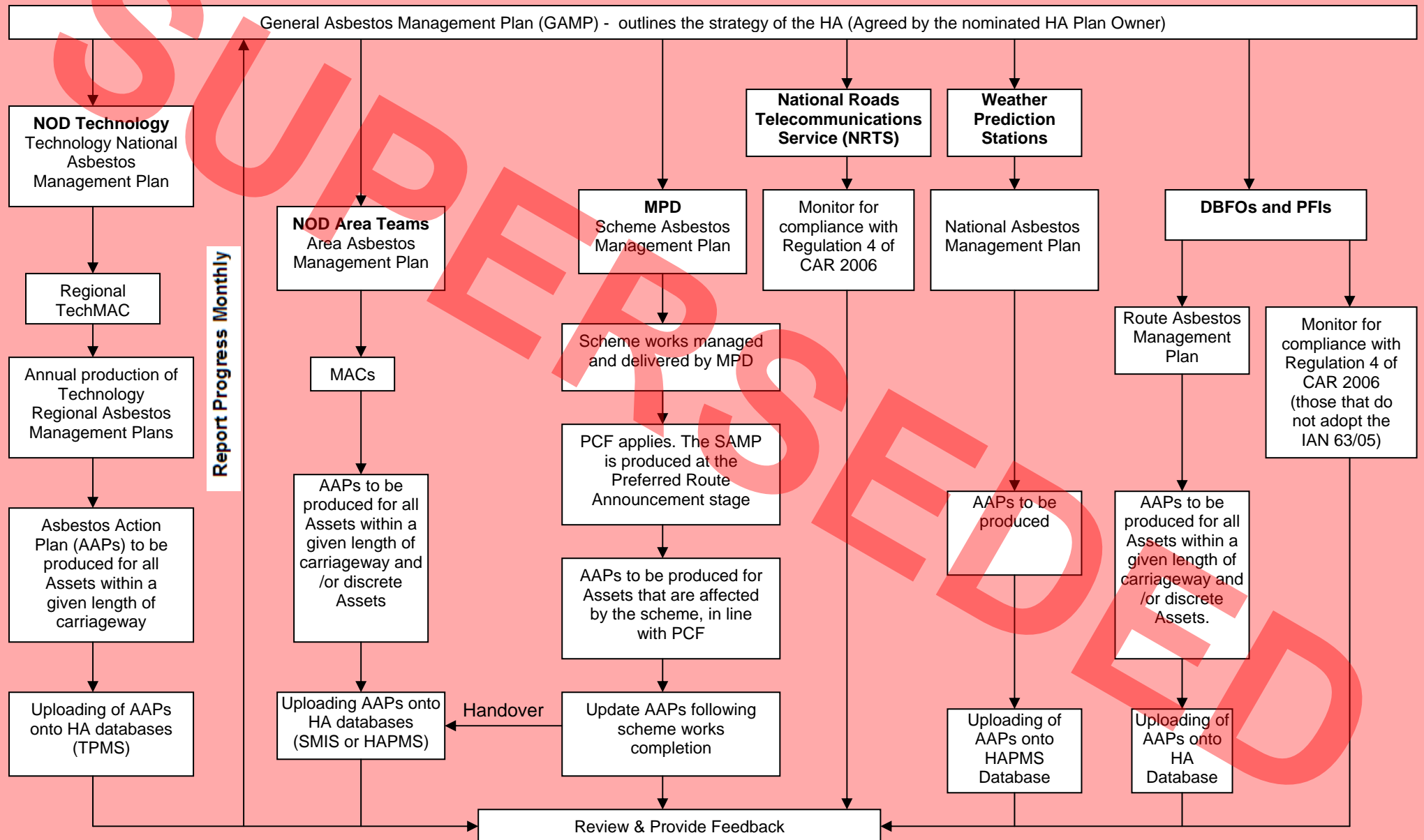
7.4 The HA consider that a number of asset types are of a higher risk than the general network and as such a timescale for 100% compliance for AAP production was implemented for completion by March 2008. These assets included all highway road tunnels, highway associated maintenance compounds, other depots, stores, workshops, offices, picnic site facilities and buildings, owned or leased by the HA and managed by HA Providers.

7.5 At least one AAP per structure, depot, or tunnel is required. Other assets are to be captured within one AAP which relates to a nominal 5 kilometre section of carriageway length. HA Managers are to agree with HA Providers how the road network is divided

into nominal 5 kilometre sections and it should take into consideration the use of traffic management, size of assets and the quantity of assets.

- 7.6 The GAMP also identifies the likely locations of ACMs within the highway infrastructure, the need to prioritise the compilation of an AAP for individual assets or carriageway lengths affected by current and future work programmes and annual percentage targets of network coverage which must be achieved.
- 7.7 The GAMP also covers requirements for process control, monitoring and review, management of AAP records and training requirements for HA staff..
- 7.8 The GAMP owner is the HA NOD Director. The Director's nominee will be responsible for the annual review of the GAMP to measure the effectiveness of the compliance.
- 7.9 The outline procedure for HA asbestos management is shown on the next page.

Highways Agency Asbestos Management Outline Procedures



8. HA Provider Action

8.1 Provider Requirements

HA Providers are required to undertake the actions as stated in this IAN to ensure the HA meets its obligations under CAR 06 as outlined in the GAMP. In addition there are other actions as outlined in this IAN which are required to be undertaken and these are detailed in Annexes 1 to 6.

8.2 Production of Asbestos Management Plan

All HA Providers are required to complete an Asbestos Management Plan.

MPD schemes require a SAMP following the preferred route announcement. This SAMP is a product under the Project Control Framework (PCF). An associated PCF product description can be found within MPD's WwW process. The template for a SAMP can be found in Annex 1 of this IAN. The SAMP should take into account all assets which are to be affected by the proposed works, including roads, structures, buildings, drainage and electrical and communication equipment etc. The SAMP must then receive signed approval from the APM and be forwarded to the Senior Responsible Officer for signed approval in accordance with the PCF arrangements.

For NOD Providers an AAMP must be prepared annually and forwarded to the APM for signed approval. This document must be reviewed regularly and updates forwarded to the APM. The template for an AAMP can also be found in Annex 1 of this IAN.

Technology has got its own arrangements, in the form of the TNAMP for complying with this IAN. This is due to the fact that a consistent approach is required and the TechMACs are regionalised (not aligned with MAC Areas) with the asset type, quantity and management all unique.

8.3 AAP Production

AAPs are to be produced for all assets and carriageway lengths. Within MPD schemes only assets affected by the works require AAPs to be produced. A template for an AAP can be found in Annex 2 of this IAN.

Desktop studies, including a review of all available information, must be completed as part of the AAP production process.

Any surveys and inspections for the presence of ACMs must be undertaken by a specialist. As a minimum they must be accredited to ISO 17020 by the United Kingdom Accreditation Services. Further details can be found in Annex 6 of this IAN. The Asbestos (Prohibitions) (Amendment) Regulations 1999 imposed a ban on the importation, supply and use of any ACMs in the UK. These Regulations came in to force in November 1999 and it is therefore reasonable to assume that any HA asset where construction commenced or equipment manufactured after 01/01/2000 will not contain ACMs. For this reason the production of an AAP for such assets is not required.

8.4 Survey Types

It is anticipated that for the majority of highway assets, Type 2 surveys (non-intrusive sampling surveys) will be undertaken.

Where planned works may disturb hidden or buried potential ACMs Type 3 surveys (intrusive sampling surveys) will be required or ACMS presumed to be present. Further information on the various types of surveys is available in Annex 6. In the case of hidden assets, for example drainage, the assets must be presumed to contain asbestos unless there is evidence to the contrary.

All survey/sampling should take maximum advantage of planned Traffic Management required for other work e.g. geotechnical investigations, routine maintenance, principal bridge and other investigations or work streams.

8.5 Communication

Within the delegated duty to manage on behalf of the HA, HA Providers are required to ensure that they co-operate fully with other parties and that information is obtained and communicated as required. This includes other HA buildings and assets managed by third parties. Further detail of the process for dealing with third parties is found within Annex 3 of this IAN.

8.6 Database Uploading

Upon completion, the AAPs are required to be uploaded to the relevant HA databases. Maintenance compounds, other depots stores etc and Carriageway AAPs should be uploaded to Highways Agency Pavement Management System (HAPMS). Structures AAPs should be uploaded to Structures Management Information System (SMIS). Following reviews updates of any AAPs will also need to be uploaded. Technology Asset AAPs produced by the TechMACs or AAPs for these Assets produced by the MAC must be uploaded to Technology Performance Management System (TPMS) once the facility to complete this is added to the system. This will ensure that information is available centrally to the HA and other HA Providers.

8.7 Asbestos Control Checklist

Annex 4 details the Asbestos Control Checklist which applies to all activities, including the following:-

- Discrete maintenance schemes.
- Major schemes delivered by MPD.
- Routine maintenance.
- Emergency works following an incident (ACMs affected are updated in the relevant AAP).
- Principal inspections or other specialist works requiring intrusive investigation.
- Minor new/maintenance work (e.g. grass cutting, installation of sign posts on verges/central reserves and replacement of vehicle restrain posts).

8.8 Monthly reporting

On a monthly basis NOD Providers (Area Teams and Regional Technology Teams) are required to complete an HA proforma and forward this to the asbestos management team via the Area Performance Team's asbestos focal points or the Regional Technology focal points.

MPD Project Leaders are required to provide information in relation to the SAMP and associated AAPs to the combined asbestos team. MPD Project Managers should obtain this information from their Providers

9 Database Issues

- 9.1 It is key compliance requirement that all AAPs are held on HA databases. The method of recording information in a standard format is outlined in Annex 2. Each Structure (as defined in "Design Manual for Roads and Bridges" Volume 3, Section 2 Part 1 BD62/07) must have an AAP produced and uploaded onto the SMIS database.
- 9.2 An AAP for other highway structures not held on SMIS and other highway assets included in nominal 5km route lengths must be uploaded to the HAPMS database.
- 9.3 The Asbestos Bulletin Board (ABB) on SMIS should be utilised by Service Providers to populate information in relation to all occurrences of asbestos within structures, which have not previously been identified. These occurrences should be forwarded for consideration onto the ABB. Other HA databases, including HAPMS and TPMS, are considering similar arrangements.
- 9.4 All uploading onto the databases should be in PDF format. For Major Project Schemes the MPD Project Manager should agree with the NOD Area Team the most appropriate way to upload the AAPs (e.g. use of MACs with access to database).
- 9.5 In the case of the SMIS database, structures that were constructed after 01/01/2000 will not be permitted to have any new AAPs added to them and their status will be changed to "New Structure - No ACM present". Any of these structures with confirmed ACMs will still require ongoing AAPs added to them.
- 9.6 Help and advice on this can be found on the SMIS help inventory. Should there be any addition enquiries then initial contact can be made at smis@highways.gsi.gov.uk
- 9.7 Access and enquiries for TPMS can be arranged via:
russell.mead@highways.gsi.gov.uk
- 9.8 TPMS will be capable of holding AAPs against a series of assets in the future and once this task has been completed information in relation to the use of this database will be circulated. This will primarily be of use to the TechMAC's operators who will be undertaking the production of AAPs for technology assets within their region.
- 9.9 Enquiries regarding HAPMS should be directed to:
servicedirect@highways.gsi.gov.uk

10 Review and Monitoring

10.1 GAMP Review

The GAMP will be reviewed at least on an annual basis. It is anticipated that an audit group will conduct reviews of the management system under the guidance of the GAMP Plan Owner.

10.2 Audits

Audit procedures for the management system will also be incorporated within existing Health and Safety audits, including best practice reviews, undertaken on HA Provider organisations. E.g. for HA Service Providers this will be undertaken through the Network Operations Audits for Contract Compliance (NOACC), or other similar existing or future arrangements.

Asbestos issues will be audited across the NOD Providers via the NOACC team.

10.3 Condition monitoring of ACMs

Monitoring and/or inspection of assets containing asbestos or presumed asbestos is to be planned to tie in with other routine or planned inspections/surveys once AAPs are in place. It should be noted that for all highway assets within the highway boundary a minimum 2-year inspection frequency has been agreed with the HSE where asbestos has been identified or presumed. During these re-inspections the condition of the ACMs should be recorded (i.e. photographs) and monitored. If, based on comparison with previous photographs and risk assessments, the condition has changed then specialist advice should be sought.

10.4 Communication of AAP or information to others

It is necessary to ensure the AAPs are distributed to those that may be affected by them. Completed AAPs are to be passed to contractors preparing to work on all highway schemes or other buildings and premises. Information is to be passed on to those who may have the potential to disturb ACMs within highway assets in building assets on the HA estate or properties managed by a third party or as requested by the Major Projects PMD team. Communication and co-operation with other parties; for shared or adjacent premises, utility companies, landlords and emergency services etc is required as outlined in Annex 3.

10.5 Land and property acquired by Compulsory Purchase Orders

In preparing highway schemes that utilise lands and property acquired by CPOs the Major Projects MPD Team should be contacted for the relevant asbestos information on these assets for incorporation into the Health and Safety Files and be included in the AAPs for the particular Scheme.

11 Training

- 11.1 Provider Plan Owners are required to attend Duty to Manage Asbestos training in order to undertake their responsibilities. In order to carry out AAP condition reviews all Asset inspectors in are required to undertake the appropriate level of training.
- 11.2 Historically a range of training has been provided to Service Providers including initial training in 2004 and a Stakeholders meeting in 2007. No further training will be provided to Service Providers. All Service Providers are now responsible for ensuring that within their organisation there is an appropriate number of adequately trained staff. This training must meet the requirements of the relevant legislation and guidance.
- 11.3 All NOD including TechMACs Asbestos Focal Points have received training. A training programme has also been rolled out across MPD Project Managers. All training was organised by the HA asbestos team. Any future training will be limited to the HA. Other Providers should make their own arrangements for any required asbestos training.
- 11.4 A training log has been kept for all HA attendees and this will be periodically reviewed by the HA asbestos management team to identify any further training requirements.

12 Costs, Budgets and Programmes

- 12.1 HA Area Performance Managers are required to approve all Management Plans including those outside of their direct control (e.g. SAMP) produced by Providers, including all revisions following review.
- 12.2 APMs and MPD Project Managers are required to review and approve the costs associated with the production of Management Plans and operating the management system. Costs are estimated not to exceed 0.5% of the HA's annual budget for all scheme work. Spreadsheets allowing HA managers to forecast costs on a scheme or area basis have been made available separately to this IAN.
- 12.3 Local financial agreements should be obtained so that AAPs produced by Major Project Schemes can be uploaded by HA Area Providers onto the relevant database.

13 Further Information

- 13.1 If you have any questions on this document please contact:
Chris Foreman Tel. 0117 372 8978
E-mail: chris.foreman@highways.gsi.gov.uk
Or a member of the HA asbestos team.
- 13.2 HA Staff can access support through the Asbestos enquiries inbox which can be found within the HA email contact list (asbestosenquiries@highways.gsi.gov.uk)

**ANNEX No 1 - GENERIC FORMAT FOR AREA ASBESTOS MANAGEMENT PLAN
(AAMP) AND SCHEME ASBESTOS MANAGEMENT PLAN (SAMP)**

SUPERSEDED

COVER SHEET

HA ASBESTOS MANAGEMENT

AREA ASBESTOS MANAGEMENT PLAN (AAMP)

for

[Insert Area Name]

ORGANISATION

[Insert Name]

PLAN OWNER

[Insert Name]

DATE

[Insert date of initial preparation]

Notes:

1. Purpose of this AAMP is to demonstrate how the HA Provider will plan for the delivery of AAPs for their HA Area of responsibility.
2. Plan Owner will be the competent person in the Provider organisation's local management team with responsibility for this plan.
3. Date will be when the initial plan was prepared. Revision and date history will be recorded on the contents page, including changes to "organisation" and "plan owner".

CONTENTS PAGE

- 1. Asset List for the Whole Area**
- 2. Works Programme for Financial Year**
- 3. AAP Programme for Financial Year**
- 4. Arrangements for Monitoring and Review**
- 5. Procurement of Specialist Asbestos Services**
- 6. Annexes**

Note: Life History of Specific Arrangement Plans should be documented as below

Date	Plan Status and Comments	Plan compiled by (name)	Reviewed by (name)	Approved by Plan Owner (name)
23 March 2009	Initial Plan for year 09/10	Bloggs	Smith	Jones
17 September 2009	Review No 1 – No change to Programme for year 09/10	Bloggs	Smith	Jones
Etc				

SECTION 1

ASSET LIST FOR THE WHOLE AREA (Only includes Technology assets not covered by TechMACs)

To Include:

- List of Structures as appears in SMIS: bridges, viaducts, tunnels, culverts, walls and the like. List major structures separately. Grouping their numbers and types
- Brief description and length of carriageway types – main carriageways, slip roads, junctions, dual, single (including assets such as drainage, signs, communications infrastructure, etc).
- Brief description of buildings – compounds, depots, stores, workshops, outstations, control offices, etc.
- Brief description of other assets – masts, pumping stations, picnic sites, etc.

a) Highway Structures (as held on SMIS including references and terminology)

Structure	Number	Special features/comments
Bridges	179	
Culverts	103	
Road Tunnel	1	Name, length, standard including associated building structures
Viaduct, etc	2	Names, lengths, standards

b) Highways Lengths (as held on HAPMS)

Route	Carriageway Standard	Length (lane km)	Comments
M33	D2M	80	
	D3M	100	Includes 3km of viaduct in a)

c) Technology (as held on TPMS)

Route	Technology Asset Type	Number of similar items	Comments
M33	Portal gantries equipment	20	Equipment upgrade

d) Buildings, maintenance compounds discrete 'off network assets' (outside highway boundaries, as held on HAPMS)

Name and Location	Purpose	Brief Description of assets
M44 Northbound Junction 38	Maintenance compound	Offices, salt barn, garages, workshop and yards.

e) Other discrete 'off network' assets

Asset description	Number (if appropriate)	Location
Westwood picnic site	-	A88 Westwood Road Littleham
Greener pumping station	-	M33 Junction 16

SECTION 2

WORKS PROGRAMME FOR FINANCIAL YEAR [Insert dates]

To include the number and type of assets to be worked on derived from:

- Listings work programmes for major schemes and identifying number and extent of assets affected.
- Minor/routine maintenance programmes.

Listing of all Maintenance Work in Area for Financial Year [Insert dates]

Brief Description	Asset Nos/Lengths affected	Comments if required
Named schemes - Structures - Roads - Other/Hybrid Schemes E.g. Resurfacing M33 J6-7 Waterproofing schemes Roofing work, maintenance compound at Greener	5.3 route km 6 structures 1 building	Work required to replace asbestos cement roofing sheets in poor condition

SECTION 3

AAP PROGRAMME FOR FINANCIAL YEAR [Insert dates]

To Include:

- Assets covered by Works Programme and targets for producing AAPs.
- Other Assets for which AAPs are required to meet the 5% annual targets.
- Proposed prioritisation to meet the annual targets.
- Schedule for agreement by HA Area Performance Manager to feedback to HA General Asbestos Management Plan Owner, using standard format attached.

Asset Type	Asset Description	Programme
Highway Structures	Individually listed	Date for surveys, AAP completion and works start (if appropriate)
Highways	Listed by 5km nominal length	Date for surveys, AAP completion and works start (if appropriate)
Compounds	Individually listed	Date for surveys, AAP completion and works start (if appropriate)
Other assets	Individually listed	Date for surveys, AAP completion and works start (if appropriate)

Notes:

- 3.1 Area Providers should obtain confirmation of the progress, or intended progress, of AAP compilation, prior to reporting to the HA Area Performance Manager.
- 3.2 In the schedule, the line for 2010/11 will be left blank at the start of year 2009/10, as will the column for "Total Achieved".
- 3.3 At the end of 2009/10, the line for 2010/11 will be completed and the total achieved for 2009/10 will be noted.
- 3.4 The schedule will be the means of approving the AAP programme and recording progress in the year and will be updated annually.

SUMMARY SCHEDULE FOR APPROVAL BY HA AREA PERFORMANCE MANAGER

HA ASBESTOS MANAGEMENT

AREA No [Insert Area No]

Example

Year	Targets		Included in TPI limits	Prioritised from Maintenance Programme	Remainder to achieve target	Total Programmed	Total Achieved
	Asset Type	No / Length					
2009/10	Structures	50 No	-	35 No	15 No	50 No	
	5km lengths of Carriageway	30 km	-	25 km	5 km	30 km	
	Compounds	3 No	-	2 No	1 No	3 No	
	Other assets	10 No	-	3 No	7 No	10 No	
20010/11							

Completed by [Name]

..... Plan Owner

Signed

.....

Date

.....

Approved by [Name]

..... HA Area Performance Manager

Signed

.....

Date

.....

SECTION 4

ARRANGEMENTS FOR MONITORING AND REVIEW

Note:

Proposed arrangements for reviewing the programmed schedule for compiling AAPs should be listed in this section.

These will include:

- Measuring progress against annual targets.
- A formal review shall be undertaken at 6 months to check whether procedures are working. Results of this review are to be recorded and this Plan amended if required. Changes are to be recorded in the 'Life History' table on the contents page.
- Reporting to the HA Area Performance Manager will be a requirement following agreement of annual programmes and any budget reviews. Any revisions to this plan will be sent to the HA Area Performance Manager. See also notes in Section 3.

SECTION 5

PROCUREMENT OF SPECIALIST ASBESTOS SERVICES

Notes:

- 5.1 The HSE recommends, and the HA requires, that specialist asbestos surveying and laboratory testing organisations should be UKAS accredited to ISO 17020 and 17025 respectively. The MAC will let the appropriate contract with the Surveying and Testing Organisation. Furthermore, the AAPs may recommend that there is a requirement to undertake Type 2 and/or Type 3 surveys.
- 5.2 MACs will be responsible for obtaining approval from the HA Area Performance Manager prior to the issue of the works order for the proposed specialist services commission to the MAC via the usual approval route.
- 5.3 All surveys must comply with the requirements of MDHS 100 – Surveying, sampling and assessment of asbestos-containing materials published by HSE Books 2001 ISBN.0 7176 2076 X. A typical specification for infrastructure and building surveys is also provided as a standard document. This covers work on surveying, sampling, testing and reporting using a packaged approach.
- 5.4 In planning for surveys the following issues need to be considered:
- Whether records indicate a strong likelihood of ACM or not.
 - The risk posed by working under traffic management compared to the likely risk of disturbing ACMs during planned maintenance work.
 - Known consistency of materials/components based on contract limits during the original construction work and the repeated detailing on bridges and culverts. This will allow representative sampling and assessment work to take place. However, previous modifications to assets need to be considered.
 - Similarity in the appearance of construction details in buildings and other similar structures.
 - Combining survey work for asbestos with other maintenance activities within planned traffic management measures.
 - Whenever possible combine asbestos surveys with any planned inspections to take advantage of shared access arrangements.
- 5.5 Annex No. 6 of IAN 63/05 includes a generic specification based around MDHS 100 but requires the specialist surveyor to recommend actions for each known or presumed ACM. Recommended actions should be produced by the surveyor in conjunction with the Provider to make sure decisions on actions are appropriate for the asset in question. These actions will form the 'action plan' column on the asbestos register required for inclusion in the AAP format.
- 5.6 The following survey types will be appropriate in the following general circumstances in the table below. Type 1 surveys do not involve any sampling operations and are therefore not likely to be appropriate for highway infrastructure assets.

Asset Type	Element/Feature included in the Survey	Survey Type (As MDHS 100)
------------	--	---------------------------

Asset Type	Element/Feature included in the Survey	Survey Type (As MDHS 100)
Buildings, compounds, miscellaneous structures	All visible components or materials in roofs, ceilings, walls, floors etc where no intrusive maintenance work is planned to hidden components	Type 2
	All components where intrusive work is planned during refurbishment, modification, demolition, reconstruction or extension of a building structure.	Type 3 to ceiling voids, wall infill, etc
Highway Structures	All visible materials in structure – no intrusive work planned.	Type 2
	All materials/components in the structure which would be affected by intrusive work eg, re waterproofing or joint repairs.	Type 3 to existing waterproofing systems, joint fillers, etc
	Any demolition or reconstruction	Type 3
Highways Generally	All visible surface features – no work planned which could affect ACMs in the ground, eg in ducts and surface water drains	Type 2
	All elements which could be affected by major construction work – eg ducts, chambers, surface water drains, buried joints, utilities infrastructure	Type 3
	Any demolition or reconstruction – eg major widening, new slip roads or junctions	Type 3

SUPERSEDED

SECTION 6 – ANNEXES

This section will include copies of annual plan reviews which should be signed and dated by the Plan Owner.

SUPERSEDED

COVER SHEET

HA ASBESTOS MANAGEMENT

SCHEME ASBESTOS MANAGEMENT PLAN (SAMP)

for

[Insert Discrete Major Scheme Name]

ORGANISATION

[Insert Name]

PLAN OWNER

[Insert Name]

DATE

[Insert date of initial preparation]

Notes:

1. Purpose of this SAMP is to demonstrate how the HA Provider will plan for the delivery of AAPs for their Scheme of responsibilities
2. Plan Owner will be the competent person in the Provider organisation's local management team with responsibility for this plan.
3. Date will be when the initial plan was prepared. Revision and date history will be recorded on the contents page, including changes to "organisation" and "plan owner".
4. Discrete schemes are those managed by the HA Major Projects Directorate and include National Road Programme schemes, other major schemes and section 278 schemes.

CONTENTS PAGE

- 1. Asset List - All assets affected by the Scheme**
- 2. Works Programme**
- 3. AAP Programme**
- 4. Arrangements for Monitoring and Review**
- 5. Procurement of Specialist Asbestos Services**
- 6. Annexes**

Note: Life History of Specific Arrangement Plans should be documented as below

Date	Plan Status and Comments	Plan compiled by (name)	Reviewed by (name)	Approved by Plan Owner (name)
23 March 2009	Initial Plan for year 09/10 (see note 1 below)	Bloggs	Smith	Jones
17 September 2009 Etc	Review No 1 – No change to Programme for year 09/10	Bloggs	Smith	Jones

Note 1 Initial Plan and all reviews in line with Project Control Framework stage requirements.

SECTION 1

ASSET LIST FOR ALL ASSETS AFFECTED BY THE SCHEME WITHIN ITS LIMITS

To Include:

- List of Structures as they appear in SMIS: bridges, viaducts, tunnels, culverts, walls and the like. Grouping their numbers per type.
- Brief description and length of carriageway types – main carriageways, slip roads, junctions, dual, single (including assets such as: drainage, signs, communications infrastructure, etc).
- Brief description of buildings – compounds, depots, stores, workshops, outstations, control offices, etc.
- Brief description of other assets – masts, pumping stations, picnic sites, etc.

a) Highway Structures (as held on SMIS including references and terminology)

Structure	Number	Special features/comments
Bridges	179	Name, length, standard including associated building structures Names, lengths, standards
Culverts	103	
Road Tunnel	1	
Viaduct, etc	2	

b) Highways Lengths (as held on HAPMS)

Route	Carriageway Standard	Length (lane km)	Comments
M33	D2M D3M	80 100	Includes 3km of viaduct in a)

c) Technology (as held on TPMS)

Route	Technology Asset Type	Number of similar items	Comments
M33	Portal gantries equipment	20	Equipment upgrade

d) Buildings, maintenance compounds discrete 'off network assets' (outside highway boundaries, as held in HAPMS)

Name and Location	Purpose	Brief Description of assets
M44 Northbound Junction 38	Maintenance compound	Offices, salt barn, garages, workshop and yards.

e) Other discrete 'off network' assets

Asset description	Number (if appropriate)	Location
Westwood picnic site	-	A88 Westwood Road Littleham
Greener pumping station	-	M33 Junction 16

SECTION 2

ASBESTOS ACTION PLAN PROGRAMME FOR THE SCHEME

To Include:

- Assets covered by the Scheme and proposed phase targets for production of Asbestos Action Plans (AAPs).
- Schedule for agreement by HA Project Manager to feedback to HA General Asbestos Management Plan Owner, using standard format attached.

Asset Type	Asset Description	Programme
Highway Structures	Individually listed	Date for surveys, AAP completion and works start (if appropriate)
Highways Lengths	Listed by nominal lengths	Date for surveys, AAP completion and works start (if appropriate)
Building, Garage, Compounds etc	Individually listed	Date for surveys, AAP completion and works start (if appropriate)
Other discrete 'off network' assets	Individually listed	Date for surveys, AAP completion and works start (if appropriate)
Technology	Asset type/description	Date for surveys, AAP completion and works start (if appropriate)

Notes:

- 2.1 The SAMP must receive signed approval from the relevant APM (or APMs should the Scheme span over more than one area) and be forwarded to the Senior Responsible Owner for signed approval in accordance with the Project Control Framework arrangements.
- 2.2 The timing of compilation of AAPs should be agreed with the Scheme Project Manager and this will be dependent on Scheme's progress. The AAPs must be in place prior to the start of any works. These will also be a product to be delivered within PCF process.

SUMMARY SCHEDULE FOR APPROVAL BY HA AREA PERFORMANCE MANAGER

HA ASBESTOS MANAGEMENT

SCHEME NAME

Example

Year	Targets		Total Programmed	Total Achieved
	Asset Type	No / Length		
2009/10	Structures	50 No	50 No	
	Highway Lengths	30 km	30 km	
	Technology	10 No	10 No	
	Compounds	3 No	3 No	
	Other assets	10 No	10 No	

Completed by [Name]

----- Plan Owner
 ----- Signed
 ----- Date

Approved by [Name]

----- HA Area Performance Manager
 ----- Signed
 ----- Date

Approved by [Name]

----- Senior Responsible Owner
 ----- Signed
 ----- Date

SECTION 3

ARRANGEMENTS FOR MONITORING AND REVIEW

Note:

Proposed arrangements for reviewing the programmed schedule for compiling AAPs should be listed in this section.

These will include:

- Measuring progress
- Means of incorporating the consequences of works programme changes into the AAP programme to ensure plans are in place prior to the start of any work to the asset.
- A formal review shall be undertaken a minimum of every 6 months to check whether procedures are working. Results of this review are to be recorded and this Plan amended if required. Changes are to be recorded in the `Life History` table on the contents page.
- Any revisions to this plan will be sent to the HA Area Performance Managers. See also notes in Section 2.

SECTION 4

PROCUREMENT OF SPECIALIST ASBESTOS SERVICES

Notes:

- 4.1 The HSE recommends, and the HA requires, that specialist asbestos surveying and laboratory testing organisations should be UKAS accredited to ISO 17020 and 17025 respectively. The Provider will let the appropriate contract with the Surveying and Testing Organisation. It may be necessary to undertake surveys if AAPs have not been completed. Furthermore, the AAPs may recommend that there is a requirement to undertake Type 2 and/or Type 3 surveys.
- 4.2 Providers will be responsible for obtaining approval from the HA Scheme Project Manager prior to awarding any contract for the proposed specialist services.
- 4.3 All surveys must comply with the requirements of MDHS 100 – Surveying, sampling and assessment of asbestos-containing materials published by HSE Books 2001 ISBN.0 7176 2076 X. A typical specification for infrastructure and building surveys is also provided as a standard document. This covers work on surveying, sampling, testing and reporting using a packaged approach.
- 4.4 In planning for surveys the following issues need to be considered:
- Whether records indicate a strong likelihood of ACM or not.
 - The risk posed by working under traffic management compared to the likely risk of disturbing ACMs during planned maintenance work.
 - Known consistency of materials/components based on contract limits during the original construction work and the repeated detailing on bridges and culverts. This will allow representative sampling and assessment work to take place. However, previous modifications to assets need to be considered.
 - Similarity in the appearance of construction details in buildings and other similar structures.
 - Combining survey work for asbestos with other maintenance activities within planned traffic management measures.
 - Whenever possible combine asbestos surveys with any planned principal bridge inspections to take advantage of shared access arrangements.
- 4.5 Annex No. 6 of IAN 63/05 includes a generic specification based around MDHS 100 but requires the specialist surveyor to recommend actions for each known or presumed ACM. Recommended actions should be produced by the surveyor in conjunction with the Provider to make sure decisions on actions are appropriate for the asset in question. These actions will form the 'action plan' column on the asbestos register required for inclusion in the AAP format.
- 4.6 The following survey types will be appropriate in the following general circumstances in the table below. Type 1 surveys do not involve any sampling operations and are therefore not likely to be appropriate for highway infrastructure assets.

Asset Type	Element/Feature included in the Survey	Survey Type (As MDHS 100)
Buildings, compounds, miscellaneous structures	All visible components or materials in roofs, ceilings, walls, floors etc where no intrusive maintenance work is planned to hidden components	Type 2
	All components where intrusive work is planned during refurbishment, modification, demolition, reconstruction or extension of a building structure.	Type 3 to ceiling voids, wall infill, etc
Highway Structures	All visible materials in structure – no intrusive work planned.	Type 2
	All materials/components in the structure which would be affected by intrusive work e.g., re waterproofing or joint repairs.	Type 3 to existing waterproofing systems, joint fillers, etc
	Any demolition or reconstruction	Type 3
Highways Generally	All visible surface features – no work planned which could affect ACMs in the ground, e.g. in ducts and surface water drains	Type 2
	All elements which could be affected by major construction work – e.g. ducts, chambers, surface water drains, buried joints, utilities infrastructure	Type 3
	Any demolition or reconstruction – e.g. major widening, new slip roads or junctions	Type 3

SECTION 5 – ANNEXES

This section will include copies of SAMP reviews which should be signed and dated by the Plan Owner.

SUPERSEDED

ANNEX No 2 - GENERIC ASBESTOS ACTION PLAN (AAP)

SUPERSEDED

COVER SHEET

AREA XX/ SCHEME REFERENCE ASBESTOS ACTION PLAN

for

[Asset Name]

[Organisation]

[Plan Owner]

[Date first compiled]

Notes:

1. Area no. or major scheme name to be inserted.
2. Asset name to be inserted, eg Westover Road Bridge, Greenhills retaining wall, Northbury Park maintenance compound, M33 carriageway from xx to yy.
3. Provider organisation and Plan Owner's name to be inserted. This should be a competent person within the Provider organisation's local management team holding suitable training in the duty to manage requirements.
4. Date to be inserted as the date of the initial plan. Updates and amendments to be listed in the table on the Contents Page, including changes to "organisation" and "plan owner".

CONTENTS PAGE

- 1. Scope and Description**
- 2. Desk Study and Surveys Undertaken**
- 3. Risk Register and Actions**
- 4. Action Plan, Monitoring and Review**
- 5. Location Plans/Drawings**
- 6. Detailed Asbestos Survey Reports**
- 7. Evidence of Inspections and Feedback Following Works to Assets**

Life History Summary

Date	Plan Status and Comments	Plan compiled by (name)	Reviewed by (name)	Approved by Plan Owner (name)
June 2005	Initial Plan	Bloggs	Smith	Jones
April 2006	Revision No 1 – Update following monitoring inspection	Bloggs	Smith	Jones
June 2006	Revision No 2 – Update following maintenance work	Bloggs	Smith	Jones

Notes:

1. Table should include the full life history of changes to the plan.
2. Section 7 should include paperwork/documents evidencing the changes.

SECTION 1 - SCOPE AND DESCRIPTION

ASSET NAME [Insert]

ASSET REFERENCE NO(S) [Insert]

LOCATION [Insert]

OTHER DEFINING REFERENCE/NAME [Optional]

BRIEF DESCRIPTION OF ASSET [Insert]

Notes:

- 1.1 Asset name should be normal name of highway structure, maintenance compound, etc, or section length and route for a nominal 5 km highway length.
- 1.2 Reference numbers should be those used generally and included in formal records, databases etc. These will include structure key, marker post, OS reference, etc.
- 1.3 All location and reference details should be given to ensure that the asset is adequately defined.
- 1.4 Brief description should include main features only, eg:
 - 4 span bridge, road over rail.
 - 300 metre retaining wall.
 - 5km length of M33 including junction 4.
 - Greenhills maintenance compound, including salt barn, garage, office and store.

SECTION 2 - DESK STUDY AND SURVEYS UNDERTAKEN

- 2.1 DOCUMENTS REVIEWED (Note 2.1) [List]
- 2.2 CORRESPONDENCE WITH PRODUCT MANUFACTURERS (Note 2.2) [List]
- 2.3 SURVEYS UNDERTAKEN FOR INITIAL AAP (Note 2.3) [List with dates]
- 2.4 ADDITIONAL SURVEYS (Note 2.4) [List with dates]

Notes:

- 2.1 The desk study should comprise a thorough review of all as built and other asset records, including structure files, health and safety files, any existing asbestos registers, drawings, photographs, inspection records etc to obtain information on the likely asbestos containing material (ACM). Assets where all new construction commenced after the year 2000 are unlikely to contain asbestos. Previous records or local knowledge indicating the use of ACM should be noted. For assets constructed after the 01/01/2000 they will not require new AAPs added to them and their status will be changed to "New Structure - No ACM present" on the SMIS database, although it should be noted that there is a possibility that construction included some use of ACMs stock piled pre 2000 (see also note 3.1 below).
- 2.2 Other parties have a duty to co-operate under the Control of Asbestos Regulations 2006, with anyone preparing an AAP. These include contractors and component or material manufacturers. Components in tunnels, movable bridges and other special structures could be the subject of specific enquiries by Providers in their area.
- 2.3 A listing and brief description of surveys undertaken on the asset should be included here. Surveys will include Type 2 (surface material sampling) or Type 3 (intrusive sampling). See Annex No 2; section 5 and also MDHS 100 – Surveying, sampling and assessment of asbestos-containing materials for advice. Survey dates should also be given.
- 2.4 When further survey and testing is carried out in advance of any planned intrusive maintenance, improvement or reconstruction work to an asset, the results of those surveys shall be included here as an update to the AAP and the AAP given a new revision number. This is to ensure the plan includes all current information at all times.

SECTION 3 – RISK REGISTER AND ACTIONS

RISK REGISTER DOCUMENT

Notes:

- 3.1 The Risk Register table (See Appendix A of this IAN) will be produced by the asbestos surveying organisation as part of the specialist commission. This will contain all elements of the asset, irrespective of whether ACM is present, presumed to be present or assumed not to be present by virtue of age, test result or the constituent material, eg brick, stone, concrete, steel, etc. The purpose of the register is two fold; firstly to identify ACM, or presumed ACM and secondly to alert all persons working on and around the asset as to when these materials could be affected by any work carried out on the asset. **Note: If the asset was constructed after 01/01/2000 and there is no evidence on the scheme records that ACMs may have been used during construction, this and later sections in this plan will not be used and will be blank.**
- 3.2 The Risk Register therefore contains three sections down the sheet
1. Those asset elements which have been confirmed as ACM through survey, testing and assessment or known following prior work on the asset.
 2. Those elements which must be presumed to be ACM because they are hidden or buried in the asset and have not been subject to testing and assessment.
 3. Those elements which are presumed not to contain ACM by virtue of age or their engineering material characteristics. This section also will include those components proved not to contain asbestos following sampling and testing.
- 3.3 The Risk Register also contains three sections across the sheet for each asset element.
- 1: The element description, location and other defining details.
 - 2: The summary of survey, sampling, testing and assessment results, OR reasons for presuming ACM, OR reasons for assuming no ACM by nature of the material.
 - 3: The actions to be carried out in respect of known ACM or presumed ACM. Actions will be graded A, B, C or D see below in note 3.6.
- 3.4 The register should include summary details only. The full details will include the report from the specialist asbestos surveyor and/or testing house. It is important to note that most of the details required in the register are taken from reports by the specialist surveyor.

3.5 The Risk Register should be updated by inclusion of information gained following further sampling, testing and assessment prior to maintenance or construction work and any changes to elements as a result of that work, eg

- replacement of waterproofing containing asbestos
- replacement of broken asbestos cement roofing sheeting
- repair of damage to asbestos cement electrical ducts/chambers
- replacing damaged asbestos insulation board in buildings
- demolition of asset and rebuilding under major widening schemes.

3.6 Actions shown on the register are those necessary as a result of the risk assessment process. They indicate the level of remedial work necessary which must be carried out to ensure all persons are not accidentally exposed to airborne asbestos fibres which could be inhaled.

- Action Level A: indicates those materials or asset elements which are known not to contain asbestos as a result of a direct test, or presumed to be non ACM because of age or constituent material. More detail can be found in HSE publications.
- Action Level B: indicates ACMs which as a result of the survey and assessment process have a low score and can be left in place and managed. This will also include materials which were not investigated in the survey because they were hidden, buried and not likely to be disturbed during most work activities (see also note 3.5).
- Action Level C: indicates known ACMs which as a result of assessment are in a condition which requires repair, sealing, covering or other means of encapsulation to prevent fibre release. When work has been carried out these elements should be regraded to Action Level A or B in the register.
- Action Level D: indicates known ACMs which as a result of assessment are in a condition such that the material should be removed and replaced with non-ACM.

It is expected that most highway infrastructure will fall into Action Levels A and B with the occasional C. Buildings and other assets in maintenance compounds may be Action Levels A, B, C or D.

The supervisor of any works falling into Action Levels C and D should be licensed under the Control of Asbestos Regulations 2006.

3.7 It should be noted that unless ACMs fall into Action Levels C and D, no disturbance of the ACM should be necessary. If work is to be done on parts of the asset which actually do contain an ACM, then further survey work is necessary prior to that work being carried out.

SECTION 4 – ACTION PLAN, MONITORING AND REVIEW

4A GENERAL ITEMS [Include standard text] see below and notes

4B ASSET SPECIFIC ITEMS [Include specific text]

GENERAL ITEMS [To be included in all AAPs]

4.1 This section contains the management actions which will be carried out to ensure that:

- Asbestos materials requiring treatment or removal, (Action Levels C and D) are dealt with in a timely manner
- Known or presumed asbestos materials (Action Level B) that remain in situ, are maintained in a safe condition
- Procedures are in place to control all work which could effect, or potentially effect known or presumed asbestos materials.

4.2 **Register Updates**

The Risk Register included at Section 3 will be maintained and updated on receipt of new information. The Plan Owner will be responsible for approving all changes.

4.3 **Remedial Work to ACM**

The Plan Owner shall consult with the appropriate HA manager to gain approval to work required to any known ACM assessed by specialist surveyors to fall into Action Level C or D. On approval, the required work shall be carried out and the register updated.

4.4 **Surveys**

All specialist asbestos surveys shall comply with the requirements of MDHS 100 – Surveying, sampling and assessment of asbestos containing materials. This applies to Type 1, 2 or 3 surveys. A generic survey document is provided at Annex No 7.

4.5 **Monitoring Inspection**

All assets where ACM is known or presumed shall be re-inspected for signs of deterioration of the visible ACM, using the standard form in section 7. Such inspection will not include any intrusive work. If, on comparison with initial photographic evidence, the ACM shows signs of damage/deterioration, additional survey and assessment work shall be ordered before determining the extent of any remedial work. If the assessment shows the ACM to be Action Level C or D remedial work shall be instigated as 4.3 above. Inspection will therefore be targeted where surveys have shown ACMs to have the greatest risks from damage and disturbance.

4.6 ACM monitoring inspection frequencies shall be as follows [tick box for asset type].

Highway structures	2 years	<input type="checkbox"/>
Highways lengths (including all assets within the highway boundary)	2 years	<input type="checkbox"/>
Buildings in maintenance compounds	6 months	<input type="checkbox"/>
Other buildings and network assets outside the highway boundary	1 year	<input type="checkbox"/>

In addition, other regular network inspections will facilitate collection of visible damage to ACM components. The Plan Owner shall ensure that information is passed on from such inspection reports with regard to ACMs, using the standard form in section 7.

4.7 **Asbestos Hazard Labelling**

No labels will be fixed to any part of the asset unless specifically recommended by the specialist surveyor's report. If labels are used they should be fixed in a position that is protected from the weather. For Technology assets please refer to the TNAMP document.

4.8 **Communicating the Plan**

The Plan Owner shall ensure that the information in this plan is communicated to all Third Parties likely to work in, on and around the asset. Annex no 4 – Process for Dealing with Third Parties – will be followed. Third Parties will include:

- other HA Providers
- emergency services
- utility companies whose equipment is carried over, under or through this asset.
- Local Authorities
- Network Rail
- British Waterways
- Navigation Authorities
- private bridge owners
- other companies, such as Trafficmaster

4.9 **Planned Work**

Before any planned work is carried out on this asset, the project manager for the work will follow the flow chart in the HA Interim Advice Note. This will ensure materials will be considered in advance of design work and incorporated in Design Risk Assessments and Health and Safety Plans prior to ordering or commencing any maintenance or construction works. This will also include sampling/testing in advance of any intrusive work in connection with other engineering surveys where ACM would be encountered, for example, testing in connection with Principle Inspections for highway structures. Contractors arriving at maintenance compounds to carry out building or other maintenance should be shown a copy of the appropriate AAP and risk register.

4.10 The Asbestos Control Check List (Annex No 5) will be used to monitor the process in 4.9. Each completed check list shall be included as part of this plan at Section 7, where ACMs were encountered.

4.11 **Unplanned or Emergency Work**

When an emergency incident occurs on the network which directly affects this asset or part of it, the "Process for Works after an Emergency Incident or Fly Tipping" (Annex No 6) shall be followed by the HA Provider(s). On completion of the 'emergency' part of the work, including initial clearance, the Plan Owner shall ensure that any further work follows the 'Planned work process' above.

4.12 **Reviewing the Plan**

The plan shall be reviewed by the Plan Owner no longer than 12 months after the initial plan was prepared, unless there is good reason to consider an interim review at 6 months. This latter interval could be invoked where the Plan Owner considers that significant issues have arisen via regular general inspection on the network or that significant new information regarding the asset has come to light, for instance, following damage incidents.

4.13 The Review shall include answering the following key questions

- Has the Plan been communicated to others, including employees, other HA Providers, and appropriate Third Parties?
- Have the results of inspection and monitoring activity been recorded and included? Is there a need to change the frequency of ACM monitoring?
- Have any arrangements for ACM labelling, remedial treatment or removal been carried out and the plan updated?
- Has any work been carried out to the asset and any necessary documentation included in the Plan?

4.14 The results of the review are to be recorded, stating whether the management arrangements herein are still current and satisfactory and the document appended to this Plan. Any significant changes should be communicated as 4.8 above.

ASSET – SPECIFIC ITEMS

4.15 Any special items for major structures

[Listed to include particular arrangements for:

- viaducts
- tunnels
- complex interchanges
- access restrictions

4.16 Any special items for maintenance compounds and other miscellaneous assets

[Listed to include particular arrangements for:

- Shared occupations
- Reviewing fixed equipment in premises 'controlled' by other organisations
- Assets with regular significant vandalism

SECTION 5 – LOCATION PLANS AND DRAWINGS

This section includes the means whereby ACMs are identified on appropriate drawings. Where available, CAD or scanned drawings should be used.

Notes:

- 5.1 For Highways: 1:2500 or 1:1000 is suggested
For Structures: General arrangement drawings or drawings already in structure files.
For Buildings: Building layout plans identifying floors/partitions etc.
For other miscellaneous Assets: Layout plans, general arrangement drawings or sketch plans if nothing else available.
- 5.2 Known or presumed ACMs should be denoted on the drawings using appropriate colour code.
- Red: known ACM from knowledge or testing.
Orange: presumed ACM in areas not tested.
Green: Asset known to be free of asbestos, by material constituents, age or prior asbestos removal.
- 5.3 Above colour code will be inappropriate for highways, especially “green areas” and “orange areas”. It will be sufficient to note on the drawings that all buried items, drainage and duct runs are presumed to be ACM unless and until proved otherwise by Type 3 surveys. ACM “Reference” and “Present” fields will be provided within the HA TPMS database for electrical and communications infrastructure (including cabinets, controllers, feeder pillars, jointing chambers, etc) where the incidence of ACMs is known from manufacturer’s data or survey results respectively. These fields will indicate if ACMs are present in that item.
- 5.2 Drawings should be amended as and when further information becomes available.
- 5.3 Providers should determine the best drawing format on which to record ACMs, allowing for the document size on their systems and avoiding the need to store and then update drawings in different formats but holding the same information.

SECTION 6 – DETAILED ASBESTOS SURVEY REPORTS

[Detailed reports etc should be listed and included here as Annex A, B etc]

SUPERSEDED

SECTION 7 – UPDATE SHEETS AND OTHER DOCUMENTS

This section comprises update sheets and other evidence in respect of the following:

- Results of specific ACM monitoring inspections (use standard form attached)
- Feedback comments from other routine network inspections with respect to ACM (use standard form attached completed only when a problem has been identified)
- Results of AAP review process (use standard form attached)
- Completed Asbestos Control Check List for planned work carried out on the asset which required an addition or amendment to this plan
- Summary report following an emergency incident. Asbestos Control Check List also used if incident involved work to an asset component containing asbestos
- Other miscellaneous feedback received from other HA Providers, emergency services, utility companies or other Third Parties with regard to ACM in this asset.

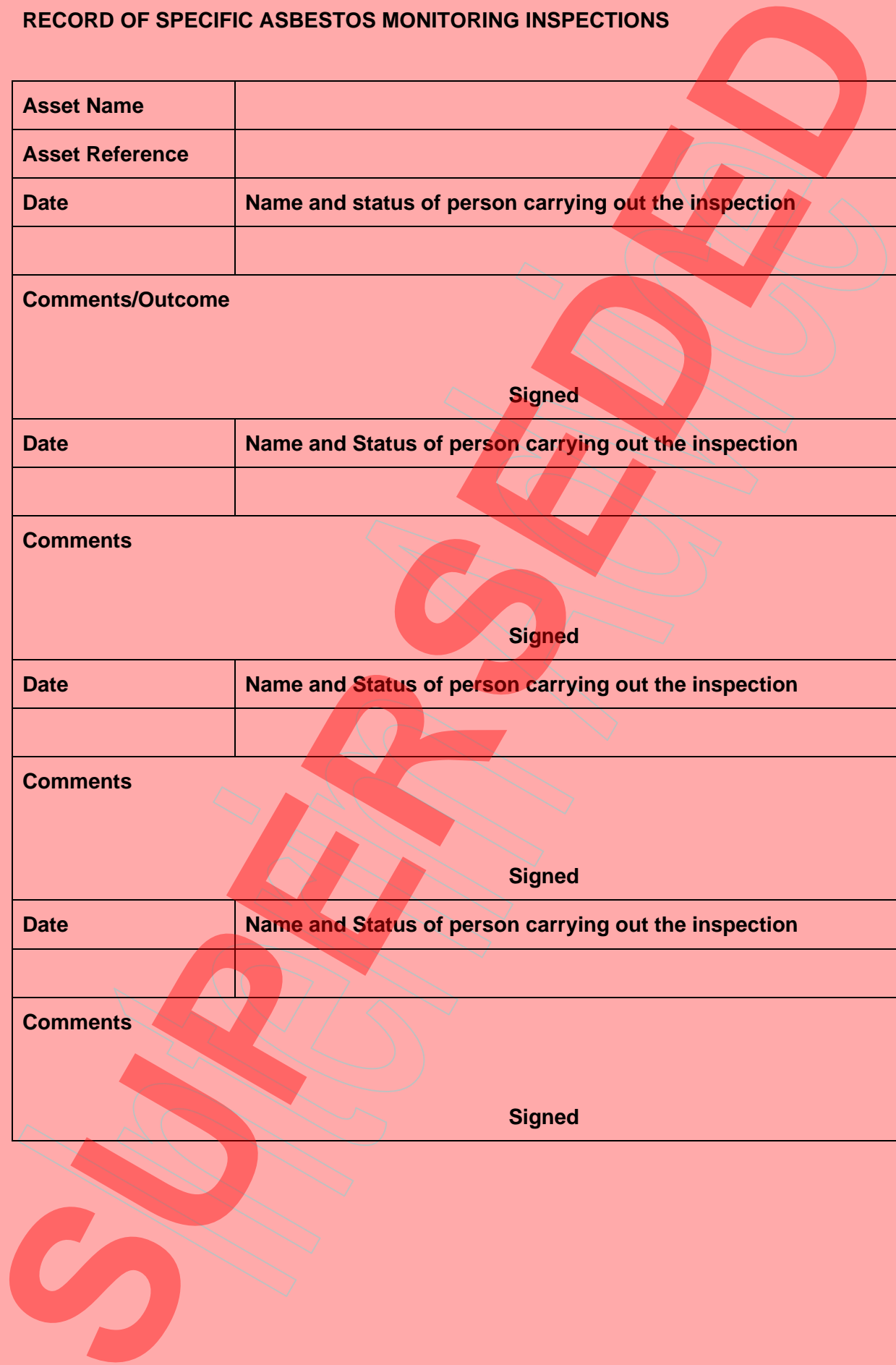
**FEEDBACK RECORD FROM ROUTINE NETWORK
 INSPECTIONS (ASBESTOS ISSUES ONLY)**

Asset Name	
Asset Reference	
Date	Name of Inspector reporting
Comments	
Signed	
Date	Name of Inspector reporting
Comments	
Signed	
Date	Name of Inspector reporting
Comments	
Signed	
Date	Name of Inspector reporting
Comments	
Signed	

SUPP

RECORD OF SPECIFIC ASBESTOS MONITORING INSPECTIONS

Asset Name	
Asset Reference	
Date	Name and status of person carrying out the inspection
Comments/Outcome	
Signed	
Date	Name and Status of person carrying out the inspection
Comments	
Signed	
Date	Name and Status of person carrying out the inspection
Comments	
Signed	
Date	Name and Status of person carrying out the inspection
Comments	
Signed	



RECORD OF REVIEW PROCESS FOR AAPs

Asset Name			
Asset Reference			
Review Date	Reviewer	Plan Owner	
1. COMMUNICATION – Has the Plan been communicated to others? - to employees ? - to other HA Providers? - to emergency services? - to utility companies and other Third Parties?	} Provide feedback		
2. INSPECTION/MONITORING – Have the results of inspection and monitoring activity been recorded and included? - Provide comments on records and any need to change the monitoring frequency. - Include comments on whether the Risk Register needed updating or otherwise amending.			
3. LABELLING, REMEDIAL TREATMENT AND REMOVAL OF ASBESTOS – Have recommendations from specialists been carried out? - labelling – was any required? Include comments. - remedial work – has it been carried out and the register updated? Include comments and refer to evidence. - removal work – has it been carried out? Include comments and refer to documentary evidence for safe removal and disposal.			
4. MAINTENANCE OR OTHER WORK – Has any work been carried out to the asset or part of the asset which affected an ACM? - planned work. Include comments and refer to documentary evidence and any updating. - emergency work. Include comments and refer to documentary evidence and any updating.			

5. OVERALL REVIEW OBSERVATIONS

List any observations and recommendations to this Plan and any possible general modifications to management systems or procedures.

In Summary state whether Plan should be modified. Yes / No

6. Reviewed by

Name:

Signed:

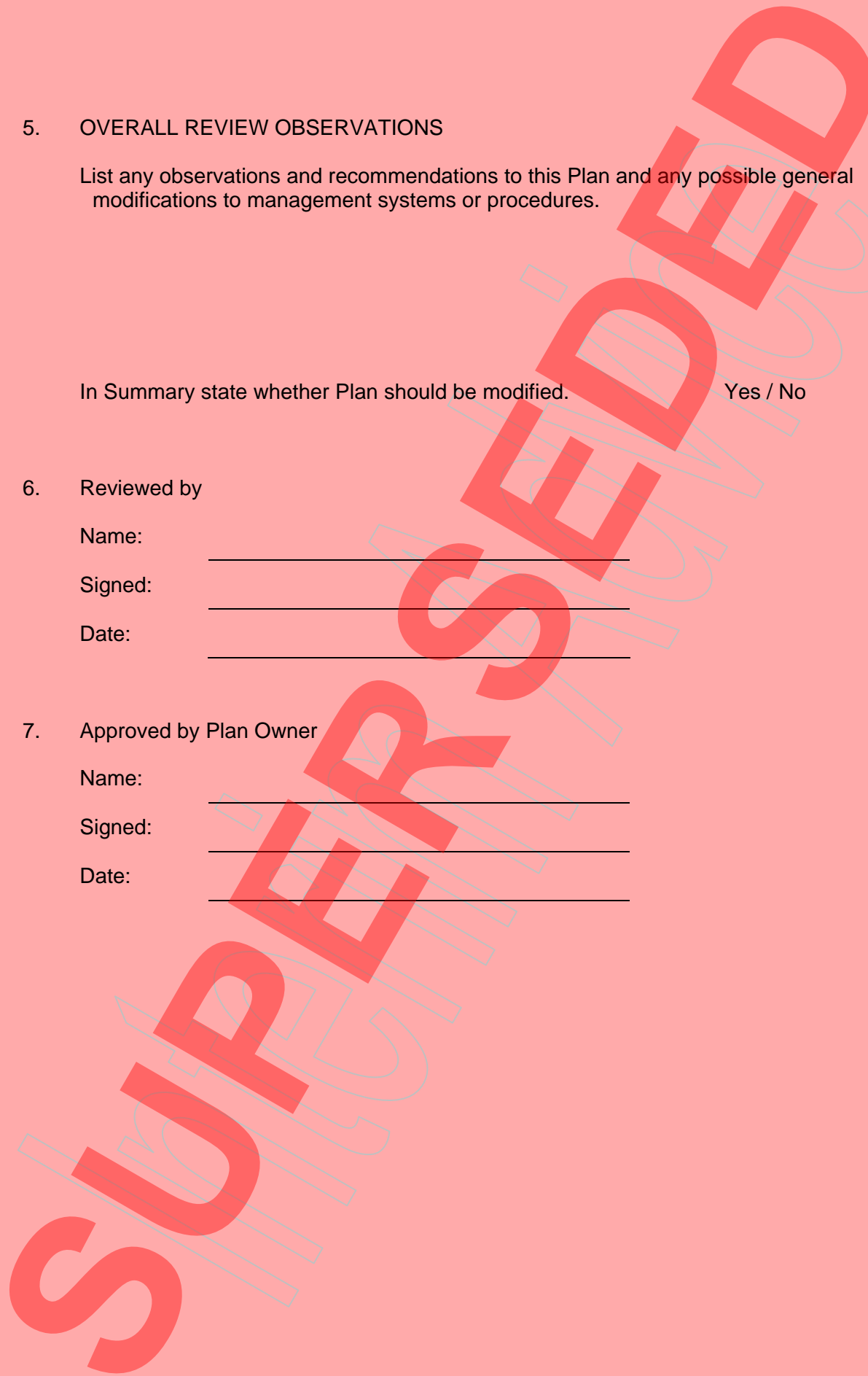
Date:

7. Approved by Plan Owner

Name:

Signed:

Date:



ANNEX No 3 - PROCESS FOR DEALING WITH THIRD PARTIES

Scope: Describes the way that Plan Owners will deal with the issues of communication and cooperation with Third Parties who may have a Duty to Manage in respect of their infrastructure in the vicinity of HA assets or who may carry out work on those assets.

Third Parties: These will include the Emergency Services, Utility Companies, Local Authorities, Network Rail, British Waterways, other navigation authorities, private bridge owners and other companies, such as Trafficmaster.

General

1. It is anticipated that, in time, all third parties will develop reciprocal arrangements with the HA in line with new Duty to Manage responsibilities. These include a duty to co-operate with other duty holders for shared or adjacent premises and infrastructure.
2. The following process will apply to each category of third party.

Emergency Services

3. ACM information should be passed to the Emergency Services, particularly Fire and Rescue, for a route/section on a summary basis. Passing of individual AAP copies to the Fire and Rescue service is unlikely to be appropriate, owing to the volume of paperwork involved. The summary should contain only those items which would prove to be a problem in the event of a road traffic accident or fire. Examples would include ACMs in: - claddings, deck soffit formwork to structures, waterproofing (deck surface fire), highway ducts (close to surface) and cable troughs (on or close to the surface). It is suggested that discussion is needed with emergency services (fire particularly) to ascertain format/level of information required on a local basis.
4. Guidance contained in paragraph 103 of the HSE Approved Code of Practice for Regulation 4 of CAR should be noted in respect of Emergency Services and the transfer of information.

Utility Companies

5. Companies should hold Asbestos Management Plans, probably on their GIS records/databases. The provisions of the New Road and Streetworks Act apply to the exchange of information following serving of notices. Thus, if notice is served on a utility company in advance of HA works, any asbestos related information should be included in the company's responses. If no reference to asbestos is received then a follow up request for clarification should be sent. If works are then to be carried out for diversion and alteration as part of the HA scheme, by a contractor working for that utility company, AAP Risk Register information should be made available to that contractor prior to work commencing on site.
5. A similar process will be required if the utility company serves notice in advance of a proposed utility scheme. The response to the utility company by the HA Provider will include AAP Risk Register information as required.
6. It is suggested that this is achieved using standard paragraphs inserted in requests and returns to and from the utility companies.

All Other Third Parties

7. Where the HA owns a highway structure, but not the asset component carried by that highway structure, there will be a need to exchange AAP information in advance of works being undertaken on site. Information exchange shall include nil returns where appropriate and is expected to take place at first notification by the HA or the Third Party of works to be carried out. An example would be resurfacing of a Local Authority road over an HA Highway Structure.
8. Where the highway is carried by a structure owned by the Third Party, the Plan Owner shall ensure that exchange of information takes place on receipt of the notice of any works from the Third Party.
9. A similar process should be followed for non-highway assets to ensure that the required level of asbestos related information is made available to all other contractors who may be carrying out work on HA assets. An example would be contractors carrying out plumbing or electrical cabling work in offices located in maintenance compounds. Plan Owners will be responsible for ensuring that a process is in place for buildings under their control.

ANNEX No 4 - ASBESTOS CONTROL CHECK LIST ASSOCIATED WITH ALL WORK ACTIVITIES

Asset Name:

Reference (structure key,
marker post, etc):

Database location (tick) SMIS HAPMS TPMS

Description of maintenance scheme, improvement or upgrade scheme, routine maintenance activity or emergency works

General Notes

- G1 A check list should be completed as follows:
- for each discrete maintenance scheme; copied to the appropriate individual AAPs if scheme covers more than one asset
 - for each major scheme; copied to each asset covered by the scheme
 - for each type of generic routine maintenance activity per area, or route within an area; copied to individual AAPs only if required by activity affecting an ACM
 - for each emergency works incident; copied to AAP if incident affected an ACM
 - for each Principal Inspection or other specialist work requiring intrusive testing or investigation work to an asset.
 - Minor new/maintenance work (e.g. grass cutting, installation of sign posts on verges/central reserves and replacement of vehicle restrain posts).
- G2 Where surveying and testing has not proved to be practicable prior to work being carried out to an asset, the presumption must be made that asbestos is present, especially for buried or hidden features, unless materials involved can be categorically stated not to contain asbestos. See also AAP guidance in this IAN. This must be reflected in Risk Assessments and information prepared for Health and Safety Plans and appropriate measures taken.
- G3 Each checklist will apply for the life cycle of the scheme or maintenance activity. When work is completed, the form should be signed off and copied to the Plan Owner. Flow

Chart No 3 also applies. The AAP should be updated by changes to the Asset Risk Register if required.

G4 It is recommended that this Check List should be incorporated into providers' project management systems, with modifications as necessary

CHECK LIST [See notes below]

- | | | | |
|----|--|---|---|
| 1. | Was an AAP in place prior to work being identified? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> |
| 2. | Are ACMs present or suspected to be present in areas or elements where work is planned? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> |
| 3. | Will work disturb an ACM or presumed ACM? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> |
| 4. | Have surveys, samples, tests, assessments been completed including further Type 3 surveys as required? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> |
| | If Yes Date results/report completed | d d | m m year |
| | | <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| | If No Reason? (eg emergency works) | | |
| | | | |
| 5. | Have Design Risk Assessments been carried out with respect to asbestos and included in CDM processes? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> |
| 6. | Has HSE been notified if works removing ACM are due to be carried out? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> |
| | If No Reason? | | |
| | | | |
| 7. | Has pre-construction Health and Safety Plan been passed to Contractor? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> |
| 8. | Have method statements been received from Contractor with respect to work on ACM? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> |

9. Did work involve control measures in area of ACM? Yes No
10. Did work uncover any unexpected ACM? Yes No
If Yes brief description with outcome: _____
11. Did work involve removal of ACM or demolition of element including ACM? Yes No
12. If Yes, have consignment notes and other details of Special Waste disposal been received from Contractor? Yes No
13. Date works on ACM completed d d m m year
14. Has AAP been updated via a copy of this check list? Yes No
15. Has appropriate Database been updated Yes No

Completed by Project Manager

Signed: _____

Name: _____

Date: _____

Received by AAP Owner

Signed: _____

Name: _____

Date: _____

NOTES FOR EACH SPECIFIC QUESTION / SECTION OF THE CHECK LIST

- Q1 For the first few years of applying the Asbestos Management System, AAPs will not be in place prior to identifying work programmes. However, it is the intention that AAPs should be prepared for all assets prior to works being carried out.
- Q2 This information should come from survey results in the AAP (when completed). If this is not available, a presumption should be made that hidden elements may contain asbestos unless strong evidence to the contrary.
- Q4 This applies to surveys and testing work specifically required in advance of identified work which may disturb ACMs. This could include tests on dust and debris to be removed prior to routine maintenance on bearing shelves, etc.
- Q5 This is to ensure that asbestos issues from the register are integrated into CDM processes.
- Q6 Certain works on ACMs require notification to HSE 14 days prior to contractors carrying out work. See HSE guidance and CAR 2006.
- Q7 This is to ensure that asbestos issues are integrated into CDM processes.
- Q8 This is to ensure that asbestos issues are integrated into CDM processes.
- Q10 Occasionally work may uncover ACMs which were totally unexpected. Contractors should be prepared for this situation under their obligations as an employer under CAR 2006 and other Health and Safety legislation.
- Q14 AAPs should be updated by appending a copy of the completed check list where ACMs have been affected or where new ACM information has come to light.
- Q15 Where ACMs have been confirmed, sealed or removed as part of any works, the entry in the appropriate HA database should be amended accordingly.

ANNEX No 5 - PROCESS FOR WORKS FOLLOWING AN EMERGENCY INCIDENT OR FLY TIPPING

SCOPE:

Applies to works necessary after an emergency incident to all asset types. Incident could include collision, road traffic accident, fire, collapse or partial collapse of a structure, embankment/cutting slips after bad weather, etc, where ACM are known to be present or suspected to be present. Also applies to fly tipping which may contain asbestos waste from building materials, etc.

1. Duty officer, Incident Support Unit (ISU) or maintenance contractor's representative, in conjunction with the HA's Traffic Officer's (where HATO's operate), confirms that the emergency services have completed their work and that all necessary general safety measures have been implemented.
2. Emergency services to be consulted to establish if they are aware of any spread of dust which could contain asbestos fibres.
3. AAP owner ensures that any safety measures are maintained in place in conjunction with maintenance contractor and emergency services.
4. Contractor or ISU arranges for any debris which is suspected to contain asbestos and still on the highway, to be removed by a licensed asbestos removal contractor. It should always be presumed that debris does contain ACM and appropriate precautions taken during the clearance work to current asbestos and other health and safety requirements. All necessary paperwork shall be forwarded to the Plan Owner, including consignment notes and other details of material disposed of as Special Waste. Whenever possible, clear up work shall be undertaken before the Police open up the carriageway to traffic.
5. If further work is needed to protect and/or repair the asset, then the work should be treated as planned work and the process to establish the appropriate knowledge of ACMs should be commenced prior to any work being carried out.
6. Results of this process should be fed into AAPs as required by other procedures/flow charts, including the Asbestos Control Check List, which should be completed as required, although it is accepted that not all sections will apply.

ANNEX NO 6 - ASBESTOS SURVEY SPECIFICATION

SUPERSEDED

CONTENTS

- 1.0 Introduction**
- 2.0 Surveying Organisations**
- 3.0 Previous Information**
- 4.0 Risk Assessment**
- 5.0 Access Arrangements**
- 6.0 Scope of Surveys**
- 7.0 Photographs**
- 8.0 Sampling and Testing**
- 9.0 Equipment**
- 10.0 Assessment**
- 11.0 Recommended Action Required**
- 12.0 Asbestos Report**
- 13.0 Bulk Sampling Analysis Report**
- 14.0 Asbestos Register**
- 15.0 Appendix A - Format of Survey Report**
- 16.0 Appendix B - Format of Asbestos Register**

1.0 INTRODUCTION

The Highways Agency is to commission asbestos surveys through its agents and Providers for a large number of their buildings, compounds, associated offices, depots and highway infrastructure assets.

The objective of the surveys is to identify, assess the condition of, and quantify all asbestos containing materials as defined and described in the MDHS 100.

This document, which is to be read in conjunction with MDHS 100, sets out the method to be adopted and the scope of these surveys. It also defines the format of the Asbestos Report, the Bulk Sampling Analysis Report and the Asbestos Register for completion by the surveying Organisation in conjunction with the Provider's Representative.

The asbestos surveys will be Type 1, Type 2 or Type 3 surveys as defined in MDHS 100.

2.0 SURVEYING ORGANISATIONS

The Surveying Organisation carrying out the survey shall be UKAS accredited to ISO 17020.

The surveys shall be carried out by experienced building surveyors or engineers trained in asbestos surveys to at least the standard of the British Occupational Hygiene Society (BOHS) : P402 – Building Surveys and Bulk Sampling.

All surveyors shall have passed the BOHS P402 examination and have demonstrated their competence to prepare acceptable reports, prior to carrying out any surveys.

The Surveying Organisation shall appoint a lead or senior asbestos surveyor to manage and supervise the commission. This person shall ensure that consistency is maintained at all times by the surveying teams engaged on the commission.

The Surveying Organisation shall at all times comply with appropriate health and safety legislation and ensure that its procedures are followed throughout the commission.

3.0 EXISTING INFORMATION

Prior to carrying out the survey, the Provider's Representative will provide the Surveying Organisation with copies of any available relevant information including drawings, previous survey reports, asbestos records or registers.

Where possible, this information shall be reviewed by the Surveying Organisation prior to the survey and record drawings prepared for marking up during the survey in conjunction with the Provider's Representative.

4.0 RISK ASSESSMENT

A risk assessment specific to the property/asset to be surveyed shall be prepared based on existing information and an initial inspection. The risk assessment will take into account the safety of Highways Agency, Provider and surveying staff and any other occupants of the building such as visitors and contractors and shall be recorded using standard forms produced by the Surveying Organisation.

The Surveying Organisation shall produce survey and sampling method statements incorporating the results of risk assessments in advance of carrying out survey work and give a copy to the Provider's Representative.

5.0 ACCESS ARRANGEMENTS

Buildings

The surveyors will be responsible for agreeing access arrangements, through the Provider's Representative, with the manager at each property. Full contact names and addresses will be provided.

At least one week's notice shall be given and appointments be confirmed in writing by the surveyor, giving details of the anticipated duration of the survey and requesting sight of any available records relating to asbestos.

Highways Infrastructure

Because of the nature of working on or near the highway, surveying of roads and bridges, etc., will be carried out under controlled access conditions, including working within traffic management and working at night in certain locations and providing access to electrical/communications items.

The Provider's Representative will be responsible for making access arrangements following discussion with the Surveying Organisation.

The surveying organisation will be accompanied at all times by the Provider's Representative, or nominee, when working on or near the highway.

General

Access equipment will be provided by the Provider's Representative over and above standard three metre folding ladders, which shall be provided by the Surveying Organisation.

The Provider's Representative will arrange for labour required for any excavation work in highways, where Type 3 surveys are required

Surveyors shall carry identity cards at all times and motorway passes issued by the HA. The latter will be arranged by the Provider's Representative.

6.0 SCOPE OF SURVEYS

During the course of the survey, all reasonable efforts shall be made to inspect all normally accessible areas to identify the physical presence of materials suspected of containing asbestos. When safe access is available using specialist equipment such as tower scaffold and mobile elevating work platforms supplied by the Provider's Representative, then this will also be used.

Any other areas that are out of reach will be surveyed remotely using binoculars if necessary. In these cases, where asbestos may be reasonably believed to be present, then the assumption of asbestos being present will be made.

Highways infrastructure

In general, Type 2 surveys will be undertaken to include the surface elements of all the carriageways, verges, central reserves and earthworks features and all visible elements of highway structures including bridges, culverts, gantries, tunnels, viaducts, etc. The Provider's Representative will determine the sequence of survey work in relation to access availability within traffic management in conjunction with the survey teams and whether work will be required at particular times of the day or at night.

Any requirements for Type 3 surveys will be included in the survey order in the event that sampling is required of any buried items on which work is planned, for example bridge deck waterproofing or suspected asbestos cement drains or ducts.

Surveys of electrical equipment in boxes and cabinets will not be required, unless specifically in the Works Order. For Technology assets please refer to the TNAMP document.

Buildings and similar premises

To avoid unnecessary disruption and damage a number of areas may be specifically excluded from the survey order as follows in a) to f), unless type 3 surveys are required:

- a) **Lift shafts/plant/machinery** - Lift shafts, plant rooms, sub-stations or similar, shall be surveyed only where the presence of a specialist engineer for safety reasons is not required. The Surveying Organisation will not be required to take samples of integral components of machinery (e.g. gaskets and rope seals) or other components where this could affect the material's integrity.
- b) **Concealed spaces and voids** - Cavity wall voids or concealed spaces in the fabric of the building will not be surveyed. Where asbestos products are present (e.g. asbestos ceilings), these will not be removed to allow inspection behind them.
- c) **Furniture/fixtures/fittings/carpets etc** Fixtures, fittings, linoleum and carpets etc. will not be removed or lifted.
- d) **Sub-surface material** - To minimise damage to the fabric of the building, sub-surface examinations of walls, floors (such as concrete materials) and ceilings will not be carried out.
- e) **Live electrical equipment** - Samples will not be taken where the act of sampling would endanger the surveyor, or affect the functional integrity of a safety feature, e.g. fire breaks, seals etc. Electrical fuse boxes will not be opened and Technology assets are covered in the TNAMP document.
- f) **Excluded Items** - The survey will not include, bitumen roof felts, other bitumen products, damp proof course, paints, mastics, sealants and putties. All these materials may contain small amounts of asbestos, but do not normally present a hazard during normal occupation. The survey will not extend to sampling dust deposits to look for asbestos contamination from previous asbestos removal work.

Certain items by their nature should be assumed to have an asbestos content, for example fire doors, fuses to electrical boxes, gaskets, ropes associated with heating or power plant.

Particular difficulties are often associated with areas where ad-hoc alteration and refurbishment have previously been carried out, and where asbestos may be hidden behind cladding materials. Asbestos is also frequently concealed within the fabric of buildings within sealed voids, as shuttering etc. it is therefore possible that further asbestos containing materials may be found, particularly during electrical rewiring, heating installations and other refurbishment or demolition works.

It should be noted that Type 3 surveys will be commissioned where considered appropriate by the Provider's Representative, particularly in the areas covered by (a) to (f) above.

7.0 PHOTOGRAPHS

Photographs shall be taken to show examples of all situations in which asbestos is suspected and specifically of each sampling location. Repeat photographs of numerous identical situations will not be necessary.

Photographs should be cross-referenced to the survey results table with a unique reference system. Photograph labelling will clearly identify the building/location at which the photograph was taken.

All photographs will be in landscape format.

8.0 SAMPLING AND TESTING

Prior to carrying out any sampling, a risk assessment shall be undertaken by the Surveying Organisation for the specific location. For buildings, this shall take into account the use and occupancy of the room or other internal space, the nature of the product being sampled and access requirements.

Warning signs "Asbestos Sampling – Keep Clear" may be erected and protective sheeting laid below the sample area where reasonably practicable or in occupied areas.

Samples of about 3 to 5 cm² shall be taken of all different products potentially containing asbestos as follows, based on Asbestos and Man-made Mineral Fibres in Buildings – Practical Guidance published by DETR:

- Spray Coating** - one sample per 10-15 m² or in installations of greater than 100m² - one per 25 - 30 m².
- Lagging** - one sample per three metre run of pipe or for longer pipe runs (over 20 metres in length) –one per six metres.
- For boiler and calorifiers** - two samples per unit.
- Insulating Board** - one sample per type of product or panel or where, large numbers of apparently identical panels have

been used in an area, then 2 or 3 samples should be taken.

Asbestos Cement - as insulating board

Other Materials - one sample from each type of product.

Detailed recommendations on safe methods of sampling described in MDHS 100 shall be rigorously followed.

After each sample has been taken, the damaged area should be sealed using tape or sprayed EVA to prevent escape of fibres. Any debris created shall be removed by wet-wipe and placed in double sealed bagging for safe disposal.

In the event of unforeseen or accidental release of excessive debris, above what would normally be expected for taking samples, the surveyor will:

- Evacuate immediate area, and inform client contact;
- Ensure isolation of area and restrict entry to authorised persons;
- Arrange with a licensed contractor to carry out clean up and subsequent air monitoring.

The sample location shall be labelled and photographed. A record shall be made on the report results table of the location and the sample identifier.

Samples shall be individually bagged and labelled to identify:

- Building/asset
- Location
- Sample identifier

Testing of samples shall be undertaken by organisations accredited to ISO 17025 by UKAS.

9.0 EQUIPMENT

All necessary equipment, including ladders, tools, PPE, sampling materials, consumables, etc., shall be provided by the Surveying Organisation, with the exception of the access equipment in section 5.

10.0 ASSESSMENT

The risk from asbestos shall be based on a visual assessment of the material and a judgement on the use of the location, based on the following criteria in MDHS 100:

- Product Type
- Asbestos Type
- Damage / Deterioration
- Surface Treatment

Using the material assessment algorithm from MDHS 100, reproduced on the next page, the potential for fibre release, if disturbed, shall be assessed as follows:

Assessment score	Potential for fibre release
10+	High Potential
7-9	Medium Potential
5-6	Low Potential
<4	Very Low Potential

SUPERSEDED

MATERIAL ASSESSMENT ALGORITHM

POTENTIAL FOR ASBESTOS FIBRE RELEASE (Taken from MDHS100)			
Product type (or debris from product)	Score	Asbestos type	Score
Asbestos-reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc).	1	Chrysotile (White)	1
Asbestos insulating board, mill boards, other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.	2	Amosite (Brown)	2
Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.	3	Crocidolite (Blue)	3
Extent of damage / deterioration	Score	Surface treatment	Score
Good condition: no visible damage	0	Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles.	0
Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.	1	Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), asbestos cement sheets etc.	1
Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2	Unsealed AIB, or encapsulated lagging and sprays.	2
High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris.	3	Unsealed lagging and sprays.	3

Assessment Score

Circle the relevant boxes above and add scores to determine the overall Assessment Score

Presumed or strongly presumed asbestos containing materials are scored as crocidolite 3

11.0 RECOMMENDED ACTION REQUIRED

Three options are outlined in MDHS 100 where asbestos products containing asbestos are identified to be present in the building:

- a) Management of existing asbestos. If the asbestos is in good condition and well sealed it may be left in place and an appropriate management control system set up. This may include:
 - A log which is maintained and kept up-to-date
 - Information, instruction and training of staff
 - Regular inspection and maintenance
 - A permit to work system
- b) Sealing, repair or encapsulation. If it is likely that any asbestos-based materials may release fibres, particularly where the material is damaged or is likely to be disturbed or abraded then the material must be treated.

Sealing involves the application of a coating (paint, polymeric, cement etc.) which must firmly bond to the asbestos material.

Repair involves filling of cracks, patching, encapsulation or cladding with sheet materials

- c) Removal. Where there is a risk that fibres may be released and it is not practical to seal or repair the area then asbestos material must be removed by an approved contractor.

These are not mutually exclusive as, for example, management of existing asbestos will be required where asbestos is left in place or before it is removed.

The material assessment should identify the high-risk materials, that is, those which will most readily release airborne fibres if disturbed. It does not automatically follow that those materials assigned the highest rating in the material assessment will be the materials that should be given priority for remedial action. Priority must be determined by carrying out a risk assessment which will take into account factors such as:

- The location of the material
- Its extent
- The use to which the location is put
- The occupancy of the area
- The activities carried on in the area
- The likelihood/frequency with which maintenance activities are likely to take place.

Recommendations for action on known or presumed asbestos containing materials shall be based on the material assessment and the judgement of the surveyor who shall take into account the above factors as known at the time of presenting the report.

Consultation with the Provider's Representative will be necessary in respect of the potential activity/disturbance for highway infrastructure assets.

Outline guidance on the selection of the most appropriate option is given in the table below, although the surveyor must ultimately base recommendations on his or her risk assessment, the assessment score of the product and the results of consultation with the Provider's Representative.

Recommended Actions

Assessment Score	Product	Low chance of disturbance	Normal	High chance of disturbance	Planned Refurb./ Demolition
<4	All	M	M	M	R
5-6	Asbestos-reinforced composites	M	S	S	R
	Asbestos insulating board other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.	M	S	S	R
	Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.	S	S/R	R	R
7-9	Asbestos-reinforced composites	M	S	S	R
	Asbestos insulating board other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.	M	S/R	R	R
	Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.	S	R	R	R
10+	Asbestos-reinforced composites	S	S	R	R
	Asbestos insulating board other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.	R	R	R	R
	Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.	R	R	R	R

M = manage S = seal and then manage R = remove

12.0 ASBESTOS SURVEY REPORT

A detailed individual report for each building/asset shall be prepared in the format and with the contents shown in Appendix A as agreed with the Provider's Representative.

The objective of this report is to provide a comprehensive record of the type, extent and condition of any asbestos containing products. It shall also contain recommendations which will form part of the future management of asbestos containing materials identified. It shall also contain those elements of the asset known or presumed not to contain ACM.

This information shall preferably be shown on drawings where these are available, or by detailed description supplemented by sketches where drawings are not available. Areas excluded from the survey shall also be clearly identified.

13.0 BULK SAMPLING ANALYSIS REPORT

The Bulk Sampling Analysis Report shall be referred to in the Asbestos Report and should contain the following information:

- The name, address and accreditation number of the laboratory that carried out the testing
- The analysis method used
- The address/location of the asset
- A table summarising the results of the analysis including asbestos found or not found and types identified, by sample unique identifier for all samples
- Dates that the analysis was carried out
- Names and signatures of the analyst and any countersigning person

14.0 ASBESTOS REGISTER

The Surveying Organisation shall provide an asbestos register which shall contain the following information to a format to be agreed with the Provider's Representative, based on the schedule in Appendix B:

- Building/asset name and address/location/ reference
- Area
- Location
- Component/element of the asset
- Sample reference
- Material assessment score
- Remarks
- Proposed action
- Reasons for presumption of asbestos-containing materials
- Reasons for assumption of non asbestos-containing materials

It shall be based on an Access database and will be readily updateable.

APPENDIX A – FORMAT AND CONTENTS OF SURVEY REPORTS

1. INTRODUCTION

- 1.1 General objectives, specification, date of survey
- 1.2 Asset description
- 1.3 Scope
- 1.4 Agreed variations to specification
- 1.5 Available information inspected before survey

2. SURVEY RESULTS

- 2.1 Detailed results of survey, sampling, testing etc.
- 2.2 Material assessment scores
- 2.3 Laboratory used, with relevant details

3. SUMMARY OF FINDINGS AND RECOMMENDATIONS

APPENDICES

- 1 Detailed test results including photographs
- 2 Drawings/sketches
- 3 Analysis reports

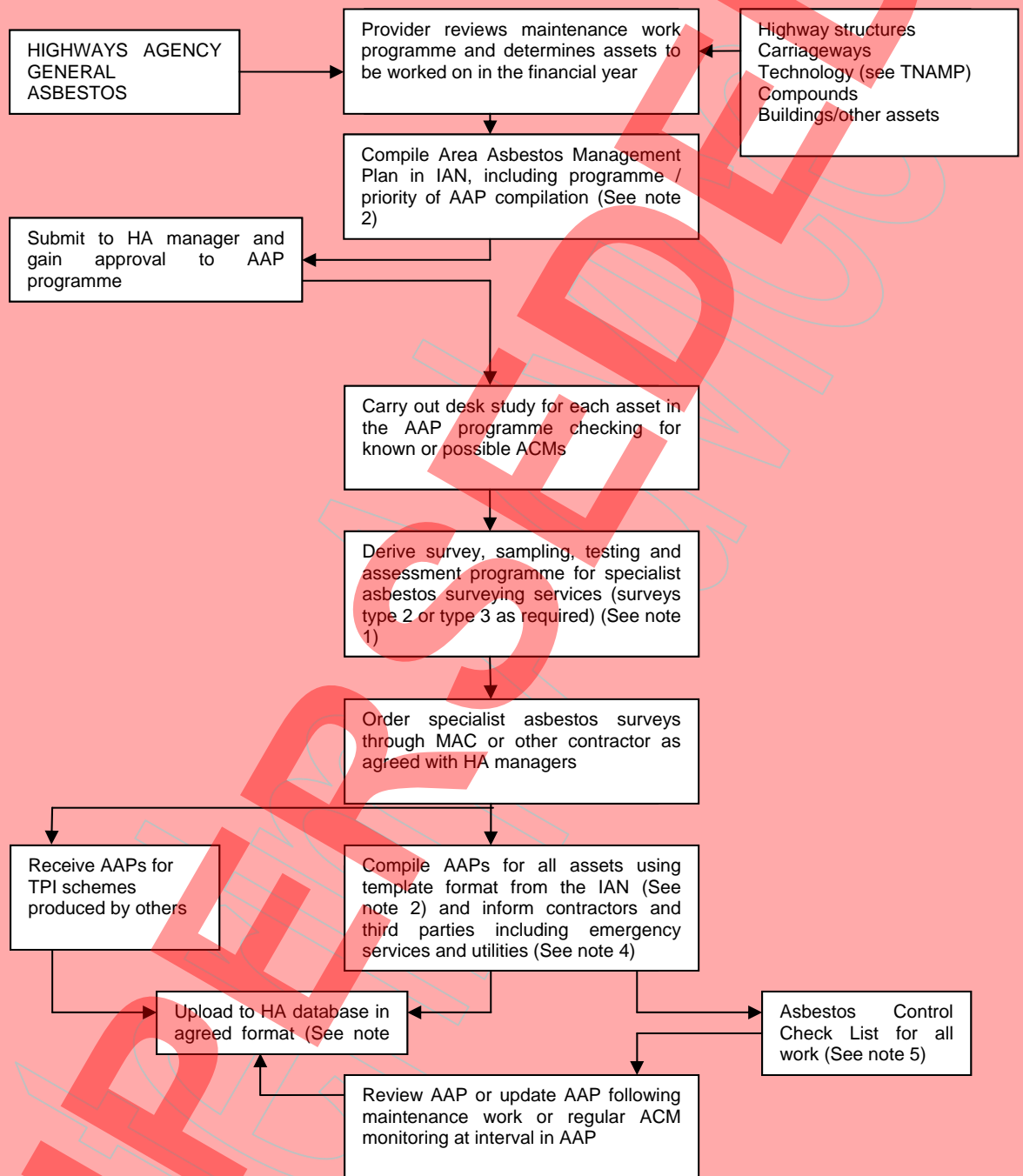
APPENDIX B –FORMAT OF REGISTER

Example attached

ASSET NAME				[Insert]							ASBESTOS RISK REGISTER	
ASSET DESCRIPTION AND REFERENCE				[Insert]								
Section	Location Building name Element name	Component Name / Description	Other reference	Survey Type 1, 2 or 3	Sample Ref	Positive test for ACM (For Section 1)	Material Assessment Score (MDHS100 refers)	Rating for disturbance during maintenance Low, Medium, High	Actions necessary - A, B, C or D	Photo ref	Grounds for presumed ACM (Section 2)	Grounds for presumed non-ACM (Section 3)
Section 1 known ACMs	<u>Egs</u> Deck Spans	Permanent soffit formwork	-	2	123/45	Yes	3	L	B – Manage	123/45		
	Salt Barn	Roofing	-	2	123/56	Yes	5	M	C – Repair and manage	123/56		
	Street lighting duct chambers	Chamber covers	-	2	123/67	Yes	5	H	D – remove and replace with non ACM	123/67		
Section 2 Presumed ACMs	<u>Egs</u> Abutment – east	Joint filler board	-	-			6	M if joint replaced	B – Manage; Type 3 survey if to be disturbed	-	No records, age of structure 1970	
	Office Block	Roof insulation	-	2 only			5	M if void entered	B – Manage; Type 3 survey if to be disturbed	-	Drawings	
Section 3 Presumed Non ACMs or confirmed non ACMs	<u>Egs</u> Office block walls	All faces to building	-	2					A	-		Brickwork
	Parapets	East and west	-	2					A	-		Steelwork

ASSET NAME				[Insert]							ASBESTOS RISK REGISTER	
ASSET DESCRIPTION AND REFERENCE				[Insert]								
Section	Location Building name Element name	Component Name / Description	Other reference	Survey Type 1, 2 or 3	Sample Ref	Positive test for ACM (For Section 1)	Material Assessme nt Score (MDHS100 refers)	Rating for disturbance during maintenance Low, Medium, High	Actions necessary - A, B, C or D	Photo ref	Grounds for presumed ACM (Section 2)	Grounds for presumed non- ACM (Section 3)
following tests	Piers All decks	All Waterproofing system	- -	2 -					A A	- -		Reinforced concrete Replaced in 2002 as maintenance scheme

**ANNEX NO 7 – ASBESTOS MANAGEMENT FOR ALL MAINTENANCE WORK (SCHEMES, COMPOUNDS AND OTHER BUILDINGS).
 FLOW CHART NO 1 - PRODUCTION OF AREA ASBESTOS MANAGEMENT PLANS (AAMP) AND ASBESTOS ACTION PLANS (AAP)**

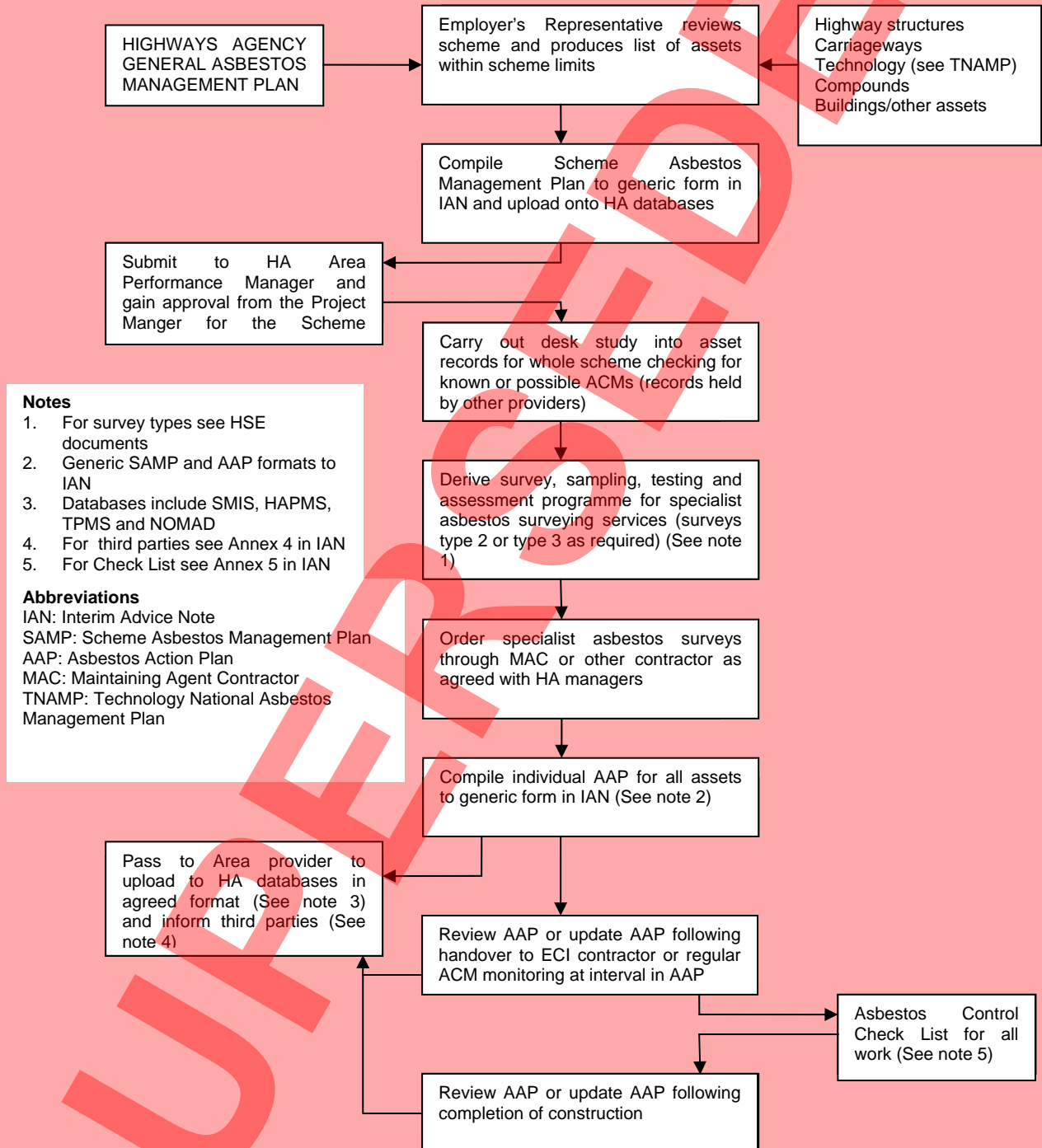


- Notes**
1. For survey types see HSE documents
 2. Generic AAMP and AAP formats to IAN
 3. Databases include SMIS, HAPMS, and TPMS

- Abbreviations**
- IAN: Interim Advice Note
 - AAP: Asbestos Action Plan
 - MAC: Maintaining Agent Contractor
 - TNAMP: Technology National Asbestos Management Plan
 - TRAMP: Technology Regional Asbestos Management Plan

Technology Assets are outside the scope of this document and can be found in the TNAMP and TRAMPs.

**ANNEX NO 8 – ASBESTOS MANAGEMENT FOR MAJOR SCHEMES (ASSUMES ECI PROCUREMENT)
 FLOW CHART NO 2 - PRODUCTION OF SCHEME MANAGEMENT PLANS (SAMP) AND ASBESTOS
 ACTION PLANS (AAP)**



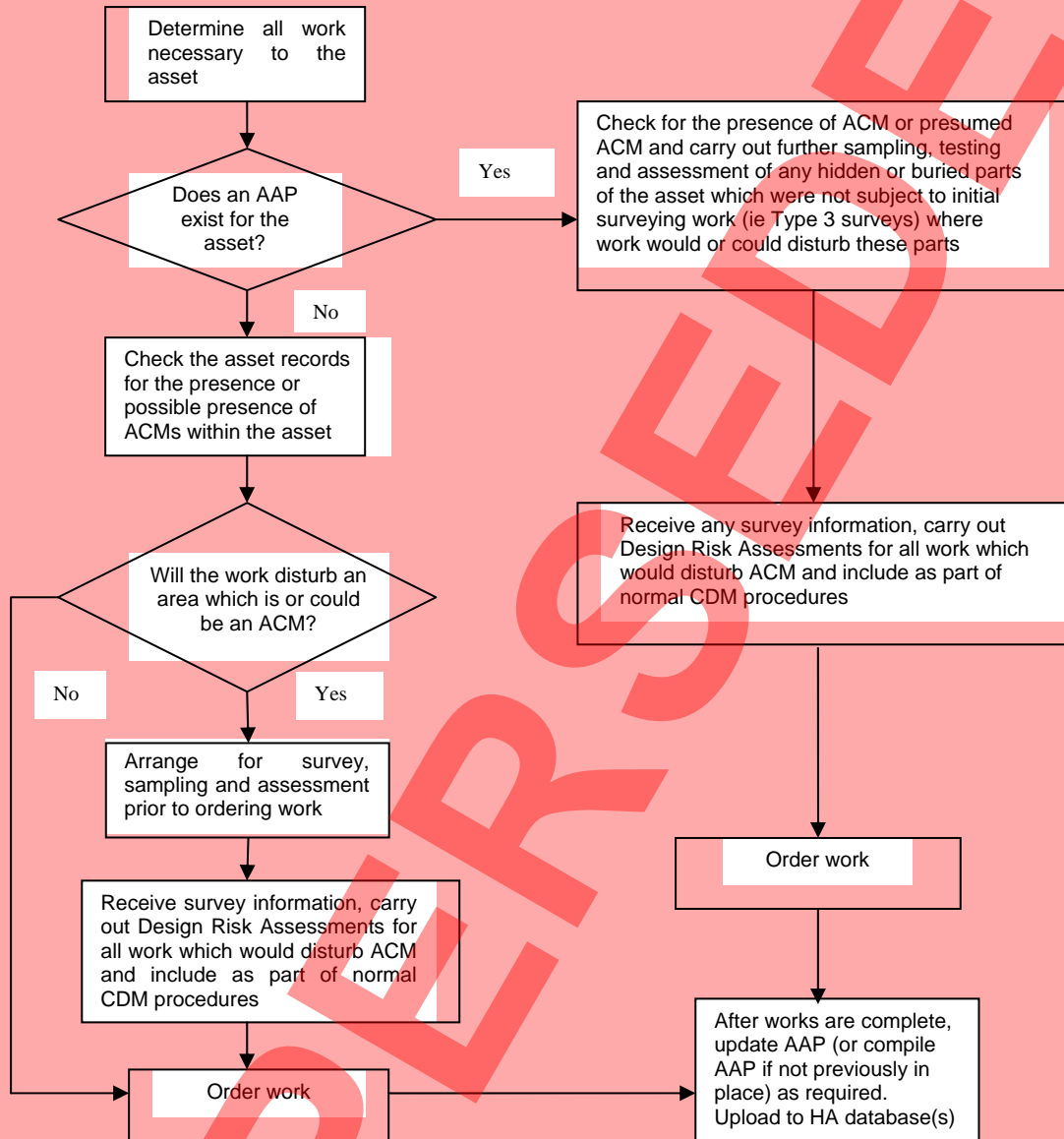
Notes

1. For survey types see HSE documents
2. Generic SAMP and AAP formats to IAN
3. Databases include SMIS, HAPMS, TPMS and NOMAD
4. For third parties see Annex 4 in IAN
5. For Check List see Annex 5 in IAN

Abbreviations

IAN: Interim Advice Note
 SAMP: Scheme Asbestos Management Plan
 AAP: Asbestos Action Plan
 MAC: Maintaining Agent Contractor
 TNAMP: Technology National Asbestos Management Plan

ANNEX NO 9 – FLOW CHART NO 3 - FOR ASBESTOS MANAGEMENT OF ALL MAINTENANCE WORK, MAJOR SCHEMES (INCLUDING ROUTINE MAINTENANCE, BRIDGE INSPECTIONS AND MISCELLANEOUS SURVEYS/INVESTIGATIONS (See Note 3)



Notes

1. Without specific knowledge, ACM must be presumed to be present in the absence of test results following surveying and sampling.
2. Materials known to be concrete, steel, aluminium, brick, timber, stone or bituminous pavement can be assumed to be asbestos free.
3. For TPI schemes, it is assumed that an AAP is in place prior to the ECI contractor carrying out Design Risk Assessments.
4. The Asbestos Control Check List must be used in conjunction with this chart.

Abbreviations

AAP: Asbestos Action Plan
 ACM: Asbestos Containing Material
 CDM: Construction (Design and Management) Regulations 2007

ANNEX No 10 EXAMPLES OF ASBESTOS CONTAINING MATERIALS DISCOVERED IN HIGHWAY INFRASTRUCTURE

1. Asbestos filler board was found unexpectedly as a joint filler between the end of an infill concrete/precast beam deck and an insitu reinforced concrete ballast wall on a highway structure. The bridge was built in the 1960's and few, if any drawings of the deck construction had survived. During testing operations associated with the bridge assessment process, the board was found after breaking out a section of the ballast wall to view the ends of the precast beams. Fortunately the testing contractor noticed the material and took appropriate measures to avoid exposure to asbestos fibres.
2. Asbestos cement ducts and chambers were noted on walk over surveys for a street lighting renewal contract on a dual carriageway in the midlands. The ducts ran along the central reservation and chambers which had previously been damaged had been covered with temporary concrete slab covers. When work proceeds a decision will have to be made as to whether the whole system should be replaced with non asbestos containing materials as part of the scheme.
3. Asbestos cement surface water drainage pipes were found during drainage renewal work on a late 1970's dual carriageway. At that time, pipe material choices in the Specification gave Contractors the option to use AC pipes. Most contractors sourced up to around 300 diameter pipes in SGW material, 375 to 525 diameter pipes in AC material and over 600 diameter in concrete. Construction drawings show line and level, but not materials.
4. Asbestos cement sheet materials were found in service bays of M1 Bridges built in the 1960's. The material had been used to create a drainage path in deep service bays along the bridge deck cantilevers. A removal process has been ongoing in order to completely replace the material within a programme of deck refurbishment works.