

*** ABLOADS *** and Highway Structures Management

*This document reproduces the text of Chapter 8 and Appendix N of 'Management of Highway Structures – A Code of Practice', with italicised comments setting out how a typical Highway Bridge Authority utilising *** ABLOADS *** responds to their requirements.*

Management of Highway Structures

Section 8

Management of Abnormal Loads

This section gives recommendations for the management of abnormal indivisible loads on highways. Key features of alternative systems that could be used for assessing the suitability of notified vehicles for crossing the structures on the proposed route are summarised. Guidance is also given on the approach to be used for managing Special Order vehicle movements.

8.1 PURPOSE

- 8.1.1 The movement of abnormal loads on highways needs to be carefully managed so that large and heavy vehicles only use those parts of the road network that can safely accommodate them.
- 8.1.2 In this context an abnormal load is considered to be a vehicle that is outside the classification of normal permitted traffic by virtue of its gross weight, length, width or axle configuration according to current road vehicle regulations.

8.2 RESPONSIBLE PARTIES

- 8.2.1 The management of abnormal loads requires coordination between three particular roles defined as below. These roles are normally carried out by three different people, however in a smaller highway authority these may be performed by the same person.

1. **Abnormal Loads Officer** - the person responsible, within the Authority, for receiving notifications of movements from hauliers, ensuring that such notifications are assessed and that the haulier is advised if there is any reason why a proposed movement should not take place.

*The Operator currently logged on to operate the *** ABLOADS *** system is deemed to be the Abnormal Loads Officer for the time being.*

2. **Structures Advisor** - a chartered civil or structural engineer within the bridge management organisation, to whom the Abnormal Loads Officer should refer decisions relating to vehicle movements which fall outside the agreed guidelines which otherwise determine whether or not particular vehicle movements should be accepted.

*The Supervisory Engineer currently available to the *** ABLOADS *** Operator is deemed to be the Structures Advisor for the time being.*

3. **Road Space Coordinator** - the person responsible within the relevant highway authority for the coordination of all traffic management on the highway network. This responsibility usually includes all planned highway work, including the booking of road space for utility companies and other external parties. Where appropriate this role may be performed by the Traffic Manager (see Section 2.13).

*The *** ABLOADS *** System provides facilities for an Abnormal Loads Manager and several Road Space Co-ordinators to be automatically notified of proposed abnormal load movements which exceed certain threshold or other criteria.*

8.3 REQUIREMENTS

- 8.3.1 All owners or managers of highway structures should establish and maintain a system to receive notifications from hauliers in respect of abnormal load movements. The system should enable hauliers to be advised within the statutory time limits if there is any reason why the movement should not proceed.

*The *** ABLOADS *** System provides this service.*

- 8.3.2 The system should clearly identify the Abnormal Loads Officer, for responding to movement notifications and the circumstances under which they should seek the authority of the Structures Advisor, to determine the appropriate response. In some cases, advice should also be sought from the Road Space Coordinator on special traffic management or other physical restrictions that may be in place along the route. Depending on the size of the structures stock and the level of abnormal vehicle movements, one or more of these roles may be performed by the same person.

*The *** ABLOADS *** System has three levels of operation, which permit increasing flexibility of response. These levels are Level 1 – Operator, Level 2 – Supervisory Engineer and Level 3 – ‘Design Office’. If the Supervisory Engineer in his capacity as Structures Advisor cannot resolve a problem referred to him by the Operator, then he refers it to the ‘Design Office’. Because low weight notifications detailing other physical restrictions are only legally notified to the police authority, the *** ABLOADS *** System currently makes response on traffic issues only in respect of movements notified to it. It always makes a positive response to a haulier if his notifiable vehicle is too high for a bridge on his route. It also provides for various mandatory and informatory restrictions, time delimited if applicable, to be related to particular lengths of road and notified to hauliers.*

- 8.3.3 The suitability of a specific abnormal load to cross a particular structure (if not already known) should be checked broadly in accordance with the procedures recommended in Annex D of *BD86 The Assessment of Highway Bridges and Structures for the Effects of Special Types General Order (STGO) and Special Order (SO) Vehicles [1]*.

*The *** ABLOADS *** System checking engine is based on comparing the effects of the assessed load capacity of a structure in terms of Assessment Live Loading and, if available, HB rating with the effects of the arrangement of vehicle axles notified, utilising the provisions of *BD21*. A future upgrade is planned to incorporate additionally the assessed load capacity in accordance with *BD86*.*

8.4 BASIS AND PRINCIPLES

- 8.4.1 The movement of abnormal loads should be managed in such a way as to ensure that the load effects induced by the abnormal loads do not exceed the load bearing capacity of structures on the route.

*This is the principle on which the *** ABLOADS *** checking engine is based.*

- 8.4.2 Additionally, the suitability of the abnormal load to travel along the proposed route should be checked by the haulier in relation to any height restrictions from overbridges and restrictions on manoeuvrability along narrow roads and sharp bends etc. The highway and bridge authorities should also warn the haulier if they are aware, from the information received, that there could be potential problems.

*The *** ABLOADS *** System makes it clear in any response to a haulier that any route is his responsibility and that he should survey a route before carrying out a movement.*

- 8.4.3 In certain cases, e.g. vehicles wider than the traffic lane, abnormal loads should be escorted to provide appropriate warning to other traffic. This may not strictly be a bridge management issue, but the Abnormal Loads Officer should ensure that this information reaches the relevant Road Space Coordinator. Escorting may be undertaken by the police or by the haulier concerned as allowed for in the Code of Practice - *Self Escorting of Abnormal Loads and Abnormal Vehicles* [2].

*The *** ABLOADS *** System operates as a notification management and bridge checking system and also checks bridge clearances where appropriate. The thresholds facility notifies Road Space Co-ordinators and other officers if various physical parameters are exceeded by a notified vehicle. The restrictions facility conversely notifies hauliers of any mandatory or advisory restrictions which may affect his notified movement. The Police Abnormal Loads Officer, who has traditionally undertaken many of these functions, is also kept informed: *** ABLOADS *** provides for all outgoing communications to hauliers to be copied to the police.*

- 8.4.4 Where an initial assessment shows that the load effects induced by an abnormal load marginally exceed the capacity of a bridge on the route, it may be possible for the abnormal load to safely cross the bridge provided the speed of the vehicle is restricted and other normal traffic is kept clear of the the bridge when the abnormal load crosses it. Checks for such situations can be made in accordance with the procedures given in Annex D of BD 86 [1].

**** ABLOADS *** provides for rechecks to be made on span type bridges under these restricted conditions, and if the recheck resolves the problem the haulier is notified of the restrictions to be observed.*

- 8.4.5 To process the notifications efficiently and effectively, where large numbers of General Order abnormal load notifications are received each day, it may be appropriate to appoint as an Abnormal Loads Officer a person who can who can perform initial screening of vehicle notifications using information on vehicle height, gross weight and/or axle weights. Where a decision is difficult, the notification should be referred to the Structures Adviser.

*Using the *** ABLOADS *** System enables quite large numbers of notifications to be fully and automatically processed. However, the System allows the Operator to enter some simple notifications, which he is aware pose no problem, as 'empty' movements. This reduces the time required to deal with a notification from a few minutes to a few seconds, but maintains a record of the notification within the system which can be returned to later if necessary.*

- 8.4.6 The highway authority or manager of a stock of structures may employ either a simple manual process or an automated system to process abnormal load notifications, depending on the number of notifications received each day.

*The *** ABLOADS *** System becomes more effective at higher numbers of daily notifications.*

8.5 RECOMMENDED REGIME FOR MANAGING ABNORMAL LOADS

General Order Vehicles

- 8.5.1 Regulatory limits on gross weight, axle weight and axle configurations of various categories of abnormal loads and their notification requirements are summarised in Appendix N.
- 8.5.2 As a minimum, records in the form of registers of haulier insurance indemnities and vehicle movement notifications should be maintained.

**** ABLOADS *** maintains full records of annual and specific movement indemnities, and full details of all notifications entered by the Operator. It also contains convenient facilities for generating annual indemnity reminders to hauliers and updating them on receipt.*

- 8.5.3 In respect of each notification, the following information should be advised to and retained by the Authority:

1. Date notification received.

2. Name of haulier.
3. Date of planned movement.
4. Expiry date of relevant indemnity (which may be valid for a full year or for a specific movement).
5. Key features of route.
6. Gross weight of vehicle.
7. Axle weights and spacings.
8. Width of vehicle.
9. Length of vehicle.
10. Height of vehicle.
11. Either acceptance of notification or date of response and reasons given for rejection.

*These requirements up to 10 are some of those required to be provided by the haulier under the 2003 Special Order. *** ABLOADS *** facilitates input of and maintains all the data required by the Order, together with records of all actions taken by the program during the management and checking process and all communications by fax and email.*

8.5.4 A classification system should be established with respect to appropriate ranges of weights, widths and lengths to aid the basic decision making process as to whether a movement notification can be accepted, or if there is an inadequacy along the route of which the haulier should be advised.

**** ABLOADS *** provides a system of default checking where adequate structure data is not available.*

8.5.5 The complexity of an appropriate system for a particular road network may vary between the elementary and advanced systems outlined in Section 8.6 below. Therefore, the system should be reviewed regularly to ensure that it remains appropriate. The following should be considered:

1. The strategic importance of the highway route(s) which cross the bridges concerned.
2. The known capacities of the bridges and the deterioration/damage found through inspection/testing.
3. The number and size of abnormal loads which regularly use the route(s).
4. Instances of traffic disruption or accidents caused by the movement of certain types of abnormal loads.

**** ABLOADS *** is an advanced system which obviates the need for these considerations.*

8.5.6 It should be noted that there is no obligation on hauliers to notify the bridge authority of high vehicles where their gross weight, length, width and axle weight comply with the regulations.

Where a notification is made to a bridge authority for weight reasons there is a requirement in the Order to specify all vehicle dimensions including height.

Special Order Vehicles

8.5.7 Special Order vehicles are those which exceed any of the regulatory weight and dimension limits for General Order vehicles, see Appendix N.

8.5.8 Special Order and VR1 (specific General Order type vehicle) loads require written permission from the Highways Agency (acting on behalf of the Secretary of State) for movements in England, Scotland and Wales or the equivalent governing body in Northern Ireland, hereafter referred to as the relevant controlling body.

8.5.9 Apart from meeting the above requirement, Special Order vehicles should be managed in a similar manner to General Order vehicles except that agreements relating to the movement should be in

place before the Order is issued. There are no statutory time limits for Authorities to respond to Special Order vehicle notifications. However, written responses should normally be sent to the relevant controlling body within 5 to 10 days. Where this is not practicable, the relevant controlling body should be advised accordingly.

**** ABLOADS *** deals with Special Order movements twice, once when notified by the Highways Agency in advance and later when notified by the actual haulier prior to carrying out the movement.*

8.6 PROCESS FOR MANAGING ABNORMAL LOADS

8.6.1 The process of managing abnormal loads normally uses either an Elementary System or an Advanced System. A system called ESDAL is being developed for the centralised processing of abnormal load movements in the UK. The key features of these systems are summarised below:

**** ABLOADS *** provides the requirements of an advanced system. As proposed, ESDAL is a voluntary system which some hauliers may choose to utilise. It is currently several years behind programme.*

Key features of an Elementary System

8.6.2 Notifications are generally received by letter or fax.

8.6.3 Upon receipt, the Abnormal Loads Officer should check that the route of the notified movement actually includes sections of the route(s) for which the authority is responsible. Relevant movements should then be entered onto an abnormal loads register (ideally electronic). The absolute minimum requirement would be to keep the annotated original notification, but an electronic register

8.6.4 The Abnormal Loads Officer should check whether the haulier has provided a current indemnity. If the haulier has not provided an indemnity, the Abnormal Loads Officer should contact the haulier to request the indemnity. If a copy of the indemnity is not faxed by return, a faxed notification refusal should be sent

8.6.5 The Abnormal Loads Officer should refer to a procedural guidance schedule to check that the load details above certain thresholds are notified to others as appropriate. An example of a procedural guidance schedule is shown in Table 8.1 and this can be customised to an individual authority's requirements.

| | From | To | Class | Action |
|--------|---------|----------|-------|------------------------------------------------------------|
| Width | 0 | 3.0 m | | |
| | 3.0 m | 5.0m | WdA | |
| | 5.0 m | 6.1 m | WdB | * Notify Road Space Co-ordinator |
| | 6.1 m | | WdC | Notify Road Space Co-ordinator |
| Length | 0 | 18.75 m | | |
| | 18.75 m | 30.0 m | LgA | |
| | 30.0 m | | LgB | Notify Road Space Co-ordinator |
| Weight | 44 t | 80 t | WtA | |
| | 80 t | 150 t | WtB | Notify Structures Advisor of loads at or exceeding [100 t] |
| | 150 t | | WtC | Notify Road Space Co-ordinator and Structures Advisor |
| Axle | 0 | [20 t] | | |
| | [20 t] | | | Notify Road Space Co-ordinator and Structures Advisor |
| Height | 0 | 5.03 m | | |
| | 5.03 m | [6.25] m | | * Notify Road Space Co-ordinator and Structures Advisor |

*The *** ABLOADS *** thresholds facility provides for the Abnormal Loads Officer, the Structures Advisor, an additional Abnormal Loads Manager and several Road Space Co-ordinator to be designated with their contact details. Width, length, height, weight and axle weight limits can be set up, and if these are exceeded the program automatically notifies the specified officers, accompanied by full details of the haulier's notification.*

Notes for Table 8.1

1. Figures shown in square brackets [] should be defined for the relevant routes.

2. WdA, WdB, WdC, LgA, LgB, WtA, WtB, WtC are recommended classifications.
3. Other figures shown represent limiting dimensions within the rules governing General Order Vehicles (see Appendix N).
4. * These width and height limits will only be notified to the relevant authority for notifications primarily made in respect of weight limits.
5. The actual vehicle widths to be reported to the Road Space Co-ordinator should again be defined for the relevant routes.
- 8.6.6 If the load details do not require referral to other staff, the Abnormal Loads Officer will process the movement directly. Each movement is ticked on the register and/or annotated on the original notification, and the notification is initialled, dated and filed on a discrete file in date order.
- 8.6.7 If the notification is referred to the nominated Structures Advisor for review, the Structures Advisor will check the notification and determine whether the route is acceptable for the load. If so, the Structures Advisor will notify the Abnormal Loads Officer and provide a written record of the decision. The Abnormal Loads Officer will then initial, date and file the notification.
- 8.6.8 If the route is inadequate, the Structures Advisor will confirm this to the Abnormal Loads Officer who will contact the haulier by telephone to advise of the inadequacy and confirm by issue of a fax. The notification will then be marked 'rejected', and initialled, dated and filed.
- 8.6.9 In making their decision, the Structures Advisor should make use of any available database defining capacities of individual structures and of records and knowledge of historic information of similar vehicle movements.
- 8.6.10 For General Order Vehicles, a detailed assessment of individual structures is seldom required.

Key Features of an Advanced System

- 8.6.11 An Advanced System employs a semi-automated comparison between the structural effects of the notified load(s) and the design or the assessed capacity of the structure.

*As described previously, the *** ABLOADS *** checking engine is indeed based on comparative checking of the effects of the assessed capacity loadings and those of the notified vehicle's arrangement of axles.*

- 8.6.12 An Advanced System may use lane influence lines, either based on typical spans or on critical influence lines obtained for specific structures at assessment.

*Where structure data is available all *** ABLOADS *** checks relate to the specific structure. Span bridges are checked using a runtime version of Cascade's *** ANALYSE *** software. Masonry arches, which form much of a typical authority's bridge stock and from which many problem bridges are drawn, are not mentioned here, but *** ABLOADS *** checks them comprehensively using Cascade's *** ARCH *** software. Where structure data is not available *** ABLOADS *** uses a default check based on road classification and HB rating.*

- 8.6.13 Such an Advanced System requires a significant amount of data defining the locations of individual structures on specific routes together with their structural load bearing capacities.

*The better the data available the more comprehensive the checking that *** ABLOADS *** is able to perform. QA procedures should be instituted for keeping *** ABLOADS *** data updated whenever changes are made.*

- 8.6.14 An Advanced System also requires additional processing effort due to the time required to define the detailed axle configuration of notified vehicles. Consequently, such a system benefits from an initial screening process to determine which vehicles should be processed through the full system.

*Time is not a consideration when a computer-based management and checking system such as *** ABLOADS *** is utilised, and therefore an initial screening process is not required.*

- 8.6.14 An Advanced System is therefore relatively expensive to implement and is only likely to be appropriate for areas that include major routes with a significant number of abnormal load movements each year.

*An advanced system such as *** ABLOADS *** requires a one-off investment in software and setup, but thereafter the time and resources required for operation are less than that of any other advanced system.*

8.6.15 However, an Advanced System can significantly reduce the number of notifications that have to be referred to the Structural Advisor.

*With adequate data, the *** ABLOADS *** checking engine should reduce the number of referred notifications in a typical large bridge authority to less than 5 a month, and almost all of these can be decided without significant investment of engineer resources.*

The ESDAL System

8.6.17 ESDAL or the Electronic Service Delivery for Abnormal Loads is a national system being developed by the Highways Agency. When fully implemented, it should include many of the features of an Advanced System as described above.

The much delayed ESDAL system will initially assist hauliers to direct their notifications correctly, and in later stages it will take over the routing of notifications directly to bridge authorities and, where it has appropriate structure data, will carry out indicative bridge checking.

It will, however, not be compulsory for hauliers to use ESDAL, and present indications are that only a possibly quite small proportion of abnormal load notifications will be routed through it. Bridge authorities will continue to retain responsibility for notifying hauliers not to cross particular structures, and they will therefore need to maintain a management and checking system which deals with both notifications received directly and those received through ESDAL.

8.6.18 ESDAL is intended to centralise future abnormal load vehicle notifications and provide some initial screening of route to assist hauliers in route planning. ESDAL will undertake four principal tasks:

1. Offer a central database of structure owners and areas and contact details.
2. Afford electronic global faxing facility.
3. Identify structures along a proposed route.
4. Screen routes and optionally undertake Indicative Capacity Appraisals.

8.6.19 Bridge owners will be able to engage at whatever level they choose, but full coverage will be essential for items 1 and 2 above.

*Currently Cascade's *** AbHaulier *** program provides facilities for registered hauliers to access the ESDAL website directly, and Cascade will ensure that *** ABLOADS *** interfaces satisfactorily with the site in later stages of the project.*

8.6.20 ESDAL is expected to incorporate a facility to provide Indicative Capacity Appraisal for each structure along the proposed movement route, using the information provided by the owner/manager of the structure and the vehicle details provided by the haulier. When it is fully operational, ESDAL could provide the initial screening of vehicles referred to in paragraph 8.4.5. However, ESDAL will not remove the responsibility from the owner/manager of the structure for establishing whether or not a proposed abnormal load should be able to safely cross it, and if not, that an appropriate warning is issued to the haulier.

8.6.21 A number of different methods of appraisal will be available. The owner/manager of the structure will be able to choose whether or not to enable the system to perform Indicative Capacity Appraisal and the methodology to be used. Depending on the option chosen, the data to be supplied by the owner/manager about each structure to ESDAL will vary. Further information on ESDAL is available on the web at www.esdal.co.uk.

8.6.22 Notifications will still end up, as now, with the owner/manager, but with or without intelligent comment about impact on structures as appropriate.

Because authorities will continue to receive a considerable proportion of notifications directly, and should reserve the ability to check notifications received through ESDAL, they will have a continuing need of a notification management and checking system.

Approach for dealing with Special Order Vehicles

- 8.6.23 Details of the provisional routes are received from the relevant controlling body.
- 8.6.24 The Abnormal Loads Officer should consult the Road Space Coordinator regarding whether the proposed route has any dimensional restrictions, including those due to any road or street works planned on the movement date which will restrict the movement of the load.
- 8.6.25 Where appropriate, the details should be passed to the Structures Advisor as detailed above, who should check the structural adequacy of the route. If the route is adequate, the Structures Advisor should provide a written record of the decision to the Abnormal Loads Officer, who should initial and date the route and confirm to the relevant controlling body that the route is acceptable.
- 8.6.26 If the route is inadequate the Structures Advisor should contact the Abnormal Loads Officer who advises the relevant controlling body accordingly. The Abnormal Loads Officer should then record the details of the application. The promoter of such a move would then have the option of paying for a more detailed assessment and/or strengthening.

*The procedure by which *** ABLOADS *** deals with Special Order notifications has been described above and fully conforms with the above requirements.*

8.7 RECOMMENDATIONS

- 8.7.1 It is recommended that all owners or managers of highway structures should establish and maintain a system to receive notifications from hauliers in respect of General Order abnormal load movements. The system should enable hauliers to be advised within the statutory time limits if there is any reason why the movement should not proceed. The system should also be able to manage the movement of Special Order vehicles in accordance with national standards and regulations.

*By utilising the *** ABLOADS *** system a bridge authority fully conforms with this recommendation.*

- 8.7.2 Specific actions to be taken by authorities in meeting the above recommendation are listed in the table below, separated into the three implementation milestones described in Sections 1 and 11.

| Milestone | Actions |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONE | <ul style="list-style-type: none"> • Establish the roles of Abnormal Loads Officer, Structures Adviser, and Road Space Coordinator as specified in the Code (Section 8.2). • Establish procedures to check the suitability of a specific abnormal load to cross a particular structure broadly in accordance with the procedures given in Annex D of BD86 (Sections 8.5 and 8.6). • Establish an Elementary System for the management of abnormal loads (Section 8.6). |
| TWO | <ul style="list-style-type: none"> • Establish how and to what extent the Authority will use the ESDAL system, when available, in particular the facility for Indicative Capacity Appraisals. Accordingly make the necessary data available to the ESDAL System (Section 8.6). |
| THREE | <ul style="list-style-type: none"> • Establish an Advanced System for the management of abnormal loads as appropriate to work alongside the ESDAL System (Section 8.6). • Ensure that the necessary data, including assessment results, are implemented and kept up-to-date within a Bridge Management System and used in the management of abnormal load movements (Section 8.5). • Establish and monitor communication links between the Bridge Management System and the ESDAL System as necessary (Section 8.6). |

*By utilising the *** ABLOADS *** system a bridge authority achieves Milestone 1 and most of Milestone 3. For Milestone 2, the extent to which the authority makes use of ESDAL and indicative capacity checks will need to be established roughly before end 2008 when Stage 3 of ESDAL presently estimated to be ready.*

*Milestone 3 compliance will be completed by ensuring that adequate arrangements for keeping *** ABLOADS *** data regularly updated are fully integrated into the authority's QA system.*

8.8 REFERENCES FOR SECTION 8

1. *BD 86 The Assessment of Highway Bridges and Structures for the Effects of Special Types General Order (STGO) and Special Order (SO) Vehicles*, DMRB 3.4.19, TSO.
2. *Code of Practice - Self Escorting of Abnormal Loads and Abnormal Vehicles*, Highways Agency.

Appendix N

Abnormal Load Categories

N.1.1 A summary is given below of the rules defining the various abnormal load categories as they typically affect the management of bridges and other highway structures. The information given has been significantly simplified and, where appropriate, detailed reference should be made to the relevant Statutory Instruments.

N.1.2 Normal traffic, which travels without any special requirements is primarily defined in:

1. The *Road Vehicles (Construction and Use) Regulations 1986* (C&U Regulations) [64].
2. The *Road Vehicles (Authorised Weight) Regulations 1998* (AW Regulations) [65].
3. The *Road Vehicles (Authorised Weight) (Amendment) Regulations 2000* [66]

N.1.3 General Order Vehicles are defined by *The Road Vehicles (Authorisation of Special Types) (General) Order 2003* (STGO Regulations) [67].

N.1.4 Special Order Vehicles include those which do not comply with either the Authorised Weight Regulations or the STGO Regulations.

N.1.5 The C&U Regulations limit vehicle weights and widths to 38 tonne and 2.9 m respectively. The Regulations also define limits on wheel and axle loading and spacing configurations, together with various limits on all vehicle lengths.

N.1.6 The AW Regulations increased the maximum gross weight to 40 tonnes or 44 tonnes depending on the number and weights of their axles.

N.1.7 The STGO Regulations define three categories of General Order vehicle:

1. Category 1 has a maximum weight limit of 46 tonnes. In all other respects it conforms to the AW limits of axle load and configuration.
2. Category 2 has a maximum gross vehicle weight (GVW) limit of 80 tonnes and maximum axle weights of 12.5 tonnes, subject to axle spacing limitations.
3. Category 3 has a maximum gross weight limit of 150 tonnes and maximum axle weights of 16.5 tonnes, subject to axle spacing limitations.

N.1.8 All three categories are subject to the following dimensional limits:

1. Authority from relevant governing body (VR1) -needed when widths exceed 5 m.
2. Maximum width 6.1 m.
3. Maximum length 30 m.

N.1.9 Vehicles with weights or dimensions exceeding those given above must travel as Special Order Vehicles. Applications for Special Orders must be made to the Highways Agency's Abnormal Indivisible Loads (AIL) Team for movements in England, Scotland and Wales; and to the Roads Service Headquarters, Network Development Branch for movements in Northern Ireland.

N.1.10 Notifications that have to be provided by hauliers for moving both STGO and Special Order Vehicles are summarised in Table N.1.

| Table N.1 – Notification Requirements for STGO Vehicles | | |
|----------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suggested Classification | Limiting Characteristics | Notice Required |
| WdA | Width exceeding 3.0m but up to and including 5.0m | Two clear, working days notice to relevant Police Authority. Also to highway and bridge authorities with indemnity certificate, if vehicle exceeds weight limits (see below) |
| WdB | Width exceeding 5.0m but up to and including 6.1 m | 10 days notice to Highways Agency and VR1 and Two clear working days notice to relevant Police Authority. Also to highway and bridge authorities, with indemnity certificate, if vehicle exceeds weight limits (see below) |
| WdC | Width exceeding 6.1 m | Special Order Vehicle - eight weeks notice to Highways Agency, and five clear working days notice to Police Authority and five clear working days to highway and bridge authorities with indemnity certificate |
| LgA | Length exceeding 18.75m but up to and including 30.0m | Two clear working days notice to relevant Police Authority. Also to highway and bridge authorities, with indemnity certificate, if vehicle exceeds weight limits (see below) |
| LgB | Length exceeding 30.0m | Special Order Vehicle - eight weeks notice to Highways Agency, and five clear working days to Police Authority and five clear working days, with indemnity certificate, to highway and bridge authorities |
| WtA | GVW exceeding C&U or AW limits but up to and including 80 tonnes. | Two clear working days notice, with indemnity certificate, to highway and bridge authorities |
| Wt13 | GVW exceeding 80 tonnes but up to and including 150 tonnes | Two clear working days notice to relevant Police Authority and five clear working days notice, with indemnity certificate, to highway and bridge authorities |
| WtC | GVW exceeding 150 tonnes | Special Order Vehicle - eight weeks notice to Highways Agency and five clear working days to Police Authority and five days to highways and bridge authorities with indemnity certificate |

Refer to Table 8.1, in Section 8.6, for definitions of WdA, WdB, WdC, LgA, LgB, WtA, WtB and WtC.