

00884/24

DATED

26 June

2024

SUFFOLK COUNTY COUNCIL

(1)

- and -

HOPKINS HOMES LIMITED

(2)

AGREEMENT

made pursuant to Sections 278 and 38 of the Highways Act 1980
and any other enabling power relating to
the development of land at Sicklesmere Road, Bury St. Edmunds, Suffolk

Nigel Inniss
Head of Governance
Suffolk County Council
8 Russell Road Ipswich
Suffolk IP1 2BX

Ref: AW/80580

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THIS AGREEMENT is made the 26th day of June 2024
BETWEEN the following parties :-

- (1) SUFFOLK COUNTY COUNCIL of Endeavour House 8 Russell Road Ipswich
Suffolk IP1 2BX ("the County Council")
- (2) HOPKINS HOMES LIMITED (company number 02875798) of Melton Park
House, 4 Scott Lane, Melton, Woodbridge, IP12 1TJ ("the Developer")

RECITALS AND DEFINITIONS

(A) In this Agreement unless the context otherwise requires the following words shall have the following meanings :-

"1980 Act"	Means the Highways Act 1980 (as amended)
"Approved Contractor"	Means the contractor(s) approved by the County Council for carrying out the Highway Works of the value and complexity proposed
"Approved Sub-Contractor"	Means the sub-contractor(s) approved by the County Council for carrying out the Highway Works of the value and complexity proposed
"CDM Regulations"	Means the Construction (Design and Management) Regulations 2015 (SI 2015/51)
"Certificate of Final Completion"	Means any of the certificates referred to in paragraph 15.3 of Schedule I
"Certificate of Substantial Completion"	Means any of the certificates referred to in paragraph 14.2 of Schedule I
"Commutated Sums"	Means the sum of £156,326.00 (one hundred and fifty-six thousand three hundred and twenty-six pounds) which is calculated, as set out in paragraph 18.1 on Schedule I towards the cost of the County Council's future maintenance liability of the Highway Works

"Contract"	Means the contract or contracts in respect of each and all of the Highway Works
"Contractor"	Means the contractor or contractors who have been awarded the Contract to execute the Highway Works. For the avoidance of doubt the aforementioned definition does not include any subcontractor
"Development"	Means the development to be carried out pursuant to the Permission
"Director"	Means the County Council's Executive Director of Growth, Highways and Infrastructure or other officers of the County Council acting under his hand
"Highway Works"	Means the works collectively or individually as the context requires which are set out in Schedule III of this Agreement and shown in the Works Drawings
"Highway Structure"	Means any bridge, subway, culvert, pipe, tunnel, or other structure built in, over, under or adjacent to any part of the highway
"Performance Bond"	Means the bond with the Performance Bond Surety for each and all of the Highway Works, such bond to be in the form set out in Schedule II.A, to the effect that should the Developer default in the execution of its obligations to carry out the Highway Works and to maintain the same in accordance with the provisions of this Agreement then the County Council will call upon the Performance Bond Surety to provide the full value of the Performance Bond (subject to the provisions hereinafter contained) to carry out the Highway Works and maintain the same as aforesaid
"Performance Figure"	Means the sum of £1,760,418.00 (one million seven hundred and sixty thousand four hundred and eighteen pounds) being the Tender Sum plus 10 per cent in respect of the Highway Works and as set out in each of the Contracts

"Performance Bond Surety"	Means National House Building Council (NHBC)
"Permission"	Means the planning permission granted by West Suffolk Council dated 6 March 2020 granted with reference number DC/15/2483/OUT in respect of the Site together with any modification of it
"Road Safety Audit"	Means the evaluation of each and all of the Highway Works during design and at the end of construction to identify potential road safety problems that may affect any users of the highway and to suggest measures to eliminate or mitigate those problems in accordance with Department for Transport standards or by the County Council as agreed by the Director
"Site"	Means land situated at Sicklesmere Road, Bury St. Edmunds, Suffolk shown edged green for identification only on the attached plan no 2107-592-300 – Site Location Plan
"Specification"	The County Council's "Specification for Estate Roads" dated May 2007 (or later amendment current at the date of this Agreement) so far as this is consistent with the Works Drawings and description in Schedule III (subject to any variations agreed in writing by the Director)
"Sub-contractor"	Means the sub-contractor(s) working for the Contractor(s) who have been contracted to execute the Highway Works
"Substantial Completion"	Means complete to the reasonable satisfaction of the Director and so that the Highway Works can be used for the purpose and operate in the manner for which they were designed
"Technical Standards"	Means the standards necessary to ensure complete conformity with all UK primary and secondary legislation (including by-laws) all guidance standards and codes of practice issued by the Department for Transport the County Council statutory undertakers and relevant professional institutes the Road Safety Audit and formal instructions issued by the Director from time to time during the design and

implementation of the Highway Works and for the avoidance of doubt this shall include the Traffic Signs Regulations and General Directions 2016 and BS5489 in relation to the design of any street lighting

"Tender Sum" Means the sum of £1,600,380.00 (one million six hundred thousand three hundred and eighty pounds) (including the costs associated with statutory undertakers work and traffic management) agreed by the Director for carrying out the Contract by the Contractor

"Works Drawings" Means the attached drawings bearing the numbers referred to in Schedule IV or any subsequent revision of them which has been approved or requested by the Director and which relate to the Highway Works

(B) In this Agreement unless the context otherwise requires :-

- (i) Words importing the singular meaning where the context so admits include the plural meaning and vice versa; and
- (ii) Words of the masculine gender include the feminine and neuter genders and words denoting actual persons include companies, corporations and firms and all such words shall be construed interchangeably in that manner; and
- (iii) "party" or "parties" means a party or parties to this Agreement; and
- (iv) references to any party shall include the successors in title and assigns of that party; and in the case of the County Council the successors to its statutory functions; and
- (v) where a party includes more than one person any obligations of that party can be enforced against all of them jointly and severally unless there is an express provision otherwise; and
- (vi) the headings and contents list in this Agreement shall not form part of or affect its construction; and
- (vii) references to clauses schedules and paragraphs are references to clauses in and schedules to this Agreement and paragraphs in schedules to this Agreement; and

- (viii) where a party or any officer or employee is required to give its consent approval or agreement to any specific provision in this Agreement such consent approval or agreement shall not be unreasonably withheld or delayed; and
 - (ix) any mention herein of any act or of any section regulation or statutory instrument shall be deemed to refer to the same source as at any time amended and where such act section regulation or statutory instrument has been replaced consolidated or re-enacted with or without amendment such mention shall be deemed to refer to the relevant provision of the updating consolidating or re-enacting act or section or regulation or statutory instrument
- (C) The County Council is the highway authority (except for trunk roads) for the purposes of the 1980 Act for the area within which the Site is situated and the Highway Works will be carried out
- (D) The Developer has the benefit of the Permission
- (E) The Developer is the registered proprietor with title absolute of the Site registered at the Land Registry under Title Number SK330946
- (F) The Developer wishes to dedicate as public highway that part of the Site upon which the Highway Works are to be constructed which does not currently form part of the public highway and the County Council agrees to accept such dedication and adopt that part of the Site and the Highway Works as highway maintainable at public expense on the terms and conditions hereinafter contained
- (G) Having regard to the development plan and other material considerations the County Council considers it expedient in the interests of the proper planning of their area that the Highway Works need to be carried out to facilitate the Development and that entering into this Agreement will be of benefit to the public

NOW THIS DEED WITNESSES as follows:-

1 LEGAL EFFECT

- 1.1. This Agreement and the covenants that appear hereinafter are made pursuant to Sections 38 72 and 278 of the 1980 Act Section 33 Local Government (Miscellaneous Provisions) Act 1982 Section 111 of the Local Government Act 1972 and Section 1 of the Localism Act 2011 and all other enabling powers to the intent that the provisions of this Agreement shall bind the Site and the parties hereto and all persons deriving title through or under them
- 1.2. This Agreement is a Deed. Any financial default under this Agreement will be registered as a Local Land Charge under section 278(5)(c) of the 1980 Act
- 1.3. No waiver (whether express or implied) by the County Council of any breach or default by the Developer in the performance or observance of any of the covenants, terms or obligations in this Agreement shall constitute a continuing waiver and no such waiver shall prevent the County Council from enforcing any of the covenants, terms or obligations or from acting upon any subsequent breach or default in respect thereof
- 1.4. Any provision of this Agreement which is or may be unlawful void or unenforceable shall to the extent of such unlawfulness invalidity or unenforceability be deemed severable and shall not affect any other provision of this Agreement
- 1.5. This Agreement is governed by and interpreted in accordance with English law and shall be determined in the Courts of England

2 NOTICES

- 2.1. Any notices or other written communication to be served or given by one party upon or to any other party under the terms of this Agreement shall be deemed to have been validly served or given if delivered by hand or sent by recorded delivery post or sent by the DX service to the party upon whom it is to be served or to whom it is to be given or as otherwise notified for the purpose by notice in writing provided that the

notice or other written communication is addressed and delivered by hand or by recorded delivery post or by the DX service to the address of the party concerned as nominated in sub-clause 2.2. below

- 2.2. The address for any notice or other written communication in the case of each party to this Agreement shall be as follows:-

The County Council	Suffolk County Council Endeavour House 8 Russell Road Ipswich IP1 2BX marked for the attention of the Assistant Director of Governance, Legal and Assurance (or where the context requires the Executive Director of Growth, Highways and Infrastructure, Endeavour House 8 Russell Road Ipswich IP1 2BX)
The Developer	marked for the attention of the Director of Technical of Hopkins Homes Limited Melton Park House, 4 Scott Lane, Melton, Woodbridge, IP12 1TJ

- 2.3. Any notice or other written communication to be given by the County Council shall be deemed to be valid and effective if on its face it is signed on behalf of the County Council by a duly authorised officer

3 GENERAL

- 3.1. All works and activities to be carried out under the terms of this Agreement (including for the avoidance of doubt such works as are of a preparatory ancillary or of a maintenance nature) are (save where expressly provided otherwise) to be at the sole expense of the Developer and at no cost to the County Council
- 3.2. All consideration given and payments made in accordance with the provisions of this Agreement shall be exclusive of any VAT properly payable in respect thereof and in the event of VAT becoming chargeable at any time in respect of any supply made in accordance with the terms of this Agreement then to the extent that VAT had not

previously been charged in respect of that supply the person making the supply shall raise a VAT invoice to the person to whom the supply was made and the VAT shall be paid accordingly

- 3.3. The County Council and their respectively duly authorised officers and agents may enter upon the land on which the Highway Works are being carried out at any reasonable time to ascertain whether the terms of the Agreement are being or have been complied with

4 ARBITRATION

- 4.1. Any dispute or difference arising between the parties as a result of this Agreement may be referred to the arbitration of a single arbitrator to be agreed upon between the parties or failing agreement within fourteen days after either of the parties has given to the other a written request requiring the appointment of an arbitrator to a person to be appointed at the request of either of the parties by the President for the time being of The Institution of Civil Engineers
- 4.2. Any reference to arbitration shall be undertaken in accordance with and subject to the provisions of the Arbitration Act 1996 save as follows:-
- (a) the seat of the arbitration shall be at the County Council's offices in Ipswich Suffolk
 - (b) where appropriate the arbitrator may consolidate arbitral proceedings
 - (c) with the parties' agreement the arbitrator may appoint experts or legal advisers
- 4.3 A party wishing to refer any such dispute or difference to arbitration shall notify the other party in writing of such intention without delay
- 4.4 The arbitrator shall act as a referee and not as an expert except in any case where the parties to a dispute or difference agree on the arbitrator when such parties may also agree that such arbitrator shall act as an expert
- 4.5 Subject to Sections 67 68 and 69 of the Arbitration Act 1996 the parties agree to be bound by the decision of the arbitrator

5 COVENANTS

- 5.1 The Developer covenants and warrants to the County Council that they have full power to enter into this Agreement and there is no other person having a charge over or any other interest in the Site whose consent is necessary for the Developer to enter into this Agreement and to comply with the obligations set out at paragraph 14.3 of Schedule I
- 5.2 The Developer hereby covenants and undertakes with the County Council that from the date of this Agreement it will (unless otherwise agreed by the County Council) carry out and comply with the obligations set out in Schedule I and the details set out in Schedules III and IV hereto
- 5.3 The County Council without prejudice to its statutory powers and duties hereby appoints the Developer to act as its agent and gives to the Developer licence (in so far as is reasonably necessary for the Developer to perform the obligations under the terms of this Agreement) to enter into and upon and remain upon the highway to carry out the construction of the Highway Works within the timescales referred to in Schedule III hereto or such other period as may be agreed in writing by the Director, provided that this licence shall not extend to the Developer's successors in title or assigns unless otherwise agreed in writing by the Director prior to that successor or assignee commencing work in the public highway
- 5.4 The Developer covenants with the County Council not to commence the Highway Works set out in Schedule III unless road space has first been booked with the County Council
- 5.5 The Developer covenants with the County Council as highway authority to give written notice not less than three calendar months prior to works commencing, in order that the County Council as highway authority has sufficient time to ensure that the commencement of works will cause the least disruption possible to road users and the County Council reserves the right to refuse consent and/or to stop or require the stopping of works under the terms of this Agreement and relevant legislation where the aforesaid notice period is not complied with
- 5.6 The Developer covenants with the County Council as highways authority to comply with the provisions of the New Roads and Street Works Act 1991, the Traffic Management Act 2004 and any amendments thereof

5.7 The County Council covenants with the Developer that on the date of issue of the Certificate of Final Completion the roads subject to the Highway Works shall thenceforth be, to the extent they are not already, adopted as highways maintainable at the public expense

6 Not used.

7 THIRD PARTY RIGHTS

7.1 It is hereby agreed and declared that the provisions of Contracts (Rights of Third Parties) Act 1999 shall not apply to this Agreement

8 LAPSE

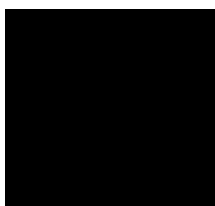
8.1 If the Highway Works have not been commenced within one (1) year from the date of this Agreement, save as this period is otherwise extended in writing by the Director at his discretion, then this Agreement shall lapse and be of no further effect (save to the extent already complied with) and the Developer agrees to pay to the County Council any costs properly incurred by the County Council prior to the lapse of this Agreement (which have not already been paid) including but not limited to those costs set out in paragraph 19 of Schedule I to this Agreement

8.2 Where, in accordance with clause 8.1 above the Director, at his discretion, agrees in writing to an extension to the period of one (1) year after which this Agreement shall lapse, this Agreement shall lapse at the end of such period as agreed in writing by the Director where the Highway Works have not been commenced by the expiry of that extension period

In witness whereof this Agreement has been executed and delivered as a Deed on the date first written above

The COMMON SEAL of
SUFFOLK COUNTY COUNCIL
was hereunto affixed
in the presence of

)
)
)
)



.....
authorised Officer



EXECUTED as a deed by
BIRKETTS LLP
as attorney for
HOPKINS HOMES LIMITED
In the presence of:

Attorney's signature:

Attorney's name (PRINTED):

Designated Member of Birketts LLP, as attorney for Hopkins Homes Limited

Witness' signature:

Witness' name:

Witness' address:

Witness' occupation:

SCHEDULE I

1 THE DESIGN OF THE HIGHWAY WORKS

- 1.1 The design of the Highway Works shall be to the satisfaction of the Director with due consideration of the Technical Standards
- 1.2 No work on any of the Highway Works shall commence and no Contract for their construction shall be let until
 - 1.2.1 full details of the design of the Highway Works to be commenced in the form of plans, drawings, specifications and other materials have been submitted to the Director together with the name of the principal designer (whom the Developer shall appoint for the full duration of the design and construction of each and all of the Highway Works) in accordance with the CDM Regulations and any codes of practice referred to therein
 - 1.2.2 the Director has given his written approval to the Highway Works to be commenced and such approval shall not be given if the said plans, drawings, specifications and other documentation have not adequately addressed the issues raised in the pre-construction stages of the Road Safety Audit process and if given shall lapse if the Highway Works are not commenced within twelve (12) months of the date of the said Director's approval
 - 1.2.3 preliminary proposals, detailed contract drawings, schedules and specifications for Highway Structures have been prepared by the Developer and submitted for written approval to the Director's Bridge Office in accordance with Department for Transport Document BD2/12 and the structural design and checking procedure has been carried out by an incorporated or chartered engineer familiar with Department for Transport Codes of Practice and experienced in the design of Highways Structures. The documents are to be agreed as applicable with the Director before the design is commenced and details are submitted for approval

- 1.3 If the Director does not propose to give his approval in relation to those matters referred to in paragraph 1.2 of this Schedule he shall in each case as soon as possible in writing inform the Developer and if the Director requires amendments or additions to the plans drawings specifications and other materials referred to in paragraph 1.2 of this Schedule these amendments shall be undertaken by the Developer at his own expense and a revised set of updated documents shall be re-submitted to the Director for his approval
- 1.4 Without prejudice to paragraph 1.2 of this Schedule, the Director shall not give his approval as referred therein until the Developer has paid the sum referred to in paragraph 19.1.3 towards the cost of checking the design of the Highway Works and inspecting the Highway Works. The Highway Works at all times shall be carried out in accordance with the plans, drawings, specifications and other materials which have received the Director's approval referred to in paragraph 1.2 of this Schedule and the Developer shall in the execution of the Highway Works comply or ensure that the Contractor complies with the Technical Standards

2 LETTING OF THE CONTRACT

- 2.1 No Contract shall be let until all traffic management measures have been prepared by the Developer and approved in writing by the Director ("the approved programme") and thereafter each of the Contracts will be offered to an Approved Contractor
- 2.2 The Contract to be let under paragraph 2.1 of this Schedule shall be let under NEC3 suite of contracts (and any amendments thereto shall be approved by the Director) and the Developer shall obtain the agreement of the Contractor to be bound by the agreed drawings in Schedule IV
- 2.3 The Contract shall be awarded by the Developer subject to the Director having first given his written approval to the proposed chartered engineer(s) or other suitably qualified person(s) who shall be independent of the Contractor and will supervise the execution of the Highway Works by the Contractor
- 2.4 The Developer shall not award the Contract unless the Approved Contractor and the Approved Sub-Contractor/s concerned are insured throughout the period of the Contract (such period to include the

maintenance period detailed in paragraph 15.1 of this Schedule) for public liability risks in the sum of at least ten million pounds (£10,000,000) in respect of any single claim and the Developer shall ensure that the Contractor remains so insured throughout the period of the Contract and prior to the commencement of each or all of the Highway Works or any maintenance works carried out in accordance with paragraph 15.1 of this Schedule the Developer shall produce to the Director insurance policies fully covering the Developer's liability in respect of the matters set out in this Agreement

- 2.5 The Developer shall not sub-contract or assign the Contract without the written approval of the Director and any sub-contractor shall be an Approved Sub-Contractor

3 INSPECTION OF THE HIGHWAY WORKS

- 3.1 The Developer shall provide the Director with not less than twenty-four (24) hours nor more than seventy-two (72) hours notice (excluding weekends and bank holidays) of any intended execution of the Highway Works specifying the tasks to be carried out in accordance with the approved programme referred to in paragraph 2.1 of this Schedule
- 3.2 Without prejudice to the approved programme the Developer shall notify the Director in writing at least twenty-eight (28) days prior to the commencement of any work connected with statutory undertaker's equipment
- 3.3 Without prejudice to the approved programme the Developer shall notify the Bridge Office and the Director in writing at least seventy-two (72) hours prior to the commencement of each and every stage of excavation and concrete operations associated with any Highway Structures
- 3.4 The Developer shall during the progress of each and all of the Highway Works give to or procure for the Director and any person or persons duly authorised by him free access to every part of the Highway Works and the Site and permit him or them to inspect the same as they proceed and all materials used or intended to be used therein and shall give effect to any reasonable and proper requirements made or reasonable and proper directions given by the Director to conform to the approved detailed plans

Works Drawings and specification referred to in paragraph 1.2 of this Schedule

- 3.5 The Developer shall not cover up or put out of view any works forming part of the Highway Works without the approval of the Director and shall afford full opportunity for the Director to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon and shall give at least seventy-two (72) hours' notice to the Director whenever any such work or foundations is or are ready or about to be ready for examination
- 3.6 The Director shall without unreasonable delay, unless she considers it unnecessary and advises the Developer accordingly, attend when required by the Developer for the purpose of examining such works or of examining such foundations
- 3.7 The Director shall for the purposes of paragraphs 3.1 to 3.6 be allowed reasonable access and admission to the Highway Works or the places where materials or plant for the Highway Works may be stored or in the course of preparation manufacture or use (unless such access or admission is refused due to circumstances beyond the control of the Developer)

4 TESTING OF MATERIALS

- 4.1 The Developer shall reimburse the County Council for all reasonable costs and expenses whatsoever arising from the operation of paragraphs 4.2 to 4.5
- 4.2 The Director shall require the testing of materials plant and workmanship used or proposed to be used in the Highway Works and in his reasonable discretion have the power to reject any materials plant or workmanship so tested which he may reasonably and properly find to be not in accordance with the approved detailed plans Works Drawings and specification referred to in paragraph 1.2 of this Schedule and in relation to Highways Structures the Director will require a schedule of testing to be agreed prior to the commencement of works or any part thereof
- 4.3 The Developer shall as soon as is reasonably practicable replace or repair any materials plant or workmanship which have been found to be

not in accordance with the approved detailed plans Works Drawings and specification referred to in paragraph 1.2 of this Schedule

4.4 The Director shall for the purposes of paragraphs 4.2 to 4.5 be allowed reasonable access and admission to the Highway Works or the places where materials or plant for the Highway Works may be stored or in the course of preparation manufacture or use (unless such access or admission is refused due to circumstances beyond the control of the Developer)

4.5 The Developer shall as soon as is reasonably practicable remove such materials and plant as are rejected by the Director pursuant to paragraph 4.2. of this Schedule which are not capable of repair or remedy from the Site and if the Developer shall wish to continue to store such rejected materials and plant on the Site they shall be stored separately from those materials and plant which have not been so rejected or which the Developer shall wish in future to use in execution of the Highway Works

5 OPENING OF THE HIGHWAY WORKS

5.1 During the construction of each and all of the Highway Works and prior to the issue of the Certificate of Substantial Completion:

(a) the Director may issue instructions to the Developer to open or expose any of the Highway Works which has been covered up without previously being inspected by the Director

(b) should the Developer fail to comply with any such instructions the County Council may so take up or expose the relevant part of the Highway Works causing as little damage or inconvenience as is possible in respect of any other part or parts of the Highway Works the reasonable and proper cost of such taking up or exposure and reinstatement to be met by the Developer

PROVIDED THAT if the Highway Works or any part or parts thereof are covered up by the Developer after giving the notice referred to in paragraph 3.5 of this Schedule and the Director shall have failed to inspect in the period therein referred to and the Director shall subsequently require the Highway Works or any part of them to be uncovered for the purposes of inspection:-

- (a) if inspection reveals the relevant part or parts of the Highway Works to have been completed in accordance with the approved detailed plans drawings and specification referred to in paragraph 1.2 of this Schedule all costs in respect of such uncovering and inspection and of reinstating the part or parts of the Highway Works uncovered shall be borne by the County Council; or
- (b) if inspection reveals the relevant part or parts of the Highway Works not to have been completed in accordance with the approved detailed plans drawings and specifications referred to in paragraph 1.2 of this Schedule all reasonable and proper costs in respect of uncovering and inspection and of reinstating the part or parts of the Highway Works uncovered shall be borne by the Developer

6 UNDERTAKERS

6.1 Insofar as the County Council as Highway Authority is required by any legislation regulation direction or code of practice (including in particular but without prejudice to the generality of the foregoing the New Roads and Street Works Act 1991) to serve a notice or notices in respect of the Highway Works on undertakers or other persons the Developer shall comply with such requirement on behalf of the County Council before the Highway Works commence and shall thereafter assume on behalf of the County Council such responsibilities as follow on therefrom in particular during the construction of the Highway Works and prior to the issue of the Certificate of Substantial Completion the Developer shall also:-

- (a) carry out or procure the carrying out of such works and activities in regard to the plant and equipment of undertakers as are required by undertakers in accordance with their statutory powers under the New Roads and Street Works Act 1991 as a result of the construction or intended construction of each and all of the Highway Works
- (b) cause all public sewers, highway drains gas and water mains electric cables and telecommunications ducts or other apparatus which are to be laid by the Developer under the Highway Works together with all necessary connections from them to the boundary of the Highway Works to be laid so far as is practicable under the

Highway Works before the foundation of the Highway Works are laid and shall also in so far as is practicable cause the connections from electric cables to any street lamp to be laid before the paving of the footways comprised in the Highway Works is carried out

- (c) cause all trench works within the highway to be backfilled and reinstated in accordance with the Specification for the Reinstatement of Openings in the Highway as determined from time to time under the New Roads and Street Works Act 1991
- (d) not at any time give consent to the erection by any telecommunications operator of telegraph poles or telephone poles or to the erection by any statutory undertaker or public or private company firm or individual of any over ground or underground equipment without the consent in writing of the Director

7 PROTECTION OF THE PUBLIC

- 7.1 The Developer shall give due consideration to adjoining owners and occupiers at all times and shall organise activities relating to the Highway Works in such a manner as to cause the least practicable disruption
- 7.2 Prominent notices shall be displayed and maintained around the perimeter of the site of each and all of the Highway Works to warn the public of the dangers of entering the Site
- 7.3 The Developer shall nominate a member of the site management team as the contact point for the Director in the event of an emergency and shall advise a daytime and twenty-four (24) hour contact number to the Director for the same purpose
- 7.4 The Developer shall take or procure the taking of all necessary steps to avoid creating a nuisance from noise and in particular:
 - 7.4.1 the Developer shall afford all reasonable facilities to enable the Director to carry out such site investigations as she may deem necessary in order to determine noise emission levels
 - 7.4.2 all vehicles and plant including compressors shall be fitted with effective silencers and acoustic covers as appropriate and maintained in good working order and all static plant shall be

located to minimise nuisance to persons living or working in the vicinity

7.4.3 all portable traffic signals and pumps shall be operated from mains electricity unless otherwise agreed with the Director

7.4.4 noisy activities shall not be permitted on Sundays and Bank Holidays and except as agreed in writing by the Director shall not be permitted outside the hours of 9.30 a.m. to 4.30 p.m. Monday to Friday and 9.30 a.m. to 1 p.m. on Saturdays

PROVIDED THAT if in the reasonable opinion of the Director the Developer is not dealing adequately with the control of noise the Developer shall carry out or procure the carrying out of such additional measures as the Director considers necessary at the Developer's expense

7.5 Compliance with the provisions of paragraph 7.4 shall not relieve the Developer of any of his obligations and liabilities under this Agreement the Control of Pollution Act 1974 or the Environmental Protection Act 1990

7.6 The Developer shall take or procure the taking of all necessary steps to avoid creating a nuisance from dust and as far as practicable works are to be carried out in such a way that dust is kept to a minimum PROVIDED THAT if in the reasonable opinion of the Director the Developer is not dealing adequately with the control of dust the Developer shall carry out or procure the carrying out of such additional measures as the Director considers necessary at the Developer's expense

7.7 The Developer shall arrange the regular removal of refuse likely to encourage vermin and arrange for suitable secure storage containers to be provided for collection

7.8 The Developer shall keep a log book on site to record all complaints received from the public and the action taken in response and the log book shall be available for inspection by the Director

8 PREVENTION OF MUD BEING CARRIED ON THE PUBLIC HIGHWAY

- 8.1 Provision shall be made at the Site to limit in so far as is practicable the amount of mud dust and other materials carried on to adjacent public highways by vehicles and plant leaving the Site
- 8.2 The Developer shall keep or procure the keeping of all roads footpaths rights of way and other means of passage leading to or from or crossing the Site free from mud slurry or other hazardous substances that are deposited through the construction of the Highway Works and any such substance so deposited on any such road footpath right of way or other means of passage shall be promptly removed by or at the direction of the Developer
- 8.3 The Director may close any associated crossings entrances and exits if such substances deposited are not promptly removed by the Developer and any losses or expenses incurred as a result shall be borne by the Developer and on removal of such substances the Director shall reopen such crossings entrances and exits and the Developer shall bear the costs incurred

9 TRAFFIC CONTROL

- 9.1 During the periods when the Highway Works are being executed the Developer shall institute at his own expense measures previously approved in writing by the Director to maintain the safe flow of traffic on the highways in the vicinity of the site of the Highway Works
- 9.2 The Highway Works shall be signed and protected to at least the standards of Chapter 8 of the Traffic Signs Manual published by His Majesty's Stationery Office and the proposed arrangements shall be approved in writing by the Director before the Highway Works commence

10 TIMING

- 10.1 No Highway Works within or affecting existing public highways or temporary diversions which could interfere with the traffic flow will be permitted within the morning and evening peak periods i.e. 7.30 - 9.30 a.m. and 4.30 - 6.30 p.m. Monday to Friday except as agreed in writing by the Director

11 SAFETY

11.1 During the periods when the Highway Works are being carried out the Developer shall provide all watching and lighting as required and shall maintain all lights, guards, fencing, warning signs when and, where necessary, undertake such further measures as may be reasonably required by the Director

12 ACCOMMODATION WORKS

12.1 The Developer shall carry out or ensure that there shall be carried out all related accommodation works associated with the Highway Works

13 CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015

13.1 The Developer shall be the only client for the purpose of the CDM Regulations and the Developer agrees to undertake the obligations of a client under the CDM Regulations and to use all reasonable endeavours to ensure that the Highway Works are carried out in accordance with the CDM Regulations

13.2 The Highway Works shall not commence until the Developer as the only client has provided to the Director:

13.2.1 an estimate of the number of working days and/or person days of construction work and the number of workers working on site simultaneously at any one point in the project which the Contract will entail

13.2.2 written details of the principal designer and the principal contractor appointed for the project and also provide copies of the Construction Phase Plan and Health & Safety File

13.2.3 a copy of the Notification of Project (form HSE F10) to the HSE pursuant to Regulation 6 of the CDM Regulations

13.3 Throughout the Highway Works the Developer shall provide to the Director copies of the updates and revisions to the construction phase plan and Health and Safety File pursuant to Regulation 12

- 13.4 Within twenty-eight (28) days of issue of the Certificate of Substantial Completion for any or all of the Highway Works the Developer shall provide to the Director
- 13.4.1 a plan showing the land over which those Highways Works have been constructed and
- 13.4.2 a Health and Safety file conforming in all respects with the CDM Regulations and which shall accord with the current format used by the County Council to include a separate Health and Safety File for each Highway Structure
- 13.5 The Director shall be at liberty to delay issue of the Certificate of Final Completion in respect of any of the Highway Works if the Developer fails to provide the Director with the documents referred to in 13.4.1 and 13.4.2 above within twenty-eight (28) days of issue of any Certificate of Substantial Completion for any of the Highway Works equivalent to the number of days after the twenty-eight (28) day period that the documents were submitted
- 13.6 In respect of the Highway Works generally the Developer shall provide to the Director the final information in both paper and electronic format and shall at least comprise:
- 13.6.1 1:500 scale (or alternative scale as may be specified by the Director) "as built" drawings
- 13.6.2 records of the earthworks showing sources of material used in areas of fill description of fill materials descriptions of sub-grades in cut areas copies of results of tests of material carried out as part of the supervision of the construction of the earthworks
- 13.6.3 records of the sources of supply of all deliveries of road construction materials with details of the location of the Highway Works at which each load is placed
- 13.6.4 records of the sources of supply of all other manufactured materials (e.g. drainage goods, fencing materials, traffic signs, electrical components and cables etc).
- 13.7 No work on Highway Structures shall commence until the general Health

and Safety file information including format to be supplied in respect of Highway Structures has been agreed with the County Council's Bridge Engineer and shall accord with the County Council's current Technical Approval Procedure for Highway Structures

- 13.8 The Developer shall indemnify and keep the County Council indemnified against any breach of the Developer's obligations under this paragraph
- 13

14 SITE CLEARANCE AND CERTIFICATE(S) OF SUBSTANTIAL COMPLETION

- 14.1 On Substantial Completion of the Highway Works the Developer shall:-

14.1.1 clear away and remove from the site of the Highway Works all constructional plant and temporary works of every kind and leave the site of the Highway Works in a neat and tidy condition to the satisfaction of the Director and

14.1.2 carry out stage 3 of the Road Safety Audit process and comply to the satisfaction of the Director with recommendations arising thereunder prior to the opening of the Highway Works to the public

- 14.2. Upon Substantial Completion of the Highway Works including any additional work resulting from stage 3 of the Road Safety Audit process to the satisfaction in all respects of the Director he shall issue a Certificate of Substantial Completion in respect of those Highway Works to the Developer provided that all costs and expenses owing to the County Council have been paid in respect of those Highway Works

- 14.3. The Developer hereby agrees that on the date of Substantial Completion that part of the Site upon which the Highways Works are constructed which does not currently form part of the public highway shall be dedicated as highway under section 38 of the 1980 Act

- 14.4. After the issue of the Certificate of Substantial Completion the County Council may approve a reduction of up to 90% of the Performance Figure in respect of the relevant Highway Works and the County Council may release the Developer and the Performance Bond Surety and each of

them from their obligations under the Performance Bond in respect of the relevant Highway Works to such extent

15 DEFECTS CORRECTION PERIOD AND CERTIFICATE OF FINAL COMPLETION

- 15.1 The Developer shall maintain each and all of the Highway Works for a period of eighteen (18) months (unless the Director agrees in writing a lesser period having considered paragraph 15.2) from the issue of the related Certificate of Substantial Completion and prior to the expiration of this period the Developer shall reinstate and make good any damage or defect which may have arisen from any cause whatsoever or be discovered during the said period of eighteen months (including any defect in or damage to the surface water drainage system) so as to place the highway and the Highway Works in a condition satisfactory to the Director
- 15.2 After the expiration of the period of twelve (12) months from Substantial Completion or the date the Development becomes operational (whichever is the latter) the Developer shall (unless the Director writes to the Developer informing him that it is to be carried out sooner or that he does not need to do so) carry out stage 4 of the Safety Audit and comply to the satisfaction of the Director with any recommendations arising thereunder
- 15.3 After the expiration of the period of eighteen (18) months referred to in paragraph 15.1 (or such lesser period as agreed in writing by the Director under paragraph 15.1) and after any defects have been made good as therein provided including any improvements arising under stage 4 of the Road Safety Audit to the satisfaction of the Director and after the provisions of paragraph 13.4 and paragraph 20.5 of this Schedule have been fulfilled the Director shall issue forthwith to the Developer the Certificate of Final Completion in respect of the Highway Works provided that the Certificate of Final Completion shall in the case of road gullies extend only as far as their points of entry to the surface water sewers where those are not being adopted by the County Council as highway drains and upon the issue of the Certificate of Final Completion the County Council shall release the Developer and the Performance Bond

Surety and each of them from all subsisting obligations under the Performance Bond in respect of those Highway Works

- 15.4 If called upon to do so by notice in writing served within twenty-one years of the date hereof by the County Council the Developer agrees to transfer to the County Council in consideration of one pound any land over which any part of the Highway Works have been constructed which does not at the date of this Agreement already form part of the highway together with any other land dedicated as public highway by the Developer hereunder free in each case from encumbrances and together with all rights necessary to permit the use inspection maintenance repair and replacement of all utility systems servicing the Highway Works and not vested in the relevant undertaker as are situated outside the limits of the Highway Works and the said other land

16 INDEMNITY

- 16.1 The Developer shall from the date of this Agreement indemnify the County Council against all claims charges costs expenses liability or loss whatsoever arising out of and incidental to any or all of the Highway Works including but not limited to those arising out of any legally sustainable claims for payments under Section 10 of the Compulsory Purchase Act 1965 and Part I of the Land Compensation Act 1973 (as amended) in connection with those Highway Works provided that the Developer's indemnity will not extend to any claims submitted to the County Council arising out of the negligence of the County Council's employees or arising out of any works of alteration carried out to any of the Highway Works by the County Council after the issue of the related Certificate of Final Completion

- 16.2 The County Council shall notify the Developer forthwith upon receipt of any such claim or liability

- 16.3 The County Council shall not accept or settle any claim without first having given the Developer the opportunity to provide the County Council with representations as to the validity of such claim

- 16.4 The indemnification referred to in paragraph 16.1 includes:

- 16.4.1 all fees incurred by claimants which the County Council is obliged to pay, and those of the County Council or its agent or contractor, in negotiating any claims (together with VAT payable on the claimants' professional advisors' fees);
- 16.4.2 statutory interest payments to claimants and their professional advisors; and
- 16.4.3 the County Council's reasonable and proper legal costs in making the compensation, fees and interest payments

17 PERFORMANCE BOND

- 17.1 Without expense to the County Council the Developer and the Performance Bond Surety shall on the date of this Agreement enter into the Performance Bond for each and all of the Highway Works and the Developer and Performance Bond Surety shall be bound to the County Council in the amount of the Performance Figure for the Highway Works
- 17.2 Should the Developer default in the execution of its obligations to carry out any or all of the Highway Works and to maintain the same in accordance with the provisions of this Agreement then the County Council may (subject to the provisions hereinafter contained) itself carry out the Highway Works and maintain the same as aforesaid having first called upon the Performance Bond Surety for the cost to be expended in so doing
 - 17.2.1 Unless there is a danger to users of the highway the County Council shall give twenty (20) working days prior written notice (or lesser period as may in the circumstances be reasonable) of its intention to commence work under Paragraph 17.2
 - 17.2.2 any notice served under this paragraph shall specify the period of the notice ("the Notice Period") the extent of the work which the County Council proposes to carry out and full details of all matters in respect of which the Director considers that the Highway Works have not been carried out in accordance with the terms of this Agreement

17.2.3 if before the expiry of the Notice Period the Developer serves written notice upon the County Council that the Developer intends diligently to execute the works specified in the notice in accordance with the terms of this Agreement and specifies a time to complete that the County Council considers reasonable in the circumstances the County Council shall not be entitled to execute the relevant part or parts of the Highway Works specified in the notice served under this paragraph unless the Developer then fails to execute those works within the agreed time scale

17.3 If the Developer should default in the execution of its obligations to carry out any or all of the Highway Works and to maintain the same in accordance with the provisions of this Agreement then the County Council will call upon the Performance Bond Surety to provide the full Performance Figure (or such sum that remains following reduction of the Performance Bond in accordance with Paragraph 14.4 of this Schedule) in accordance with this Agreement. Save that the County Council after all works are completed and all contracts and any contract claims settled will return any Performance Bond sum unused with interest at the Bank of England Base Rate minus 2 basis points, compounding annually at financial year end on receipt of a written request to the Performance Bond Surety within one month of all the aforementioned completing and settling. If for any period the Bank of England Base Rate is at or below 0.02% then no interest shall be payable for that period by any party to this Agreement

18 COMMUTED SUMS FOR MAINTENANCE

18.1 Prior to the date of this Agreement the Developer shall pay to the County Council the Commuted Sums calculated as follows:

	£
Carriageway	£102,595.00
Footways	£7,250.00
Street Lighting	£41,991.00

Drainage	£2,400.00
Traffic Signals and Lines	£2,090.00

19 LEGAL AND ADMINISTRATIVE COSTS

19.1 The Developer shall pay to the County Council:-

- 19.1.1 the whole of the costs of the County Council's Legal Services Department in connection with the preparation and completion of this Agreement and these costs shall be payable prior to sealing of this Agreement;
- 19.1.2 interest at four per cent above the Bank of England Base Rate from time to time on any sum due to the County Council under this Agreement which is outstanding for more than twenty-eight (28) days from the date on which it was demanded or in the event that a dispute or difference regarding such payment is referred to arbitration pursuant to clause 4.1 of this Agreement the said twenty-eight (28) day period shall run from the date of the decision of the arbitrator (such interest to be charged on the amount outstanding each day from the date of issue of a written demand for any sum due or in the event that a dispute or difference regarding such payment is referred to arbitration pursuant to clause 4.1 of this Agreement such interest to be charged on the amount outstanding each day from the date of issue of the decision of the arbitrator)
- 19.1.3 The greater of £5000 (Five thousand pounds) or 7½% of the Performance Figure (excluding the costs associated with statutory undertakers work and traffic management) for the Highway Works towards the costs and expenses of the County Council of checking the design of each and all of the Highway Works and inspecting each and all of the Highway Works such sum shall be payable prior to sealing of this Agreement
- 19.1.4 the reasonable cost to the County Council of undertaking Road Safety Audits and also the cost of the safety checks of details submitted which sum shall be payable prior to the safety audit commencing

19.1.5 the cost of any temporary and permanent traffic regulation orders which sum shall be payable prior to any work on the making of such order being commenced

19.1.6 the full cost of any other road traffic orders required to facilitate the Highway Works which sum shall be payable prior to any work on the making of such order being commenced

19.1.7 In cases where it may be necessary to enter into a Section 4 or 6 agreement under the Highways Act 1980, the cost of inspecting each and all of the Highway Works on behalf of Highways England, the cost of checking the design of each and all of the Highway Works on behalf of Highways England, the cost of any Highways England fees, and the reasonable cost of County Council administrative and legal fees, which sums shall be payable prior to the sealing of this Agreement

20 PARTS I AND II OF THE LAND COMPENSATION ACT 1973

Part I and II Claims

20.1 *Not used.*

20.2 *Not used.*

Part I Claims - Depreciation Caused By Public Works

20.3 *Not used.*

20.4 The Developer hereby undertakes and agrees with the County Council that in the event of any claim for compensation or otherwise or costs or charges arising in connection with or incidental to or in consequence of the carrying out of the Highway Works whether mandatory or discretionary which may be incurred by virtue of any enactment or statutory instrument and otherwise hereby provided for he will hold the County Council fully indemnified from and against all claims charges costs and expenses in connection therewith or arising therefrom

Part II Claims

20.5 The Developer covenants with the County Council to comply with the requirements of the Noise Insulation Regulations 1975 (SI 1975/1763) as amended and to provide to the County Council such evidence as is required by the Director to demonstrate compliance with the Noise Insulation Regulations 1975 prior to the issuing by the County Council of the Certificate of Final Completion in accordance with paragraph 15.3 of this Schedule

SCHEDULE II.A

Performance Bond Agreement

DATED 26 June 2024

HOPKINS HOMES LIMITED (1)

- and -

NATIONAL HOUSE BUILDING COUNCIL (2)
(NHBC)

PERFORMANCE BOND

relating to the development of land at Sicklesmere Road, Bury St. Edmunds, Suffolk

BY THIS BOND HOPKINS HOMES LIMITED of Melton Park House, 4 Scott Lane, Melton, Woodbridge, IP12 1TJ ("the Developer") and **NATIONAL HOUSE BUILDING COUNCIL** ("the Surety") are held and firmly bound to **SUFFOLK COUNTY COUNCIL** of Endeavour House 8 Russell Road Ipswich Suffolk IP1 2BX ("the County Council") in the sum of £1,760,418.00 (one million seven hundred and sixty thousand four hundred and eighteen pounds) to be paid to the County Council for the payment of which sum the Developer and the Surety bind themselves their successors and assigns jointly and severally

IN WITNESS whereof the Developer and the Surety have hereunto executed and delivered the same on but not before this 26th day of JUNE Two thousand and twenty-four

1. The Developer has entered into an Agreement under seal with the County Council of even date made under Section 278 of the 1980 Act whereby the Developer undertook at its own expense to carry out works as set out in Schedule III of the said Agreement and shown in the Works Drawings annexed to the said Agreement ("the Highway Works")
2. It is intended that this Bond shall be construed as one with the said Agreement

NOW THE CONDITION of the above-written Bond is such that if the Developer shall duly perform and observe all the terms provisions conditions and stipulations of the said Agreement (in so far as they relate to the Highway Works) on the Developer's part to be performed and observed according to the true intent and meaning thereof or if on default by the Developer the Surety shall duly satisfy and discharge the damages sustained by the County Council up to the amount of the above-written

Bond then the above-written Bond shall be null and void but otherwise shall remain in full force and effect **PROVIDED ALWAYS** that the giving by the County Council of any extension of time for performing the said Agreement or any stipulations therein contained and on the part of the Developer to be performed or any other forgiveness or forbearance on the part of the County Council or its successors or assigns shall not in any way release the Surety from any liability under the above-written Bond

EXECUTED as a deed by)

BIRKETTS
LLP

as attorney for

HOPKINS HOMES
LIMITED

In the presence of:

Attorney's signature:

Attorney's name
(PRINTED):

Designated Member of Birketts LLP,
as attorney for Hopkins Homes
Limited

Witness' signature:

Witness' name:

Witness' address:

Witness' occupation:

Signed as a deed)
by [redacted] as
attorney for
National House-Building Council
under a Power of Attorney
dated [redacted]

Project Underwriter

.....
.....

As attorney for National House-
Building Council

In the presence of:

[redacted]
[redacted]

Name of witness
Witness Signature

Occupation of

Witness [redacted]

Address of

Witness [redacted]
[redacted]
.....

SCHEDULE III

The Highways Works comprising the following works:

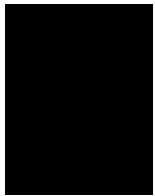
<u>Location</u>	<u>Works</u>	<u>Delivery Programme</u>
Sicklesmere Road, Bury St Edmunds	Construction of new roundabout to access development	

Timescales: The Highways Works are to be commenced within 12 (twelve) months of the date of this Agreement and completed within 3 (three) months of commencement of the Highway Works

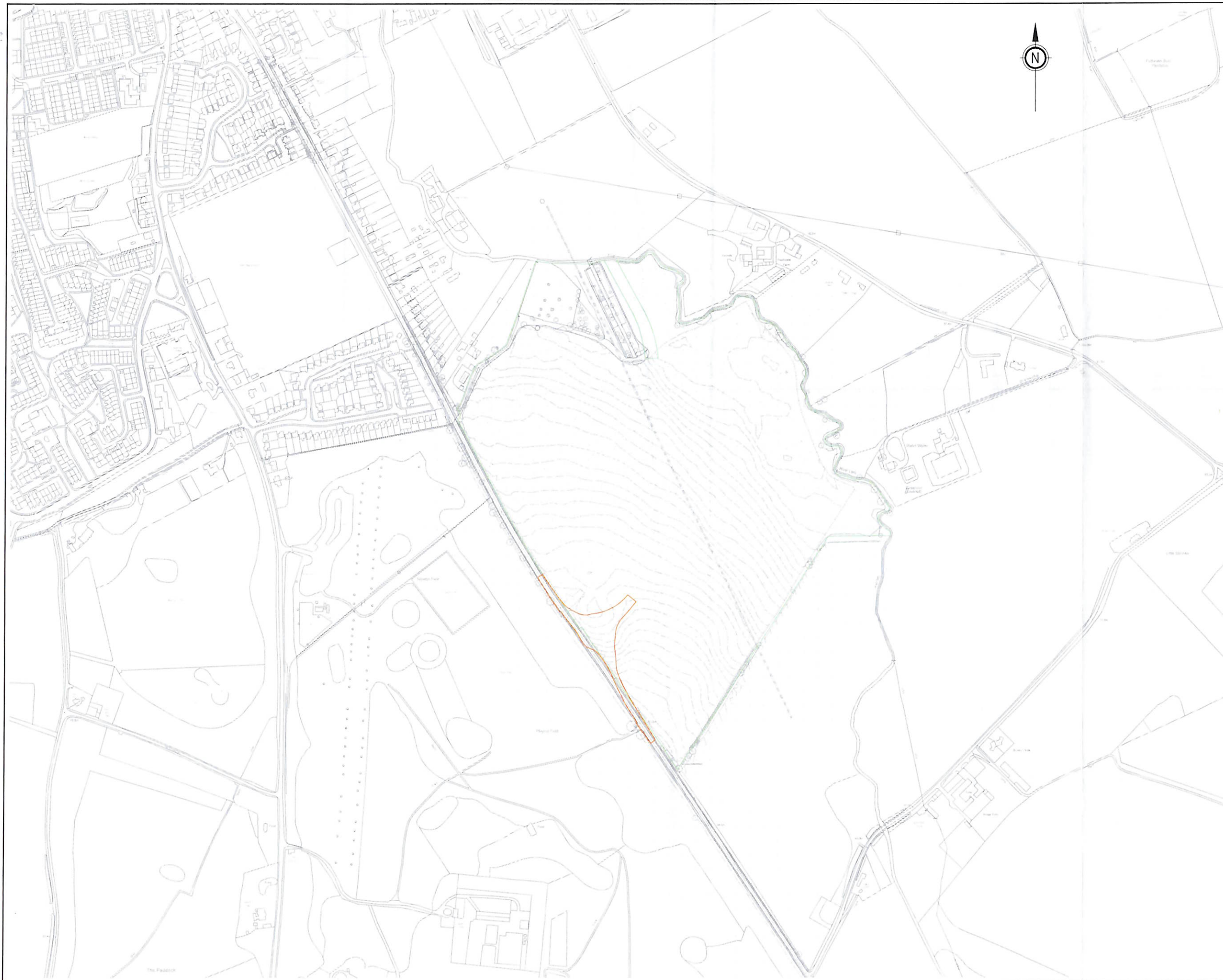
SCHEDULE IV

Approved List of drawings

	Title	Drawing number
1.	S278 SITE LOCATION PLAN	2107-592-300
2.	S278 GENERAL ARRANGEMENT SHEET 1	2107-592-301 B
3.	S278 GENERAL ARRANGEMENT SHEET 2	2107-592-302 B
4.	S278 GENERAL ARRANGEMENT SHEET 3	2107-592-303 B
5.	S278 SETTING OUT SHEET 1	2107-592-305 A
6.	S278 SETTING OUT SHEET 2	2107-592-306 A
7.	S278 SETTING OUT SHEET 3	2107-592-307 A
8.	S278 LONG SECTIONS SHEET 1	2107-592-308 A
9.	S278 LONG SECTIONS SHEET 2	2107-592-309 A
10.	S278 SITE CLEARANCE SHEET 1	2107-592-311 A
11.	S278 SITE CLEARANCE SHEET 2	2107-592-312 A
12.	S278 SITE CLEARANCE SHEET 3	2107-592-313 A
13.	S278 KERB LAYOUT SHEET 1	2107-592-314 A
14.	S278 KERB LAYOUT SHEET 2	2107-592-315 A
15.	S278 KERB LAYOUT SHEET 3	2107-592-316 A
16.	S278 SIGNS & LINES SHEET 1	2107-592-317 B
17.	S278 SIGNS & LINES SHEET 2	2107-592-318 B
18.	S278 SIGNS & LINES SHEET 3	2107-592-319 B
19.	S278 DRAINAGE LAYOUT SHEET 1	2107-592-320 A
20.	S278 DRAINAGE LAYOUT SHEET 2	2107-592-321 A
21.	S278 DRAINAGE LAYOUT SHEET 3	2107-592-322 A
22.	S278 CROSS SECTIONS ROUNDABOUT	2107-592-330 B
23.	S278 CROSS SECTIONS SICKLESMERE NORTH	2107-592-331 A
24.	S278 CROSS SECTIONS SICKLESMERE SOUTH SHEET 1	2107-592-332 A
25.	S278 CROSS SECTIONS SICKLESMERE SOUTH SHEET 2	2107-592-333 A
26.	S278 CROSS SECTIONS SPINE ROAD SHEET 1	2107-592-334 A
27.	S278 CROSS SECTIONS SPINE ROAD SHEET 2	2107-592-335 A
28.	S278 CONSTRUCTION DETAILS SHEET 1	2107-592-340 A
29.	S278 CONSTRUCTION DETAILS SHEET 2	2107-592-341 A



30.	S278 CONSTRUCTION DETAILS SHEET 3	2107-592-342 B A
31.	S278 CONSTRUCTION DETAILS SHEET 4	2107-592-343 B
32.	S278 CONSTRUCTION DETAILS SHEET 5	2107-592-344 A
33.	S278 CONSTRUCTION DETAILS SHEET 6	2107-592-345 A

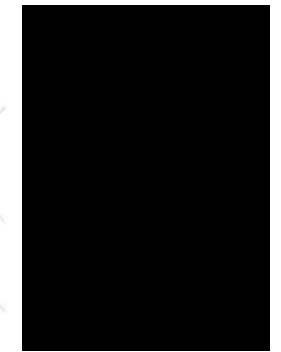


GENERAL

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DRAWING KEY	
DEVELOPERS OWNERSHIP BOUNDARY	
S278 LIMIT OF WORKS	



Rev	Revision Notes	Drawn	Approved	Date

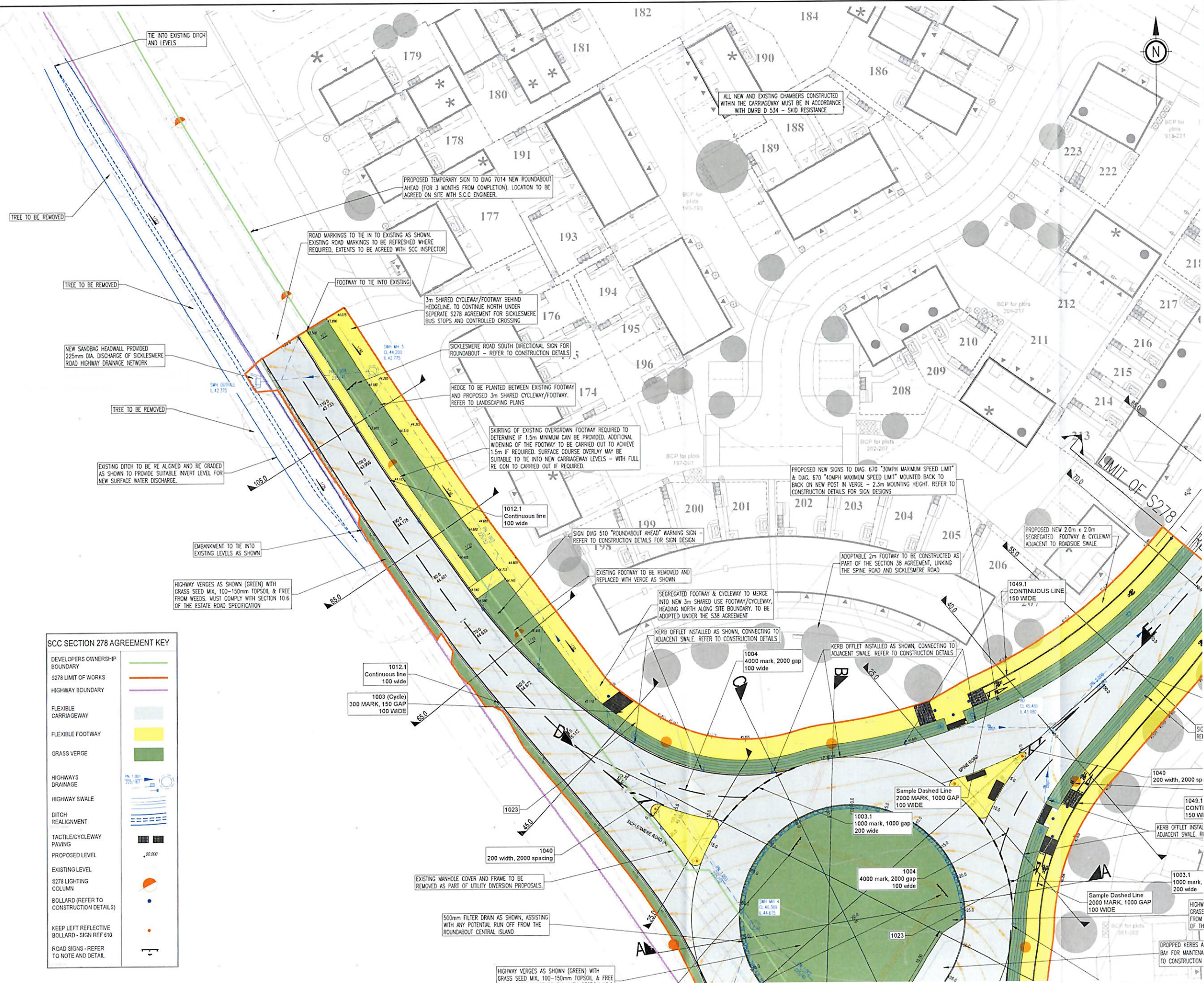
INGENT
CONSULTING ENGINEERS
Unit 10 Brightwell Barns, Waldringfield Road, Brightwell, Suffolk, IP10 0BJ.
Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk

PRELIMINARY

Project:
SICKLESMERE ROAD ROUNDABOUT
BURY ST EDMUNDS

Drawing Title:
S278 SITE LOCATION PLAN

Client: HOPKINS HOMES		Date: DEC 2022	
Drawn: JK	Designed: JK	Checked: RGW	Approved: RGW
Scale: 1:2500			
Project No: 2107-592	Drawing No & Revision: 300		Size: A1



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- ALL WORK ARE TO BE TO THE SATISFACTION OF THE ENGINEER AND LOCAL AUTHORITY BUILDING CONTROL.
- THE CONTRACTOR IS RESPONSIBLE FOR AND MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE STABILITY OF THE WORKS AT ALL TIMES DURING CONSTRUCTION.
- ALL WORKMANSHIP AND MATERIALS ARE TO BE TO CURRENT BRITISH STANDARDS.
- ALL SERVICES ARE TO BE LOCATED AND PROTECTED AS NECESSARY BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE WORKS.
- ALL HIGHWAY WORKS ARE TO BE IN ACCORDANCE WITH THE LOCAL AUTHORITIES DESIGN GUIDE AND SPECIFICATION.
- DURING CONSTRUCTION WORKS ON SITE, ALL ROADS AND FOOTPATHS ARE TO BE SWEEPED AND KEPT CLEAR OF OBSTRUCTIONS. THIS IS TO INCLUDE EXISTING HIGHWAYS AS APPROPRIATE TO ENSURE SAFE PASSAGE OF ALL ROAD USERS.
- PROVISION SHALL BE MADE FOR THE INSTALLATION OF ALL MAINS SERVICES INCLUDING DUCTING PRIOR TO THE LAYING OF THE ROAD BASE-COURSE.
- ALL ROAD MARKINGS AND SIGNS ARE TO BE IN ACCORDANCE WITH THE TRAFFIC SIGNS REGULATIONS AND DIRECTIONS' 2016.
- ALL ADAPTABLE SURFACE WATER SEWERS WITHIN ADAPTABLE HIGHWAYS ARE TO BE A MINIMUM OF 225MM.
- ALL WATER AUTHORITY SEWER WORKS ARE TO BE IN ACCORDANCE WITH 'SEWERAGE SECTOR GUIDANCE APPENDIX C' DESIGN AND CONSTRUCTION GUIDANCE VERSION 1.0 25TH OCTOBER 2019 AND ANY ADDENDUM THEREAFTER.

FOR ALL STREET LIGHTING WORKS PLEASE REFER TO THE SUFFOLK COUNTY COUNCIL APPROVED STREET LIGHTING DESIGN DRAWING

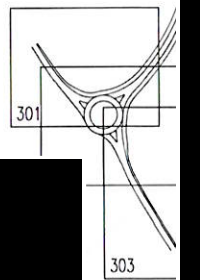
EXISTING UTILITIES AFFECTED BY THE WORKS TO BE PROTECTED/MODIFIED IN ACCORDANCE WITH THE REQUIREMENTS AND APPROVAL OF THE RELEVANT STATUTORY AUTHORITIES. LOCATION OF EXISTING UNDERGROUND UTILITY SERVICES TO BE CONFIRMED.

REMOVAL OF EXISTING ROAD MARKINGS TO BE DONE SO BY METHODS TO THE SATISFACTION AND APPROVAL OF SUFFOLK COUNTY COUNCIL HIGHWAYS DEPT.

ALL VEGETATION AND CLEARANCE WORKS ARE TO BE IN ACCORDANCE WITH ECOLOGICAL AND ARBORICULTURAL REPORTS

CHECK ALL EXISTING ROAD SIGNS ARE SUITABLY SET BACK FROM ROAD EDGE AND/OR RAISED IN HEIGHT FOR PEDESTRIAN/CYCLIST MOVEMENTS

ALL MANHOLE COVERS AND FRAMES SHOULD COMPLY WITH THE REQUIREMENTS OF BS7903: 1997 BS EN 124 AND HA 104/09. FRAMES SHOULD BE 150MM DEPTH



B DRAINAGE REVIEWED FOLLOWING SURVEY. REVISED TO SCC AND PLANNING		JK	12/12/23
C COMMENTS APPROVED LIGHTING DESIGN ADDED		JK	16/01/24
A REVISED TO NEW LAYOUT AND SEE COMMENTS		JK	28/09/23
Revision Notes		JK	28/09/23
Revision Notes		JK	28/09/23

INGENT
CONSULTING ENGINEERS
Unit 10 Brightwell Barns, Waldringfield Road, Brightwell, Suffolk, IP10 0BJ.
Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk

worksafe consultant **SSIP** **COMS**
www.ssmasid.com

PRELIMINARY

Project: SICKLEMERE ROAD ROUNDABOUT BURY ST EDMUNDS

Drawing Title: S278 GENERAL ARRANGEMENT SHEET 1

Client: HOPKINS HOMES

Date: DEC 2022

Drawn: JK

Designed: JK

Checked: RGW

Approved: RGW

Project No: 2107-592

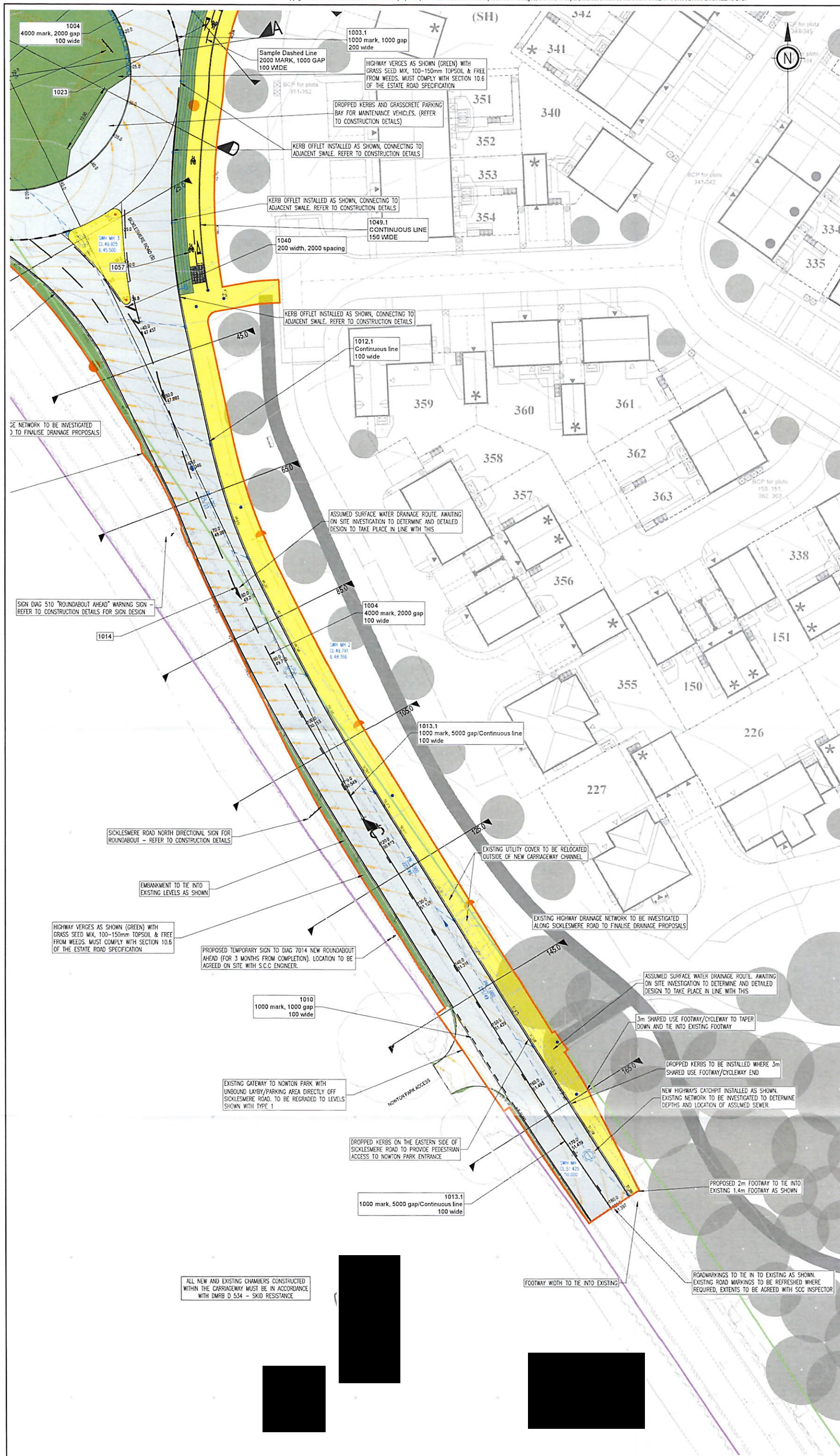
Drawing No & Revision: 301B

Size: A1

Scale: 1:250

Scale bar: 0m 5m 10m 15m







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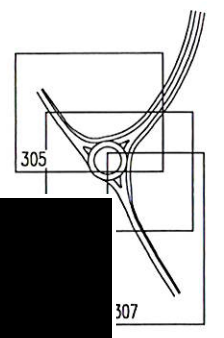
Chainage (m)	Easting (m)	Northing (m)	Level (m)	Curve/Straight	Left Channel Level (m)	Right Channel Level (m)
0.000	586892.147	262106.528	45.749	Start		
23.500	586892.147	262117.267	45.749	IP at ICD	45.011	45.454
24.076	586870.745	262117.555	45.735	Tangent Point	45.594	45.449
30.000	586895.710	262120.673	45.593	Curve Radius 90.0	45.813	45.369
38.006	586897.252	262125.401	45.400	Tangent Point	45.567	45.223
38.892	586858.717	262125.830	45.384	Tangent Point	45.546	45.221
40.000	586857.701	262126.535	45.352	Curve Radius 125.0	45.508	45.195
50.000	586850.231	262131.288	45.112	Curve	45.224	44.887
60.000	586843.315	262140.518	44.872	Curve	44.720	44.770
70.000	586835.959	262146.267	44.633	Curve	44.544	44.544
71.381	586835.176	262149.376	44.600	Tangent Point	44.688	44.512
72.467	586835.533	262150.252	44.575	Tangent Point	44.662	44.487
80.000	586831.144	262156.373	44.401	Curve Radius 350.0	44.488	44.314
90.000	586825.522	262164.843	44.178	Curve	44.263	44.099
97.017	586821.719	262170.539	44.022	Tangent Point	44.109	43.945
100.000	586820.127	262173.053	43.965	Straight	44.043	43.880
110.000	586814.753	262181.521	43.733	Straight	43.821	43.658
120.000	586809.458	262189.979	43.511	Straight	43.583	43.380
120.183	586809.360	262190.134	43.507	IP at Channel	43.572	43.372
120.184	586809.359	262190.135	43.507	End		

Chainage (m)	Easting (m)	Northing (m)	Level (m)	Curve/Straight	Left Channel Level (m)	Right Channel Level (m)
0.000	586892.147	262106.528	45.745	Start		
23.500	586892.147	262117.267	45.745	IP at ICD	45.480	45.970
30.000	586895.710	262120.673	45.593	Straight	45.853	45.893
40.000	586897.252	262125.401	45.525	Straight	45.387	45.401
50.000	586897.252	262140.151	45.362	Straight	45.295	45.292
51.121	586892.186	262140.239	45.391	Tangent Point	45.294	45.291
51.905	586930.513	262141.431	45.367	Curve Radius 30.0	45.277	45.273
53.889	586931.767	262142.699	45.343	Tangent Point	45.260	45.252
60.000	586936.069	262147.316	45.259	Straight	45.182	45.171
60.374	586936.324	262147.590	45.254	Tangent Point	45.177	45.167
70.000	586942.751	262154.755	45.126	Curve Radius 255.0	45.049	45.049
80.000	586949.137	262162.450	44.993	Curve	44.916	44.916
90.000	586955.217	262170.369	44.840	Curve	44.762	44.763
100.000	586960.980	262178.650	44.594	Curve	44.516	44.516
110.000	586966.418	262186.951	44.270	Curve	44.192	44.192
120.000	586971.524	262195.549	43.940	Curve	43.862	43.862
130.000	586976.386	262204.340	43.510	Curve	43.532	43.533
140.000	586980.704	262213.312	43.280	Curve	43.203	43.203
150.000	586984.765	262222.449	42.951	Curve	42.873	42.873
160.000	586988.465	262231.739	42.621	Curve	42.543	42.543
170.000	586991.797	262241.167	42.291	Curve	42.213	42.214
180.000	586994.757	262250.738	41.961	Curve	41.884	41.884
190.000	586997.341	262260.378	41.631	Curve	41.554	41.554
200.000	586999.544	262270.132	41.302	Curve	41.224	41.224
210.000	587001.362	262279.964	40.972	Curve	40.894	40.894
214.419	587002.043	262284.330	40.826	Tangent Point	40.749	40.749
214.419	587002.043	262284.330	40.826	End		

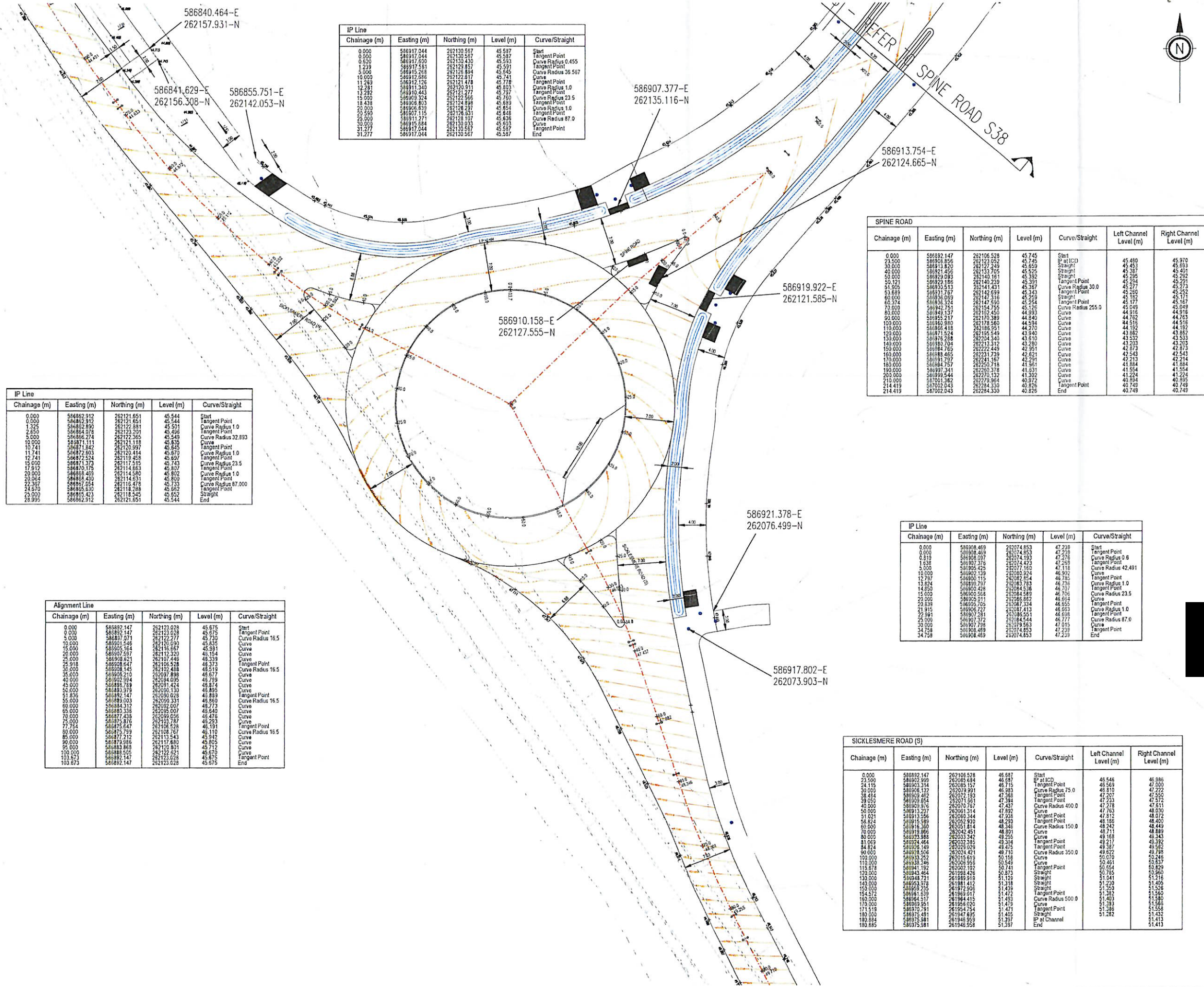
Chainage (m)	Easting (m)	Northing (m)	Level (m)	Curve/Straight
0.000	586917.044	262130.567	45.587	Start
0.000	586917.044	262130.567	45.587	Tangent Point
0.620	586917.600	262130.430	45.593	Curve Radius 0.455
1.239	586917.581	262129.857	45.591	Tangent Point
5.000	586915.268	262126.894	45.645	Curve Radius 36.567
11.269	586912.686	262122.617	45.741	Curve
13.292	586912.126	262121.478	45.778	Tangent Point
15.000	586909.324	262122.556	45.760	Curve Radius 23.5
18.438	586906.893	262124.898	45.689	Tangent Point
20.000	586906.639	262126.297	45.654	Curve Radius 1.0
20.500	586907.115	262126.631	45.648	Tangent Point
25.000	586911.271	262128.107	45.636	Curve Radius 87.0
30.000	586915.884	262130.033	45.603	Curve
31.277	586917.044	262130.567	45.587	Tangent Point
31.277	586917.044	262130.567	45.587	End

Chainage (m)	Easting (m)	Northing (m)	Level (m)	Curve/Straight
0.000	586862.912	262121.651	45.544	Start
0.000	586862.912	262121.651	45.544	Tangent Point
1.325	586862.890	262122.881	45.501	Curve Radius 1.0
2.650	586864.078	262123.201	45.496	Tangent Point
5.000	586866.274	262122.965	45.549	Curve Radius 32.893
10.000	586871.111	262121.118	45.635	Curve
10.741	586871.842	262120.997	45.645	Tangent Point
11.741	586872.603	262120.414	45.670	Curve Radius 1.0
12.741	586872.524	262119.458	45.697	Tangent Point
15.000	586871.373	262117.515	45.743	Curve Radius 23.5
17.912	586870.175	262114.863	45.807	Curve
20.000	586868.469	262114.580	45.822	Curve Radius 1.0
20.064	586868.430	262114.631	45.800	Tangent Point
22.967	586867.054	262116.478	45.733	Curve Radius 87.000
24.670	586865.630	262118.288	45.662	Tangent Point
25.000	586865.423	262118.545	45.652	Straight
28.995	586862.912	262121.651	45.544	End

Chainage (m)	Easting (m)	Northing (m)	Level (m)	Curve/Straight
0.000	586892.147	262123.028	45.675	Start
0.000	586892.147	262123.028	45.675	Tangent Point
5.000	586897.071	262122.277	45.733	Curve Radius 15.5
10.000	586901.545	262120.090	45.836	Curve
15.000	586905.164	262118.667	45.961	Curve
20.000	586907.567	262112.350	46.154	Curve
25.000	586908.621	262107.446	46.339	Curve
25.918	586906.647	262106.528	46.373	Tangent Point
30.000	586905.145	262102.488	46.519	Curve Radius 16.5
35.000	586906.210	262097.898	46.677	Curve
40.000	586907.994	262094.095	46.799	Curve
45.000	586909.769	262091.424	46.874	Curve
50.000	586913.979	262090.130	46.895	Curve
51.836	586912.147	262090.026	46.889	Tangent Point
55.000	586910.003	262090.331	46.869	Curve Radius 16.5
60.000	586913.312	262092.007	46.773	Curve
65.000	586916.336	262095.907	46.640	Curve
70.000	586917.438	262098.265	46.476	Curve
75.000	586918.875	262103.787	46.293	Curve
77.754	586918.647	262106.528	46.191	Tangent Point
80.000	586917.799	262108.767	46.110	Curve Radius 15.5
85.000	586917.212	262113.543	45.940	Curve
90.000	586916.986	262117.880	45.825	Curve
95.000	586918.898	262120.801	45.712	Curve
100.000	586918.505	262122.821	45.670	Curve
103.673	586892.147	262123.028	45.675	Tangent Point
103.673	586892.147	262123.028	45.675	End








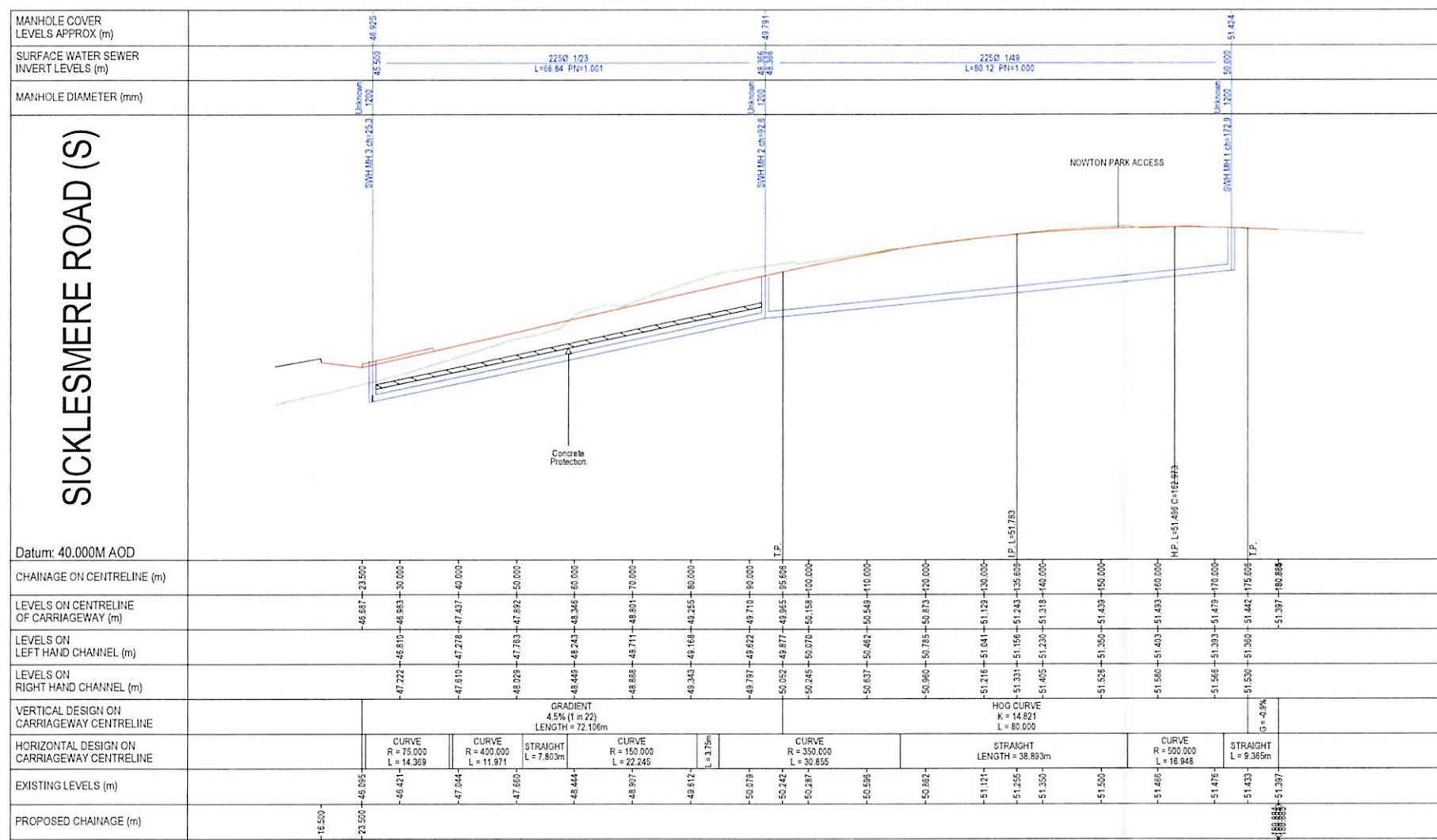
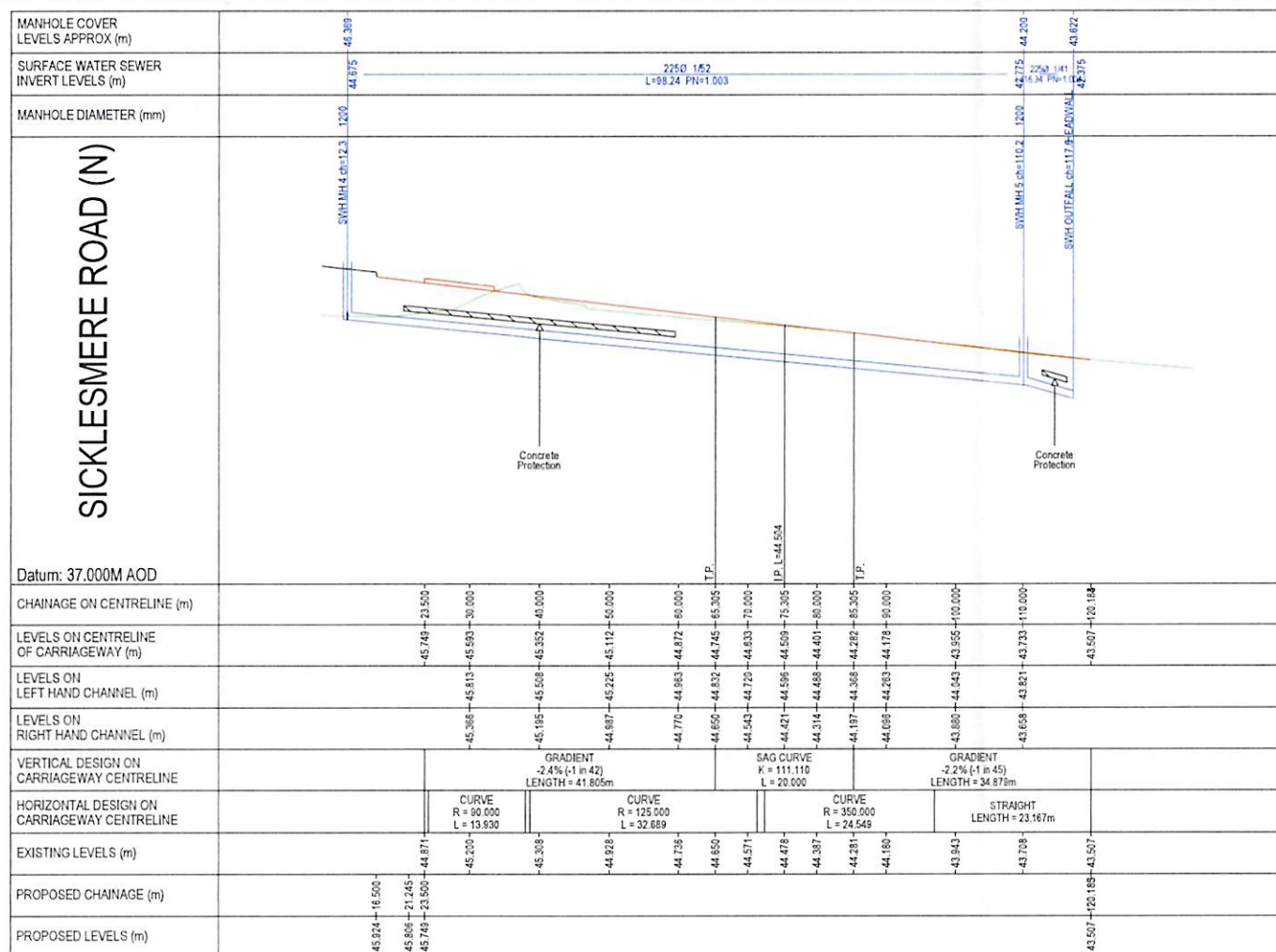
A. REVISED TO UPDATED DESIGN		JK	12.12.23
Revision Notes		Rev	Date
Unit 10 Brightwell Barns, Waldingfield Road, Brightwell, Suffolk, IP10 0BJ. Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk			
<h2>PRELIMINARY</h2>			
Project: SICKLESMEERE ROAD ROUNDABOUT BURY ST EDMUNDS			
Drawing Title: S278 SETTING OUT SHEET 1			
Client: HOPKINS HOMES		Date: DEC 2022	
Drawn: JK	Designed: JK	Checked: RGW	Approved: RGW
Scale: 1:250			
Project No: 2107-592		Drawing No & Revision: 305A	
		Size: A1	



- | IP Line | | | | |
|--------------|-------------|--------------|-----------|---------------------|
| Chainage (m) | Easting (m) | Northing (m) | Level (m) | Curve/Straight |
| 0.000 | 586908.463 | 262074.853 | 47.239 | Start |
| 0.000 | 586908.463 | 262074.853 | 47.239 | Tangent Point |
| 1.238 | 586909.215 | 262074.193 | 47.276 | Curve Radius 0.5 |
| 1.238 | 586909.215 | 262074.193 | 47.276 | Tangent Point |
| 5.000 | 586905.425 | 262077.160 | 47.718 | Curve Radius 42.491 |
| 5.000 | 586905.425 | 262077.160 | 47.718 | Purge |
| 12.797 | 586900.115 | 262082.854 | 46.785 | Tangent Point |
| 13.874 | 586900.115 | 262082.854 | 46.785 | Curve Radius 1.0 |
| 14.852 | 586900.115 | 262082.854 | 46.785 | Tangent Point |
| 15.000 | 586900.568 | 262084.589 | 46.705 | Curve Radius 23.5 |
| 15.000 | 586900.568 | 262084.589 | 46.705 | Purge |
| 20.935 | 586905.725 | 262087.334 | 46.655 | Tangent Point |
| 20.935 | 586905.725 | 262087.334 | 46.655 | Curve Radius 1.0 |
| 22.591 | 586907.217 | 262086.251 | 46.898 | Tangent Point |
| 25.000 | 586907.317 | 262084.544 | 46.777 | Curve Radius 87.0 |
| 25.000 | 586907.317 | 262084.544 | 46.777 | Purge |
| 34.755 | 586908.459 | 262074.853 | 47.239 | Tangent Point |
| 34.755 | 586908.459 | 262074.853 | 47.239 | Purge |

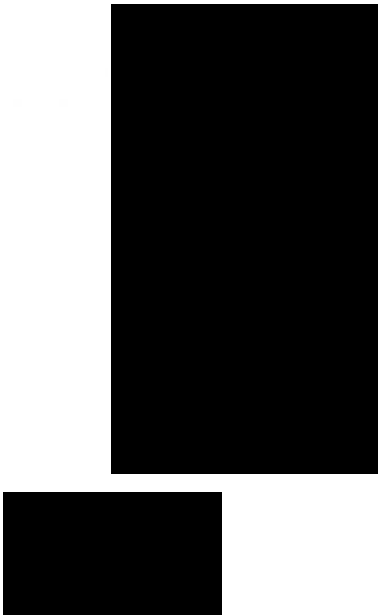
SICKLESEMER ROAD (S)						
Chainage (m)	Easting (m)	Northing (m)	Level (m)	Curve/Straight	Left Channel Level (m)	Right Channel Level (m)
0.000	566892.147	267210.528	46.897	Start		
23.500	566902.999	267205.684	46.687	P of ICD	46.546	46.986
41.115	566913.114	267201.151	46.503	Tangent Point	46.503	46.959
30.000	566906.132	267217.991	46.983	Curve Radius 75.0	46.810	47.272
39.444	566907.195	267212.195	47.338	Tangent Point	47.207	47.407
39.050	566905.654	267217.591	47.394	Tangent Point	47.234	47.592
40.000	566909.376	267210.767	47.437	Curve Radius 400.0	47.278	47.511
45.000	566911.314	267207.492	47.392	Curve	47.193	47.430
51.921	566913.556	267202.344	47.338	Tangent Point	47.182	47.480
58.824	566915.983	267202.330	46.293	Tangent Point	46.186	46.400
65.727	566918.320	267202.330	46.245	Curve Radius 150.0	46.245	46.444
70.000	566919.866	267242.451	46.891	Curve	46.711	46.889
80.000	566923.689	267233.347	46.255	Curve	46.115	46.341
89.000	566927.169	267222.688	46.202	Tangent Point	46.092	46.393
94.874	566926.149	267229.425	46.415	Tangent Point	46.387	46.582
99.000	566928.106	267226.029	46.495	Curve Radius 350.0	46.822	47.190
100.000	566913.292	267219.719	46.148	Tangent Point	50.070	46.248
110.000	566938.246	267200.935	50.545	Curve	50.491	50.637
113.131	566941.192	267200.935	50.545	Tangent Point	51.382	51.500
116.000	566943.464	267199.426	50.873	Straight	50.785	50.960
130.000	566948.771	267198.919	51.129	Straight	51.041	51.216
135.000	566951.470	267198.417	51.381	Tangent Point	51.405	51.580
150.000	566959.278	267197.290	51.438	Straight	51.350	51.526
154.572	566961.659	267199.017	51.472	Tangent Point	51.382	51.500
160.000	566964.517	267194.415	51.493	Curve Radius 500.0	51.403	51.580
170.000	566969.251	267195.020	51.473	Curve	51.393	51.566
171.519	566970.791	267194.764	51.471	Tangent Point	51.382	51.560
180.000	566975.491	267194.695	51.405	Straight	51.262	51.432
180.884	566979.581	267194.695	51.397	P of Channel	51.397	51.413
180.885	566979.581	267194.695	51.397	P of Channel	51.397	51.413

A REVISED IS UPDATED DESIGN		J: 01747 13 121	
Rev	Revision Notes	Date	Date
 <h1 style="margin: 0;">INGENT</h1> <p style="margin: 0;">CONSULTING ENGINEERS</p> <p style="margin: 0;">Unit 13 Brightwell Barns, Walsingham Road, Brightwell, Suffolk, IP10 0BJ Tel: 01473 598038 www.ingent.co.uk email: info@ingent.co.uk</p>			
  			
<h1 style="margin: 0;">PRELIMINARY</h1>			
<p>Project: SICKLESMEERE ROAD ROUNABOUT BURY ST EDMUNDS</p>			
<p>Drawing Title: S278 SETTING OUT SHEET 3</p>			
Client: HOPKINS HOMES		Date: DEC 2022	
Drawn: JK	Designed: JK	Checked: RGW	Approved: RGW
<p>Scale: 1:250</p> 			
Project No: 2107-592		Drawing No & Revision: 3017A	
		Size: A1	







- GENERAL**
- DO NOT SCALE THIS DRAWING. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED. ANY DISCREPANCIES ARE TO BE RECORDED AND REPORTED TO THE ENGINEERS IMMEDIATELY.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERS AND ARCHITECTS DRAWINGS AND THE SPECIFICATION.
 - ANY EXISTING DETAILS WHICH ARE SHOWN ON THIS DRAWING ARE FOR GUIDANCE ONLY AND ARE TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY VARIATIONS ARE TO BE RECORDED AND REPORTED TO THE ENGINEER IMMEDIATELY.
 - ALL WORK ARE TO BE TO THE SATISFACTION OF THE ENGINEER AND LOCAL AUTHORITY BUILDING CONTROL.
 - THE CONTRACTOR IS RESPONSIBLE FOR AND MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE STABILITY OF THE WORKS AT ALL TIMES DURING CONSTRUCTION.
 - ALL WORKMANSHIP AND MATERIALS ARE TO BE TO CURRENT BRITISH STANDARDS.
 - ALL SERVICES ARE TO BE LOCATED AND PROTECTED AS NECESSARY BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE WORKS.
 - ALL HIGHWAY WORKS ARE TO BE IN ACCORDANCE WITH THE LOCAL AUTHORITIES DESIGN GUIDE AND SPECIFICATION.
 - DURING CONSTRUCTION WORKS ON SITE, ALL ROADS AND FOOTPATHS ARE TO BE SWEEPED AND KEPT CLEAR OF OBSTRUCTIONS. THIS IS TO INCLUDE EXISTING HIGHWAYS AS APPROPRIATE TO ENSURE SAFE PASSAGE OF ALL ROAD USERS.
 - PROVISION SHALL BE MADE FOR THE INSTALLATION OF ALL MANS SERVICES INCLUDING DUCTING PRIOR TO THE LAYING OF THE ROAD BASE-COURSE.
 - ALL WATER AUTHORITY SEWER WORKS ARE TO BE IN ACCORDANCE WITH 'SEWERAGE SECTOR GUIDANCE APPENDIX C' DESIGN AND CONSTRUCTION GUIDANCE VERSION 1.0 25TH OCTOBER 2019 AND ANY ADDENDUM THEREAFTER.

A REVISED TO UPDATED DESIGN		JK	13/12/23
Rev	Revision Notes	Des	Date
<p>Unit 10 Brightwell Barns, Walsingham Road, Brightwell, Suffolk, IP10 0BJ. Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk</p>			
PRELIMINARY			
Project: SICKLESMERE ROAD ROUNDABOUT			
BURY ST EDMUNDS			
Drawing Title: S278 LONG SECTIONS			
SHEET 1			
Client: HOPKINS HOMES		Date: DEC 2022	
Drawn: JK	Designed: JK	Checked: RGW	Approved: RGW
Scale: Horizontal 1:500, Vertical 1:100			
Project No: 2107-592		Drawing No & Revision: 308A	
		Size: A1	



A	REVISED TO UPDATED DESIGN		JK	RDM 13.12.2
Rev	Revision Notes	Dwn	Apvd	Date

 INGENT CONSULTING ENGINEERS Unit 10 Brightwell Barns, Walsingham Road, Brightwell, Suffolk, IP10 6BJ Tel. 01473 598033 — www.ingent.co.uk — email: info@ingent.co.uk			
 worksafe consultant www.smasitd.com	 SSIP Approved by the Health and Safety Commission		 COMS Safety Scheme
<h1>PRELIMINARY</h1>			
Project: SICKLESMEERE ROAD ROUNDABOUT BURY ST EDMUNDS			
Drawing Title S278 LONG SECTIONS SHEET 2			
Client HOPKINS HOMES			Date DEC 2022
Drawn JK	Designed JK	Checked RGW	Approved RGW
Scale Horizontal 1:500, Vertical 1:100			
Project No 2107-592		Drawing No & Revision 309A	
		Size A1	



- GENERAL**
1. DO NOT SCALE THIS DRAWING. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED. ANY DISCREPANCIES ARE TO BE RECORDED AND REPORTED TO THE ENGINEERS IMMEDIATELY.
 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERS AND ARCHITECTS DRAWINGS AND THE SPECIFICATION.
 3. ANY EXISTING DETAILS WHICH ARE SHOWN ON THIS DRAWING ARE FOR GUIDANCE ONLY AND ARE TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY VARIATIONS ARE TO BE RECORDED AND REPORTED TO THE ENGINEER IMMEDIATELY.
 4. ALL WORK ARE TO BE TO THE SATISFACTION OF THE ENGINEER AND LOCAL AUTHORITY BUILDING CONTROL.
 5. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE STABILITY OF THE WORKS AT ALL TIMES DURING CONSTRUCTION.
 6. ALL WORKMANSHIP AND MATERIALS ARE TO BE TO CURRENT BRITISH STANDARDS.
 7. ALL SERVICES ARE TO BE LOCATED AND PROTECTED AS NECESSARY BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE WORKS.
 8. ALL HIGHWAY WORKS ARE TO BE IN ACCORDANCE WITH THE LOCAL AUTHORITIES DESIGN GUIDE AND SPECIFICATION.
 9. DURING CONSTRUCTION WORKS ON SITE, ALL ROADS AND FOOTPATHS ARE TO BE SWEEPED AND KEPT CLEAR OF OBSTRUCTIONS, THIS IS TO INCLUDE EXISTING HIGHWAYS AS APPROPRIATE TO ENSURE SAFE PASSAGE OF ALL ROAD USERS.
 10. PROVISION SHALL BE MADE FOR THE INSTALLATION OF ALL MAINS SERVICES INCLUDING DUCTING PRIOR TO THE LAYING OF THE ROAD BASE-COURSE.
 11. ALL ROAD MARKINGS AND SIGNS ARE TO BE IN ACCORDANCE WITH 'THE TRAFFIC SIGNS REGULATIONS AND DIRECTIONS' 2016.
 12. ALL ADOPTABLE SURFACE WATER SEWERS WITHIN ADOPTABLE HIGHWAYS ARE TO BE A MINIMUM OF 225MM.
 13. ALL WATER AUTHORITY SEWER WORKS ARE TO BE IN ACCORDANCE WITH 'SEWERAGE SECTOR GUIDANCE APPENDIX C' DESIGN AND CONSTRUCTION GUIDANCE VERSION 1.0 25TH OCTOBER 2019 AND ANY ADDENDUM THEREAFTER.

FOR ALL STREET LIGHTING WORKS PLEASE REFER TO THE SUFFOLK COUNTY COUNCIL APPROVED STREET LIGHTING DESIGN DRAWING

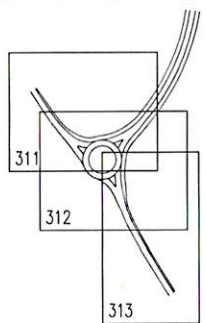
EXISTING UTILITIES AFFECTED BY THE WORKS TO BE PROTECTED/MODIFIED IN ACCORDANCE WITH THE REQUIREMENTS AND APPROVAL OF THE RELEVANT STATUTORY AUTHORITIES. LOCATION OF EXISTING UNDERGROUND UTILITY SERVICES TO BE CONFIRMED.

REMOVAL OF EXISTING ROAD MARKINGS TO BE DONE SO BY METHODS TO THE SATISFACTION AND APPROVAL OF SUFFOLK COUNTY COUNCIL HIGHWAYS DEPT.

ALL VEGETATION AND CLEARANCE WORKS ARE TO BE IN ACCORDANCE WITH ECOLOGICAL AND ARBORICULTURAL REPORTS

CHECK ALL EXISTING ROAD SIGNS ARE SUITABLY SET BACK FROM ROAD EDGE AND/OR RAISED IN HEIGHT FOR PEDESTRIAN/CYCLIST MOVEMENTS.

ALL MANHOLE COVERS AND FRAMES SHOULD COMPLY WITH THE REQUIREMENTS OF BS7903: 1997 BS EN 124 AND HA 104/09. FRAMES SHOULD BE 150MM DEEP.



SITE CLEARANCE KEY	
DEVELOPERS OWNERSHIP BOUNDARY	—
S278 LIMIT OF WORKS	—
HIGHWAY BOUNDARY	—
CARRIAGEWAY TO BE REMOVED	■
FOOTWAY/CYCLEWAY TO BE REMOVED	■
GRASS VERGE/UNMADE GROUND TO BE REMOVED	■

TEMPORARY CONSTRUCTION ACCESS TO BE REMOVED DURING CONSTRUCTION OF S278. ROAD CHANNELS AND KERB LAYOUTS SHOWN FOR INFORMATION

EXISTING ROAD GULLY TO BE REMOVED

EXISTING ROAD GULLY TO BE REMOVED

A		REVISED TO UPDATED DESIGN		JK	12/12/23
Rev		Revision Notes		Des	Appr
<p>Unit 10 Brightwell Barns, Waldringfield Road, Brightwell, Suffolk, IP10 0BJ. Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk</p>					
<p>PRELIMINARY</p>					
<p>Project: SICKLESMERE ROAD ROUNDABOUT BURY ST EDMUNDS</p>					
<p>Drawing Title: S278 SITE CLEARANCE SHEET 1</p>					
Client: HOPKINS HOMES				Date: DEC 2022	
Drawn: JK	Designed: JK	Checked: RGW	Approved: RGW		
<p>Scale: 1:250</p>					
Project No: 2107-592		Drawing No & Revision: 311A		Size: A1	

EXISTING ROAD GULLY
TO BE REMOVEDEXISTING ROAD GULLY
TO BE REMOVED

SITE CLEARANCE KEY

DEVELOPERS OWNERSHIP BOUNDARY	—
S278 LIMIT OF WORKS	—
HIGHWAY BOUNDARY	—
CARRIAGEWAY TO BE REMOVED	■
FOOTWAY/CYCLEWAY TO BE REMOVED	■
GRASS VERGE/UNMADE GROUND TO BE REMOVED	■

EXISTING ROAD GULLY
TO BE REMOVEDEXISTING 40mph REPEATER SIGN PLATE TO BE
REMOVED AND SET A SIDE FOR RE USE.
EXISTING POST AND FOUNDATION TO BE REMOVED

REFER TO SPINE ROAD S38



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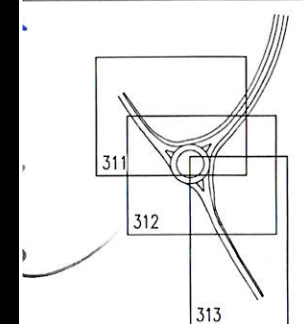
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Rev	Revision Notes	Rev	Date
A	REVISED TO UPDATED DESIGN	JK	12/12/23

INGENT
CONSULTING ENGINEERS
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Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk

worksafe consultant **SS1P** **CQMS**
www.smasistd.com

PRELIMINARY

Project:
SICKLESMERE ROAD ROUNDABOUT
BURY ST EDMUNDS

Drawing Title:
S278 SITE CLEARANCE
SHEET 2

Client:
HOPKINS HOMES

Date:
DEC 2022

Drawn: JK
Designed: JK
Checked: RGW
Approved: RGW

Scale:
1:250

Project No:
2107-592

Drawing No & Revision:
312A

Size:
A1



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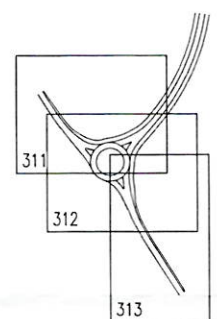
SITE CLEARANCE KEY

DEVELOPERS OWNERSHIP BOUNDARY	—
S278 LIMIT OF WORKS	—
HIGHWAY BOUNDARY	—
CARRIAGEWAY TO BE REMOVED	■
FOOTWAY/CYCLEWAY TO BE REMOVED	■
GRASS VERGE/UNMADE GROUND TO BE REMOVED	■

EXISTING UTILITY COVER TO BE RELOCATED OUTSIDE OF NEW CARRIAGEWAY CHANNEL

EXISTING ROAD GULLY TO BE REMOVED

EXISTING 40mph REPEATER SIGN PLATE TO BE REMOVED AND SET A SIDE FOR RE USE. EXISTING POST AND FOUNDATION TO BE REMOVED



A		REVISED TO UPDATED DESIGN		JK	RCM	12.12.23
Rev	Notes	Drawn	Approved	Date		
Unit 10 Brightwell Barns, Waldringfield Road, Brightwell, Suffolk, IP10 0BJ. Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk						
<h2>PRELIMINARY</h2>						
Project: SICKLESMERE ROAD ROUNDABOUT BURY ST EDMUNDS						
Drawing Title: S278 SITE CLEARANCE SHEET 3						
Client: HOPKINS HOMES				Date: DEC 2022		
Drawn: JK	Designed: JK	Checked: RGW	Approved: RGW			
Scale: 1:250						
Project No: 2107-592		Drawing No & Revision: 313A		Size: A1		

KERB KEY	
HB2 KERB (125mm)	
BULLNOSE KERB 50mm PEDESTAL, 25mm VEHICULAR	
TRANSITION KERB	
CONCRETE EDGING	
FLUSH KERB ALONGSIDE SWALE	

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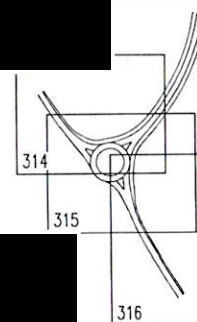
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UPDATED TO LATEST DESIGN & SEC COMMENTS

Revision Notes

JK 13/12/22

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BULLNOSE KERB 5-6mm PEDESTRIAN, 25mm VEHICULAR	
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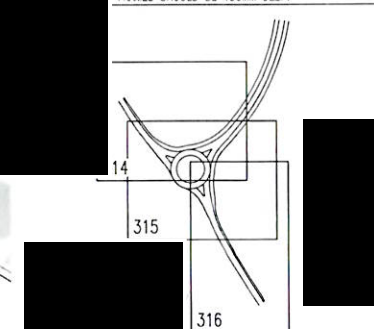
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A: UPDATED TO LATEST DESIGN & SEE COMMENTS JK: 13/12/23

Revision Notes Date

INGENT
CONSULTING ENGINEERS
Unit 10 Brightwell Barns, Walsingham Road, Brightwell, Suffolk, IP10 0BJ.
Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk

worksafe consultant SSIIP CQMS

PRELIMINARY

Project
SICKLESMEERE ROAD ROUNDABOUT
BURY ST EDMUNDS

Drawing Title
S278 KERB LAYOUT
SHEET 2

Client
HOPKINS HOMES

Date
DEC 2022

Drawn
JK

Designed
JK

Checked
RGW

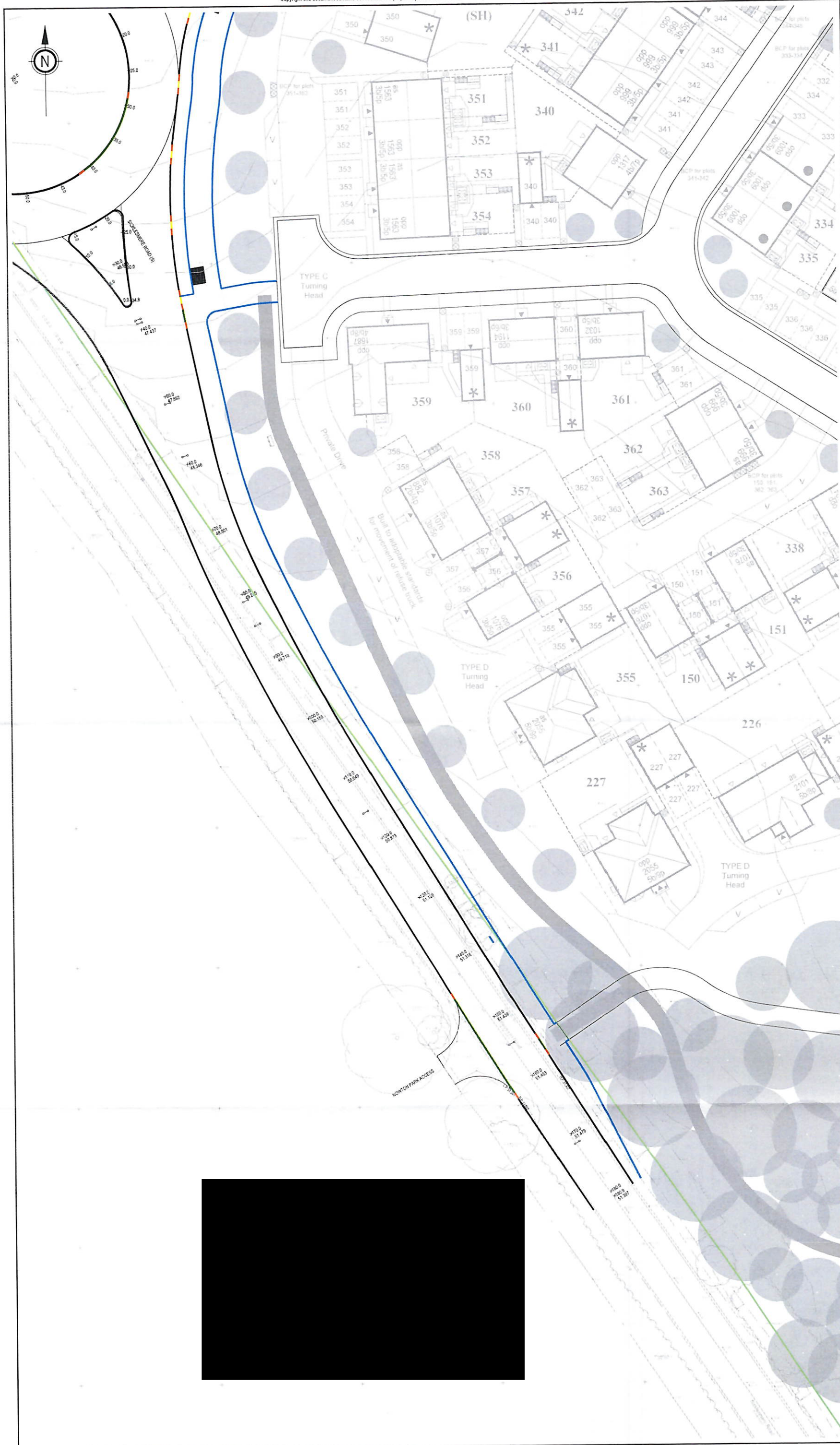
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RGW

Scale
1:250

Project No
2107-592

Drawing No & Revision
315A

Size
A1



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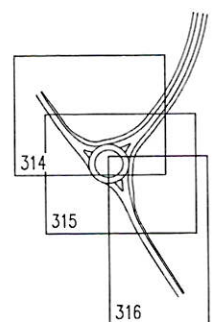
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HB2 KERB (125mm)	
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25mm PEDESTRIAN, 25mm VEHICULAR	
TRANSITION KERB	
CONCRETE EDGING	
FLUSH KERB	
ALONGSIDE SWALE	



Rev	Description	Date
1	UPDATED TO LATEST DESIGN & SEC. COMMENTS	15/12/23

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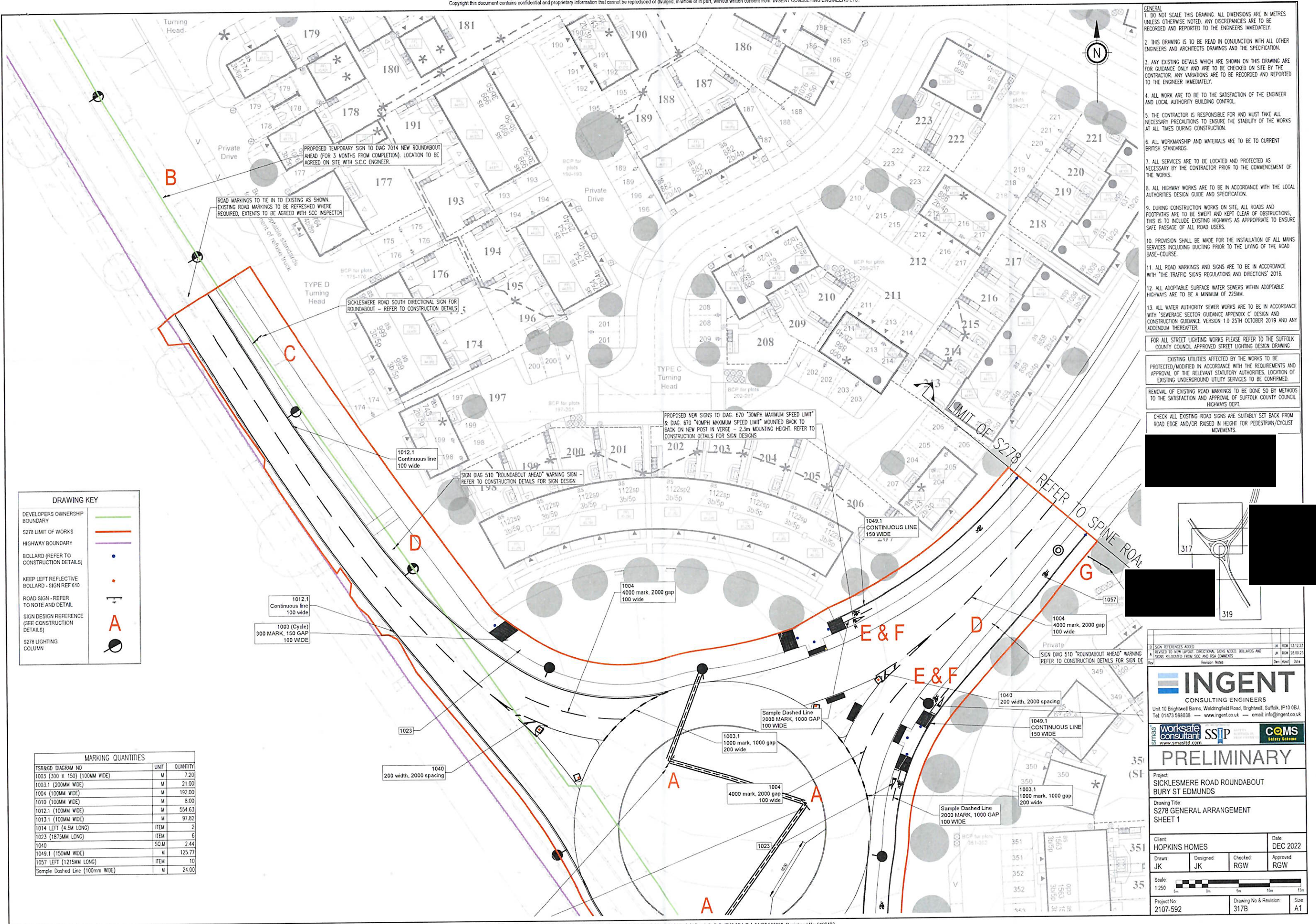
Project:
SICKLESMEERE ROAD ROUNDABOUT
BURY ST EDMUNDS

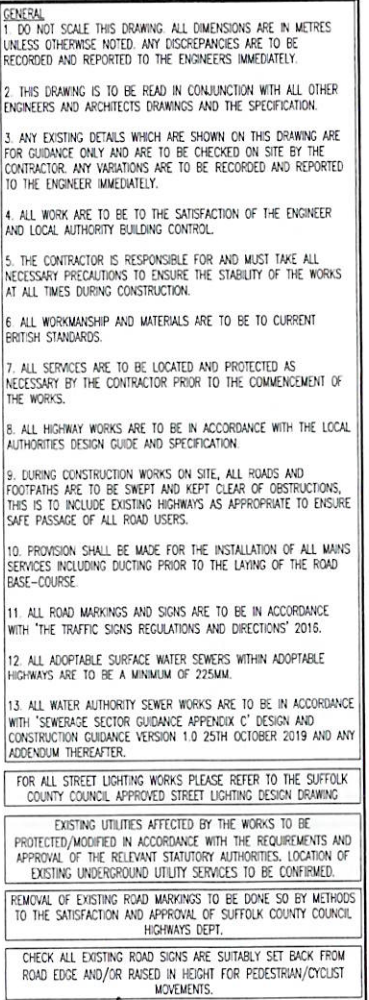
Drawing Title:
S278 KERB LAYOUT
SHEET 3

Client: HOPKINS HOMES	Date: DEC 2022
Drawn: JK	Designed: JK
Checked: RGW	Approved: RGW

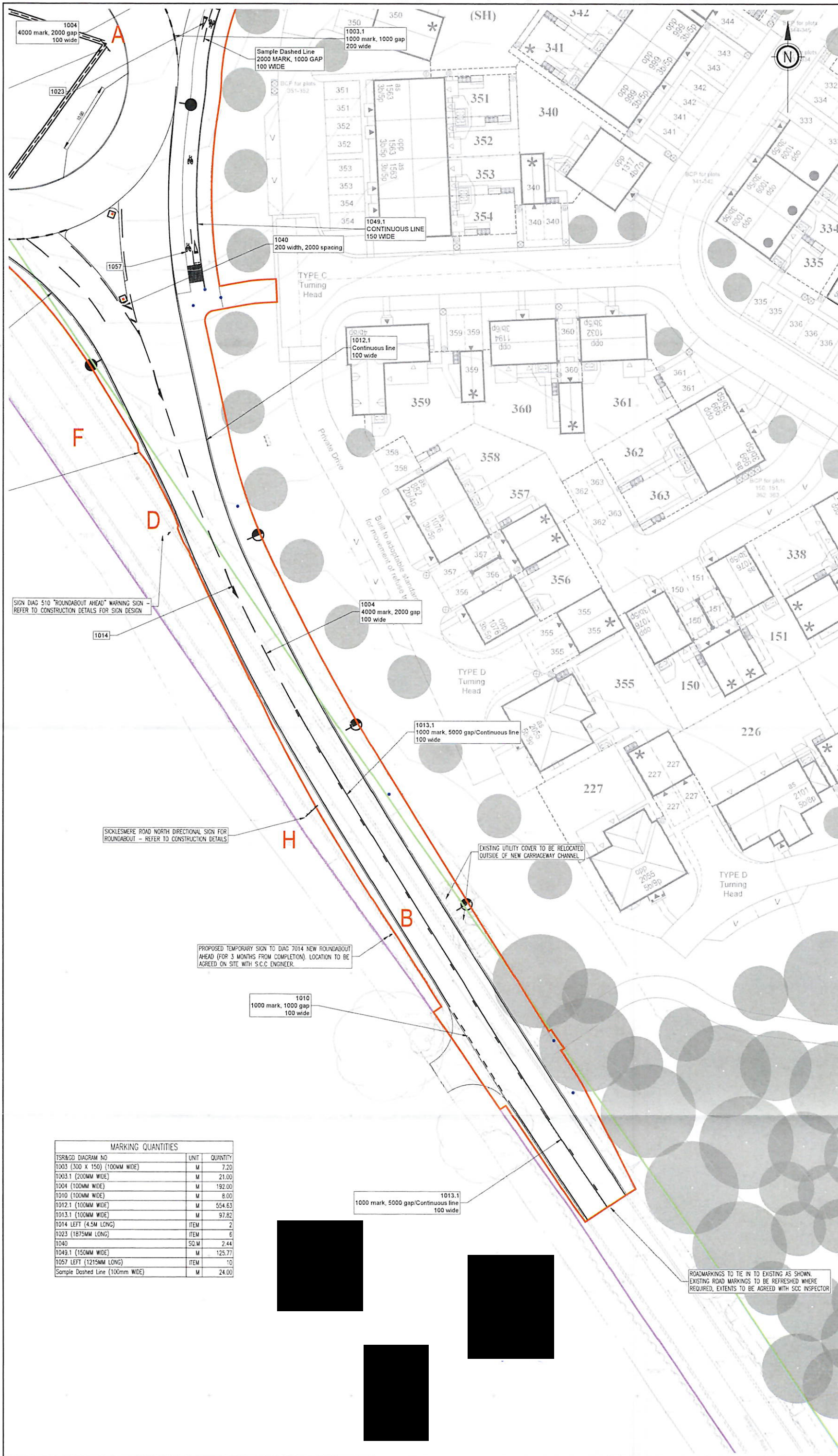
Scale:

Project No: 2107-592	Drawing No & Revision: 316A	Size: A1
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MARKING QUANTITIES		
TSR&D DIAGRAM NO	UNIT	QUANTITY
1003 (300 x 150) (100MM WIDE)	M	7
1003.1 (200MM WIDE)	M	21.00
1004 (100MM WIDE)	M	192.00
1010 (100MM WIDE)	M	8.00
1012.1 (100MM WIDE)	M	554.63
1013.1 (100MM WIDE)	M	97.82
1014 LEFT (4.5M LONG)	ITEM	2
1023 (1875MM LONG)	ITEM	6
1040	SQ.M	2.44
1049.1 (150MM WIDE)	M	125.77
1057 LEFT (1215MM LONG)	ITEM	10
Sample Dashed Line (100mm WIDE)	M	24.00

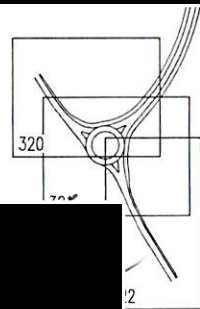




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Rev	Description	Date
1	DRAINAGE REVISED FOLLOWING ON SITE INVESTIGATION	13/12/22

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worksafe consultant **SSIP** **COMS**
Safety Specialist

PRELIMINARY

Project: SICKLESME ROAD ROUNDABOUT BURY ST EDMUNDS

Drawing Title: S278 DRAINAGE LAYOUT SHEET 1

Client: HOPKINS HOMES Date: DEC 2022

Drawn: JK Designed: JK Checked: RGW Approved: RGW

Scale: 1:250

Project No: 2107-592 Drawing No & Revision: 320A Size: A1

TE INTO EXISTING DITCH AND LEVELS


TREE TO BE REMOVED


TREE TO BE REMOVED


NEW SANDBAG HEADWALL PROVIDED 225mm DIA. DISCHARGE OF SICKLESME ROAD HIGHWAY DRAINAGE NETWORK


TREE TO BE REMOVED


EXISTING DITCH TO BE RE ALIGNED AND RE GRADED AS SHOWN TO PROVIDE SUITABLE INVERT LEVEL FOR NEW SURFACE WATER DISCHARGE.


	COVER	I	A	43.98m
	45.517m	N	B	
	DIAMETER	V	C	
	1200mm	E	D	
	Unknown	T	E	


	COVER	I	A	43.19m
	44.894m	N	B	
	DIAMETER	V	C	
	1350mm	E	D	
	Type C	T	E	


	COVER	I	A	50.000m
	51.424m	N	B	
	DIAMETER	V	C	
	1200mm	E	D	
	Unknown	T	E	

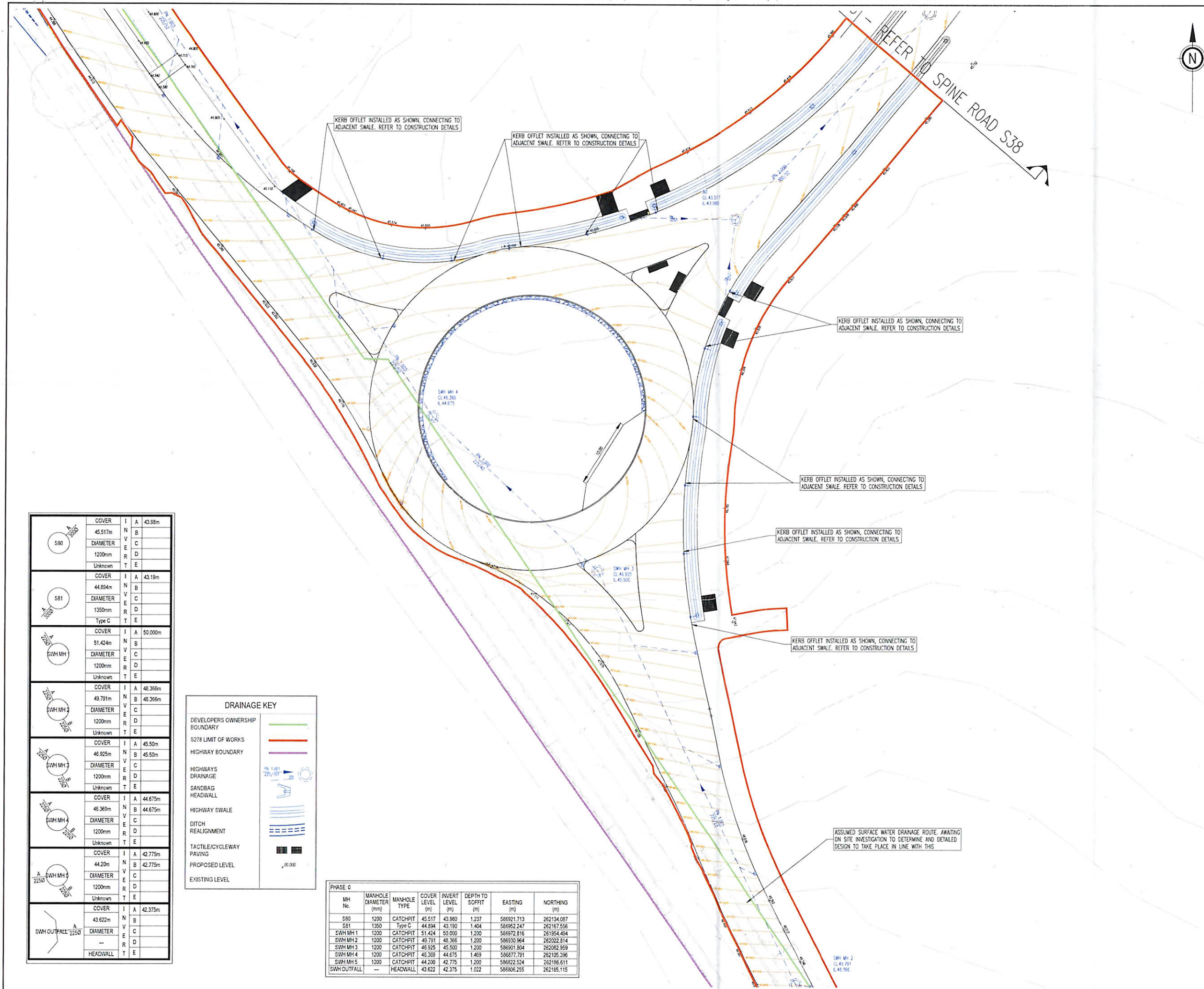
	COVER	I	A	48.366m
	49.791m	N	B	48.366m
	DIAMETER	V	C	
	1200mm	E	D	
	Unknown	T	E	

	COVER	I	A	45.50m
	46.925m	N	B	45.50m
	DIAMETER	V	C	
	1200mm	E	D	
	Unknown	T	E	

	COVER	I	A	44.675m
	46.369m	N	B	44.675m
	DIAMETER	V	C	
	1200mm	E	D	
	Unknown	T	E	

	COVER	I	A	42.775m
	44.20m	N	B	42.775m
	DIAMETER	V	C	
	1200mm	E	D	
	Unknown	T	E	

	COVER	I	A	42.375m
	43.622m	N	B	
	DIAMETER	V	C	
	---	E	D	
	HEADWALL	T	E	



- GENERAL
1. DO NOT SCALE THIS DRAWING. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED. ANY DISCREPANCIES ARE TO BE RECORDED AND REPORTED TO THE ENGINEERS IMMEDIATELY.
 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERS AND ARCHITECTS DRAWINGS AND THE SPECIFICATION.
 3. ANY EXISTING DETAILS WHICH ARE SHOWN ON THIS DRAWING ARE FOR GUIDANCE ONLY AND ARE TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY VARIATIONS ARE TO BE RECORDED AND REPORTED TO THE ENGINEER IMMEDIATELY.
 4. ALL WORK ARE TO BE TO THE SATISFACTION OF THE ENGINEER AND LOCAL AUTHORITY BUILDING CONTROL.
 5. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE STABILITY OF THE WORKS AT ALL TIMES DURING CONSTRUCTION.
 6. ALL WORKMANSHIP AND MATERIALS ARE TO BE TO CURRENT BRITISH STANDARDS.
 7. ALL SERVICES ARE TO BE LOCATED AND PROTECTED AS NECESSARY BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE WORKS.
 8. ALL HIGHWAY WORKS ARE TO BE IN ACCORDANCE WITH THE LOCAL AUTHORITIES DESIGN GUIDE AND SPECIFICATION.
 9. DURING CONSTRUCTION WORKS ON SITE, ALL ROADS AND FOOTPATHS ARE TO BE SWEEPED AND KEPT CLEAR OF OBSTRUCTIONS, THIS IS TO INCLUDE EXISTING HIGHWAYS AS APPROPRIATE TO ENSURE SAFE PASSAGE OF ALL ROAD USERS.
 10. PROVISION SHALL BE MADE FOR THE INSTALLATION OF ALL MAINS SERVICES INCLUDING DUCTING PRIOR TO THE LAYING OF THE ROAD BASE-COURSE.
 11. ALL ADAPTABLE SURFACE WATER SEWERS WITHIN ADAPTABLE HIGHWAYS ARE TO BE A MINIMUM OF 225MM.
 12. ALL WATER AUTHORITY SEWER WORKS ARE TO BE IN ACCORDANCE WITH "SEWERAGE SECTOR GUIDANCE APPENDIX C" DESIGN AND CONSTRUCTION GUIDANCE VERSION 1.0 25TH OCTOBER 2019 AND ANY ADDENDUM THEREAFTER.

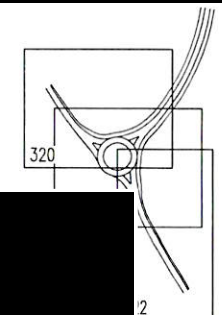
EXISTING UTILITIES AFFECTED BY THE WORKS TO BE PROTECTED/MODIFIED IN ACCORDANCE WITH THE REQUIREMENTS AND APPROVAL OF THE RELEVANT STATUTORY AUTHORITIES. LOCATION OF EXISTING UNDERGROUND UTILITY SERVICES TO BE CONFIRMED.

ALL MANHOLE COVERS AND FRAMES SHOULD COMPLY WITH THE REQUIREMENTS OF BS7903: 1997 BS EN 124 AND HA 104/09. FRAMES SHOULD BE 150MM DEEP.

	COVER	I	A	43.58m
	45.517m	N	B	
	DIAMETER	C		
	1200mm	R	D	
	Unknown	T	E	
	COVER	I	A	43.18m
	44.894m	N	B	
	DIAMETER	C		
	1350mm	R	D	
	Type C	T	E	
	COVER	I	A	50.000m
	51.424m	N	B	
	DIAMETER	C		
	1200mm	R	D	
	Unknown	T	E	
	COVER	I	A	48.366m
	49.791m	N	B	
	DIAMETER	C		
	1200mm	R	D	
	Unknown	T	E	
	COVER	I	A	45.50m
	46.925m	N	B	
	DIAMETER	C		
	1200mm	R	D	
	Unknown	T	E	
	COVER	I	A	44.675m
	46.369m	N	B	
	DIAMETER	C		
	1200mm	R	D	
	Unknown	T	E	
	COVER	I	A	42.775m
	44.20m	N	B	
	DIAMETER	C		
	1200mm	R	D	
	Unknown	T	E	
	COVER	I	A	42.375m
	43.622m	N	B	
	DIAMETER	C		
	1200mm	R	D	
	Unknown	T	E	

DRAINAGE KEY	
DEVELOPERS OWNERSHIP BOUNDARY	
S278 LIMIT OF WORKS	
HIGHWAY BOUNDARY	
HIGHWAYS DRAINAGE	
SANDBAG HEADWALL	
HIGHWAY SWALE	
DITCH REALIGNMENT	
TACTILE/CYCLEWAY PAVING	
PROPOSED LEVEL	
EXISTING LEVEL	

PHASE 0							
MH No.	MANHOLE DIAMETER (mm)	MANHOLE TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING (m)	NORTHING (m)
S80	1200	CATCHPIT	45.517	43.980	1.237	566921.713	262134.087
S81	1350	Type C	44.894	43.190	1.404	566952.247	262167.556
SWH MH1	1200	CATCHPIT	51.424	50.000	1.200	566972.816	261954.484
SWH MH2	1200	CATCHPIT	49.791	48.366	1.200	566930.964	262022.814
SWH MH3	1200	CATCHPIT	46.925	45.500	1.200	566901.804	262062.959
SWH MH4	1200	CATCHPIT	46.369	44.675	1.469	566877.791	262105.396
SWH MH5	1200	CATCHPIT	44.200	42.775	1.200	566822.524	262166.611
SWH OUTFALL	—	HEADWALL	43.622	42.375	1.022	566806.255	262165.115



Unit 10 Brightwell Barns, Waldringfield Road, Brightwell, Suffolk, IP10 0BJ.
Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk

worksafe consultant **SSIP** **COMS**

PRELIMINARY

Project: SICKLESMERE ROAD ROUNDABOUT
BURY ST EDMUNDS

Drawing Title: S278 DRAINAGE LAYOUT
SHEET 2

Client: HOPKINS HOMES	Date: DEC 2022
Drawn: JK	Designed: JK
Checked: RGW	Approved: RGW

Scale: 1:250

Project No: 2107-592	Drawing No & Revision: 321A	Size: A1
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ALL MANHOLE COVERS AND FRAMES SHOULD COMPLY WITH THE REQUIREMENTS OF BS7903: 1997 BS EN 124 AND HA 104/09. FRAMES SHOULD BE 150MM DEEP.

ASSUMED SURFACE WATER DRAINAGE ROUTE. AWAITING ON SITE INVESTIGATION TO DETERMINE AND DETAILED DESIGN TO TAKE PLACE IN LINE WITH THIS

EXISTING UTILITY COVER TO BE RELOCATED OUTSIDE OF NEW CARRIAGEWAY CHANNEL

ASSUMED SURFACE WATER DRAINAGE ROUTE. AWAITING ON SITE INVESTIGATION TO DETERMINE AND DETAILED DESIGN TO TAKE PLACE IN LINE WITH THIS

NEW HIGHWAYS CATCHPIT INSTALLED AS SHOWN. EXISTING NETWORK TO BE INVESTIGATED TO DETERMINE DEPTHS AND LOCATION OF ASSUMED SEWER.

COVER	I	A
45.517m	N	43.98m
DIAMETER	V	
1200mm	C	
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COVER	I	A
44.894m	N	43.19m
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Type C	D	
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COVER	I	A
51.424m	N	50.000m
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COVER	I	A
49.791m	N	48.366m
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COVER	I	A
46.925m	N	45.50m
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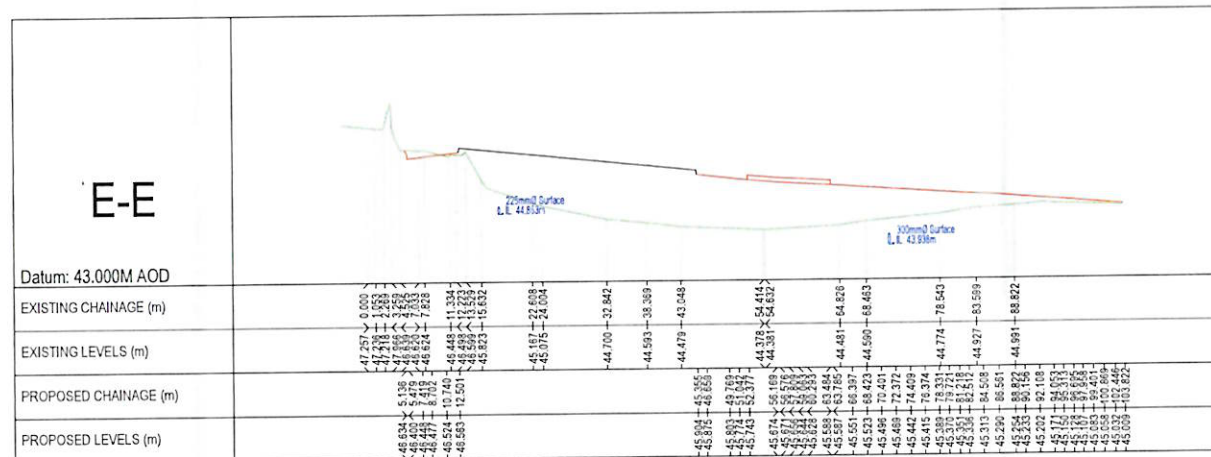
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B	REVISED TO UPDATED DESIGN	JK	ROW	13.12.22
A	ADDITIONAL SECTIONS ADDED	JK	ROW	28.09.22
Rev	Revision Notes	Don	April	Date
 INGENT CONSULTING ENGINEERS Unit 10 Brightwell Barns, Walsingham Road, Brightwell, Suffolk, IP13 0BJ. Tel 01473 598038 — www.ingent.co.uk — email info@ingent.co.uk				
 www.smaasitd.com	 THE ASSOCIATION OF SPECIALIST INSPECTION PROVIDERS			
PRELIMINARY				
Project SICKLESMEERE ROAD ROUNDABOUT BURY ST EDMUNDS				
Drawing Title S278 CROSS SECTIONS ROUNDABOUT				
Client HOPKINS HOMES			Date DEC 2022	
Drawn JK	Designed JK	Checked RGW	Approved RGW	
Scale Horizontal 1:500, Vertical 1:100				
Project No 2107-592			Drawing No & Revision 330B	
			Size A1	

Surface Water Sewer
Invert Levels (m)43.94
22mm/sCross Section for SICKLESMERE ROAD (N)
Datum: 43.00M AOD

Existing Levels (m)	45.781	45.691	45.723	45.647	45.181	45.205	45.185	45.134	45.047	45.158	44.940	44.801	44.761	44.605
Offset (m)	-14.784	-13.350	-12.264	-8.938	-9.521	-7.078	-5.138	-3.598	-2.731	-0.389	-0.300	2.111	4.209	15.000
Proposed Levels (m)														
Offset (m)				-6.172	-5.193	-3.653	-2.232	-0.001			-6.853	-10.857	-13.002	

Chainage : 45.000m

Surface Water Sewer
Invert Levels (m)43.93
22mm/sCross Section for SICKLESMERE ROAD (N)
Datum: 43.00M AOD

Existing Levels (m)	45.781	45.691	45.723	45.647	45.181	45.205	45.185	45.134	45.047	45.158	44.940	44.801	44.761	44.605
Offset (m)	-14.784	-13.350	-12.264	-8.938	-9.521	-7.078	-5.138	-3.598	-2.731	-0.389	-0.300	2.111	4.209	15.000
Proposed Levels (m)														
Offset (m)				-11.778	-10.800	-9.260	-7.839	-6.399	-4.859	-3.438	-1.998	-1.058	-0.425	

Chainage : 25.000m

Surface Water Sewer
Invert Levels (m)43.95
22mm/sCross Section for SICKLESMERE ROAD (N)
Datum: 42.00M AOD

Existing Levels (m)	44.714	44.706	44.704	44.596	44.446	44.315	44.117	44.581	44.288	44.252	44.165	44.145	44.134	44.629
Offset (m)	-10.281	-8.350	-7.299	-6.038	-5.148	-4.475	-3.427	-1.020	-0.040	-0.942	-3.093	-3.428	-6.970	15.000
Proposed Levels (m)														
Offset (m)														

Chainage : 85.000m

Surface Water Sewer
Invert Levels (m)43.97
22mm/sCross Section for SICKLESMERE ROAD (N)
Datum: 42.00M AOD

Existing Levels (m)	46.225	44.759	44.626	44.604	44.412	44.446	44.752	44.547	44.651	44.655	45.037	45.016	45.006	44.850
Offset (m)	-11.292	-9.865	-4.742	-4.108	-2.854	-0.705	3.334	3.467	3.890	5.021	5.177	8.774	15.000	
Proposed Levels (m)														
Offset (m)														

Chainage : 65.000m

REFER TO CROSS SECTION MARKERS ON LAYOUT

VERTICAL EXAGGERATION x5

Surface Water Sewer
Invert Levels (m)43.93
22mm/sCross Section for SICKLESMERE ROAD (N)
Datum: 41.00M AOD

Existing Levels (m)	44.270	44.195	44.183	44.079	44.035	43.887	43.826	43.798	43.629	43.555	44.562	44.385	44.329	44.289
Offset (m)	-10.386	-8.375	-7.871	-6.497	-4.798	-3.518	-2.802	-1.960	-1.842	-4.255	-6.308	-8.563	-11.353	15.000
Proposed Levels (m)														
Offset (m)														

Chainage : 105.000m

- GENERAL
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Revision Notes		JK	RGW	13/12/23
VOID TO UPDATED DESIGN				

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worksafe consultant **SSIP** **COMS**
www.smasitd.com

PRELIMINARY

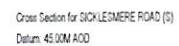
Project: SICKLESMERE ROAD ROUNDABOUT
BURY ST EDMUNDS
Drawing Title: S278 CROSS SECTIONS
SICKLESMERE NORTH

Client: HOPKINS HOMES Date: DEC 2022

Drawn: JK Designed: JK Checked: RGW Approved: RGW

Scale: 1:200
0m 5m 10m

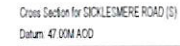
Project No: 2107-592 Drawing No & Revision: 331A Size: A1



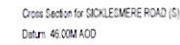
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Chainage : 25.000m



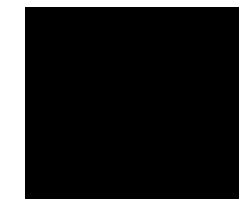
Chainage : 85.000m



Chainage : 65.000m

REFER TO CROSS SECTION MARKERS ON LAYOUT

VERTICAL EXAGGERATION x5



SED TO UPDATED DESIGN	JAC	RCM	13.12.23
Revision Notes	Des	Apd	Date



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PRELIMINARY

Project
SICKLESMERE ROAD ROUNDABOUT
BURY ST EDMUNDS

Drawing Title:
S278 CROSS SECTIONS
SICKLESMEERE SOUTH
SHEET 1

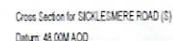
Client: HOPKINS HOMES	Date: DEC 2022
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Drawn: JK	Designed JK	Checked RGW	Approved RGW
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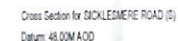
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Project No: 2107-502	Drawing No & Revision: 222A	Size: A1
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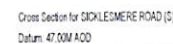
2107-592	552A	AT
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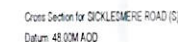
Chainage : 125.000m



Chainage : 165.000m



Chainage : 105.000m



Chainage : 145.000m

REFER TO CROSS SECTION MARKERS ON LAYOUT

VERTICAL EXAGGERATION x5

DESIGN	JK	RGN	1.3.12
Revision Notes	Dem	Appl	Date

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PRELIMINARY

Project:
SICKLESMERE ROAD ROUNDABOUT
BURY ST EDMUNDS

Drawing Title:
S278 CROSS SECTIONS
SICKLESMERE SOUTH
SHEET 2

Client: HOPKINS HOMES	Date: DEC 202
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Drawn: JK	Designed: JK	Checked: RGW	Approved: RGW
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Scale
1 200



0m 20m 40m 100m

Project No: 2107-592	Drawing No & Revision: 333A	Sheet No: A
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Cross Section for SPINE ROAD
Datum: 43.00M AOD

Existing Levels (m)	44.397	44.410	44.424	44.583	44.651	44.730	45.532	45.840	45.995
Offset (m)	-25.000	-19.700	-10.610	-1.408	3.691	5.850	16.471	22.082	25.000
Proposed Levels (m)			45.634	45.512	45.525	45.602	45.658	45.701	
Offset (m)			-12.464	-8.339	-0.000	3.515	11.613	12.846	

Chainage : 40.000m

Cross Section for SPINE ROAD
Datum: 42.00M AOD

Existing Levels (m)	43.594	43.940	43.933	44.281	44.381	44.404	44.722	45.097	45.770
Offset (m)	-25.000	-21.081	-16.480	-3.890	-0.837	0.538	6.994	14.851	25.000
Proposed Levels (m)			45.893	45.591	45.823	45.977	46.003	46.303	45.537
Offset (m)			-11.255	-3.648	-1.311	3.320	11.205	18.702	-22.180

Chainage : 25.000m

Surface Water Sewer
Invert Levels (m)Cross Section for SPINE ROAD
Datum: 42.00M AOD

Existing Levels (m)	44.587	44.732	44.830	44.928	45.091	45.312	45.574	45.831
Offset (m)	-25.000	-19.274	-12.007	-2.098	5.246	12.610	22.841	25.000
Proposed Levels (m)			45.285	45.643	45.125	45.973	46.285	46.273
Offset (m)			-9.102	-3.103	-0.000	3.102	9.100	9.316

Chainage : 70.000m

Surface Water Sewer
Invert Levels (m)Cross Section for SPINE ROAD
Datum: 42.00M AOD

Existing Levels (m)	44.693	44.772	44.807	44.816	44.830	44.917	45.144	45.400	45.902
Offset (m)	-25.000	-20.911	-12.501	-3.840	-2.420	-0.640	9.247	13.954	19.894
Proposed Levels (m)			46.463	46.328	46.330	46.326	46.505	46.473	46.276
Offset (m)			-10.247	-4.191	-3.420	-0.000	3.687	9.639	-10.229

Chainage : 55.000m

REFER TO CROSS SECTION MARKERS ON LAYOUT

VERTICAL EXAGGERATION x5

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Rev	Description	Date
A	REVISED TO UPDATED DESIGN	JK 15.12.23

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worksafe consultant
www.worksafe.co.uk
SSIP
www.sstip.co.uk
COMS
Safety Scheme

PRELIMINARY

Project:
SICKLESMERE ROAD ROUNDABOUT
BURY ST EDMUNDS

Drawing Title:
S278 CROSS SECTIONS
SPINE ROAD
SHEET 1

Client:
HOPKINS HOMES

Drawn:
JK

Designed:
JK

Checked:
RGW

Approved:
RGW

Scale:
1:200

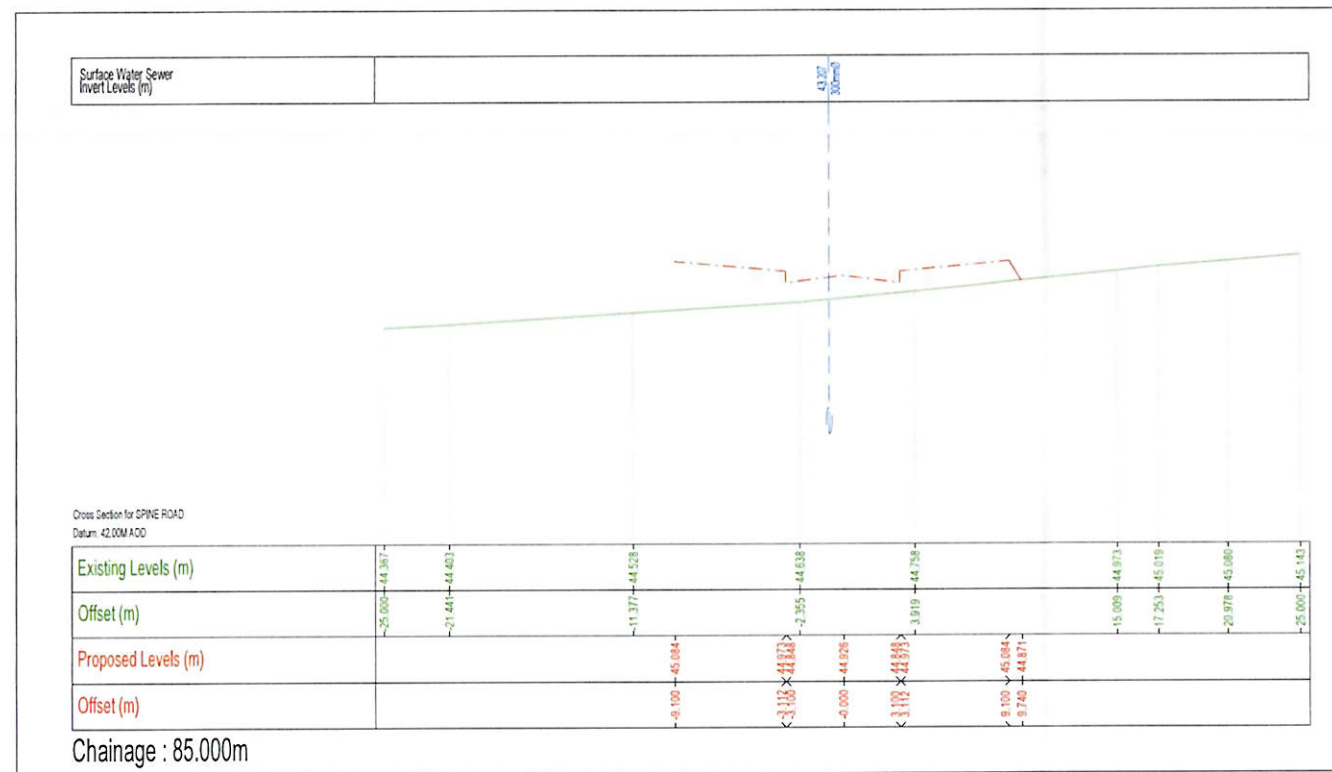
Project No:
2107-592

Drawing No & Revision:
334A

Size:
A1

REFER TO CROSS SECTION MARKERS ON LAYOUT

VERTICAL EXAGGERATION x5



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TO UPDATED DESIGN	13.12.23
Revision Notes	Date

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Tel 01473 598038 — www.ingent.co.uk — email info@ingent.co.uk

worksafe consultant SSIP CQMS

PRELIMINARY

Project
SICKLESMEERE ROAD ROUNDABOUT
BURY ST EDMUNDS

Drawing Title
S278 CROSS SECTIONS
SPINE ROAD
SHEET 2

Client
HOPKINS HOMES

Date
DEC 2022

Drawn
JK

Designed
JK

Checked
RGW

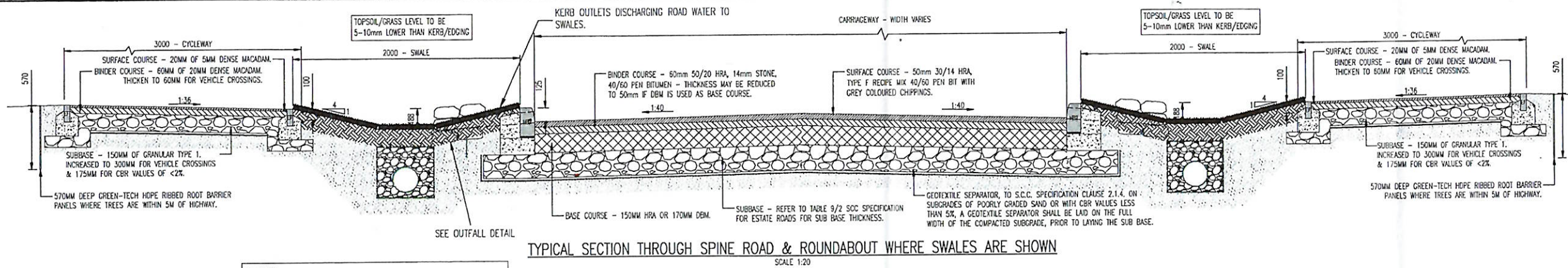
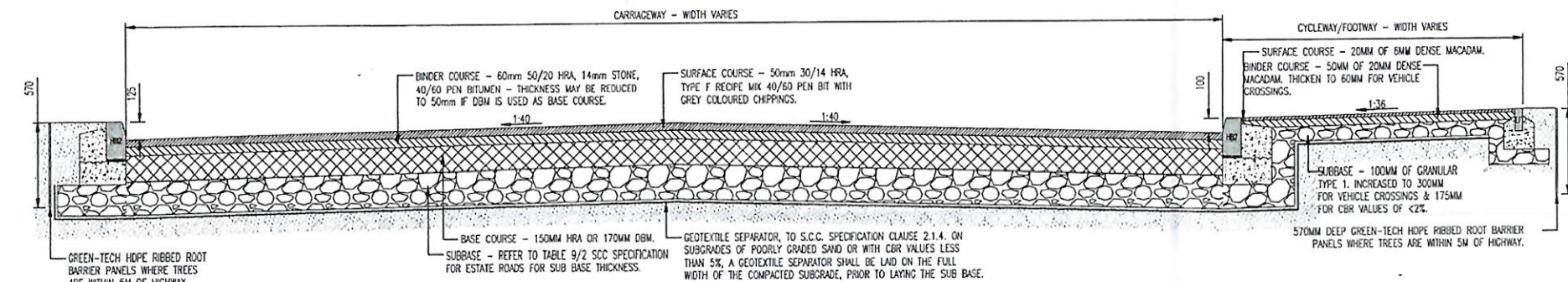
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RGW

Scale
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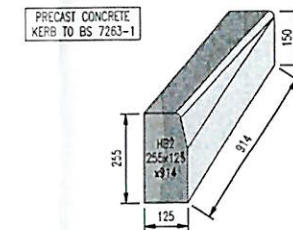
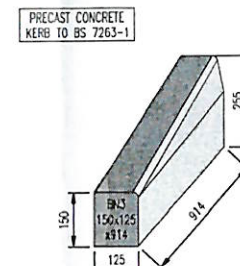
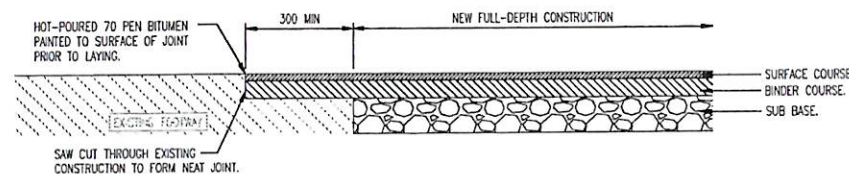
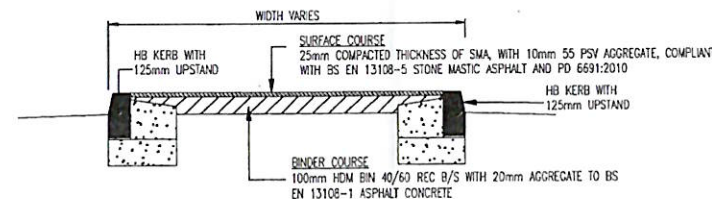
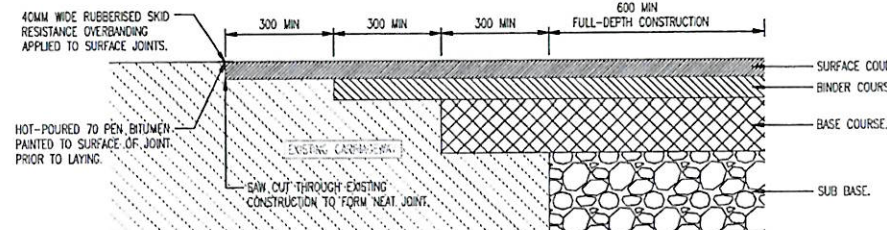
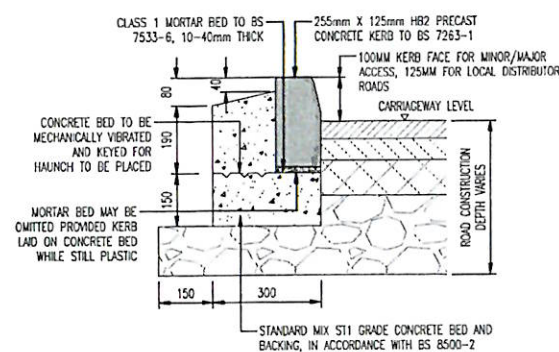
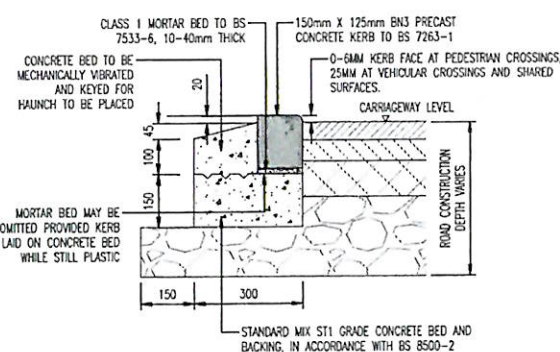
Project No
2107-592

Drawing No & Revision
335A

Size
A1

TYPICAL SECTION THROUGH SPINE ROAD & ROUNDABOUT WHERE SWALES ARE SHOWN
SCALE 1:20TYPICAL SECTION THROUGH SICKLESMEERE ROAD NORTH & SOUTH
SCALE 1:20

SECTION OF KERB OUTLET OUTFALL

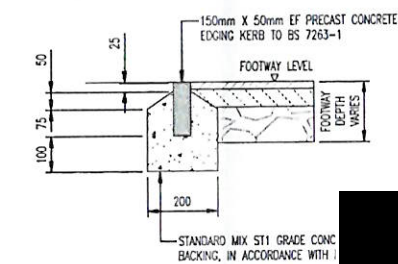
DROPPER KERB (DL1) LEFT
SCALE 1:10DROPPER KERB (DR1) RIGHT
SCALE 1:10TYPICAL TIE-IN DETAIL TO EXISTING FOOTWAY CONSTRUCTION
SCALE 1:10TYPICAL SECTION THROUGH TRAFFIC ISLAND
SCALE 1:20TYPICAL CARRIAGEWAY TIE-IN TO EXISTING CARRIAGEWAY DETAIL
SCALE 1:10HALF-BATTERED KERB (HB2) DETAIL
SCALE 1:10BULL-NOSE KERB (BN3) DETAIL
SCALE 1:10

ROAD PAVEMENT FOUNDATIONS

CD225 DESIGN FOR NEW PAVEMENT FOUNDATIONS

CBR	MPa	SUB-BASE LAYER ONLY		SUB-BASE AND CAPPING LAYER	
		TYPE 1 (mm)	TYPE 2 (mm)	CAPPING (mm)	TOTAL
2.5%	30.0	NOT PERMITTED	250	430	680
3.0%	35.0	NOT PERMITTED	230	380	610
4.0%	40.0	NOT PERMITTED	220	330	550
5.0%	50.0	NOT PERMITTED	200	250	450
6.0%	55.0	260	190	240	430
7.0%	60.0	250	170	230	400
8.0%	65.0	240	160	220	380
9.0%	70.0	230	150	210	360
10.0%	75.0	230	150	200	350
11.0%	80.0	220	150	190	340
12.0%	85.0	220	150	180	330
13.0%	90.0	210	150	170	320
14.0%	95.0	210	150	160	310
15.0%	100.0	200	150	150	300

- NOTES
- SUB-BASE - TYPE 1 UNBOUND MIXTURE TO SHW CLAUSE 803.
 - CAPPING TO SHW CLAUSE 613.
 - A GEOTEXTILE PRODUCT TO SHW CLAUSE 609 IS REQUIRED FOR SUB-BASE ONLY OPTION TO SEPARATE FROM SUBGRADE LAYER; REFER TO APPENDIX 6/5 FOR SPECIFICATION.
 - FOR CBR VALUES LESS THAN 2.5%, GROUND STABILISATION IS REQUIRED.
 - THE DESIGN FOUNDATION LAYER THICKNESSES GIVEN ABOVE ARE IN MM AND DERIVED FROM FIGURES 3.18 AND 3.20 OF 'CD 225 - DESIGN FOR NEW PAVEMENT FOUNDATIONS'.

EDGING KERB (EF) DETAIL
SCALE 1:10

- GENERAL
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- ALL PRECAST CONCRETE KERBS AND EDGINGS TO BE LAID ON BEDDED IN ACCORDANCE WITH BS 7533; PART 4 ON A MIX S11 CONCRETE FOUNDATION WHILE IT IS STILL PLASTIC OR AFTER IT HAS SET.
- ALL PRECAST UNITS TO BE HAUNCHED WITH MIX S11 CONCRETE.
- ALL PRECAST KERBS LAID TO SMOOTH HORIZONTAL AND VERTICAL ALIGNMENTS - ALIGNMENT SHALL NOT DEVIATE BY MORE THAN 3MM IN 3M FROM LINE AND LEVEL.
- FOR CURVES OF RADIUS 12M OR LESS PRECAST KERBS OF APPROPRIATE RADIUS SHALL BE USED.
- MANUFACTURE OF KERBS, EDGINGS AND PAVING TO BE IN ACCORDANCE WITH BS EN 1339; 2003.
- COMPACTION OF BITUMINOUS MATERIALS IS TO BE IN ACCORDANCE WITH CLAUSE 901.
- THICKNESSES OF SUB-BASE AND THE REQUIREMENT FOR A CAPPING LAYER SHALL BE DETERMINED BY ON SITE CBR TESTING.
- NO PRIVATE SURFACE WATER TO DISCHARGE TO ADAPTABLE HIGHWAY AND NO HIGHWAY SURFACE WATER TO DISCHARGE TO PRIVATE.
- ALL MANHOLE COVERS AND FRAMES SHOULD COMPLY WITH THE REQUIREMENTS OF BS 7903:1997, BS EN 124 AND HA 104/09, FRAME.

Rev	Revision	Date
1	PSV RATES FOR ROUNDABOUT AND CROSSINGS: DROPPED KERBS REMOVED FROM SPINE AND SIDE DITCHES ADDED	13.12.23

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worksafe
consultant
SSTIP
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COMS
BUILDING LONDON

PRELIMINARY
Project: LAND OFF SICKLESMEERE ROAD, BURY ST. EDMUNDS
Drawing Title: S278 CONSTRUCTION DETAILS
SHEET 1

Client: HOPKINS HOMES
Date: JAN 2023
Drawn: JK
Designed: JK
Checked: RGW
Approved: RGW

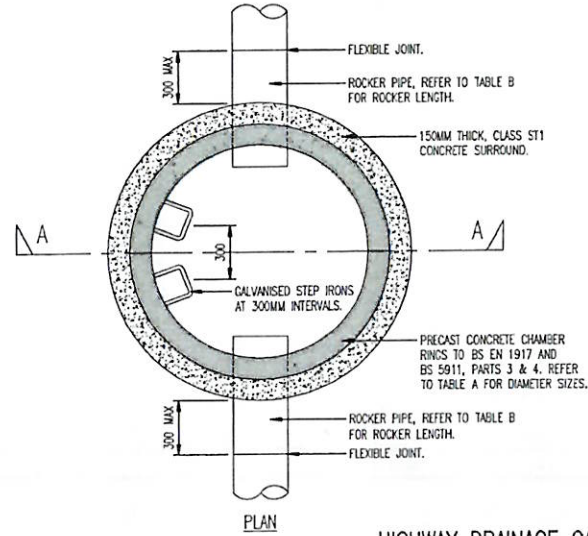
Scale: As Shown
Project No: 2107-592
Drawing No & Revision: 340A
Size: A1

TABLE A

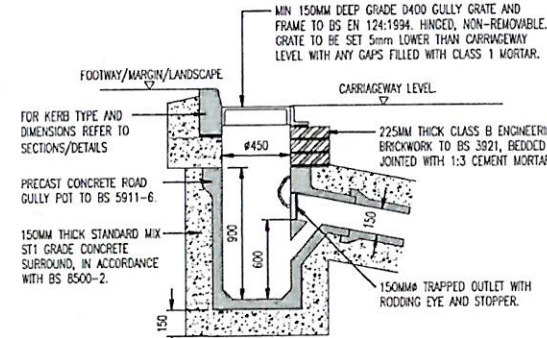
PIPE IN MANHOLE (MM)	CHAMBER SECTION DIAMETER (MM)
<375	1200
375-700	1500
700-900	1800
>900	PIPE DIAMETER + 900

TABLE B

PIPE DIAMETER (MM)	ROCKER PIPE LENGTH (MM)
150-600	600
675-750	1000
750 AND OVER	1250

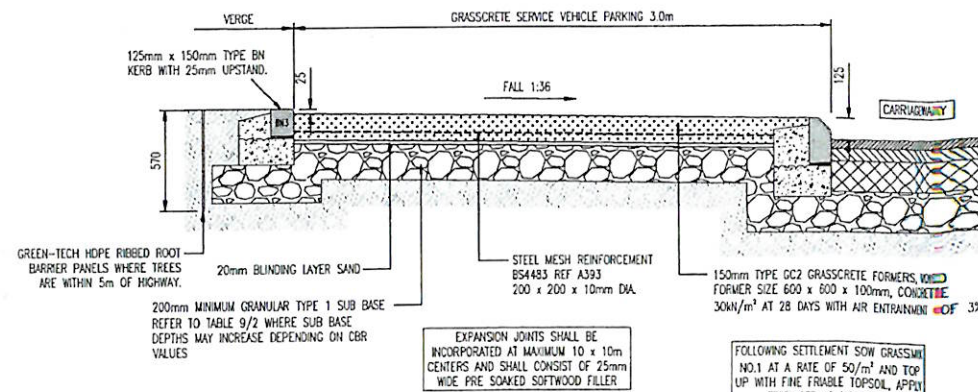


HIGHWAY DRAINAGE CATCHPIT DETAIL
SCALE 1:20



TYPICAL ROAD GULLY DETAIL
SCALE 1:20

- DRY NOTES**
- GULLY GRATING AND FRAME TO BS EN124. REFER TO SDC SPECIFICATION FOR ESTATE ROADS CLAUSE 7.13.4
 - GULLY FRAME TO BE SET ON 10-20MM THICK CLASS 1 CEMENT MORTAR BED TO CLAUSE 2404 (MCH VOLUME 1).
 - BRICKWORK - MIN. ONE AND NOT MORE THAN THREE COURSES OF CLASS B ENGINEERING BRICKWORK LAID SQUARE. CHANGE IN PROFILE FROM SQUARE TO CIRCULAR TO BE SHAPED IN CLASS 1 MORTAR.
 - WHERE THE GULLY CONNECTION PIPE PASSES UNDER THE CARRIAGEWAY THE INVERT OF THE PIPE AT THE OUTLET SHALL BE SET AT LEAST 175MM BELOW FORMATION LEVEL. THE INVERT SHALL BE AT LEAST 315MM BELOW THE TOP OF THE SUB-BASE.
 - NOTES 3 & 4. WHERE THE TOTAL ROAD CONSTRUCTION DEPTH EXCEEDS 450MM AND THE GULLY CONNECTION PIPE PASSES UNDER THE CARRIAGEWAY UP TO 5 COURSE OF BRICKWORK ARE PERMITTED.



TYPICAL SECTION THROUGH GRASSCRETE MAINTENANCE VEHICLE PARKING AREA
SCALE 1:20

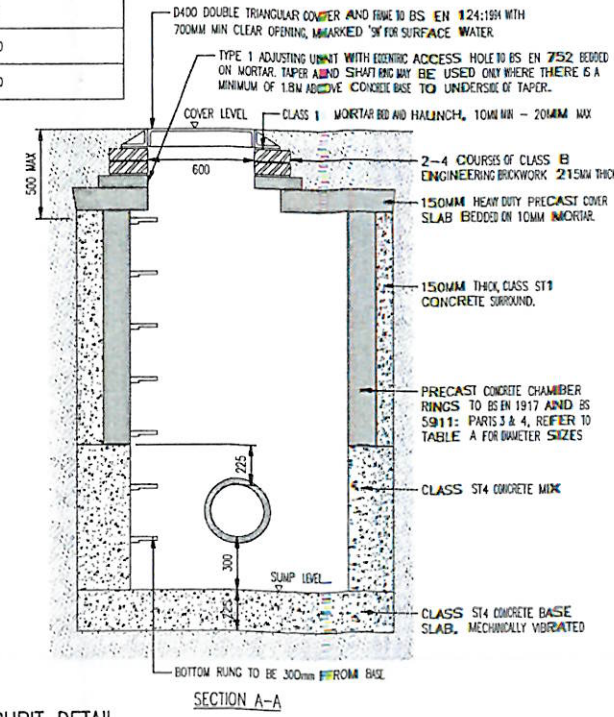
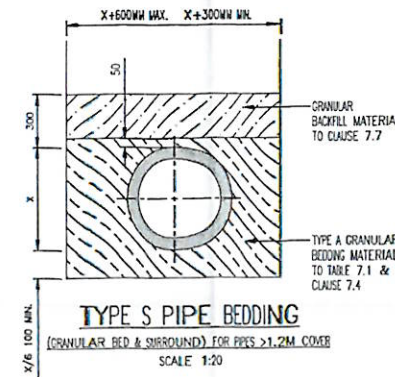


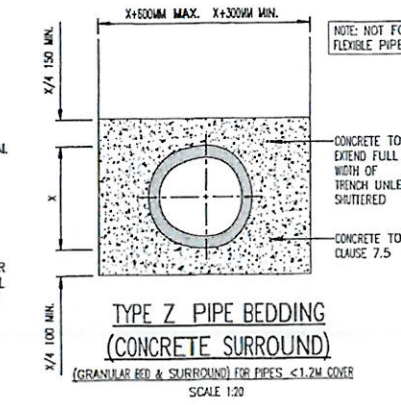
TABLE 7.1

PIPE DIAMETER (mm)	SINGLE SIZED AGGREGATE (mm) TO BS: 882
LESS THAN 150mm	10
INCLUDING 150mm UP TO 300mm	10 OR 14
INCLUDING 300mm UP TO 525mm	14 OR 20
INCLUDING 525mm AND ABOVE	14, 20 OR 40



TYPE S PIPE BEDDING
(GRANULAR BED & SURROUND) FOR PIPES >1.2M COVER

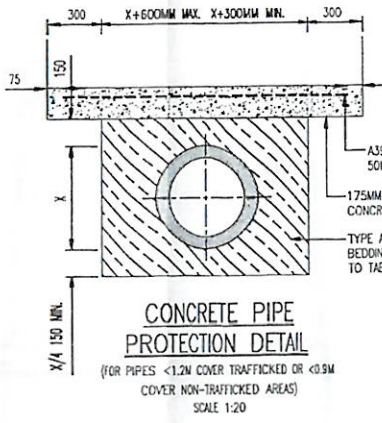
- NOTES:**
- 20MM THICK FLEXCELL OR SIMILAR APPROVED FILLER TO BE USED TO FORM A FLEXIBLE JOINT TO THE CONCRETE SURROUND AT THE LEADING EDGE OF A SLEEVED COUPLING. DIMENSIONS SHOWN ARE IRRESPECTIVE OF TYPE OR DIAMETER OF PIPE. THE SURROUNDS MUST TERMINATE AT A PIPE JOINT.
 - IF PIPES ARE SURROUNDED IN CONCRETE, THE JOINTS ARE TO BE PROTECTED FROM THE INGRESS OF CONCRETE BY WRAPPING THEM IN POLYTHENE SHEET OR BUILDING PAPER.



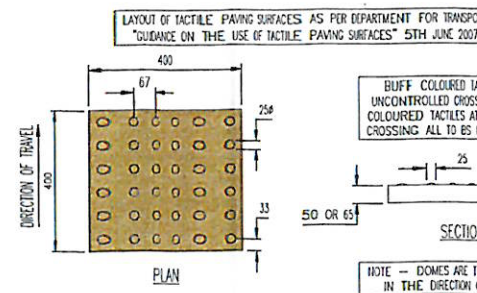
TYPE Z PIPE BEDDING
(CONCRETE SURROUND)
(GRANULAR BED & SURROUND) FOR PIPES <1.2M COVER

TABLE 7.1

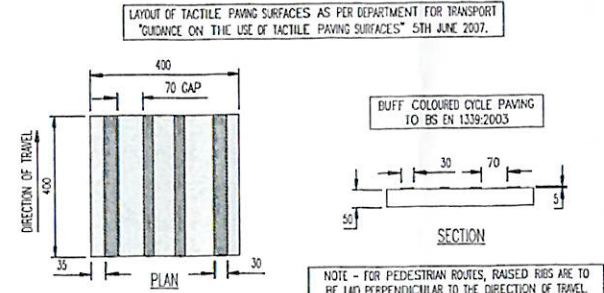
PIPE DIAMETER (mm)	SINGLE SIZED AGGREGATE (mm) TO BS: 882
LESS THAN 150mm	10
INCLUDING 150mm UP TO 300mm	10 OR 14
INCLUDING 300mm UP TO 525mm	14 OR 20
INCLUDING 525mm AND ABOVE	14, 20 OR 40



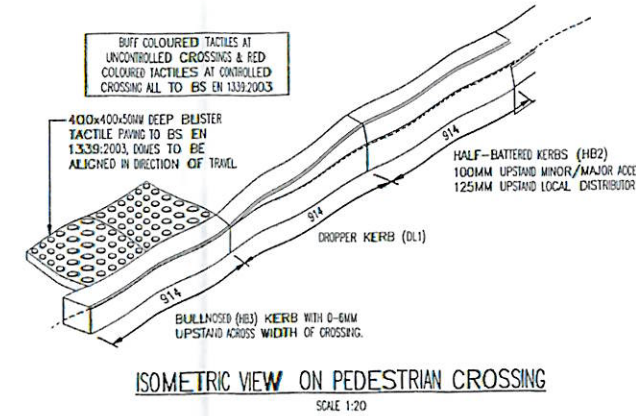
CONCRETE PIPE PROTECTION DETAIL
(FOR PIPES <1.2M COVER TRAFFICKED OR <0.9M COVER NON-TRAFFICKED AREAS)



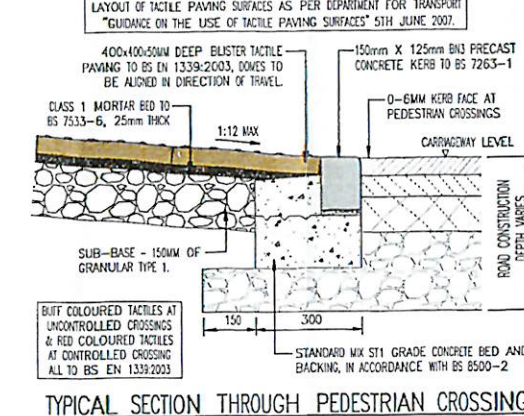
BLISTER TACTILE PAVING UNIT DETAIL
SCALE 1:10



CYCLEWAY TACTILE PAVING UNIT DETAIL
SCALE 1:10



ISOMETRIC VIEW ON PEDESTRIAN CROSSING
SCALE 1:20



TYPICAL SECTION THROUGH PEDESTRIAN CROSSING
SCALE 1:20

- GENERAL**
- DO NOT SCALE THIS DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. ANY DISCREPANCIES ARE TO BE RECORDED AND REPORTED TO THE ENGINEERS IMMEDIATELY.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERS AND ARCHITECTS DRAWINGS AND THE SPECIFICATION.
 - ALL WORK IS TO BE TO THE SATISFACTION OF THE ENGINEER AND SUFFOLK COUNTY COUNCIL HIGHWAYS DEPARTMENT.
 - THE CONTRACTOR IS RESPONSIBLE FOR AND MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE STABILITY OF THE WORKS AT ALL TIMES DURING CONSTRUCTION.
 - ALL WORKMANSHIP AND MATERIALS ARE TO BE TO CURRENT BRITISH STANDARDS.
 - ALL SERVICES ARE TO BE LOCATED AND PROTECTED AS NECESSARY BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE WORKS.
 - ANY EXISTING DETAILS WHICH ARE SHOWN ON THIS DRAWING ARE FOR GUIDANCE ONLY AND ARE TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY VARIATIONS ARE TO BE RECORDED AND REPORTED TO THE ENGINEER IMMEDIATELY.
 - ALL HIGHWAY WORKS ARE TO BE IN ACCORDANCE WITH THE LOCAL AUTHORITIES DESIGN GUIDE AND SPECIFICATION.
 - PROVISION SHALL BE MADE FOR THE INSTALLATION OF ALL MAINS SERVICES INCLUDING DUCTING PRIOR TO THE LAYING OF THE ROAD BASE-COURSE.

- ALL PRECAST CONCRETE KERBS AND EDGINGS TO BE LAID AND BEDDED IN ACCORDANCE WITH BS 7533, PART 4 ON A MIX S11 CONCRETE FOUNDATION WHILE IT IS STILL PLASTIC OR AFTER IT HAS SET.
- ALL PRECAST UNITS TO BE HAUNCHED WITH MIX S11 CONCRETE.
- ALL PRECAST KERBS LAID TO SMOOTH HORIZONTAL AND VERTICAL ALIGNMENTS - ALIGNMENT SHALL NOT DEVIATE BY MORE THAN 3MM IN 3M FROM LINE AND LEVEL.
- FOR CURVES OF RADIUS 12M OR LESS PRECAST KERBS OF APPROPRIATE RADIUS SHALL BE USED.
- MANUFACTURE OF KERBS, EDGINGS AND PAVING TO BE IN ACCORDANCE WITH BS EN 1339, 2003.
- COMPACTION OF BITUMINOUS MATERIALS IS TO BE IN ACCORDANCE WITH CLAUSE 901.
- THICKNESSES OF SUB-BASE AND THE REQUIREMENT FOR A CAPPING LAYER SHALL BE DETERMINED BY ON SITE CBR TESTING.
- NO PRIVATE SURFACE WATER TO DISCHARGE TO ADAPTABLE HIGHWAY AND NO HIGHWAY SURFACE WATER TO DISCHARGE TO PRIVATE.
- ALL MANHOLE COVERS AND FRAMES SHOULD COMPLY WITH THE REQUIREMENTS OF BS 7803:1997, BS EN 124 AND HA 104/09. (PROVIDE DETAILS OF A MANHOLE OF 1000mm DIA)

INGENT
CONSULTING ENGINEERS

Unit 10 Brightwell Barns, Walsingham Road, Brightwell, Suffolk, IP10 0BJ.
Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk

PRELIMINARY

Project: LAND OFF SICKLESMERE ROAD, BURY ST. EDMUNDS

Drawing Title: S278 CONSTRUCTION DETAILS SHEET 2

Client:	HOPKINS HOMES	Date:	JAN 2023
Drawn:	JK	Designed:	KLK
Checked:	RGW	Approved:	RGW
Scale:	As Shown		
Project No:	2107-592	Drawing No & Revision:	341A
		Size:	A1



E



Signing Project	SICKLESMERE ROAD RBT
Sign Reference	670
x Height	100.0
Material	Class RA2
Width (mm)	600
Height (mm)	600
Area (sq.m)	0.28
Background	White
Border	Red
Legend	Black

CROSS REFERENCE SIGN REFERENCE (A)
WITH SIGNS AND LINES LAYOUT DRAWING.

Signing Project	SICKLESMERE ROAD RBT
Sign Reference	670
x Height	100.0
Material	Class RA2
Width (mm)	600
Height (mm)	600
Area (sq.m)	0.28
Background	White
Border	Red
Legend	Black

Structural Calculation Details

Signs:

Reference: 670
Width: 600mm, Height: 600mm
Shape: Roundel
Orientation: Facing front
Mounted on posts: 1
Mounting height: 1500mm, at post

Reference: 670
Width: 600mm, Height: 600mm
Shape: Roundel
Orientation: Facing back
Mounted on posts: 1
Mounting height: 1500mm, at post

Posts:
Quantity: 1
Type: 76.1 x 3.2 CHS (S355)
Spacing: N/A
Post 1 Length: 3000mm

Base:
Type: Planted
Diameter: 300mm
Depth: 800mm
Volume: 0.06cu.m
Earth cover: 100mm

Structural Calculation Details

Signs:

Reference: 670
Width: 600mm, Height: 600mm
Shape: Roundel
Orientation: Facing front
Mounted on posts: 1
Mounting height: 2300mm, at post

Reference: 670
Width: 600mm, Height: 600mm
Shape: Roundel
Orientation: Facing back
Mounted on posts: 1
Mounting height: 2300mm, at post

Posts:
Quantity: 1
Type: 76.1 x 3.2 CHS (S355)
Spacing: N/A
Post 1 Length: 3800mm

Base:
Type: Planted
Diameter: 300mm
Depth: 800mm
Volume: 0.06cu.m
Earth cover: 100mm

2.3m MOUNTING HEIGHTS TO BE USED ALONG SPINE ROAD
(ADJACENT TO SWALES AND SEGREGATED FOOTWAY/CYCLEWAY)DIAG. 670 30MPH MAXIMUM SPEED LIMIT & DIAG. 670 40MPH MAXIMUM SPEED LIMIT
SIGN AND POST DETAILS
SCALE 1:20NEW
ROUNDAABOUT
AHEAD

B

Signing Project	SICKLESMERE ROAD RBT
Sign Reference	Roundabout
x Height	100.0
Material	Class RA2
Width (mm)	1675
Height (mm)	775
Area (sq.m)	1.30
Background	Red
Border	White
Legend	White

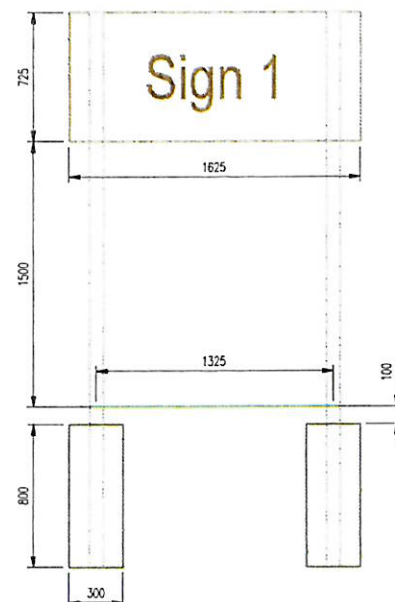
Structural Calculation Details

Signs:

Reference: Sign 1
Width: 1625mm, Height: 725mm
Shape: Rectangle
Orientation: Facing front
Mounted on posts: 1, 2
Mounting height: 1500mm, at post

Posts:
Quantity: 2
Type: 76.1 x 3.2 CHS (S355)
Spacing: 1325mm
Post 1 Length: 3125mm
Post 2 Length: 3125mm

Base:
Type: Planted
Diameter: 300mm
Depth: 800mm
Volume: 0.11cu.m
Earth cover: 100mm

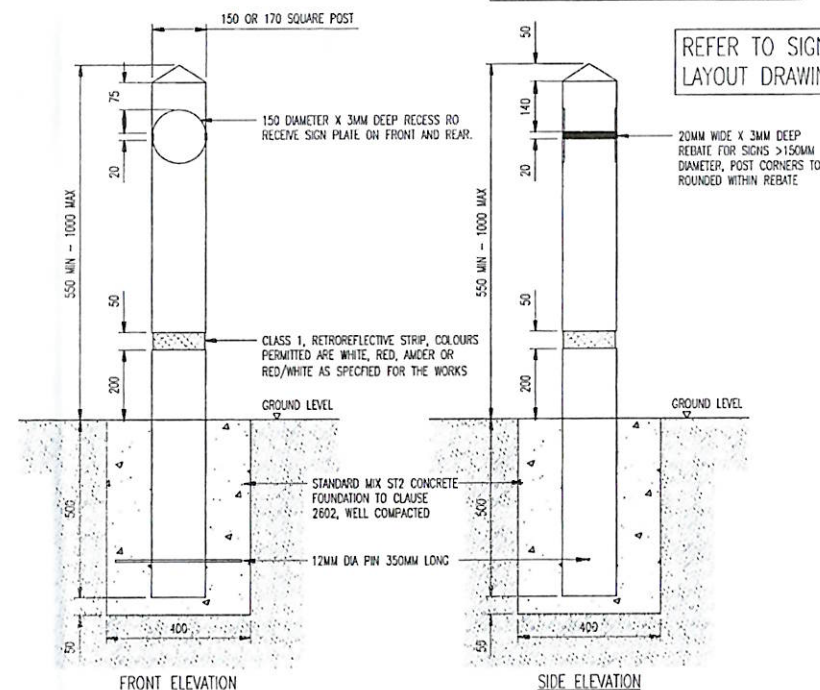
ROUNDAABOUT AHEAD TEMPORARY
SIGN AND POST DETAILS
SCALE 1:20

Signing Project	Signing Project
Sign Reference	150
x Height	150
Material	Class RA2
Width (mm)	150
Height (mm)	150
Area (sq.m)	0.02
Background	Blue
Border	White
Legend	White



BOLLARD NOTES

1. SIGN PLATES UP TO 150MM DIAMETER TO BE CLASS 2 REFLECTIVE MATERIAL, WITH CLEAR LAMINATED FINISH
2. SIGN PLATES UP TO 150MM TO BE MOUNTED FLUSH TO BOLLARD FACE AND FIXED WITH STAINLESS STEEL SCREWS OR RIVETS, PLATES >150MM TO BE FIXED WITH BANDS.
3. HEIGHT OF BOLLARD TO BE 925MM WHEN USED FOR CYCLE SYMBOLS, ELSEWHERE HEIGHT AS SPECIFIED FOR WORKS TAKING INTO CONSIDERATION VISIBILITY AT JUNCTIONS.

REFER TO SIGNS AND LINES
LAYOUT DRAWING KEYOAK BOLLARD DETAIL
SCALE 1:10

- GENERAL
1. DO NOT SCALE THIS DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. ANY DISCREPANCIES ARE TO BE RECORDED AND REPORTED TO THE ENGINEERS IMMEDIATELY.
 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERS AND ARCHITECTS DRAWINGS AND THE SPECIFICATION.
 3. ALL WORK IS TO BE TO THE SATISFACTION OF THE ENGINEER AND SUFFOLK COUNTY COUNCIL HIGHWAYS DEPARTMENT.
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 5. ALL WORKMANSHIP AND MATERIALS ARE TO BE TO CURRENT BRITISH STANDARDS.
 6. ALL SERVICES ARE TO BE LOCATED AND PROTECTED AS NECESSARY BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE WORKS.
 7. ANY EXISTING DETAILS WHICH ARE SHOWN ON THIS DRAWING ARE FOR GUIDANCE ONLY AND ARE TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY VARIATIONS ARE TO BE RECORDED AND REPORTED TO THE ENGINEER IMMEDIATELY.
 8. ALL HIGHWAY WORKS ARE TO BE IN ACCORDANCE WITH THE LOCAL AUTHORITIES DESIGN GUIDE AND SPECIFICATION.
 9. PROVISION SHALL BE MADE FOR THE INSTALLATION OF ALL MAINS SERVICES INCLUDING DUCTING PRIOR TO THE LAYING OF THE ROAD BASE-COURSE.

1. ALL PRECAST CONCRETE KERBS AND EDGINGS TO BE LAID AND BEDDED IN ACCORDANCE WITH BS 7533, PART 4 ON A MIX ST1 CONCRETE FOUNDATION WHILE IT IS STILL PLASTIC OR AFTER IT HAS SET.
2. ALL PRECAST UNITS TO BE HAUNCHED WITH MIX ST1 CONCRETE.
3. ALL PRECAST KERBS LAID TO SMOOTH HORIZONTAL AND VERTICAL ALIGNMENTS - ALIGNMENT SHALL NOT DEVIATE BY MORE THAN 3MM IN 3M FROM LINE AND LEVEL.
4. FOR CURVES OF RADIUS 12M OR LESS PRECAST KERBS OF APPROPRIATE RADIUS SHALL BE USED.
5. MANUFACTURE OF KERBS, EDGINGS AND PAVING TO BE IN ACCORDANCE WITH BS EN 1339, 2003.
6. COMPACTION OF BITUMINOUS MATERIALS IS TO BE IN ACCORDANCE WITH CLAUSE 901.
7. THICKNESSES OF SUB-BASE AND THE REQUIREMENT FOR A CAPPING LAYER SHALL BE DETERMINED BY ON SITE CBR TESTING.
8. NO PRIVATE SURFACE WATER TO DISCHARGE TO ADJOINABLE HIGHWAY AND NO HIGHWAY SURFACE WATER TO DISCHARGE TO PRIVATE.
9. ALL MANHOLE COVERS AND FRAMES SHOULD COMPLY WITH THE REQUIREMENTS OF BS 7903:1997, BS EN 124 AND HA 104/09. EXCEPT WHERE A DIFFERENT TYPE IS SPECIFIED.

Rev	Revision Notes	Date
1	Sign references added	JK, REC 13.12.23
2	Sign designs updated	JK, REC 26.03.23

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Unit 10 Brightwell Barns, Walsingham Road, Brightwell, Suffolk, IP10 0BJ.
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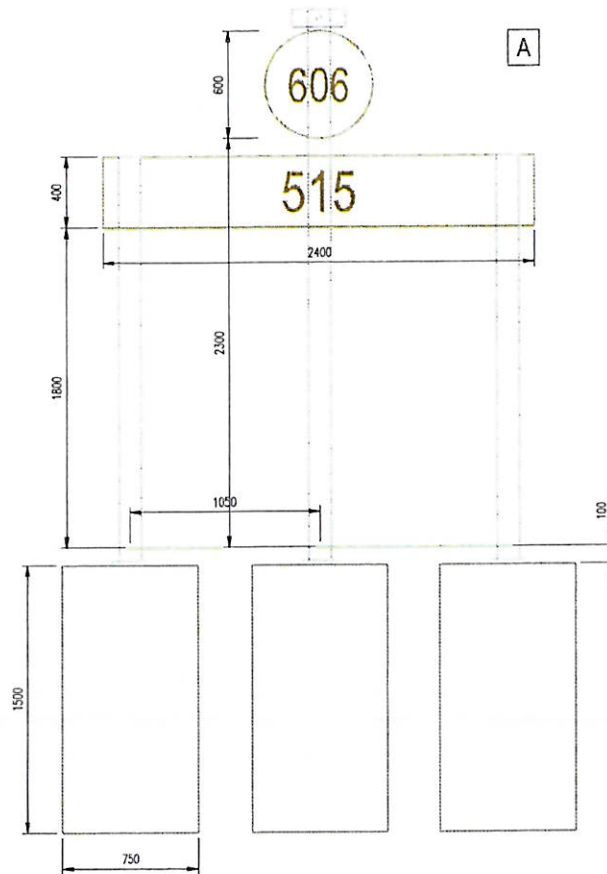
worksafe consultant SSIP COMS

PRELIMINARY

Project:
LAND OFF SICKLESMERE ROAD,
BURY ST. EDMUNDS

Drawing Title:
S278 CONSTRUCTION DETAILS
SHEET 3

Client: HOPKINS HOMES	Date: JAN 2023
Drawn: JK	Designed: KLK
Checked: RGW	Approved: RGW
Scale: As Shown	
Project No: 2107-592	Drawing No & Revision: 342B
	Size: A1



Structural Calculation Details

Signs:

Reference: 515
Width: 2400mm, Height: 400mm
Shape: Rectangle
Orientation: Facing front
Mounted on posts: 1, 2, 3
Mounting height: 1800mm, at post

Reference: 606
Width: 600mm, Height: 600mm
Shape: Roundel
Orientation: Facing front
Mounted on posts: 2
Mounting height: 2300mm, at post

Posts:

Quantity: 3
Type: Optima 127 diameter
Spacing: 1050mm
Post 1 Length: 2300mm
Post 2 Length: 3120mm
Post 3 Length: 2300mm

Base:

Type: Planted
Diameter: 750mm
Depth: 1500mm
Volume: 1.99cu.m
Earth cover: 100mm

Illumination:

Orientation: Facing front
Light on posts: 2



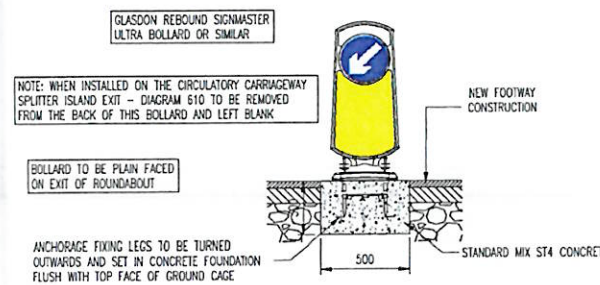
Signing Project	SICKLESME ROAD RBT
Sign Reference	606
Width (mm)	600
Height (mm)	600
Area (sq.m)	0.28
Background	Blue
Border	White
Legend	White



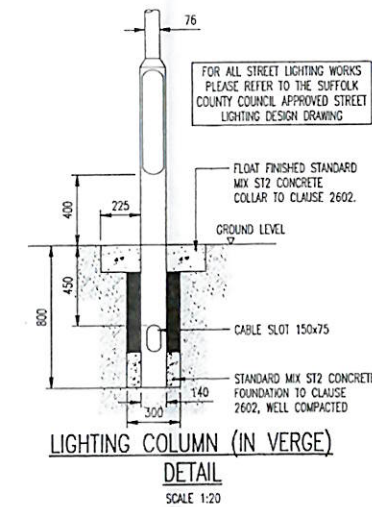
Signing Project	SICKLESME ROAD RBT
Sign Reference	515
Width (mm)	2400
Height (mm)	400
Area (sq.m)	0.96
Background	White
Border	Black
Legend	Black

CROSS REFERENCE SIGN REFERENCE (A)
WITH SIGNS AND LINES LAYOUT DRAWING.

REFER TO SIGNS AND LINES
LAYOUT DRAWING KEY



RETRO REFLECTIVE BOLLARD FOUNDATION DETAIL
SCALE 1:20



LIGHTING COLUMN (IN VERGE)
DETAIL
SCALE 1:20

- GENERAL**
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- ALL PRECAST UNITS TO BE HAUNCHED WITH MIX ST1 CONCRETE.
- ALL PRECAST KERBS LAID TO SMOOTH HORIZONTAL AND VERTICAL ALIGNMENTS - ALIGNMENT SHALL NOT DEVIATE BY MORE THAN 3MM IN 3M FROM LINE AND LEVEL.
- FOR CURVES OF RADIUS 12M OR LESS PRECAST KERBS OF APPROPRIATE RADIUS SHALL BE USED.
- MANUFACTURE OF KERBS, EDGINGS AND PAVING TO BE IN ACCORDANCE WITH BS EN 1339; 2003.
- COMPACTION OF BITUMINOUS MATERIALS IS TO BE IN ACCORDANCE WITH CLAUSE 901.
- THICKNESSES OF SUB-BASE AND THE REQUIREMENT FOR A CAPPING LAYER SHALL BE DETERMINED BY ON SITE CBR TESTING.
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- ALL MANHOLE COVERS AND FRAMES SHOULD COMPLY WITH THE REQUIREMENTS OF BS 7903:1997, BS EN 124 AND HA 104/09. FRAMES SHOULD BE A MINIMUM OF 100MM DEEP.

DIAG 606 VEHICULAR TRAFFIC MUST PROCEED LEFT & DIAG 515 DEVIATION OF ROUTE
SIGN AND POST DETAILS
SCALE 1:20



Signing Project	SICKLESME ROAD RBT
Sign Reference	510
Width (mm)	680
Height (mm)	600
Area (sq.m)	0.24
Background	White
Border	Red
Legend	Black

Structural Calculation Details

Signs:

Reference: 510
Width: 680mm, Height: 600mm
Shape: Triangle
Orientation: Facing front
Mounted on posts: 1
Mounting height: 1500mm, at post

Posts:

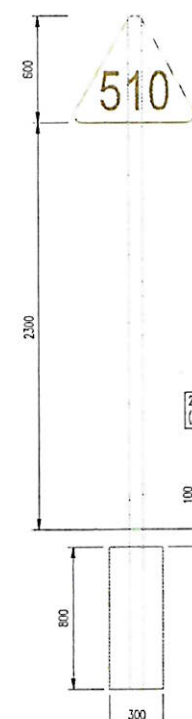
Quantity: 1
Type: 76.1 x 3.2 CHS (S355)
Spacing: N/A
Post 1 Length: 3000mm

Base:

Type: Planted
Diameter: 300mm
Depth: 800mm
Volume: 0.06cu.m
Earth cover: 100mm



DIAG 510 ROUNDABOUT AHEAD
SIGN AND POST DETAILS
SCALE 1:20



Structural Calculation Details

Signs:

Reference: 510
Width: 680mm, Height: 600mm
Shape: Triangle
Orientation: Facing front
Mounted on posts: 1
Mounting height: 2300mm, at post

Posts:

Quantity: 1
Type: 76.1 x 3.2 CHS (S355)
Spacing: N/A
Post 1 Length: 3800mm

Base:

Type: Planted
Diameter: 300mm
Depth: 800mm
Volume: 0.06cu.m
Earth cover: 100mm

2.3m MOUNTING HEIGHTS TO BE USED ALONG SPINE ROAD
(ADJACENT TO SWALES AND SEGREGATED FOOTWAY/CYCLEWAY)

Rev	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Rev	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

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worksafe
consultant
SSIP
CCMS
certified scheme

PRELIMINARY

Project:
LAND OFF SICKLESME ROAD,
BURY ST. EDMUNDS

Drawing Title:
S278 CONSTRUCTION DETAILS
SHEET 4

Client:
HOPKINS HOMES

Date:
JAN 2023

Drawn:
JK

Designed:
KLK

Checked:
RGW

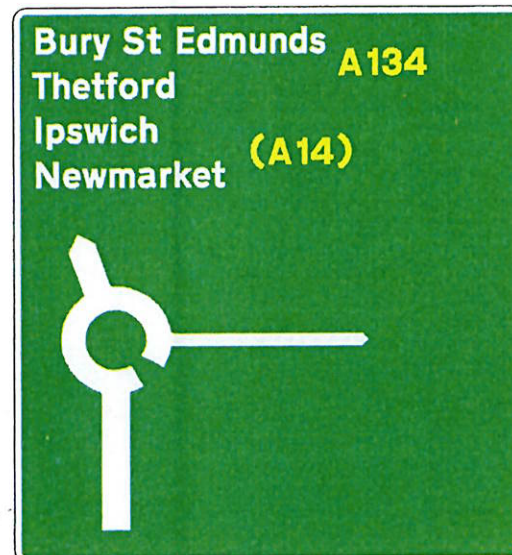
Approved:
RGW

Scale:
As Shown

Project No:
2107-592

Drawing No & Revision:
343B

Size:
A1

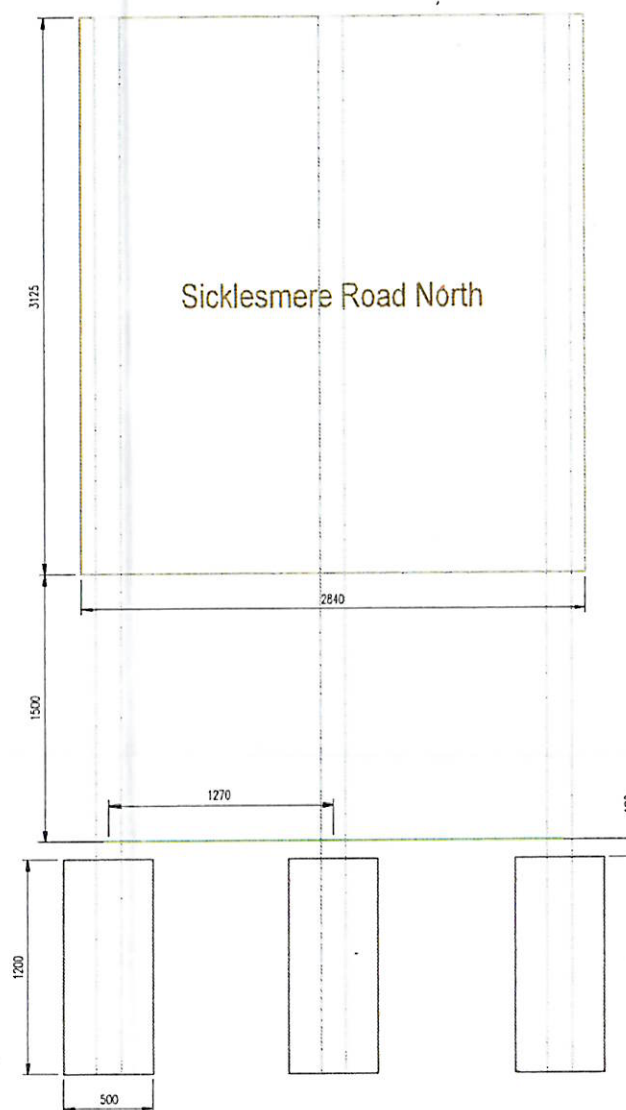


Sign Reference	Project	Width (mm)	Height (mm)	Area (sq.m)	Background	Border	Legend
100.0	SICKLESME ROAD RBT	2840	3125	8.88	Green	White	
Class RA2							

CROSS REFERENCE SIGN REFERENCE (A)
WITH SIGNS AND LINES LAYOUT DRAWING.

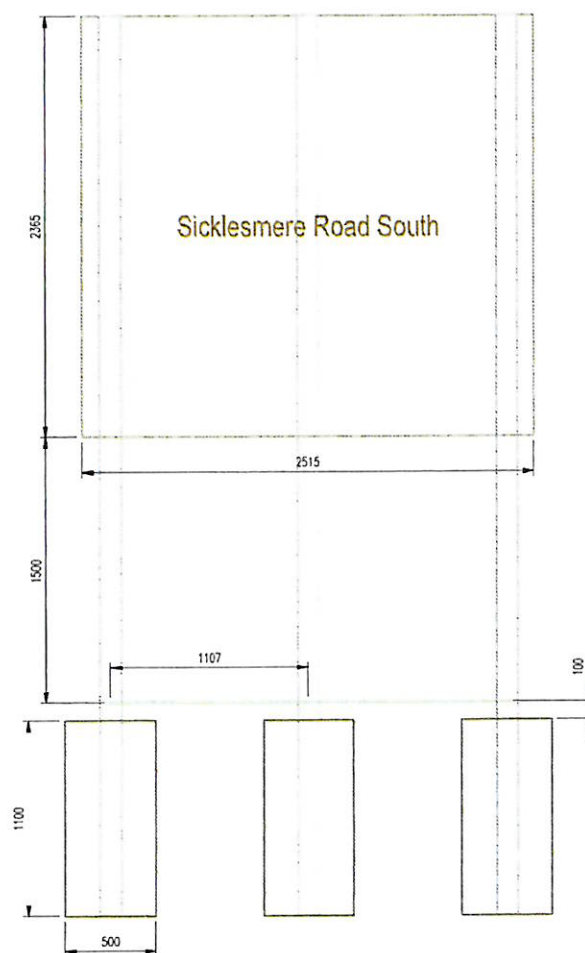
SICKLESME ROAD NORTH DIRECTIONAL SIGN AND POST DETAILS

SCALE 1:20



Signs:	Reference: Sicklesmere Road North
Width:	2840mm, Height: 3125mm
Shape:	Rectangle
Orientation:	Facing front
Mounted on posts:	1, 2, 3
Mounting height:	1500mm, at post
Posts:	
Quantity:	3
Type:	139.7 x 5.0 CHS (S355)
Spacing:	1270mm
Post 1 Length:	5925mm
Post 2 Length:	5925mm
Post 3 Length:	5925mm
Base:	
Type:	Planted
Diameter:	500mm
Depth:	1200mm
Volume:	0.71cu.m
Earth cover:	100mm

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 - ANY EXISTING DETAILS WHICH ARE SHOWN ON THIS DRAWING ARE FOR GUIDANCE ONLY AND ARE TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY VARIATIONS ARE TO BE RECORDED AND REPORTED TO THE ENGINEER IMMEDIATELY.
 - ALL HIGHWAY WORKS ARE TO BE IN ACCORDANCE WITH THE LOCAL AUTHORITIES DESIGN GUIDE AND SPECIFICATION.
 - PROVISION SHALL BE MADE FOR THE INSTALLATION OF ALL MAINS SERVICES INCLUDING DUCTING PRIOR TO THE LAYING OF THE ROAD BASE-COURSE.
- ALL PRECAST CONCRETE KERBS AND EDGINGS TO BE LAID AND BEDDED IN ACCORDANCE WITH BS 7533, PART 4 ON A MIX ST1 CONCRETE FOUNDATION WHILE IT IS STILL PLASTIC OR AFTER IT HAS SET.
 - ALL PRECAST UNITS TO BE HAUNCHED WITH MIX ST1 CONCRETE.
 - ALL PRECAST KERBS LAID TO SMOOTH HORIZONTAL AND VERTICAL ALIGNMENTS - ALIGNMENT SHALL NOT DEVIATE BY MORE THAN 3MM IN 3M FROM LINE AND LEVEL.
 - FOR CURVES OF RADIUS 12M OR LESS PRECAST KERBS OF APPROPRIATE RADIUS SHALL BE USED.
 - MANUFACTURE OF KERBS, EDGINGS AND PAVING TO BE IN ACCORDANCE WITH BS EN 1339; 2003.
 - COMPACTION OF BITUMINOUS MATERIALS IS TO BE IN ACCORDANCE WITH CLAUSE 901.
 - THICKNESSES OF SUB-BASE AND THE REQUIREMENT FOR A CAPPING LAYER SHALL BE DETERMINED BY ON SITE CBR TESTING.
 - NO PRIVATE SURFACE WATER TO DISCHARGE TO ADJOINING HIGHWAY AND NO HIGHWAY SURFACE WATER TO DISCHARGE TO PRIVATE.
 - ALL MANHOLE COVERS AND FRAMES SHOULD COMPLY WITH THE REQUIREMENTS OF BS 7903:1997, BS EN 124 AND HA 104/09.



Signs:	Reference: Sicklesmere Road South
Width:	2515mm, Height: 2365mm
Shape:	Rectangle
Orientation:	Facing front
Mounted on posts:	1, 2, 3
Mounting height:	1500mm, at post
Posts:	
Quantity:	3
Type:	114.3 x 3.6 CHS (S355)
Spacing:	1107mm
Post 1 Length:	5065mm
Post 2 Length:	5065mm
Post 3 Length:	5065mm
Base:	
Type:	Planted
Diameter:	500mm
Depth:	1100mm
Volume:	0.65cu.m
Earth cover:	100mm

SICKLESME ROAD SOUTH DIRECTIONAL SIGN AND POST DETAILS

SCALE 1:20



Sign Reference	Project	Width (mm)	Height (mm)	Area (sq.m)	Background	Border	Legend
100.0	SICKLESME ROAD RBT	2515	2365	5.95	Green	White	
Class RA2							

SIGN REFERENCES ADDED		J. HCA 13.12.23	
Return Notes		Date	
Unit 10 Brightwell Barns, Walsingham Road, Brightwell, Suffolk, IP10 0BJ. Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk			
PRELIMINARY			
Project: LAND OFF SICKLESME ROAD, BURY ST. EDMUNDS			
Drawing Title: S278 CONSTRUCTION DETAILS SHEET 5			
Client: HOPKINS HOMES		Date: SEP 2023	
Drawn: JK	Designed: JK	Checked: RGW	Approved: RGW
Scale: As Shown			
Project No: 2107-592		Drawing No & Revision: 344A	
		Size: A1	

CROSS REFERENCE SIGN REFERENCE (A)
WITH SIGNS AND LINES LAYOUT DRAWING.

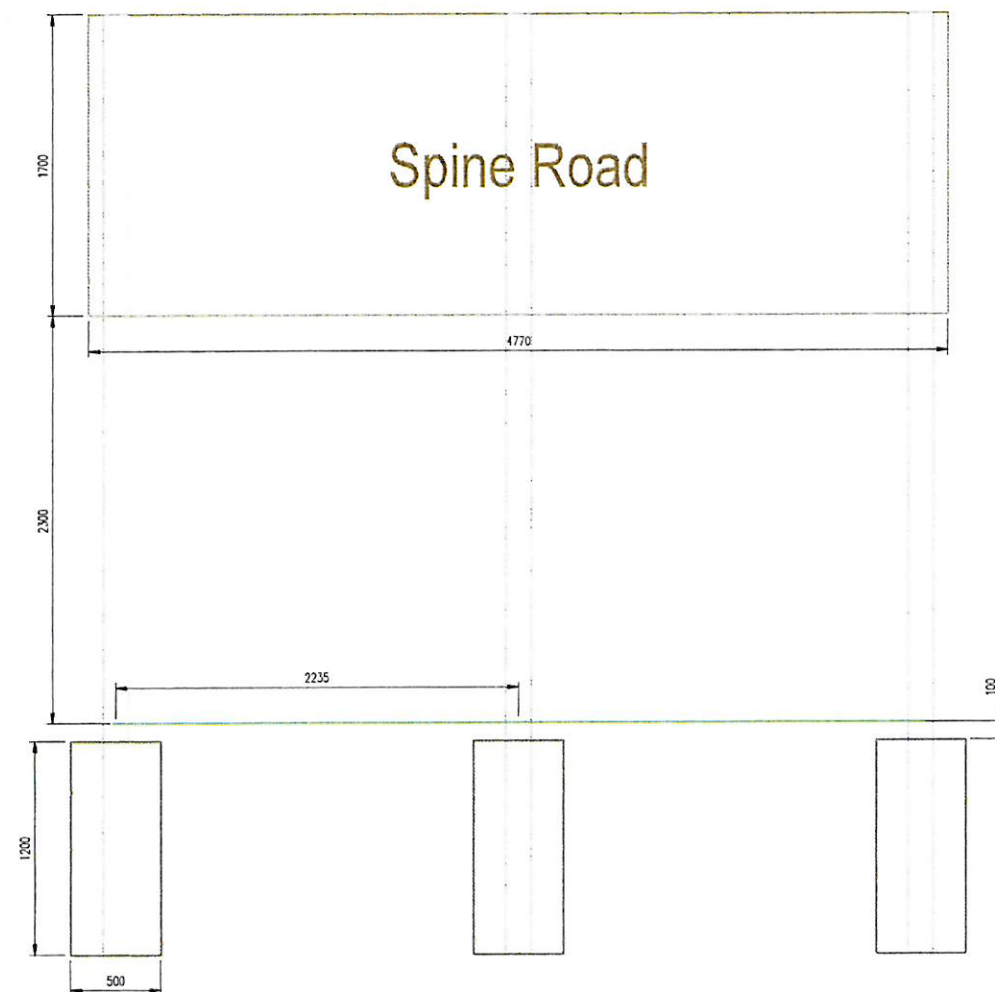
G



Signing Project	SICKLESMEERE ROAD RBT				
Sign Reference	Spine Road	Width (mm)	4770	Background	White
x Height	100.0	Height (mm)	1700	Border	Black
Material	Class RA2	Area (sq.m)	8.11	Legend	Black

SPINE ROAD DIRECTIONAL SIGN AND POST DETAILS

SCALE 1:20



Structural Calculation Details

Signs:
Reference: Spine Road
Width: 4770mm, Height: 1700mm
Shape: Rectangle
Orientation: Facing front
Mounted on posts: 1, 2, 3
Mounting height: 2300mm, at post

Posts:
Quantity: 3
Type: 139.7 x 5.0 CHS (S355)
Spacing: 2235mm
Post 1 Length: 5300mm
Post 2 Length: 5300mm
Post 3 Length: 5300mm

Base:
Type: Planted
Diameter: 500mm
Depth: 1200mm
Volume: 0.71cu.m
Earth cover: 100mm

- GENERAL**
- DO NOT SCALE THIS DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. ANY DISCREPANCIES ARE TO BE RECORDED AND REPORTED TO THE ENGINEERS IMMEDIATELY.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERS AND ARCHITECTS DRAWINGS AND THE SPECIFICATION.
 - ALL WORK IS TO BE TO THE SATISFACTION OF THE ENGINEER AND SUFFOLK COUNTY COUNCIL HIGHWAYS DEPARTMENT.
 - THE CONTRACTOR IS RESPONSIBLE FOR AND MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE STABILITY OF THE WORKS AT ALL TIMES DURING CONSTRUCTION.
 - ALL WORKMANSHIP AND MATERIALS ARE TO BE TO CURRENT BRITISH STANDARDS.
 - ALL SERVICES ARE TO BE LOCATED AND PROTECTED AS NECESSARY BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE WORKS.
 - ANY EXISTING DETAILS WHICH ARE SHOWN ON THIS DRAWING ARE FOR GUIDANCE ONLY AND ARE TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY VARIATIONS ARE TO BE RECORDED AND REPORTED TO THE ENGINEER IMMEDIATELY.
 - ALL HIGHWAY WORKS ARE TO BE IN ACCORDANCE WITH THE LOCAL AUTHORITIES DESIGN GUIDE AND SPECIFICATION.
 - PROVISION SHALL BE MADE FOR THE INSTALLATION OF ALL MAINS SERVICES INCLUDING DUCTING PRIOR TO THE LAYING OF THE ROAD BASE-COURSE.

- ALL PRECAST CONCRETE KERBS AND EDGINGS TO BE LAID AND BEDDED IN ACCORDANCE WITH BS 7533; PART 4 ON A MIX ST1 CONCRETE FOUNDATION WHILE IT IS STILL PLASTIC OR AFTER IT HAS SET.
- ALL PRECAST UNITS TO BE HAUNCHED WITH MIX ST1 CONCRETE.
- ALL PRECAST KERBS LAID TO SMOOTH HORIZONTAL AND VERTICAL ALIGNMENTS - ALIGNMENT SHALL NOT DEVIATE BY MORE THAN 3MM IN 3M FROM LINE AND LEVEL.
- FOR CURVES OF RADIUS 12M OR LESS PRECAST KERBS OF APPROPRIATE RADIUS SHALL BE USED.
- MANUFACTURE OF KERBS, EDGINGS AND PAVING TO BE IN ACCORDANCE WITH BS EN 1339; 2003.
- COMPACTION OF BITUMINOUS MATERIALS IS TO BE IN ACCORDANCE WITH CLAUSE 901.
- THICKNESSES OF SUB-BASE AND THE REQUIREMENT FOR A CAPPING LAYER SHALL BE DETERMINED BY ON SITE CBR TESTING.
- NO PRIVATE SURFACE WATER TO DISCHARGE TO ADAPTABLE HIGHWAY AND NO HIGHWAY SURFACE WATER TO DISCHARGE TO PRIVATE.
- ALL MANHOLE COVERS AND FRAMES SHOULD COMPLY WITH THE REQUIREMENTS OF BS 7903:1997, BS EN 124 AND HA 104/09. FRAMES SHOULD BE A MINIMUM OF 100MM DEEP.

A. SIGN REFERENCE AND ID		J. REVISED 13.12.23	
Revision Notes		Date	
<p>INGENT CONSULTING ENGINEERS Unit 10 Brightwell Barns, Walsingham Road, Brightwell, Suffolk, IP10 0BJ. Tel: 01473 598038 — www.ingent.co.uk — email: info@ingent.co.uk</p>			
PRELIMINARY			
Project: LAND OFF SICKLESMEERE ROAD, BURY ST. EDMUNDS			
Drawing Title: S278 CONSTRUCTION DETAILS SHEET 6			
Client: HOPKINS HOMES		Date: SEP 2023	
Drawn: JK	Designed: JK	Checked: RGW	Approved: RGW
Scale: As Shown			
Project No: 2107-592	Drawing No & Revision: 345A	Size: A1	