

SCHEDULES

SCHEDULE 13

Article 64

PROTECTIVE PROVISIONS

PART 1

FOR THE PROTECTION OF ELECTRICITY, GAS, WATER AND SEWERAGE UNDERTAKERS

1. The provisions of this Part of this Schedule have effect for the protection of statutory undertakers unless otherwise agreed in writing between TfL and the statutory undertaker in question.

2. In this Part of this Schedule—

“alternative apparatus” means alternative apparatus adequate to enable the statutory undertaker in question to fulfil its statutory functions in a manner not less efficient than previously;

“apparatus” means—

- (a) in the case of a statutory undertaker within paragraph (a) of the definition of that term, electric lines or electrical plant (as defined in the Electricity Act 1989⁽¹⁾), belonging to or maintained by the statutory undertaker for the purposes of electricity supply;
- (b) in the case of a statutory undertaker within paragraph (b) of the definition of that term, any mains, pipes or other apparatus belonging to or maintained by the statutory undertaker for the purposes of gas supply;
- (c) in the case of a statutory undertaker within paragraph (c) of the definition of that term—
 - (i) mains, pipes or other water apparatus belonging to or maintained by the statutory undertaker for the purposes of water supply; and
 - (ii) mains, pipes or other water apparatus that is the subject of an agreement to adopt made under section 51A (agreements to adopt water main or service pipe at future date) of the Water Industry Act 1991⁽²⁾; and
- (d) in the case of a sewerage undertaker—
 - (i) any drain or works vested in the sewerage undertaker under the Water Industry Act 1991; and
 - (ii) any sewer which is so vested or is the subject of a notice of intention to adopt given under section 102(4) (adoption of sewers and disposal works) of that Act or an agreement to adopt made under section 104 (agreement to adopt sewers, drains or sewage disposal works at future date) of that Act⁽³⁾,

(1) 1989 c. 29.

(2) 1991 c. 56. Section 51A was inserted by section 92(1) of the Water Act 2003 (c. 37), and subsequently amended by section 10(1) and (2) of the Water Act 2014 (c. 21).

(3) Section 102(4) was amended by section 96(1)(c) of the Water Act 2003. Section 104 was amended by sections 96(4) and 101(2) of, and Part 3 of Schedule 9 to, the Water Act 2003, section 42(3) of the Flood and Water Management Act 2010 (c. 29) and section 11(1) and (2) of, and paragraphs 2 and 91 of Schedule 7 to, the Water Act 2014.

and includes a sludge main, disposal main (within the meaning of section 219 (general interpretation) of that Act) or sewer outfall and any manholes, ventilating shafts, pumps or other accessories forming part of any such sewer, drain or works,

and in each case includes any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus;

“functions” includes powers and duties;

“in”, in a context referring to apparatus or alternative apparatus in land, includes a reference to apparatus or alternative apparatus under, over or upon land; and

“statutory undertaker” means—

- (a) any licence holder within the meaning of Part 1 of the Electricity Act 1989;
 - (b) a gas transporter within the meaning of Part 1 of the Gas Act 1986⁽⁴⁾;
 - (c) a water undertaker within the meaning of the Water Industry Act 1991; and
 - (d) a sewerage undertaker within the meaning of Part 1 of the Water Industry Act 1991,
- for the area of the authorised development, and in relation to any apparatus, means the utility undertaker to whom it belongs or by whom it is maintained.

3. This Part of this Schedule does not apply to apparatus in respect of which the relations between TfL and the statutory undertaker are regulated by Part 3 (street works in England and Wales) of the 1991 Act.

4.—(1) Regardless of the temporary stopping up, alteration or diversion of streets under the powers conferred by article 10 (temporary stopping up and restriction of use of streets), a statutory undertaker is at liberty at all times to take all necessary access across any such street and to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the temporary stopping up, alteration or diversion was in that street.

(2) Where any street is stopped up under article 9 (permanent stopping up of streets and private means of access), any statutory undertaker whose apparatus is in the street has the same powers and rights in respect of that apparatus as it enjoyed immediately before the stopping up and TfL must grant to the statutory undertaker legal easements reasonably satisfactory to the statutory undertaker in respect of such apparatus and access to it, but nothing in this paragraph affects any right of TfL or of the statutory undertaker to require the removal of that apparatus under paragraph 6 or to carry out works under paragraph 8.

5. Despite any provision in this Order or anything shown on the land plans, TfL must not acquire any apparatus otherwise than by agreement.

6.—(1) If, in the exercise of the powers conferred by this Order, TfL acquires any interest in any land in which any apparatus is placed or over which access to any apparatus is enjoyed or requires that the statutory undertaker’s apparatus is relocated or diverted, that apparatus must not be removed under this Part of this Schedule, and any right of a statutory undertaker to maintain that apparatus in that land and to gain access to it must not be extinguished, until alternative apparatus has been constructed and is in operation, and access to it has been provided, to the reasonable satisfaction of the statutory undertaker in question in accordance with sub-paragraphs (2) to (8).

(2) If, for the purpose of executing any works in, on or under any land purchased, held, appropriated or used under this Order, TfL requires the removal of any apparatus placed in that land,

(4) 1986 c. 44. A new section 7 was substituted by section 5 of the Gas Act 1995 (c. 45), and was further amended by section 76 of the Utilities Act 2000 (c. 27) and Part 1 of Schedule 23 to the Energy Act 2004 (c. 20). There are further amendments to section 7 but none are relevant.

TfL must give to the statutory undertaker in question 28 days' written notice of that requirement, together with a plan and section of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order a statutory undertaker reasonably needs to remove any of its apparatus) TfL must, subject to sub-paragraph (3), afford to the statutory undertaker the necessary facilities and rights for the construction of alternative apparatus in other land of TfL and subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of TfL, or TfL is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, the statutory undertaker in question must, on receipt of a written notice to that effect from TfL, as soon as reasonably practicable use reasonable endeavours to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed.

(4) The obligation imposed on the statutory undertaker under sub-paragraph (3) does not extend to the exercise by the statutory undertaker of any power to acquire any land or rights in land by compulsory purchase order.

(5) Any alternative apparatus to be constructed in land of TfL under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between the statutory undertaker in question and TfL or in default of agreement settled by arbitration in accordance with article 68 (arbitration).

(6) The statutory undertaker in question must, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 68 (arbitration), and after the grant to the statutory undertaker of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by TfL to be removed under the provisions of this Part of this Schedule.

(7) Regardless of anything in sub-paragraph (6), if TfL gives notice in writing to the statutory undertaker in question that it desires itself to execute any work, or part of any work, in connection with the construction or removal of apparatus in any land controlled by TfL, that work, instead of being executed by the statutory undertaker, may be executed by TfL, with the prior written consent of the statutory undertaker (which must not be unreasonably withheld or delayed and is to be subject to any such conditions as are reasonable and proper to protect the apparatus) in accordance with plans and in a position agreed between the statutory undertaker and TfL or, in default of agreement, determined by arbitration in accordance with article 68 (arbitration), without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of the statutory undertaker.

(8) In carrying out any work under sub-paragraph (7) TfL must comply with all statutory obligations which would have been applicable had the works been carried out by the statutory undertaker.

(9) Nothing in sub-paragraph (7) authorises TfL to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within 600 millimetres of the apparatus.

7.—(1) Where, in accordance with the provisions of this Part of this Schedule, TfL affords to a statutory undertaker facilities and rights for the construction and maintenance in land of TfL of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between TfL and the statutory undertaker in question or in default of agreement settled by arbitration in accordance with article 68 (arbitration).

(2) In settling those terms and conditions in respect of alternative apparatus to be constructed in land of TfL, the arbitrator must—

- (a) give effect to all reasonable requirements of TfL for ensuring the safety and efficient operation of the tunnels and for securing any subsequent alterations or adaptations of the alternative apparatus which may be required to prevent interference with any proposed works of TfL; and
- (b) so far as it may be reasonable and practicable to do so in the circumstances of the particular case, give effect to the terms and conditions, if any, applicable to the apparatus constructed in, under, over or above the tunnels for which the alternative apparatus is to be substituted.

(3) If the facilities and rights to be afforded by TfL in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are in the opinion of the arbitrator less favourable on the whole to the statutory undertaker in question than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the arbitrator must make such provision for the payment of compensation by TfL to that statutory undertaker as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

8.—(1) Not less than 28 days before starting the execution of any works authorised by this Order that will or may affect any apparatus the removal of which has not been required by TfL under paragraph 6(2), TfL must submit to the statutory undertaker in question a plan, section and description of the works to be executed.

(2) Those works must be executed only in accordance with the plan, section and description submitted under sub-paragraph (1) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (3) by the statutory undertaker for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and the statutory undertaker is entitled to watch and inspect the execution of those works.

(3) Any requirements made by a statutory undertaker under sub-paragraph (2) must be made within a period of 28 days beginning with the date on which a plan, section and description under sub-paragraph (1) are submitted to it.

(4) If a statutory undertaker in accordance with sub-paragraph (3) and in consequence of the works proposed by TfL, reasonably requires the removal of any apparatus and gives written notice to TfL of that requirement, paragraphs 1 to 7 apply as if the removal of the apparatus had been required by TfL under paragraph 6(2).

(5) Nothing in this paragraph precludes TfL from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any works, a new plan, section and description instead of the plan, section and description previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan, section and description.

(6) TfL is not required to comply with sub-paragraph (1) in a case of emergency but in that case it must give to the statutory undertaker in question notice as soon as is reasonably practicable and a plan, section and description of those works as soon as reasonably practicable subsequently and must comply with sub-paragraph (2) in so far as is reasonably practicable in the circumstances.

(7) Nothing in sub-paragraph (6) entitles TfL to carry out works to any apparatus but, upon receipt of notice from TfL, the statutory undertaker must proceed to carry out such works as may be required without unnecessary delay.

9.—(1) Subject to the following provisions of this paragraph, TfL must repay to the statutory undertaker in question the proper and reasonable expenses incurred by that statutory undertaker in, or in connection with the inspection, removal, relaying, replacing, alteration or protection of any apparatus under any provision of this Part of this Schedule (including any costs reasonably incurred or compensation properly paid in connection with the acquisition of facilities and rights or exercise of statutory powers for such apparatus) including the cutting off of any apparatus from any other apparatus or the making safe of any redundant apparatus as a consequence of the exercise

by TfL of any power under this Order and the surveying of any land or works, the inspection, superintendence and monitoring of works or the removal of any temporary works reasonably necessary in consequence of the exercise of TfL of any power under this Order.

(2) The value of any apparatus removed under this Part of this Schedule is to be deducted from any sum payable under sub-paragraph (1), that value being calculated after removal.

(3) If in accordance with this Part of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by TfL or, in default of agreement, is not determined by arbitration in accordance with article 68 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to the statutory undertaker in question by virtue of sub-paragraph (1) is to be reduced by the amount of that excess.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus is not to be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole is to be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to a statutory undertaker in respect of works by virtue of sub-paragraph (1) must, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the statutory undertaker in question any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

10.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction, maintenance or failure of any of the works referred to in paragraph 6(2), any damage is caused to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of a statutory undertaker, or there is any interruption in any service provided, or in the supply of any goods, by any statutory undertaker, TfL must—

- (a) bear and pay the cost reasonably incurred by that statutory undertaker in making good such damage or restoring the supply; and
- (b) indemnify the statutory undertaker against all reasonable claims, penalties, demands, proceedings, costs, damages and expenses which may be made or taken against or recovered from, or reasonably and properly incurred by, the statutory undertaker,

by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on TfL with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of a statutory undertaker, its officers, servants, contractors or agents.

(3) A statutory undertaker must give TfL reasonable notice of any such claim or demand and no settlement or compromise is to be made without the consent of TfL which, if it withholds such consent, has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

11. If in consequence of the exercise of the powers conferred by this Order the access to any apparatus is materially obstructed TfL must provide such alternative means of access to that apparatus as will enable the statutory undertaker to maintain or use the apparatus no less effectively than was possible before the obstruction.

PART 2

FOR THE PROTECTION OF OPERATORS OF ELECTRONIC COMMUNICATIONS CODE NETWORKS

12.—(1) For the protection of any operator, the following provisions have effect, unless otherwise agreed in writing between TfL and the operator.

(2) In this Part of this Schedule—

“the 2003 Act” means the Communications Act 2003⁽⁵⁾;

“conduit system” has the same meaning as in the electronic communications code and references to providing a conduit system are to be construed in accordance with paragraph 1(3A)⁽⁶⁾ (interpretation of code) of that code;

“electronic communications apparatus” has the same meaning as in the electronic communications code;

“the electronic communications code” has the same meaning as in Chapter 1 (electronic communications, networks and services) of Part 2 of the 2003 Act⁽⁷⁾;

“electronic communications code network” means—

- (a) so much of an electronic communications network or conduit system provided by an electronic communications code operator as is not excluded from the application of the electronic communications code by a direction under section 106 (application of the electronic communications code) of the 2003 Act; and
- (b) an electronic communications network which the Secretary of State is providing or proposing to provide;

“electronic communications code operator” means a person in whose case the electronic communications code is applied by a direction under section 106 of the 2003 Act; and

“operator” means the operator of an electronic communications code network.

13. The exercise of the powers of article 31 (statutory undertakers) is subject to paragraph 23 of Schedule 2 (undertaker’s works) to the Telecommunications Act 1984⁽⁸⁾.

14.—(1) Subject to sub-paragraphs (2) to (4), if as the result of the authorised development or its construction, or of any subsidence resulting from any of those works—

(5) 2003 c. 21.

(6) Paragraph 1(3A) was inserted by section 106(2) of, and paragraphs 1 and 4 of Schedule 3 to, the Communications Act 2003.

(7) See section 106.

(8) 1984 c. 12. Paragraph 23 was amended by section 190 of, and paragraph 68 of Schedule 25 and part 1 of Schedule 27 to, the Water Act 1989 (c. 15), section 112(4) of, and Schedule 18 to, the Electricity Act 1989 (c. 29) and section 106(2) of, and paragraphs 1, 5(d) and 8 of Schedule 3 to, the Communications Act 2003 (c. 21).

- (a) any damage is caused to any electronic communications apparatus belonging to an operator (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works), or other property of an operator; or
- (b) there is any interruption in the supply of the service provided by an operator,

TfL must bear and pay the cost reasonably incurred by the operator in making good such damage or restoring the supply and make reasonable compensation to that operator for any other expenses, loss, damages, penalty or costs incurred by it, by reason, or in consequence of, any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on TfL with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of an operator, its officers, servants, contractors or agents.

(3) The operator must give TfL reasonable notice of any such claim or demand and no settlement or compromise of the claim or demand is to be made without the consent of TfL which, if it withholds such consent, has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

(4) Any difference arising between TfL and the operator under this Part of this Schedule must be referred to and settled by arbitration under article 68 (arbitration).

15. This Part of this Schedule does not apply to—

- (a) any apparatus in respect of which the relations between TfL and an operator are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act; or
- (b) any damage, or any interruption, caused by electro-magnetic interference arising from the construction or use of the authorised development.

PART 3

FOR THE PROTECTION OF NATIONAL GRID

Application

16. The following provisions have effect for the protection of National Grid unless otherwise agreed in writing between TfL and National Grid.

Interpretation

17. In this Part of this Schedule—

“alternative apparatus” means appropriate alternative apparatus to enable National Grid to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means—

- (a) electric lines or electrical plant as defined in the Electricity Act 1989(9), belonging to or maintained by National Grid; and
- (b) mains, pipes or other apparatus belonging to or maintained by National Grid for the purposes of gas supply,

together with any replacement apparatus and such other apparatus constructed pursuant to this Order that becomes operational apparatus of National Grid for the purposes of transmission, distribution or supply and includes any structure in which apparatus is or will be lodged or which gives or will give access to apparatus;

(9) 1989 c. 29.

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“authorised development” has the same meaning as in article 2 of this Order and (unless otherwise specified) for the purposes of this Part of this Schedule includes the use and maintenance of the authorised development;

“functions” includes powers and duties;

“ground mitigation scheme” means a scheme approved by National Grid (such approval not to be unreasonably withheld or delayed) setting out the necessary measures (if any) for a ground subsidence event;

“ground monitoring scheme” means a scheme for monitoring ground subsidence which sets out the apparatus which is to be subject to such monitoring, the extent of land to be monitored, the manner in which ground levels are to be monitored, the timescales of any monitoring activities and the extent of ground subsidence event which, if exceeded, requires TfL to submit for National Grid’s approval a ground mitigation scheme;

“ground subsidence event” means any ground subsidence which National Grid and TfL agree is attributable to the authorised development (or in default of agreement is settled by arbitration in accordance with article 68 (arbitration) of the Order to be attributable to the authorised development) and is identified by the monitoring activities set out in the ground monitoring scheme that has exceeded the level described in the ground monitoring scheme as requiring a ground mitigation scheme;

“in”, in a context referring to apparatus or alternative apparatus in land, includes a reference to apparatus or alternative apparatus under, over, across, along or upon such land;

“maintain” and “maintenance” includes the ability and right to do any of the following in relation to any apparatus or alternative apparatus of National Grid including construct, use, repair, alter, inspect, renew or remove the apparatus;

“National Grid” means either—

- (a) National Grid Electricity Transmission PLC (Company No. 2366977) whose registered office is at 1-3 Strand, London, WC2N 5EH or any of its entities or successor entities; or
- (b) National Grid Gas PLC (Company No. 200600) whose registered office is at 1-3 Strand, London, WC2N 5EH or any of its entities or successor entities;

“plan” or “plans” include all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe and assess the works to be executed; and

“specified work” means so much of any of the authorised development or activities authorised by this Order and undertaken in association with the authorised development—

- (a) that will or may be situated 15 metres (measured in any direction) within, or which may adversely affect, any apparatus the removal of which has not been required by TfL under paragraph 21(2) or otherwise; or
- (b) that includes any of the activities that are referred to in paragraph 8 of T/SP/SSW/22 (National Grid’s policies for safe working in proximity to gas apparatus “Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW/22”).

18. This Part of this Schedule does not apply to apparatus in respect of which the relations between TfL and National Grid are regulated by the provisions of Part 3 of the 1991 Act.

Apparatus of National Grid in stopped up streets

19.—(1) Without limitation on the scope of any other protection afforded to National Grid elsewhere in the Order, where any street is stopped up under article 9 (permanent stopping up of streets), if National Grid has any apparatus in the street or accessed via that street National Grid is

entitled to the same rights in respect of such apparatus as it enjoyed immediately before the stopping up and TfL must grant to National Grid, or procure the granting to National Grid of, legal easements reasonably satisfactory to National Grid in respect of such apparatus and access to it prior to the stopping up of any such street or highway.

(2) Regardless of the temporary stopping up, alteration or diversion of any street under the powers of article 10 (temporary stopping up and restriction of use of streets), National Grid is at liberty at all times to take all necessary access across any stopped up, altered or diverted street and to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the stopping up, alteration or diversion was in that street.

Acquisition of land

20.—(1) This Order does not authorise the acquisition or extinguishment of land or rights in land or override any interest in land owned by National Grid that is required for the retention or maintenance of any retained apparatus except with National Grid's agreement (such agreement not to be unreasonably withheld or delayed).

(2) As a condition of agreement between the parties in sub-paragraph (1), prior to the carrying out of any part of the authorised development (or in such other timeframe as may be agreed between National Grid and TfL) that are subject to the requirements of this Part of this Schedule that will cause any conflict with or breach the terms of any easement or other legal or land interest of National Grid or affects the provisions of any enactment or agreement regulating the relations between National Grid and TfL in respect of any apparatus laid or erected in land belonging to or secured by TfL, TfL must as National Grid reasonably requires enter into such deeds of easement or consent upon such terms and conditions as may be agreed between National Grid and TfL acting reasonably and which must be no less favourable on the whole to National Grid unless otherwise agreed by National Grid, and it is the responsibility of TfL to procure or secure the consent and entering into of such deeds and variations by all other third parties with an interest in the land at that time who are affected by such authorised development.

(3) Where there is any inconsistency or duplication between the provisions set out in this Part of this Schedule relating to the relocation or removal of apparatus (including but not limited to the payment of costs and expenses relating to such relocation or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid or other enactments relied upon by National Grid as of right or other use in relation to the apparatus, then the provisions in this Part of this Schedule prevail.

(4) No agreement or consent granted by National Grid under any other provision of this Part of this Schedule constitutes agreement under sub-paragraph (1).

Removal of apparatus

21.—(1) If, in the exercise of the agreement reached in accordance with paragraph 20 or in any other authorised manner, TfL acquires any interest in any land in which any apparatus is placed, that apparatus must not be removed under this Part of this Schedule and any right of National Grid to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed, and is in operation to the reasonable satisfaction of National Grid in accordance with sub-paragraphs (2) to (5) inclusive.

(2) If, for the purpose of executing any works comprised in the authorised development in, on, under or over any land purchased, held, appropriated or used under this Order, TfL requires the removal of any apparatus placed in that land, it must give to National Grid 56 days' advance written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the

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exercise of any of the powers conferred by this Order National Grid reasonably needs to remove any of its apparatus) TfL must, subject to sub-paragraph (3), afford to National Grid to their satisfaction (taking into account paragraph 22(1)) the necessary facilities and rights for—

- (a) the construction of alternative apparatus in other land of, or land secured by, TfL; and
- (b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of, or land secured by, TfL, or TfL is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, National Grid must, on receipt of a written notice to that effect from TfL, take such steps as are reasonable in the circumstances in an endeavour to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed save that this obligation does not extend to the requirement for National Grid to use its compulsory purchase powers to this end unless it elects to so do.

(4) Any alternative apparatus to be constructed in land of, or land secured by, TfL under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between National Grid and TfL.

(5) National Grid must, after the alternative apparatus to be provided or constructed has been agreed, and subject to the grant to National Grid of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by TfL to be removed under the provisions of this Part of this Schedule.

(6) Where there is any inconsistency or duplication between the provisions set out in this Part of this Schedule relating to the relocation or removal of apparatus (including but not limited to the payment of costs and expenses relating to such relocation or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid as of right or other use in relation to the apparatus then the provisions in this Part of this Schedule prevail.

Facilities and rights for alternative apparatus

22.—(1) Where, in accordance with the provisions of this Part of this Schedule, TfL affords to National Grid facilities and rights for the construction and maintenance and protection in land of TfL of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between TfL and National Grid and must be no less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless agreed by National Grid.

(2) If the facilities and rights to be afforded by TfL and agreed with National Grid under sub-paragraph (1) above in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the matter must be referred to arbitration and the arbitrator must make such provision for the payment of compensation by TfL to National Grid as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

Retained apparatus: protection of National Grid as Gas Undertaker

23.—(1) Not less than 56 days before the commencement of any works authorised by this Order that are near to, or will or may affect, any apparatus the removal of which has not been required by TfL under paragraph 21(2) or otherwise, TfL must submit to National Grid a plan.

(2) In relation to specified works, or any works that (wherever situated) impose any load directly upon any apparatus, the plan to be submitted to National Grid under sub-paragraph (1) must show—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation and positioning of plant;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus; and
- (f) details of any ground monitoring scheme if required.

(3) TfL must not commence any works to which sub-paragraph (2) applies until National Grid has given written approval of the plan so submitted.

(4) Any approval of National Grid required under sub-paragraph (3)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraph (5) or (7); and
- (b) must not be unreasonably withheld.

(5) In relation to a work to which sub-paragraph (1) and (2) applies, National Grid may require such modifications to be made to the plan as may be reasonably necessary for the purpose of securing its system against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(6) Works executed under sub-paragraph (1) or (2) must be executed only in accordance with the plan, submitted under sub-paragraph (1) or (2), as amended from time to time by agreement between TfL and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (4), (5), (7) or (8) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid is entitled to watch and inspect the execution of those works.

(7) Where National Grid requires protective works to be carried out either themselves or by TfL (whether of a temporary or permanent nature) such protective works, inclusive of any measures or schemes required and approved as part of the plan approved pursuant to this paragraph, must be carried out to National Grid's satisfaction prior to the commencement of any work to which sub-paragraph (1) or (2) applies and National Grid must give 56 days' notice of such works from the date of submission of a plan in line with sub-paragraph (1) or (2) (except in an emergency).

(8) If National Grid in accordance with sub-paragraph (5) or (7) and in consequence of the works proposed by TfL, reasonably requires the removal of any apparatus and gives written notice to TfL of that requirement, paragraphs 16 to 18 and 21 to 22 apply as if the removal of the apparatus had been required by TfL under paragraph 21(2).

(9) Nothing in this paragraph precludes TfL from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of any works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan.

(10) TfL is not required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable and a plan of those works and must—

- (a) comply with sub-paragraph (5), (6) and (7) insofar as is reasonably practicable in the circumstances; and
- (b) comply with sub-paragraph (11) at all times.

(11) At all times when carrying out any works authorised under this Order comply with National Grid's policies for safe working in proximity to gas apparatus enshrined in Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW22 and the Health and Safety Executive's guidance note "Avoiding Danger from underground services HSG47".

(12) As soon as reasonably practicable after any ground subsidence event, TfL must implement an appropriate ground mitigation scheme.

Retained apparatus: protection of National Grid as Electricity Undertaker

24.—(1) Not less than 56 days before the commencement of any specified work that does not require the removal of apparatus under paragraph 21(2) (removal of apparatus) TfL must submit to National Grid a plan and seek from National Grid details of the underground extent of their electricity tower foundations.

(2) The plan to be submitted under sub-paragraph (1) must show—

- (a) the exact position of the specified work;
- (b) the level at which the specified work is proposed to be constructed or renewed;
- (c) the manner of the construction or renewal of the specified work including details of excavation and positioning of plant;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus; and
- (f) details of any ground monitoring scheme if required.

(3) In relation to any works which will or may be situated on, over, under or within 10 metres of any part of the foundations of an electricity tower or between any two or more electricity towers, the plan to be submitted under sub-paragraph (1) must include a method statement which must in addition to the matters set out in sub-paragraph (2)—

- (a) describe details of any cable trench design including route, dimensions, clearance to pylon foundations;
- (b) demonstrate that pylon foundations will not be affected prior to, during and post construction;
- (c) describe details of load bearing capacities of trenches;
- (d) describe details of cable installation methodology including access arrangements, jointing bays and backfill methodology;
- (e) provide a written management plan for high voltage hazard during construction and on-going maintenance of the cable route;
- (f) provide written details of the operations and maintenance regime for the cable, including frequency and method of access;
- (g) assess earth rise potential if reasonably required by National Grid's engineers; and
- (h) provide evidence that trench bearing capacity is to be designed to 26 tonnes to take the weight of overhead line construction traffic.

(4) TfL must not commence any works requiring the submission of a plan under sub-paragraph (1) until National Grid has given written approval of the plan so submitted.

(5) Any approval of National Grid required in relation to a plan submitted under sub-paragraph (1)—

(a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraph (6) or (8); and

(b) must not be unreasonably withheld.

(6) In relation to a work requiring the submission of a plan under sub-paragraph (1), National Grid may require such modifications to be made to the plan as may be reasonably necessary for the purpose of securing its system against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(7) Works requiring the submission of a plan under sub-paragraph (1) must be executed only in accordance with the plan, as amended from time to time by agreement between TfL and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (5), (6), (8) or (9) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid is to be entitled to watch and inspect the execution of those works.

(8) Where National Grid require any protective works to be carried out either by themselves or by TfL (whether of a temporary or permanent nature) such protective works must be carried out to National Grid's satisfaction prior to the commencement of works requiring the submission of a plan under sub-paragraph (1) and National Grid must give 56 days' notice of such works from the date of submission of the plan (except in an emergency).

(9) If National Grid in accordance with sub-paragraph (6) or (8) and in consequence of the works proposed by TfL, reasonably requires the removal of any apparatus and gives written notice to TfL of that requirement, paragraphs 16 to 18 and 21 to 22 apply as if the removal of the apparatus had been required by TfL under paragraph 21(2).

(10) Nothing in this paragraph precludes TfL from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of any works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan.

(11) TfL is not required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable a plan of those works and must—

(a) comply with sub-paragraph (6), (7) and (8) insofar as is reasonably practicable in the circumstances; and

(b) comply with sub-paragraph (12) at all times.

(12) At all times when carrying out any specified works TfL must comply with National Grid's policies for development near or over headlines enshrined in ENA TA 43-8 and the Health and Safety Executive's guidance note 6 "Avoidance of Danger from Overhead Lines".

(13) As soon as reasonably practicable after any ground subsidence event, TfL must implement an appropriate ground mitigation scheme.

Protective works to buildings

25. TfL must not exercise the powers conferred by article 15 (protective work to buildings), so as to obstruct or render less convenient the access to any apparatus without the written consent of National Grid.

Expenses

26.—(1) Subject to the following provisions of this paragraph, TfL must repay to National Grid on demand all charges, costs and expenses reasonably incurred or in the case of sub-paragraph (a) compensation properly paid by National Grid in, or in connection with, the inspection, removal,

relaying or replacing, alteration or protection of any apparatus or the construction of any new or alternative apparatus which may be required in consequence of the execution of any such works as are referred to in this Part of this Schedule including without limitation—

- (a) in connection with the acquisition of rights or the exercise of statutory powers for such apparatus including without limitation in the event that National Grid elects to use compulsory purchase powers to acquire any necessary rights under paragraph 21 sub-paragraph (3) all costs incurred as a result of such action;
 - (b) carrying out any diversion work or providing alternative apparatus;
 - (c) cutting off any apparatus from any other apparatus or making safe redundant apparatus;
 - (d) the approval of plans;
 - (e) the carrying out of protective works, plus a capitalised sum to cover the cost of maintaining and renewing permanent protective works;
 - (f) the survey of any land, apparatus or works, the inspection and monitoring of works or the installation or removal of any temporary works reasonably necessary in consequence of the execution of any such works referred to in this Part of this Schedule.
- (2) There must be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part of this Schedule and which is not re-used as part of the alternative apparatus, that value being calculated after removal.
- (3) If in accordance with the provisions of this Part of this Schedule—
- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
 - (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,
- and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by TfL or in default of agreement settled by arbitration in accordance with article 68 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to National Grid by virtue of sub-paragraph (1) must be reduced by the amount of that excess except where it is not possible in the circumstances to obtain the existing type of operations, capacity, dimensions or place at the existing depth in which case the full costs must be borne by TfL.
- (4) For the purposes of sub-paragraph (3)—
- (a) an extension of apparatus to a length greater than the length of existing apparatus must not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
 - (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole must be treated as if it also had been agreed or had been so determined.
- (5) An amount which apart from this sub-paragraph would be payable to National Grid in respect of works by virtue of sub-paragraph (1) must, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on National Grid any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

Indemnity

27.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any works authorised by this Part of this Schedule or in consequence of the construction, use, maintenance or failure of any of the authorised development by or on behalf of TfL or in consequence of any act or default of TfL (or any person employed or authorised by him) in the course of carrying out such works (including without limitation works carried out by TfL under this Part of this Schedule or any subsidence resulting from any of these works), any material damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of National Grid, or there is any interruption in any service provided, or in the supply of any goods, by National Grid, or National Grid becomes liable to pay any amount to any third party, TfL must—

- (a) bear and pay on demand the cost reasonably incurred by National Grid in making good such damage or restoring the supply; and
- (b) indemnify National Grid for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from National Grid, by reason or in consequence of any such damage or interruption or National Grid becoming liable to any third party.

(2) The fact that any act or thing may have been done by National Grid on behalf of TfL or in accordance with a plan approved by National Grid or in accordance with any requirement of National Grid as a consequence of the authorised development or under its supervision does not (unless sub-paragraph (3) applies) excuse TfL from liability under the provisions of sub-paragraph (1) unless National Grid fails to carry out and execute the works properly with due care and attention and in a skilful and professional manner or in a manner that does not materially accord with the approved plan or as otherwise agreed between TfL and National Grid.

(3) Nothing in sub-paragraph (1) imposes any liability on TfL in respect of—

- (a) any damage or interruption to the extent that it is attributable to the neglect or default of National Grid, its officers, servants, contractors or agents; and
- (b) any authorised development or works authorised by this Part of this Schedule carried out by National Grid as an assignee, transferee or lessee of TfL with the benefit of this Order pursuant to section 156 (benefit of order granting development consent) of the 2008 Act or under article 59 (transfer of benefit of order, etc.) of this Order subject to the proviso that once such works become apparatus (“new apparatus”), any works yet to be executed and not falling within this sub-paragraph are subject to the full terms of this Part of this Schedule including this paragraph 27 in respect of such new apparatus.

(4) National Grid must give TfL reasonable notice of any such claim or demand and no settlement or compromise is to be made without National Grid first consulting TfL and considering their representations.

(5) National Grid must use its reasonable endeavours to mitigate in whole or in part and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph 27 applies. If requested to do so by TfL, National Grid must provide an explanation of how the claim has been minimised. TfL is only liable under this paragraph 27 for claims reasonably incurred by National Grid.

Enactments and agreements

28. Save to the extent provided for to the contrary elsewhere in this Part of this Schedule or by agreement in writing between National Grid and TfL, nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between TfL and National Grid in respect of any apparatus laid or erected in land belonging to TfL on the date on which this Order is made.

Co-operation

29. National Grid and TfL must use their best endeavours to co-ordinate with each other on the timing and method of execution of any works carried out under this Order or this Part of this Schedule in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of the other party's operations.

Access

30. If in consequence of the agreement reached in accordance with paragraph 20 or the powers granted under this Order the access to any apparatus is materially obstructed, TfL must provide such alternative means of access to such apparatus as will enable National Grid to maintain or use the apparatus no less effectively than was possible before such obstruction.

Arbitration

31. Any difference or dispute arising between TfL and National Grid under this Part of this Schedule must, unless otherwise agreed in writing between TfL and National Grid, be determined by arbitration in accordance with article 68 (arbitration).

PART 4**FOR THE PROTECTION OF THE PORT OF LONDON AUTHORITY**

32. The provisions of this Part of this Schedule have effect unless otherwise agreed in writing between TfL and the PLA, for the protection of the PLA in relation to construction of the authorised development and, within any maintenance period defined in article 30(14) (temporary use of land for maintaining the authorised development), any maintenance of any part of the authorised development.

Definitions

33. In this Part of this Schedule—

“construction” includes execution, placing, altering, replacing, relaying, renewal and works of maintenance within a maintenance period defined in article 30(14) (temporary use of land for maintaining the authorised development) and, in its application to a specified work which includes or comprises any operation, means the carrying out of that operation, and “construct” and “constructed” are to be construed accordingly;

“the PLA” means the Port of London Authority;

“plans” includes navigational risk assessments, plans, sections, elevations, drawings, specifications, programmes, construction methods and descriptions including, where applicable, such relevant hydraulic information about the river Thames as may be reasonably requested by the PLA;

“specified function” means any function of TfL under this Order (except any function under article 19 (compulsory acquisition of land), 22 (compulsory acquisition of rights) or 27 (acquisition of subsoil, etc., only)) the exercise of which may affect the river Thames or any function of the PLA;

“specified work” means any part of the authorised development (which for this purpose includes the removal of any part of the authorised development), which—

- (a) is, may be, or takes place in, on, under or over the surface of land below mean high water level forming part of the river Thames; or

- (b) may affect the river Thames or any function of the PLA,
including any projection over the river Thames by any authorised work or any plant or machinery; and
- “tunnelling works” means so much of Work No. 1 as is carried out wholly under the bed of the river Thames.

Approval of detailed design

34.—(1) TfL must not commence the construction of any specified work or the exercise of any specified function until plans of the work or function have been approved in writing by the PLA, but the PLA’s approval is not required under this paragraph for any tunnelling works forming part of a specified work.

(2) Where the PLA approves a suspension of the public right of navigation under article 17 (works in the river Thames: conditions), TfL is not required to obtain the PLA’s approval under this paragraph for any specified function to be exercised in respect of that suspension of the public right of navigation, including under article 29 (temporary use of land for carrying out the authorised development) or 30 (temporary use of land for maintaining the authorised development).

(3) TfL must submit to the PLA plans of the specified work or specified function and such further particulars as the PLA may, within 20 business days starting with the day on which plans are submitted under this sub-paragraph, reasonably require, and the particulars so supplied are to provide all information necessary to enable the PLA to determine whether approval should be given and, if so, whether conditions should be imposed.

(4) Any approval of the PLA required under this paragraph must not be unreasonably withheld but may be given subject to such reasonable modifications, terms and conditions as the PLA may make for the protection of—

- (a) traffic in, or the flow or regime of, the river Thames;
- (b) the use of its land, or the river Thames, for the purposes of performing its functions; or
- (c) the performance of any of its functions connected with environmental protection.

(5) Requirements made under sub-paragraph (4) may include conditions as to—

- (a) the proposed location of any temporary work and its dimensions or the location where the specified function is proposed to be exercised;
- (b) the programming of temporary works or the exercise of the specified function;
- (c) the removal of any temporary work and the undertaking by TfL of any related work or operation that the PLA considers to be necessary for the purpose of removing or preventing any obstruction to navigation;
- (d) the relocation, provision and maintenance of works, moorings, apparatus and equipment necessitated by the specified work or specified function; and
- (e) the expiry of the approval if TfL does not commence construction or carrying out of the approved specified work or exercise of the specified function within a prescribed period.

(6) Subject to sub-paragraph (7), an application for approval under this paragraph is deemed to have been refused if it is neither given nor refused within 30 business days of the paragraph 34 specified day.

(7) An approval of the PLA under this paragraph is not deemed to have been unreasonably withheld if approval within the time limited by sub-paragraph (6) has not been given pending the outcome of any consultation on the approval in question that the PLA is obliged to carry out in the proper exercise of its functions.

(8) TfL must carry out all operations for the construction of any specified work or the specified function without unnecessary delay and to the reasonable satisfaction of the PLA so that traffic in, or the flow or regime of, the river Thames, and the exercise of the PLA's functions, do not suffer more interference than is reasonably practicable. The PLA is entitled at all reasonable times, on giving such notice as may be reasonable in the circumstances, to inspect and survey those operations and TfL must provide all reasonable facilities to enable that inspection and survey to take place.

(9) In this paragraph “the paragraph 34 specified day” means, in relation to any specified work or specified function—

- (a) the day on which plans and sections of that work are submitted to the PLA under sub-paragraph (1); or
- (b) the day on which TfL provides the PLA with all further particulars of the work that have been requested by the PLA under that sub-paragraph,

whichever is the later.

Design of the tunnelling works

35.—(1) TfL must undertake the detailed design and construction of the tunnelling works to ensure that, as far as is reasonably foreseeable, the navigable channel of the river Thames can be maintained by the PLA to a depth of at least 5.80 metres below chart datum.

(2) When complying with sub-paragraph (1) TfL must allow for potential ‘over-dredge’ of 0.5 metres attributable to standard dredging methodology.

(3) Prior to commencing construction of the tunnelling works and as soon as reasonably practicable after they each become available, TfL must provide to the PLA the following documents—

- (a) an Approval in Principle, or similar, demonstrating that the design requirement has been incorporated into the detailed design of the tunnelling works;
- (b) a Design Certificate demonstrating that the detailed design of the tunnelling works has satisfied the design requirement; and
- (c) a Check Certificate, completed by an independent person, demonstrating that the detailed design of the tunnelling works has satisfied the design requirement.

(4) TfL must supply to the PLA—

- (a) any of the drawings referred to in either of the certificates specified in sub-paragraphs (3)(b) and (3)(c); and
- (b) such other information relating to any of the documents provided under sub-paragraph (2) or (3)(a) as the PLA may reasonably require,

upon request made by the PLA within 10 business days of the day on which the PLA receives the document that gives rise to the request.

(5) If, following receipt of any of the documents supplied under sub-paragraphs (3) and (4), the PLA is not reasonably satisfied that the design requirement will be met, it may within 20 business days of the paragraph 35 specified day, notify TfL that the PLA is in dispute with TfL and accordingly refer the matter to arbitration under paragraph 52 to review the proposed detailed design of the tunnelling works so far as it concerns the design requirement.

(6) In this paragraph—

- (a) “Approval in Principle”, “Check Certificate” and “Design Certificate” have the same meaning as in the Design Manual for Roads and Bridges Volume 1 Section 1 Part 1 BD2/12;

- (b) “the design requirement” means the detailed design requirement specified in sub-paragraphs (1) and (2);
- (c) “the navigable channel” means Regions 2 and 4 as defined in article 52 (restrictions on other works in the river Thames);
- (d) “the paragraph 35 specified day” means—
 - (i) the day on which the documents referred to in sub-paragraph (3) are provided to the PLA under that sub-paragraph; or
 - (ii) the day on which TfL provides the PLA with all drawings and further information that has been requested by the PLA under sub-paragraph (4),whichever is the later.

As built drawings

36. As soon as reasonably practicable following the completion of the construction of the authorised development, TfL must provide to the PLA as built drawings of any specified works (but not including any work constructed or placed within the tunnels) in a form and scale to be agreed between TfL and the PLA to show the position of those works in relation to the river Thames.

Discharges, etc.

37.—(1) TfL must not without the consent of the PLA exercise the powers conferred by article 14 (discharge of water) so as to—

- (a) deposit in or allow to fall or be washed into the river Thames any gravel, soil or other material;
- (b) discharge or allow to escape either directly or indirectly into the river Thames any offensive or injurious matter in suspension or otherwise; or
- (c) directly or indirectly discharge any water into the river Thames.

(2) Any consent of the PLA under this paragraph must not be unreasonably withheld but may be given subject to such terms and conditions as the PLA may reasonably impose.

(3) Any consent under this paragraph is deemed to have been given if it is neither given nor refused (or is refused but without an indication of the grounds for refusal) within 35 days of the day on which the request for consent is submitted under sub-paragraph (1).

38. TfL must not, in exercise of the powers conferred by article 14 (discharge of water), damage or interfere with the beds or banks of any watercourse forming part of the river Thames unless such damage or interference is approved as a specified work under this Order or is otherwise approved in writing by the PLA.

Navigational lights, buoys, etc.

39.—(1) TfL must, at or near a specified work or a location where a specified function is being exercised, exhibit such lights, lay down such buoys and take such other steps for preventing danger to navigation as the PLA may from time to time reasonably require.

(2) The PLA must give TfL not less than 20 business days’ written notice of a requirement under sub-paragraph (1) except in the case of emergency when the PLA must give such notice as is reasonably practicable.

Directions as to lights

40. TfL must comply with any reasonable directions issued from time to time by the Harbour Master with regard to the lighting of—

- (a) a specified work; or
- (b) the carrying out of a specified function or the use of apparatus for the purposes of such a function,

or the screening of such lighting, so as to ensure that it is not a hazard to navigation on the river Thames.

Removal, etc. of the PLA's moorings and buoys

41.—(1) Subject to sub-paragraph (2), if by reason of the construction of any specified work or the exercise of any specified function it is reasonably necessary for the PLA to incur the cost of—

- (a) temporarily or permanently altering, removing, re-siting, repositioning or reinstating existing moorings or aids to navigation (including navigation marks or lights) owned by the PLA;
- (b) laying down and removing substituted moorings or buoys; or
- (c) carrying out dredging operations for any such purpose,

not being costs which it would have incurred for any other reason, TfL must pay the costs reasonably so incurred by the PLA.

(2) The PLA must give to TfL not less than 20 business days' notice of its intention to incur such costs, and take into account any representations which TfL may make in response to the notice within 10 business days of the receipt of the notice.

Removal of temporary works

42.—(1) On completion of the construction of the whole or any part of a permanent specified work, TfL must—

- (a) as soon as reasonably practicable after such completion seek approval under paragraph 34 for the removal required by sub-paragraph (b); and
- (b) as soon as reasonably practicable after the grant of that approval under paragraph 34 remove—
 - (i) in the case of completion of part, any temporary tidal work (other than a residual structure) carried out only for the purposes of that part of the permanent specified work;
 - (ii) on completion of all the specified works, any remaining temporary tidal work (other than a residual structure); and
 - (iii) in either case, any materials, plant and equipment used for such construction,

and make good the site to the reasonable satisfaction of the PLA.

(2) For the purposes of TfL making good the site in accordance with sub-paragraph (1)(b), the PLA may require that—

- (a) any residual structure is cut off by TfL at such level below the bed of the river Thames as the PLA may reasonably direct; and
- (b) TfL takes such other steps to make the residual structure safe as the PLA may reasonably direct.

(3) As soon as reasonably practicable after TfL has complied with the PLA's requirements under sub-paragraphs (1) and (2) in relation to any residual structure, the PLA will grant TfL a works licence for that structure under section 66 (licensing of works) of the 1968 Act, and the terms of the licence are to reflect such requirements.

(4) For the avoidance of doubt, article 3(1)(h) (disapplication of legislation, etc.) will not apply to a residual structure which will, accordingly, be subject to sections 66 to 75 (lands above mean high water level) of the 1968 Act.

(5) In this paragraph—

“residual structure” means any part of a temporary tidal work that the PLA agrees cannot reasonably be removed by TfL on completion of the construction of the permanent specified works; and

“tidal work” means any specified work any part of which is, or may be, or, in, under or over the surface of land below mean high water level forming part of the river Thames.

Protective action

43.—(1) If any specified work or the exercise of any specified function—

- (a) is constructed or carried out otherwise than in accordance with the requirements of this Part of this Schedule or with any condition in an approval given under paragraph 34(4); or
- (b) during construction or carrying out gives rise to sedimentation, scouring, currents or wave action, which would be materially detrimental to traffic in, or the flow or regime of, the river Thames,

then the PLA may by notice in writing require TfL at TfL's own expense to comply with the remedial requirements specified in the notice.

(2) The requirements that may be specified in a notice given under sub-paragraph (1) are—

- (a) in the case of a specified work or specified function to which sub-paragraph (1)(a) applies, such requirements as may be specified in the notice for the purpose of giving effect to the requirements of—
 - (i) this Part of this Schedule; or
 - (ii) the condition that has been breached; or
- (b) in any case within sub-paragraph (1)(b), such requirements as may be specified in the notice for the purpose of preventing, mitigating or making good the sedimentation, scouring, currents or wave action so far as required by the needs of traffic in, or the flow or regime of, the river Thames.

(3) If TfL does not comply with a notice under sub-paragraph (1), or is unable to do so then the PLA may in writing require TfL to—

- (a) remove, alter or pull down the specified work, and where the specified work is removed to restore the site of that work (to such extent as the PLA reasonably requires) to its former condition; or
- (b) take such other action as the PLA may reasonably specify for the purpose of remedying the non-compliance to which the notice relates.

(4) If a specified work gives rise to environmental impacts over and above those anticipated by any environmental document, TfL must, in compliance with its duties under any enactment, take such action as is necessary to prevent or mitigate those environmental impacts and in so doing must consult and seek to agree the necessary measures with the PLA.

(5) If the PLA becomes aware that any specified work is causing an environmental impact over and above those anticipated by any environmental document, the PLA must notify TfL of that

environmental impact, the reasons why the PLA believes that the environmental impact is being caused by the specified work and of measures that the PLA reasonably believes are necessary to counter or mitigate that environmental impact. TfL must implement either the measures that the PLA has notified to TfL or such other measures as TfL believes are necessary to counter the environmental impact identified, giving reasons to the PLA as to why it has implemented such other measures.

(6) In this paragraph “environmental document” means—

- (a) the environmental statement; and
- (b) any other document containing environmental information provided by TfL to the PLA for the purposes of any approval under paragraph 34.

Abandoned or decayed works

44.—(1) If a specified work is abandoned or falls into decay, the PLA may by notice in writing require TfL to take such reasonable steps as may be specified in the notice either to repair or restore the specified work, or any part of it, or to remove the specified work and (to such extent and within such limits as the PLA reasonably requires) restore the site of that work to its condition prior to the construction of the specified work.

(2) If any specified work is in such condition that it is, or is likely to become, a danger to or an interference with navigation in the river Thames, the PLA may by notice in writing require TfL to take such reasonable steps as may be specified in the notice—

- (a) to repair and restore the work or part of it; or
- (b) if TfL so elects, to remove the specified work and (to such extent as the PLA reasonably requires) to restore the site to its former condition.

(3) If on the expiration of such reasonable period as may be specified in a notice under this paragraph the work specified in the notice has not been completed to the satisfaction of the PLA, the PLA may undertake that work and any expenditure reasonably incurred by the PLA in so doing is recoverable from TfL.

Facilities for navigation

45.—(1) TfL must not in the exercise of the powers conferred by this Order interfere with any marks, lights or other navigational aids in the river without the consent of the PLA, and must ensure that access to such aids remains available during and following construction of any specified work or the exercise of any specified function.

(2) TfL must provide at any specified work, or must afford reasonable facilities at such work (including an electricity supply) for the PLA to provide at TfL’s cost, from time to time such navigational lights, signals, radar or other apparatus for the benefit, control and direction of navigation as the PLA may deem necessary by reason of the construction and presence of the specified work and must ensure access remains available to such facilities during and following construction of the specified work.

Survey of riverbed

46.—(1) The PLA may, at TfL’s expense (such expense to be that which is reasonably incurred), carry out a survey (or externally procure the carrying out of a survey) for the purpose of establishing the condition of the river Thames—

- (a) before the commencement of construction of the first specified work below mean high water level to be constructed following approval under paragraph 34;
- (b) before the commencement of construction of any other specified work, or the carrying out of any other specified function, approved under paragraph 34;

- (c) during the construction of any specified work, or the carrying out of any specified function, as is reasonably required; and
- (d) after completion of, respectively—
 - (i) any specified work and the exercise of all related specified functions; and
 - (ii) all the specified works constructed and specified functions carried out under this Order in relation to such construction,

of such parts of the river Thames as might be affected by sedimentation, scouring, currents or wave action that might result from the construction of the relevant specified work, or the carrying out of a specified function as would, if it were to be constructed or carried out, constitute specified works, or give rise to operations, below mean high water level.

(2) The PLA must make available to TfL the results of any survey carried out under this paragraph.

(3) The PLA must not under this paragraph carry out a survey of any part of the river Thames in respect of which TfL has provided to the PLA survey material which the PLA is satisfied establishes the condition of the river Thames, and in the case of a survey under sub-paragraph (1)(c), the effect of the specified works and the specified functions.

(4) A survey carried out under this paragraph is the property of the PLA.

Statutory functions

47. Subject to article 3 (disapplication of legislation, etc.) the exercise in, under or over the river Thames by TfL of any of its functions under this Order is subject to—

- (a) any enactment relating to the PLA;
- (b) any byelaw, direction or other requirement made by the PLA or the Harbour Master under any enactment; and
- (c) any other exercise by the PLA or the Harbour Master of any function conferred by or under any enactment.

Indemnity

48.—(1) TfL is responsible for and must make good to the PLA all financial costs, charges, damages losses or expenses which may be incurred reasonably or suffered by the PLA by reason of—

- (a) the construction or operation of a specified work or its failure;
- (b) the exercise of any specified function; or
- (c) any act or omission of TfL, its employees, contractors or agents or others whilst engaged on the construction or operation of a specified work or exercise of a specified function dealing with any failure of a specified work,

and TfL must indemnify the PLA from and against all claims and demands arising out of or in connection with the specified works or specified functions or any such failure, act or omission.

(2) The fact that any act or thing may have been done—

- (a) by the PLA on behalf of TfL; or
- (b) by TfL, its employees, contractors or agents in accordance with plans or particulars submitted to or modifications or conditions specified by the PLA, or in a manner approved by the PLA, or under its supervision or the supervision of its duly authorised representative,

does not (if it was done or required without negligence on the part of the PLA or its duly authorised representative, employee, contractor or agent) excuse TfL from liability under the provisions of this paragraph.

(3) The PLA must give TfL reasonable notice of any such claim or demand as is referred to in sub-paragraph (1) and no settlement or compromise of it is to be made without the prior consent of TfL.

Compensation for temporary works

49.—(1) Regardless of article 3 (disapplication of legislation, etc.), compensation in respect of—

- (a) any specified work constructed on land specified in Schedule 7 (land of which only temporary possession may be taken) and belonging to the PLA;
- (b) any specified function exercised on that land;
- (c) the rights conferred in connection with construction of such a specified work; and
- (d) the carrying out of such a specified function,

is payable to the PLA as if TfL has been required—

- (i) to obtain a licence for the work or the exercise of the function under section 66 (licensing of works) of the 1968 Act; and
- (ii) to pay consideration for the licence determined in accordance with the provisions of section 67 (consideration for licence) of that Act.

(2) For the avoidance of doubt, in determining the amount of compensation payable under this paragraph, no account is to be taken of the value of any other specified work whose construction is facilitated by the construction and use of any specified work mentioned in sub-paragraph (1).

(3) This paragraph has effect in addition to the obligation to pay compensation in articles 29(8) (temporary use of land for carrying out the authorised development) and 30(9) (temporary use of land for maintaining the authorised development).

Apparatus in the Silvertown Tunnel area

50.—(1) Whenever TfL receives an application from any person who is considering placing or doing anything that might require TfL's consent under article 47 (no apparatus in Silvertown Tunnel area without consent), TfL will inform the person concerned of the possible need to obtain the PLA's licence under section 66 (licensing of works) of the 1968 Act in relation to that matter and will recommend that the person contacts the PLA in order to discuss the matter with the PLA.

(2) Within 5 business days of giving a consent under article 47(1), TfL must notify the PLA in writing that consent has been given and in doing so must provide the PLA with the name and address of the person to whom the consent has been given and details of the apparatus or work to which the consent relates.

Disposals, etc.

51. TfL must within 7 days after the completion of any sale, agreement or other transaction under article 59 (transfer of benefit of Order, etc.) in relation to which any powers, rights and obligations of TfL are transferred to another party, notify the PLA in writing, and the notice must include particulars of the other party to the transaction under article 59, the general nature of the transaction and details of the extent, nature and scope of the works or functions sold, transferred or otherwise dealt with.

Disputes

52. Any dispute arising between TfL and the PLA under this Part of this Schedule is to be determined by arbitration as provided in article 68 (arbitration).

PART 5

FOR THE PROTECTION OF THE ENVIRONMENT AGENCY

53. The following provisions apply for the protection of the Environment Agency unless otherwise agreed in writing between TfL and the Agency, in relation to construction of the authorised development and, within any maintenance period defined in article 30(14) (temporary use of land for maintaining the authorised development), any maintenance of any part of the authorised development.

Definitions

54. In this Part of this Schedule—

“the Agency” means the Environment Agency;

“asset control limits” means the predefined values, based on assessment, relating to safety and serviceability considerations that instigate a review of risk to the flood defences with respect of movement impacts;

“authorised work” means any work forming part of the authorised development, and “the authorised works” means all such works;

“baseline monitoring” means any surveys carried out to determine and establish movements of the flood defences due to factors external to the authorised work including (but not limited to) seasonal variations or diurnal impacts due to tide or temperature;

“construction” includes execution, placing, altering, replacing, relaying, removal and excavation, and “construct” and “constructed” are to be construed accordingly;

“damage” includes (but is not limited to) scouring, erosion, loss of structural integrity and environmental damage to any drainage work or any flora or fauna dependent on the aquatic environment, and “damaged” is to be construed accordingly;

“detailed designs” means any information submitted under paragraph 56(1);

“drainage work” means any main river and any bank, wall, embankment or other structure, or any appliance, constructed or used for land drainage, flood defence or tidal monitoring or flood storage capacity;

“ecological enhancements” means the inclusion of any features integral to or adjacent to the foreshore structures and any new, modified, or replaced flood defences that can support wildlife (including, but not limited to, where practicable, the set back of flood defences to provide inter tidal habitat and the creation of shelters for juvenile fish);

“environmental duties” means the Agency’s duties in the Environment Act 1995(10), the Natural Environment and Rural Communities Act 2006(11) and the Water Environment (Water Framework Directive)(England and Wales) Regulations 2017(12);

“fishery” means any waters containing fish and fish in, or migrating to or from such waters and the spawn, spawning grounds or food for such fish;

“fit for purpose flood defence” means a flood defence that prevents tidal flood water from entering into land and which is of the statutory defence level;

“the flood defences” means any bank, wall, embankment, bridge abutments, lock gates or other structure or any appliance (including any supporting anchorage system) that fulfils a function of preventing, or reducing the risk of, flooding to land or property which is—

(10) 1995 c. 25.

(11) 2006 c. 16.

(12) S.I. 20017/407.

(a) within the Order limits; or

(b) within the 1mm settlement contour for the final tunnel alignment;

“flood storage capacity” means any land, which, taking account of the flood defences, is expected to provide flood storage capacity for any main river;

“main river” means all watercourses shown as such on the statutory main river maps held by the Agency and the Department of Environment, Food and Rural Affairs, including any structure or appliance for controlling or regulating the flow of water into, in or out of the channel;

“maintenance” has the same meaning as in article 2(1) (interpretation), save for the exclusion of the works of inspection;

“specified day” means the business day on which detailed designs are received by the Agency under paragraph 56(1) and for the avoidance of doubt if any further information is requested by the Agency under paragraph 56(1)(i), the specified day is the business day on which the Agency receives this information from TfL;

“specified work” means so much of any permanent or temporary work or operation forming part of the authorised work (other than works required in an emergency) as is in, on, under or over a main river or drainage works or within 16 metres of a drainage work or is otherwise likely to—

(a) affect any drainage works or the volumetric rate of flow of water in or flowing to or from any drainage works;

(b) affect the flow, purity or quality of water in any main river or other surface waters or ground water;

(c) cause obstruction to the free passage of fish or damage to any fishery;

(d) affect the conservation, distribution or use of water resources; or

(e) affect the conservation value of the main river and habitats in its immediate vicinity;

“the statutory defence level” means 5.18 metres above ordnance datum;

“the structural integrity plans” means the plans and documents to be provided to the Agency under paragraph 55;

“temporary flood defence measures” means any temporary measures constructed by TfL under this Part of this Schedule for the purpose of creating a fit for purpose flood defence; and

“TE2100” means the standards associated with the strategy for managing flood risk across the Thames estuary, including recommendations for action in short, medium and long term time periods to take account of sea level rise and climate change, as adopted and updated from time to time by the Agency.

Structural integrity of flood defences

55.—(1) Prior to commencing the first authorised work likely to impact a flood defence and at least at the same time as submitting any submissions for approval in respect of the first specified work under paragraph 56, TfL must prepare at its own expense and provide to the Agency (for its approval where stated below), the following documents in the corresponding order (but nothing precludes TfL from submitting more than one document to the Agency at a time)—

(a) a schedule of defects existing in the flood defences including, where reasonably practicable, a description of the magnitude of any defect;

(b) a survey plan, for approval by the Agency, to include details of any further surveys and intrusive investigations of the flood defences proposed to be undertaken by TfL to inform the detailed design process, construction methodology and mitigation proposals;

(c) an assessment report, to—

- (i) include details of the structural integrity of the flood defences in light of any proposed authorised works;
 - (ii) include asset control limits of any sections of the flood defences;
 - (iii) identify any sections of the flood defences requiring protective works by reason of the authorised works; and
 - (iv) identify any section of the flood defences that are not a fit for purpose flood defence, such report to be based on the findings of the additional surveys carried out by TfL under the survey plan under paragraph (b), the schedule of defects provided under paragraph (a) and any available historical information;
 - (d) a mitigation design report (or reports), for approval by the Agency, to include details of the protective works identified by the assessment report provided under paragraph (c) that—
 - (i) are necessary before; or
 - (ii) may be required to be implemented as an action under the emergency preparedness plan provided under paragraph (f) during or after,the construction of the authorised development and that such details will—
 - (aa) be sensitive to the foreshore and hydraulic regime; and
 - (bb) not prevent the relevant sections of the flood defences being raised to TE2100 levels in future and such standards being maintained;
 - (e) an instrumentation and monitoring plan, for approval by the Agency, to include, in respect of the flood defences—
 - (i) details of monitoring locations (which must be established having regard to the asset control limits);
 - (ii) details of monitoring in respect of scour of any flood defence within the Order limits;
 - (iii) the frequency of monitoring (which must, as a minimum, be until—
 - (aa) the rate of settlement experienced by the flood defences directly attributable to the authorised development ceases or is less than or equal to 2 millimetres per annum; or
 - (bb) the period of 2 years has expired following the completion of the authorised development (whichever is later); and
 - (iv) the minimum amount of baseline monitoring; and
 - (f) an emergency preparedness plan, for approval by the Agency, to include details as to what actions TfL will take, including the implementation of any mitigation identified in the mitigation design report (or reports) approved under paragraph (d), in respect of the asset control limits identified in the assessment report provided under paragraph (c), including timescales and the hierarchy of actions.
- (2) TfL must implement and act in accordance with the approved structural integrity plans.
- (3) Any protective work identified as being required by the structural integrity plans is to be treated as a specified work for the purposes of this Part of this Schedule.
- (4) Following completion of the authorised development, TfL must prepare at its own expense and provide to the Agency, a completion report, to include details of—
- (a) any modifications or mitigation measures to be implemented in respect of the flood defences;
 - (b) illustrations in respect of the interactions between ground movement relating to the flood defences and construction activities;

- (c) actual ground movement in respect of the flood defences compared to predicted ground movement;
- (d) the results of a post-construction defects survey but only in relation to any differences identified when compared to the schedule of defects provided to the Agency under sub-paragraph (1)(a);
- (e) any remedial works undertaken by TfL to the flood defences; and
- (f) final as-built drawings and plans of the parts of the authorised development situated within 16 metres of a flood defence.

Specified works

56.—(1) Before commencing construction of a specified work (excluding any piling works which comprise a “licensable marine activity” as defined in the 2009 Act), TfL must submit to the Agency for its written approval—

- (a) plans, calculations, cross-sections, elevations, drawings, specifications and designs of the specified work together with the details of the positioning of any structure within the main river;
- (b) proposals for strengthening, modification, renewal or replacement of any drainage work required as a result of the anticipated impacts of the specified work;
- (c) any proposed mitigation measures to minimise the impact of the specified work on the foreshore, ecologically sensitive areas and the wider environment;
- (d) details of any ecological enhancements which are considered by TfL to be appropriate and reasonable to be incorporated into the specified work having regard to the nature of the specified work;
- (e) method statements in respect of the specified work to include both timing of and methods used, sequence of construction and the type, location and storage of all machinery, materials and fuel;
- (f) any proposals for reinstatement of the foreshore setting out timing of reinstatement works, measures to be used to minimise environmental impact of the works, materials to be used, methods of reinstatement and any proposed pollution protection measures;
- (g) information to demonstrate that the Agency will be afforded sufficient access to drainage works within the Order limits and the flood defences during the construction of the specified work to discharge its statutory functions;
- (h) details of any temporary flood defence measures which TfL wishes to construct to provide a fit for purpose flood defence during construction of the specified work; and
- (i) such further particulars as the Agency may within 20 business days of the receipt of the detailed designs reasonably require.

(2) Any such specified work must not be constructed except in accordance with all detailed designs as may be approved in writing by the Agency under sub-paragraph (1) (having regard to any structural integrity plans approved under paragraph 55), or settled in accordance with paragraph 64 where applicable, and in accordance with any reasonable conditions or requirements specified under this paragraph.

Approvals

57.—(1) Any approval of the Agency required under paragraph 55(1) or 56(1)—

- (a) must not be unreasonably withheld;
- (b) in the case of a refusal, must be accompanied by a statement of the grounds of refusal;

- (c) may be given subject to such reasonable requirements or conditions as the Agency may make for the protection of any drainage work, flood defence, fishery, main river or water resources, or for the prevention of flooding or pollution or in the discharge of its environmental duties (but not including any requirement for TfL to improve any flood defence where temporary flood defence measures approved under paragraph 56 have been or are proposed to be constructed by TfL); and
 - (d) is deemed to have been refused if it is neither given nor refused within 35 business days of the specified day unless otherwise agreed.
- (2) Without limitation on the scope of sub-paragraph (1) the requirements or conditions which the Agency may make under sub-paragraph (1) include conditions requiring TfL at its own expense to construct such protective works (including any new works as well as alterations to existing works) as are reasonably necessary—
- (a) to safeguard any drainage work or flood defence against damage;
 - (b) to secure that its efficiency or effectiveness for flood defence purposes is not impaired; or
 - (c) to ensure the risk of flooding is not otherwise increased by reason of any specified work, maintenance work or protective work,
- during the construction of or by reason of the works.
- (3) Any dispute in respect of any approval or refusal under this paragraph is subject to the dispute resolution procedure in paragraph 64.

Inspection and construction

58.—(1) All works must be constructed without unnecessary delay in accordance with the detailed designs approved or settled under this Part of this Schedule and to the reasonable satisfaction of the Agency.

(2) Save where TfL constructs a specified work in accordance with any detailed designs approved by the Agency under paragraph 56, TfL must not damage or obstruct any drainage work during the construction of a specified work.

(3) An officer of the Agency is entitled to watch and inspect the construction of any specified work.

(4) TfL must give to the Agency not less than 10 business days' notice in writing of its intention to commence construction of a specified work and notice in writing of its completion not later than five business days after the date on which it is completed.

(5) If the Agency reasonably requires, TfL must construct all or part of any protective works so that they are in place prior to the carrying out of any specified work to which they relate.

(6) If any part of a specified work is constructed otherwise than in accordance with the requirements of this Part of this Schedule, the Agency may by notice in writing require TfL at TfL's own expense to comply with the requirements of this Part of this Schedule or if TfL so elects (and the Agency in writing consents, such consent not to be unreasonably withheld or delayed) to remove, alter or pull down the work and, where removal is required, to restore the site to its former condition to such extent and within such limits as the Agency reasonably requires.

(7) Subject to sub-paragraph (8), if within a reasonable period, being not less than 28 days from the date when a notice under sub-paragraph (6) is served upon TfL, it has failed to begin taking steps to comply with the requirements of the notice and subsequently to make reasonably expeditious progress towards their implementation, the Agency may execute the works specified in the notice and any expenditure incurred by it in so doing is recoverable from TfL.

(8) In the event of any dispute as to whether sub-paragraph (6) is properly applicable to any work in respect of which notice has been served under that sub-paragraph, or as to the reasonableness of

any requirement of such a notice, the Agency must not, except in an emergency, exercise the powers conferred by sub-paragraph (7) until the dispute has been finally determined.

Maintenance of the flood defences

59.—(1) Subject to the provisions of this Part of this Schedule and except to the extent that the Agency or any other person is liable to maintain any drainage work and is not precluded by the exercise of the powers of this Order from doing so, TfL must from the commencement of the construction of the specified works until their completion (and during any maintenance works carried out on land temporarily occupied under article 30 (temporary use of land for maintaining the authorised development)) maintain free from obstruction and to the reasonable satisfaction of the agency any drainage work which is situated within the limits of deviation or on land held by TfL for the purposes of or in connection with the specified works, whether or not the drainage work is to be constructed under the powers of this Order or is already in existence, so that the drainage work is a fit for purpose flood defence.

(2) TfL must, from the commencement of the construction of the specified works until their completion (and during any maintenance works carried out on land temporarily occupied under article 30) maintain free from obstruction and to the reasonable satisfaction of the Agency any temporary flood defence measures approved under paragraph 56, so that they are a fit for purpose flood defence.

(3) If TfL constructs and thereafter maintains in accordance with sub-paragraph (2) temporary flood defence measures approved by the Agency pursuant to paragraph 56, the obligation in sub-paragraph (1) does not apply to the extent that TfL may maintain the existing drainage work to which the temporary flood defence measures relate to the same standard of repair and condition as the schedule of defects and assessment report prepared under paragraph 55(1) showed it to be in before commencement of the specified works.

(4) If any such work that TfL is liable to maintain under sub-paragraph (1) or (2) is not maintained to the reasonable satisfaction of the Agency, the Agency may by notice in writing require TfL to repair and restore the work, or any part of it, or (if TfL so elects and the Agency in writing consents, such consent not to be unreasonably withheld), to remove the work and restore the site to its former condition, to such extent and within such limits as the Agency reasonably requires.

(5) If, within a reasonable period being not less than 20 business days beginning with the date on which a notice in respect of any work is served under sub-paragraph (4) on TfL, that person has failed to begin taking steps to comply with the reasonable requirements of the notice and has not thereafter made reasonably expeditious progress towards their implementation, the Agency may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in doing so from TfL.

(6) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (4), the Agency must not, except in a case of immediate foreseeable need, exercise the powers of sub-paragraph (5) until the dispute has been finally determined.

(7) If any maintenance of a drainage work carried out by TfL under sub-paragraph (1) is not required as a result of, or is not attributable to the construction of, the specified works then TfL may recover the expenditure reasonably incurred by it in maintaining the drainage work from the person who is ordinarily liable to maintain that work.

(8) In the event that the Agency recovers from TfL any expenditure for work carried out by it under sub-paragraph (5) in respect of maintenance that is not required as a result of, or is not attributable to the construction of, the specified works then TfL may in turn recover from the person who is ordinarily liable to maintain the drainage work so much of that expenditure as that person would ordinarily have incurred in maintaining the work.

Emergency powers

60.—(1) Subject to sub-paragraph (4), if by reason of the construction of any specified work or any other development authorised by this Order, or the failure of any such work, the efficiency or effectiveness of any drainage work or the conservation value of the aquatic habitat is impaired, or that drainage work is otherwise damaged, so as to require remedial action, such impairment or damage must be made good by TfL to the reasonable satisfaction of the Agency.

(2) If such impaired or damaged drainage work is not made good to the reasonable satisfaction of the Agency, the Agency may by notice in writing require TfL to restore it to its former standard of efficiency or where necessary to construct some other work in substitution for it.

(3) If, within a reasonable period being not less than 28 days beginning with the date on which a notice in respect of impaired or damaged drainage work is served under sub-paragraph (2) on TfL, TfL has failed to begin taking steps to comply with the requirements of the notice and has not thereafter made reasonably expeditious progress towards its implementation, the Agency may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in so doing from TfL.

(4) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (2), the Agency must not except in a case of immediate foreseeable need exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined in accordance with paragraph 64.

(5) In any case where immediate action by the Agency is reasonably required in order to secure that the imminent flood risk or damage to the environment is avoided or reduced, the Agency may take such steps as are reasonable for the purpose and may recover from TfL the reasonable cost of so doing provided that the notice specifying those steps is served on TfL as soon as it is reasonably practicable after the Agency has taken or commence to take the steps specified in the notice.

Protection for fish and fisheries

61.—(1) TfL must take all such measures as may be reasonably practicable to prevent any interruption of the free passage of fish in any fishery during the construction of any specified work.

(2) If by reason of—

- (a) the construction of any specified work; or
- (b) the failure of any such specified work,

damage to a fishery is caused, or the Agency has reason to expect that such damage may be caused, the Agency may serve notice on TfL requiring it to take such steps as may be reasonably practicable to make good the damage or, as the case may be, to protect the fishery against such damage.

(3) If, within such time as may be reasonably practicable for that purpose after the receipt of written notice from the Agency of any damage or expected damage to a fishery, TfL fails to take such steps as are described in sub-paragraph (1), the Agency may take such steps as are reasonable for the purpose and may recover from TfL the reasonable cost of so doing provided that the notice specifying those steps is served on TfL as soon as is reasonably practicable after the Agency has taken, or commenced to take the steps specified in the notice.

Indemnities and costs

62.—(1) TfL is responsible for and must indemnify the Agency against all claims, demands, proceedings, costs, expenses, damages and losses not otherwise provided for in this Part of this Schedule which may be reasonably incurred or suffered by the Agency by reason of—

- (a) the construction or operation or maintenance of any specified works comprised within the authorised development or the failure of any such works comprised within them; or

- (b) any act or omission of TfL, its employees, contractors or agents or others whilst engaged upon the construction or operation or maintenance of the authorised works or dealing with any failure of the authorised works,

and TfL must indemnify and keep indemnified the Agency from and against all claims and demands arising out of or in connection with the authorised works or any such failure, act or omission.

(2) The fact that any act or thing may have been done—

- (a) by the Agency on behalf of TfL; or
- (b) by TfL, its employees, contractors or agents in accordance with plans or particulars submitted to or modifications or conditions specified by the Agency, or in a manner approved by the Agency, or under its supervision or the supervision of its duly authorised representative,

does not (if it was done or required without negligence on the part of the Agency or its duly authorised representative, employee, contractor or agent) excuse TfL from liability under the provisions of this paragraph.

(3) The Agency must give TfL reasonable notice of any such claim or demand as is referred to in sub-paragraph (1), and no settlement or compromise of any such claim or demand can be made without the prior consent of TfL.

Notices

63. All notices under this Part of the Schedule are to be sent to the Agency by email to PSO-Thames@environment-agency.gov.uk and PSO.SELondon&NKent@environment-agency.gov.uk unless otherwise agreed in writing.

Dispute resolution

64. Any difference or dispute arising between TfL and the Agency under this Part of this Schedule is to be determined by arbitration in accordance with article 68 (arbitration) unless otherwise agreed in writing between TfL and the Agency.

PART 6

FOR THE PROTECTION OF THE LONDON BOROUGH OF NEWHAM AND THE ROYAL BOROUGH OF GREENWICH

65. The following provisions of this Part of this Schedule have effect, unless otherwise agreed in writing between TfL and the appropriate Council.

66. In this Part of this Schedule—

“the appropriate Council” means—

- (a) the Council of the London Borough of Newham, in relation to any part of the authorised development constructed in the area of that council; and
- (b) the Council of the Royal Borough of Greenwich, in relation to any part of the authorised development constructed in the area of that council;

“GLA side road” has the same meaning as in the 1984 Act;

“highway” means a street vested in or maintainable by the appropriate Council as highway authority under the 1980 Act;

“highway operations” means the construction of any part of the authorised development which will involve the interference with a highway or (where the highway is not a GLA side road) the traffic in a highway and any temporary stopping up, alteration or diversion of a highway; and “plans” includes sections, drawings, specifications and particulars (including descriptions of methods of construction).

67. Without affecting the application of sections 59(13) and 60(14) of the 1991 Act (duty of street authority to co-ordinate and undertakers to co-operate) before commencing any highway operations, TfL must submit to the appropriate Council for its approval proper and sufficient plans and must not commence the highway operations until such plans have been approved or settled by arbitration.

68. If, within 56 days after any plans have been submitted to the appropriate Council under paragraph 67, it has not intimated its disapproval and the grounds of disapproval, it is deemed to have approved them.

69. In the event of any disapproval of plans by the appropriate Council under paragraph 67, TfL may re-submit the plans with modifications and, in that event, if the appropriate Council has not intimated its disapproval and the grounds of disapproval within 28 days of the plans being re-submitted, it is deemed to have approved them.

70. So much of the authorised development as forms part of or is intended to become a highway, or part of any such highway, and which are not street works as respects which the provisions of Part 3 (street works in England and Wales) of the 1991 Act apply, must be completed in accordance with the reasonable requirements of the appropriate Council which is to become the highway authority or, in case of difference between TfL and the appropriate Council as to whether those requirements have been complied with or as to their reasonableness, in accordance with such requirements as may be approved or settled by arbitration.

71. TfL must not, except with the consent of the appropriate Council, deposit any soil, subsoil or materials or stand any vehicle or plant on any highway (except on so much of it as is for the time being temporarily stopped up or occupied under the powers conferred by this Order) so as to obstruct the use of the highway by any person or, except with the same consent, deposit any soil, subsoil or materials on any highway except within a hoarding.

72. Except in an emergency or where reasonably necessary to secure the safety of the public no direction or instruction may be given by the appropriate Council to the contractors, servants or agents of TfL regarding any highway operations without the prior consent in writing of TfL; but the appropriate Council is not liable for any additional costs which may be incurred as a result of the giving of instructions or directions under this paragraph.

73. TfL must, if reasonably so required by the appropriate Council, provide and maintain during such time as TfL may occupy any part of a highway for the purpose of the construction of any part of the authorised development that is not a GLA side road, temporary ramps for vehicular traffic or pedestrian traffic, or both, and any other traffic measures required to protect the safety of road users in accordance with the standard recommended in Chapter 8 of the Traffic Signs Manual issued for the purposes of the Traffic Signs Regulations and General Directions 1994(15) in such position as may be necessary to prevent undue interference with the flow of traffic in any highway.

74. TfL must indemnify the appropriate Council against any claim which may arise as a result of any subsidence of, or damage to, any highway or any retained sanitary convenience, refuge, sewer, drain, lamp column, traffic sign, bollard, bin for refuse or road materials or associated apparatus or any other property or work belonging to, or under the jurisdiction or control of, or maintainable by, the appropriate Council on or under any highway which may be caused by, or in consequence of,

(13) As amended by section 42 of the Traffic Management Act 2004 (c. 18).

(14) As amended by section 40(1) and (2) of, and Schedule 1 to, the Traffic Management Act 2004.

(15) S.I. 1994/1519.

Status: This is the original version (as it was originally made).

any act or default of TfL, its contractors, servants or agents but the appropriate Council must give to TfL reasonable notice of any such claim and no settlement or compromise of it may be made without TfL's prior consent.

75. Wherever in this Part of this Schedule provision is made with respect to the approval or consent of the appropriate Council, that approval or consent must be in writing and may be given subject to such reasonable terms and conditions as the appropriate Council may require in the interests of safety and in order to minimise inconvenience to persons using the highway, but must not be unreasonably withheld.

76. Unless otherwise agreed between the parties any difference arising between TfL and the appropriate Council under this Part of this Schedule (other than a difference as to its meaning or construction) must be determined by arbitration in accordance with article [68](#) (arbitration).