

IN TRIPLICATE

DATED 7th April 2025

SUFFOLK COUNTY COUNCIL (1)

- and -

E N SUITER & SONS LIMITED (2)

- and -

FLAGSHIP HOUSING GROUP LIMITED (3)

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 **Pembroke Close (Garage Areas), Mildenhall, Suffolk**

Nigel Inniss
Assistant Director - Governance, Legal & Assurance
Suffolk County Council
8 Russell Road Ipswich
Suffolk IP1 2BX

Ref: **SH/82159**

THIS AGREEMENT is made the 7th day of April 2025
BETWEEN the following parties :-

- (1) SUFFOLK COUNTY COUNCIL of Endeavour House 8 Russell Road Ipswich Suffolk IP1 2BX ("the County Council")
- (2) EN SUITER & SONS LIMITED (company number 01176115) of Lincoln Court Bryggen Road, North Lynn Industrial Estate, King's Lynn, Norfolk, PE30 2HZ ("the Developer")
- (3) FLAGSHIP HOUSING GROUP LIMITED (registered Society number 31211R) of 31 King Street, Norwich, NR1 1PD ("the Owner")

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)
"Bond"	Means the bond with the Surety for the Highway Works, such bond to be in the form set out in Schedule 3 of this Agreement, so if the Developer should 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 Surety to provide the full value of the Bond to carry out and maintain the Highway Works
"Bond Figure"	Means the sum of £31,771.97 (Thirty-one thousand, seven hundred and seventy-one pounds, and ninety-seven pence) being to cost of the Highway Works plus 10 per cent
"Certificate of Final Completion"	Means any of the certificates referred to in paragraph 2.13 of this Agreement
"CDM Regulations"	Means the Construction (Design and Management) Regulations 2015 (SI 2015/51)

- “Commuted Sums” Means the sum of £6,204.00 (Six thousand, two hundred and four pounds, zero pence) which is calculated towards the cost of the County Council’s future maintenance liability of the Highway Works
- “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 detailed on the Works Drawings and as set out in Schedule 2 of this Agreement
- “Plan” Means the plan annexed hereto numbered 221038 C-160 P05
- “Site” Means land situated at Pembroke Close (Garage Areas), Mildenhall, Suffolk as registered with His Majesty’s Land Registry under title number SK258250
- “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, and the “Date of Substantial Completion” and “Certificate of Substantial Completion” shall be construed accordingly
- “Surety” Means HCC International Insurance Company PLC (Company Registration Number: 01575839) whose registered office is situated at 1 Aldgate, London, England, EC3N 1RE
- “Works Drawings” Means the attached drawings bearing the numbers referred to in Schedule 1 or any subsequent revision of them which has been approved or requested by the Director and which relate to the Highway Works
- (A) The County Council is the Local 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
- (B) The Owner is the registered proprietor with title absolute of the Site registered at the Land Registry under Title Number SK258250

(C) The Developer will carry out the Highway Works as shown on the Works Drawings and detailed in Schedule 2

(D) The County Council considers that the Highways Works as shown on the Works Drawings and detailed in Schedule 2 need to be carried out and the County Council considers that entering into this Agreement will be of benefit to the public

NOW THIS DEED WITNESSES as follows:-

1. LEGAL EFFECT

1.1 In this Agreement unless the context otherwise requires:-

1.1.1 Words importing the singular meaning where the context so admits include the plural meaning and vice versa; and

1.1.2 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

1.1.3 "party" or "parties" means a party or parties to this Agreement; and

1.1.4 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;

1.1.5 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

1.1.6 the headings and contents list in this Agreement shall not form part of or affect its construction; and

1.1.7 references to clauses schedules and paragraphs are references to clauses in and schedules to this Agreement and paragraphs in schedules to this Agreement; and

1.1.8 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

- 1.1.9 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
- 1.2 This Agreement and the covenants that appear hereinafter are made pursuant to Sections 278 of the 1980 Act Section 111 of the Local Government Act 1972, 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
- 1.3 No waiver (whether express or implied) by the County Council of any breach or default by the Developer in performance or observance of any of the covenants 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 or obligations or from acting upon any subsequent breach or default
- 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 shall be governed and interpreted in accordance with the laws of England and shall be determined in the Courts of England and Wales
- 1.6 The Owner 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 Owner to enter into this Agreement
- 1.7 The Developer 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 this Agreement
- 1.8 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

public highway to carry out the construction of the Highway Works within the timescales referred to in Schedule 2 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

- 1.9 The Developer covenants with the County Council as Highway Authority to comply with the provisions of the New Roads and Street Works Act 1991 and the Traffic Management Act 2004, and any amendments thereof
- 1.10 It is hereby agreed and declared that the provisions of the Contracts (Rights of Third Parties) Act 1999 shall not apply to this Agreement
- 1.11 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. The Developer shall indemnify and keep the County Council indemnified against any breach of the Developer's obligations under this clause
- 1.12 NOT USED
- 1.13 NOT USED
- 1.14 NOT USED
- 1.15 This Agreement is a Deed. Any financial default will be declared by the County Council and registered as a Local Land Charge under section 278(5)(c) of the 1980 Act
- 1.16 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 clause 3.5 of this Agreement
- 1.17 Where, in accordance with clause 1.16 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 Highways Works have not been

commenced by the expiry of that extension period.

- 1.18 Where the Agreement has lapsed in accordance with clauses 1.16 or 1.17, the County Council may release the Developer and the Surety and each of them from any subsisting obligations under the Bond in respect of the Highway Works on receipt of a written request. 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. For the avoidance of doubt nothing in this clause requires the County Council to repay those sums payable under clause 3.5 of this Agreement save for any Commuted Sums not spent or committed

2 HIGHWAY WORKS

- 2.1 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
- 2.2 No work on the Highway Works shall commence and no contract or contracts in respect of the construction of the Highway Works shall be let until full details of the Highway Works have been submitted to the Director and the Director has given his written approval to the Highway Works and for the avoidance of doubt this Agreement does not constitute the written approval required under this clause
- 2.3 The Developer shall provide all relevant notices to the County Council under the New Roads and Street Works Act 1991 and Traffic Management Act 2004, and any amendments thereof
- 2.4 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
- 2.5 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

- 2.6 The Developer shall display and maintain prominent notices around the perimeter of the Site to warn the public of the dangers of entering the Site. However, the display of such notices shall not relieve the Developer of any of his obligations and liabilities under this Agreement, the Control of Pollution Act 1974 or the Environment Protection Act 1990, or any amendments thereof
- 2.7 The Developer shall take or procure the taking of all necessary steps to avoid creating a nuisance from noise and from dust and as far as practicable the Highway Works are to be carried out in such a way that noise and dust are kept to a minimum
- 2.8 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
- 2.9 No Highway Works within or affecting existing public highways 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
- 2.10 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 and warning signs when and where necessary and undertake such further measures as may be reasonably required by the Director
- 2.11 Representatives of the County Council may enter upon the land on which the Highway Works are being carried out at any reasonable time following reasonable notice being provided to the Owner and Developer to ascertain whether the terms of the Agreement are being or have been complied with
- 2.12 On Substantial Completion of the Highway Works: -
- 2.12.1 the Developer shall clear away and remove from the Site all constructional plant and temporary works of every kind and leave the Site in a safe, neat and tidy condition to the reasonable satisfaction of the Director
- 2.12.2 the Developer shall provide the County Council with 6 paper copies of the 'as constructed' drawings and a pdf thereof
- 2.12.3 the Director shall issue a Certificate of Substantial Completion to the Developer
- 2.13 The Developer shall maintain the Highway Works for a period of eighteen (18)

months (unless the Director agrees in writing a lesser period) 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 act of the Developer in undertaking the Highway Works or be discovered during the said period of eighteen (18) 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. After the expiration of the period of eighteen (18) months and after any defects have been made good to the satisfaction of the Director he shall issue at the written request of the Developer the Certificate of Final Completion in respect of the Highways Works

3 FINANCE

- 3.1 Where the Developer has provided a Bond , then after the issue of the Certificate of Substantial Completion the County Council may approve a reduction of up to 75% of the Bond Figure and upon the issue of the Certificate of Final Completion the County Council shall release the Developer and the Surety and each of them from all subsisting obligations under the Bond in respect of the Highway Works on receipt of a written request. 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.
- 3.2 The Developer shall be insured from the date of this Agreement and throughout the period of construction of the Highway Works within the timescales referred to in Schedule 2 (or any other period as agreed by the Director) for public liability risks in the sum of at least five million pounds (£5,000,000.00) in respect of any single claim, and shall produce these insurance policies to the Director on demand
- 3.3 The Developer and the Surety shall on the date of this Agreement enter into the Bond for the Highway Works and the Developer shall be bound with the Surety and the County Council in the amount of the Bond Figure.
- 3.4 Should the Developer default in the execution of his obligations to carry out and maintain the Highway Works then the County Council may itself carry out and maintain the Highway Works having first called upon the Surety to provide the Bond amount for the full cost to be expended in so doing
- 3.5 The Developer shall pay to the County Council:-

- 3.5.1 the reasonable legal costs of the County Council in connection with this Agreement prior to sealing of this Agreement; and
- 3.5.2 interest at four per cent above the Bank of England Base Rate on any sum due to the County Council under this Agreement from the date on which it is due until the date it is paid, and
- 3.5.3 the outstanding inspection/checking fees required by the County Council in connection with the Highways Works in the sum of £1,677.20 (One thousand, six hundred and seventy-seven pounds, and twenty pence) prior to sealing of this Agreement;
- 3.5.4 the Commuted Sums prior to the sealing of this Agreement

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

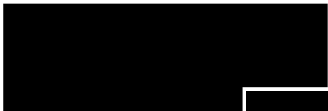
The COMMON SEAL of)
 SUFFOLK COUNTY COUNCIL)
 was hereunto affixed)
 in the presence of)

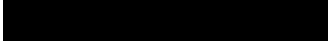

 A Duly Authorised Officer

Executed as a Deed by **E N SUITER & SONS LIMITED** acting by a director in the presence of

)
)


.....
 Director 



Witness Name 

Witness Address: 

Witness Occupation: 

Executed as a **DEED** by **FLAGSHIP**)
HOUSING GROUP LIMITED acting by)
[], an)
authorised signatory and [)
], an authorised)
signatory

Authorised Signatory

Authorised Signatory

Executed as a **DEED** by)
[])
as attorney for and on behalf of)
FLAGSHIP HOUSING GROUP)
LIMITED under a power of attorney in)
the presence of:

Signature of witness:

Name of witness (IN BLOCK CAPITALS):

Address:

Occupation:

Schedule 1

Works Drawings

Drawing Title	Drawing No
Highway Works GA	221038C-160 P05
Adoptable Highway Details	221038C-400 P03
Adoptable Highway Details	221038C-401 P02
Adoptable Highway Details	221038C-402 P02

Schedule 2

Highways works description with timescales

Demolition of garage blocks in 4 locations. New access points formed for new plots and parking areas.

The Highways Works are to be commenced within 12 (twelve) months of the date of this Agreement (unless extended in accordance with Clauses 1.16 and 1.17 and completed within 3 (three) months of commencement of the Highway Works

Schedule 3

Bond Agreement

DATED 7th April 2025

E N SUITER & SONS LIMITED (1)

- and -

HCC INTERNATIONAL INSURANCE (2)
COMPANY PLC

PERFORMANCE BOND

relating to the development of land at Pembroke Close (Garage Areas), Mildenhall,
Suffolk

BY THIS BOND E N SUITER & SONS LIMITED of Lincoln Court Bryggen Road, North Lynn Industrial Estate, King's Lynn, Norfolk, PE30 2HZ ("the Developer") and **HCC INTERNATIONAL INSURANCE COMPANY PLC** (Company Registration Number: 01575839) whose registered office is situated at 1 Aldgate, London, England, EC3N 1RE ("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 £31,771.97 (Thirty-one thousand, seven hundred and seventy-one pounds, and ninety-seven pence) 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 executed and delivered the same on but not before this 7th day of April Two thousand and twenty-five

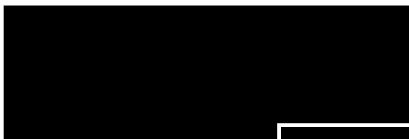
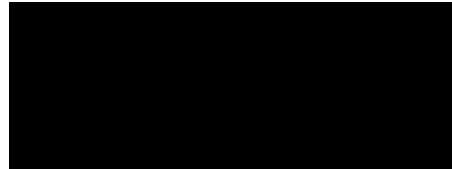
1. The Developer has entered into an Agreement under seal with the County Council of even date made under Section 278 of the 1980 Act whereby the Developer undertook at its own expense to carry out works as set out in Schedule 2 of the said Agreement and shown in the Works Drawings annexed to the said 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)
E N SUITER & SONS LIMITED)
acting by a director in the presence of)



Director

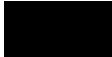
Witness Name:



Witness Address:



Witness Occupation:

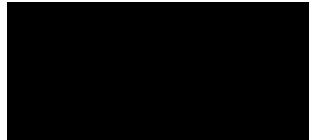


Executed as a Deed by)

Name:)



As Attorney for and on behalf of)



HCC INTERNATIONAL INSURANCE COMPANY PLC

in the presence of:

Witness signature



Witness name:



Witness address:

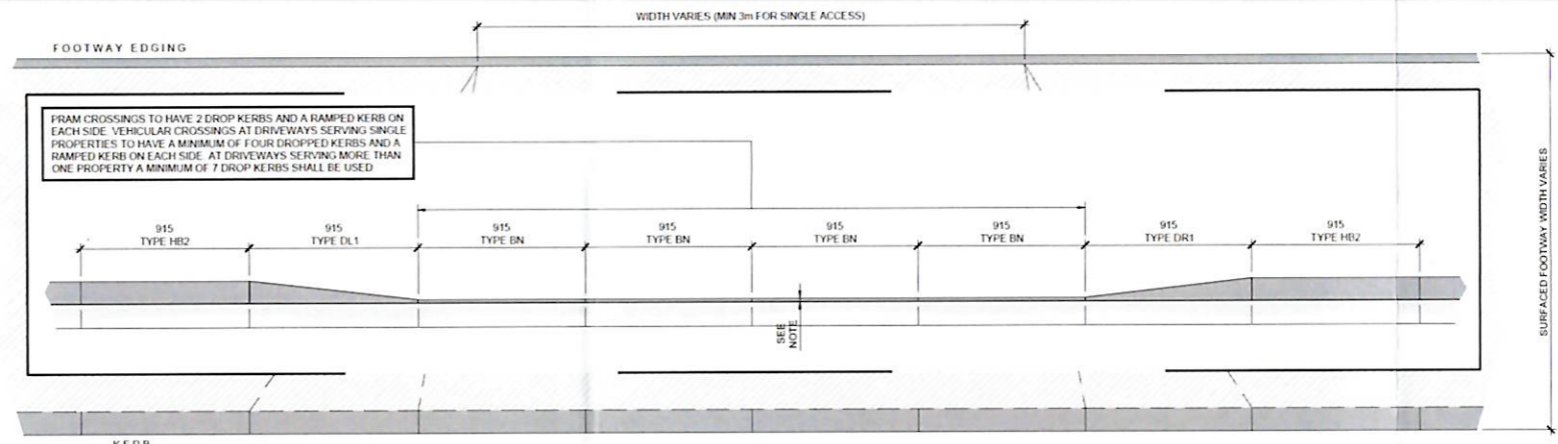


BOND:

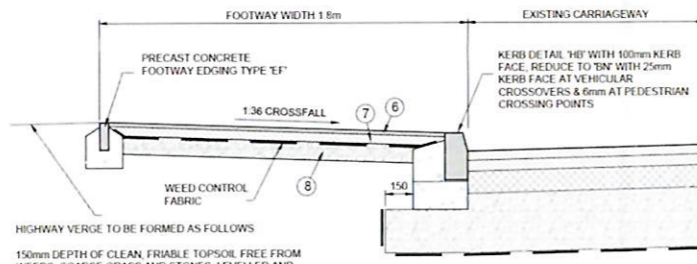
501-3/529352-2

LAYER	SPECIFICATION	COMPACTED THICKNESS (mm)
ASPHALT CARRIAGEWAY	① SURFACE COURSE HRA 30/14 F SURF 40/60 HOT ROLLED ASPHALT SURFACE COURSE TO PD6691 2007 TABLE C2A COL 8 TYPE F DESIGN MIX CONTAINING 3% COARSE AGGREGATE OF CRUSHED ROCK WITH A MAXIMUM AGGREGATE SIZE OF 14mm. A TYPE F FINE AGGREGATE OF CRUSHED ROCK AND A 40/60 PENETRATION GRADE BITUMEN BINDER SURFACE TO HAVE FINE COATED CHIPSPRINGS 20mm NOM SIZE, WITH MIN P5V OF 45. ROLLED IN TO GIVE TEXTURE DEPTH OF 1.2mm (MEASURED BY SAND PATCH METHOD). CHANNEL BOARDS TO BE USED TO GIVE A CHIPPING FREE CHANNEL.	50
	② BINDER COURSE HRA 50/14 BIN 40/60 HOT ROLLED ASPHALT BINDER COURSE TO PD6691 2007 TABLE C1 MIX CONTAINING 5% GRAVEL AGGREGATE WITH A MAXIMUM AGGREGATE SIZE OF 14mm AND A 40/60 PENETRATION GRADE BITUMEN BINDER.	50
	③ BASE AC 32 DENSE BASE 70/100 DENSE ASPHALT CONCRETE BASE TO PD6691 2007 AND EISEN 13108-1 CONTAINING A MAXIMUM AGGREGATE SIZE OF 20mm AND A 70/100 PENETRATION GRADE BITUMEN BINDER.	120
	④ SUB-BASE GRANULAR SUB-BASE TYPE 1 TO CLAUSE 803 ¹ CERTIFIED AS NON-FROST SUSCEPTIBLE. SPREAD EVENLY ON THE FORMATION IN LAYERS NOT EXCEEDING 150mm COMPACTED THICKNESS. COMPACTION TO CLAUSE 807 ¹ TO ACHIEVE A MINIMUM CBR VALUE OF 30%.	225
	⑤ CAPPING CLASS 61 OR 62 CAPPING MATERIAL TO TABLE 61 ¹ AND CLAUSE 613 ¹ COMPACTED IN LAYERS IN ACCORDANCE WITH TABLE 64 ¹ .	NA
ASPHALT F-TWAY	⑥ SURFACE COURSE AC 6 DENSE SURF 100/150 DENSE ASPHALT CONCRETE SURFACE COURSE TO PD6691 2007 AND EISEN 13108-1 CONTAINING A MAXIMUM AGGREGATE SIZE OF 6mm AND A 100/150 PENETRATION GRADE BITUMEN BINDER.	20
	⑦ BINDER COURSE AC 20 DENSE BIN 160/220 DENSE ASPHALT CONCRETE BASE TO PD6691 2007 AND EISEN 13108-1 CONTAINING A MAXIMUM AGGREGATE SIZE OF 20mm AND A 160/220 PENETRATION GRADE BITUMEN BINDER.	THICKENED TO 60mm AT VEHICULAR CROSS-OVERS
	⑧ SUB-BASE GRANULAR SUB-BASE TYPE 1 TO CLAUSE 803 ¹ CERTIFIED AS NON-FROST SUSCEPTIBLE. SPREAD EVENLY ON THE FORMATION AND COMPACTED FORMATION TO BE TREATED WITH AN APPROVED HERBICIDE PRIOR TO LAYING SUB-BASE. A THERMALLY BONDED NON WOVEN WEED CONTROL FABRIC SHALL BE LAID OVER THE SUB-BASE, BENEATH THE BINDER COURSE.	THICKENED TO 225mm AT VEHICULAR CROSS-OVERS

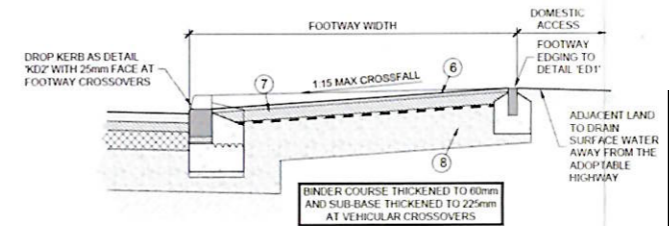
- NOTES
- SPECIFICATION FOR HIGHWAY WORKS PUBLISHED BY THE DEPARTMENT FOR TRANSPORT
 - SUFFOLK COUNTY COUNCIL SPECIFICATION FOR ESTATE ROADS (May 2007)
 - CONSTRUCTION THICKNESS FOR PROVEN ALTERNATIVE SUB-GRADE CBR VALUES
 - DESIGN CBR VALUE OF 2.5% BASED ON 500mm LAYER OF WELL COMPACTED CAPPING, TO IAN 7306. ACTUAL CBR BELOW CAPPING LAYER TO BE RECORDED AS LOW AS 1% REFER TO REPORT BY 40 GEO LTD DATED MAY 2022 SUB-BASE TO BE THICKENED OR CAPPING LAYER TO BE USED TO GIVE A TOTAL CONSTRUCTION DEPTH OF CARRIAGEWAY OF 450mm WHERE SUB-GRADE IS FROST SUSCEPTIBLE
 - SUB-GRADE TO BE THICKENED TO 150mm UNDER VEHICULAR CROSSINGS
 - BITUMEN GRADES TO COMPLY WITH EN12591 WHICH REPLACES BS5360. NEW GRADES OF 40/60, 100/150 AND 160/220 PEN REPLACES THE FORMER BS GRADES OF 50, 100 AND 200 PEN.
 - GEOTEXTILE SEPARATOR TO BE USED BENEATH THE SUB-BASE WHERE CBR<5%
 - THE UPPER 225mm DEPTH OF SUB-BASE MUST BE TYPE 1 MATERIAL, THE REMAINING DEPTH IS PERMITTED TO BE TYPE 2 MATERIAL CONFORMING TO CLAUSE 9.4¹
 - ROAD BASE THICKENED BY 20mm TO ALLOW FOR CONSTRUCTION TRAFFIC. REFER TO SUFFOLK ESTATE ROAD SPECIFICATION CI 8.3.3



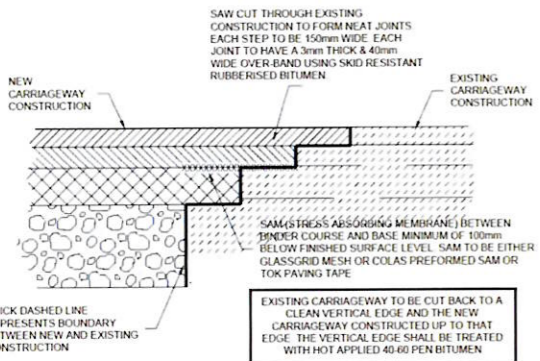
TYPICAL DROP KERB DETAIL AT VEHICULAR AND PRAM CROSSINGS ON FOOTWAYS



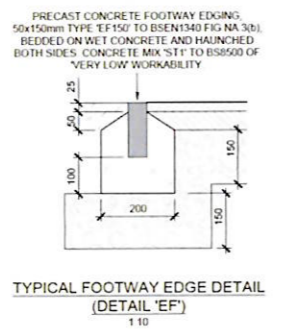
TYPICAL CONSTRUCTION DETAIL FOR NEW FOOTWAY



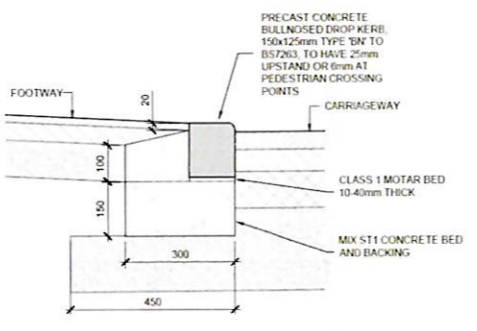
VEHICLE CROSSOVER CONSTRUCTION DETAIL



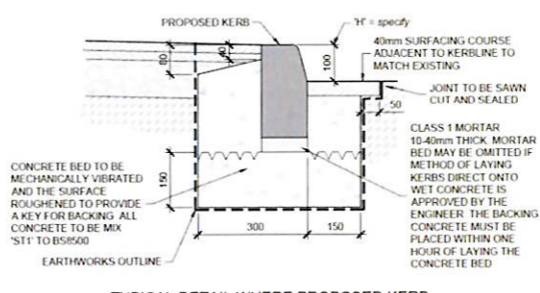
STEPPED CONSTRUCTION DETAIL FOR JOINING WITH EXISTING HIGHWAY



TYPICAL FOOTWAY EDGE DETAIL (DETAIL 'EF')



TYPICAL DROP KERB DETAIL KERB TYPE 'BN'



TYPICAL DETAIL WHERE PROPOSED KERB IS AT EXISTING CARRIAGEWAY EDGE (DETAIL 'HB100')

- INSPECTIONS REQUIRED BY THE HIGHWAYS INSPECTOR
- THE CONTRACTOR SHALL GIVE AT LEAST 48 HOURS ADVANCE NOTICE TO SUFFOLK COUNTY COUNCIL TO ALLOW THE INSPECTOR PROPER INSPECTION AND CHECKING OF THE WORKS AT THE FOLLOWING DESIGNATED STAGES
- START OF THE WORKS
 - BEFORE BACK FILLING ANY TRENCHES UNDER NEW HIGHWAY
 - COMPLETION OF FORMATION
 - COMPLETION OF SUB-BASE
 - LAYING OF BASE
 - LAYING OF BINDER COURSE
 - LAYING OF SURFACE COURSE

NOTE ALL HIGHWAY WORKS WITHIN THE SITE ARE SUBJECT TO A S38 AGREEMENT WITH SUFFOLK COUNTY COUNCIL



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
NOTES THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RISK REGISTER PRODUCED FOR INCLUSION IN THE HEALTH AND SAFETY PLAN. THE HAZARDS NOTED ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPE OF WORKS DETAILED ON THIS DRAWING.

CONSTRUCTION RISKS
• EXCAVATIONS, EXISTING SERVICES, OVERHEAD SERVICES, WORKING ADJACENT TO HIGHWAY

MAINTENANCE/OPERATION/USE RISKS
• NO SIGNIFICANT RISKS

DEMOLITION RISKS
• NO SIGNIFICANT RISKS

- NOTE
- DO NOT SCALE. IF IN DOUBT ASK
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURAL ENGINEER'S DRAWINGS AND DETAILS. THE SPECIFICATION FOR THE WORKS, THE RELEVANT ARCHITECT'S DRAWINGS AND ANY OTHER SPECIALISTS DRAWINGS.
 - ANY DISCREPANCIES FOUND ON THIS OR ANY OTHER DRAWINGS ARE TO BE REPORTED TO AND RESOLVED BY ROSSI LONG CONSULTING BEFORE THE COMMENCEMENT OF ANY WORK RELEVANT TO THE DISCREPANCY.
 - THE PRINCIPAL CONTRACTOR IS TO PROVIDE FULLY DESIGNED PROPPING/SHORING TO FACILITATE THE WORKS. ALL PROPPING & BRACING IS TO BE ADEQUATELY PROVIDED TO ENSURE THE STABILITY/INTEGRITY OF THE EXISTING PROPOSED STRUCTURES &/OR EARTHWORKS IS MAINTAINED. UNLESS INDICATED ON THE DRAWINGS, THE TEMPORARY WORKS ARE NOT TO IMPOSE REACTIONS ON THE PERMANENT STRUCTURE WITHOUT PRIOR WRITTEN CONSENT FROM ROSSI LONG CONSULTING.
 - THIS DOCUMENT HAS BEEN PREPARED IN ACCORDANCE WITH THE SCOPE OF ROSSI LONG CONSULTING'S APPOINTMENT WITH ITS CLIENT AND IS SUBJECT TO THE TERMS OF THAT APPOINTMENT. ROSSI LONG CONSULTING ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS CLIENT AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED. ONLY WRITTEN DIMENSIONS SHALL BE USED.
 - DIMENSIONS ARE STATED IN MILLIMETRES UNLESS SHOWN OTHERWISE. CHANGES ARE STATED IN METRES, LEVELS ARE IN METRES AND RELATED TO ORDNANCE DATUM.
 - THE CONTRACTOR IS TO VERIFY THE ACCURACY OF INFORMATION PROVIDED BY OTHERS.
 - EXISTING PUBLIC UTILITY SERVICES AND PRIVATE APPARATUS ARE NOT NECESSARILY ALL SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL Liaise WITH THE APPROPRIATE UTILITY PROVIDER TO DETERMINE PRECISELY WHERE ON SITE EXISTING SERVICES ARE LOCATED. SERVICES SHALL BE LOCATED AND MARKED OUT ON SITE PRIOR TO ANY EXCAVATION WORK BEING COMMENCED.
 - ALL EXISTING SERVICES, SEWERS AND DRAINS INDICATED ON THIS AND ANY OTHER RELATED DRAWINGS ARE SHOWN ONLY INDICATIVELY, AND SHALL HAVE THEIR POSITION AND LEVEL CONFIRMED ON SITE BY THE CONTRACTOR.
 - THE INVERT LEVELS OF ALL EXISTING SEWERS, DRAINS, DITCHES, TANKS OR OTHER FEATURES & APPARATUS WHERE A NEW CONNECTION IS TO BE MADE SHALL HAVE THEIR PRECISE POSITION AND LEVEL CONFIRMED ON SITE BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORK. THE RESULTS OF THE INVESTIGATIONS SHALL BE CONFERRED TO ROSSI LONG CONSULTING SO THAT THE DESIGN CAN BE VERIFIED.
- © ROSSI LONG CONSULTING 2019

PRELIMINARY DRAWING:
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REV	DESCRIPTION	DATE	BY	AUTH
P03	EDGING KERB DETAIL UPDATED	10/05/24	BJD	
P02	CROSSOVER DETAIL ADDED	04/08/23	BJD	
P01	PRELIMINARY ISSUE	23/09/22	EF	BJD

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PROJECT
PEMBROKE CLOSE MILDENHALL SUFFOLK

TITLE
ADOPTABLE HIGHWAY DETAILS SHEET 1

DRAWN	AUTHORISED	DATE	SCALE AT A1
EF	BJD	SEPT 22	1:50

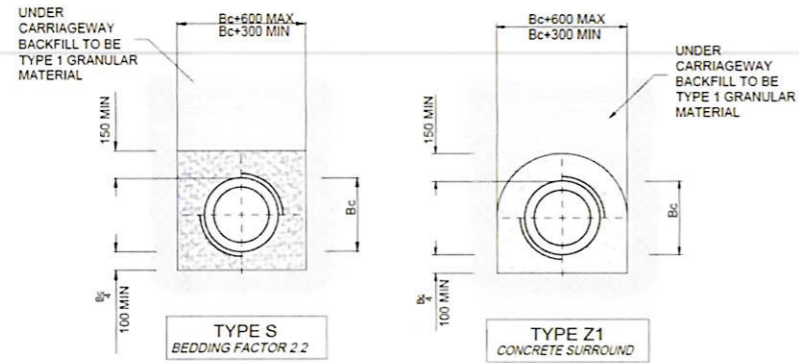
SUBTITLY
S2 - INFORMATION

PROJECT NO	DRAWING FIELDS	DRAWING NO	REV
221038		C-400	P03

KEY: IN SOME ITEMS MAY NOT BE REQUIRED FOR MANHOLE DETAILS

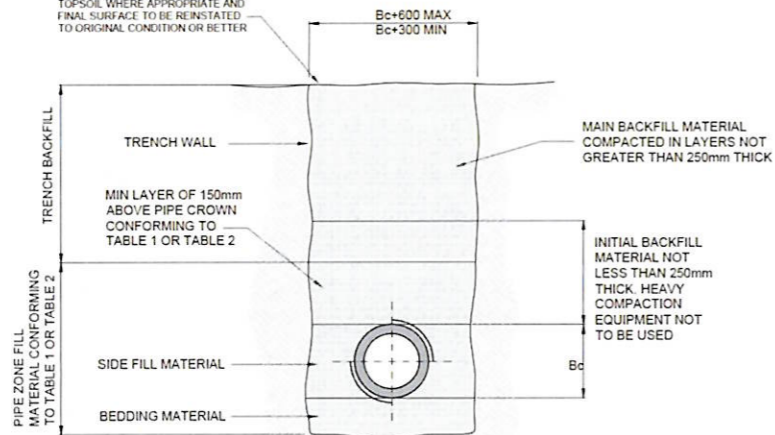
- 1 DOUBLE TRIANGULAR DUCTILE IRON ACCESS COVER TO BS EN 124 D400 LOADINGS WITH 400x600mm CLEAR OPENING. START ON 'CHIEF TAIN' (REF H118) OR SIMILAR, CLEARLY AND PERMANENTLY MARKED WITH THE LETTERING 'TW' FOR FOU WATER AND 'SW' FOR SURFACE WATER. FRAME DEPTH TO BE 150mm WHERE LOCATED IN BLOCK PAVED AREAS
- 2 COVER FRAME BEDDED ON AND HAUNCHED IN CLASS M1, M2 OR EPOXY MORTAR NO GREATER THAN 20mm THICK. APPROVED PACKING MATERIAL MAY BE USED IF REQUIRED
- 3 10mm UNCOMPRESSED THICKNESS OF TOKSTRIP OR SIMILAR APPROVED COMPRESSIBLE SEALANT TO ALL HORIZONTAL JOINTS
- 4a MIN TWO, MAX 4 COURSES OF ENGINEERING BRICK
- 4b TYPE 1 COVER FRAME SEATING RING WITH 600x600 ECCENTRIC ACCESS OPENING (BS152-3) BEDDED ON MORTAR
- 5 REINFORCED PRECAST CONCRETE HEAVY DUTY COVER SLAB TO BS5911 PART 3 WITH 75x600 ACCESS OPENING, BEDDED ON MORTAR
- 6 PRECAST CONCRETE CHAMBER RINGS TO BS5911 PART 3
- 7 GEN3 IN-SITU CONCRETE SURROUND MIN 150 THICK, DESIGNED TO BRE SPECIAL DIGEST 1 CONCRETE IN AGGRESSIVE GROUND
- 8 POLYPROPYLENE ENCAPSULATED DOUBLE STEP RUNGS TO BS1247 PARTS 1 & 2 MIN WIDTH 280mm AT 250mm CTRS
- 9 GEN3 CONCRETE BENCHING TOPPED WITH A MIN 20mm THICK HIGH STRENGTH CONCRETE BROUGHT UP TO A DENSE SMOOTH FACE NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS. BENCHING SLOPE TO BE BETWEEN 1 IN 10 AND 1 IN 30. HIGH STRENGTH CONCRETE TOPPING TO BE TO BS204 PART 2 (MIX PROPORTIONS BY WEIGHT TO BE 1 PART CEMENT 1 PART NATURAL SAND 2 PARTS SINGLE-SIZED COARSE AGGREGATE)
- 10 BOTTOM CHAMBER SECTION TO BE BUILT INTO BASE CONCRETE MIN 75mm
- 11 CONSTRUCTION JOINT
- 12 INVERT WITHIN CHAMBER TO BE FORMED USING A CHANNEL PIPE
- 13 GEN3 IN-SITU CONCRETE, DESIGNED TO BRE SPECIAL DIGEST 1 CONCRETE IN AGGRESSIVE GROUND
- 14 DISTANCE BETWEEN TOP OF PIPE AND UNDERSIDE OF PRECAST CHAMBER TO BE 100
- 15

PIPE DIA	ROCKER PIPE LENGTH
150-600	900
675-750	1300
825+	1250
- 16 ALL PIPES ENTERING OR LEAVING MANHOLES SHALL HAVE A FLEXIBLE JOINT WITHIN 600mm OF THE INSIDE FACE OF THE MANHOLE
- 17 SHORT LENGTH PIPE TO BE SIMILAR LENGTH TO ROCKER PIPE
- 18 PIPE JOINT WITH CHANNEL TO BE LOCATED MIN 100mm FROM INSIDE FACE OF CHAMBER
- 19 TOE HOLES TO BE PROVIDED IN BENCHING OF SEWER GREATER THAN 450mm² FOR ACCESS TO INVERT



PIPE FULLY SURROUNDED WITH GRANULAR MATERIAL HAVING A COMPACTION FRACTION NOT GREATER THAN 0.2

FOR USE IF COVER TO SOFFIT IS LESS THAN 900mm IN TRAFFICKED AREAS OR 600mm IN OPENSACE



TYPICAL TRENCH CONFIGURATION

LEGEND

- MAIN BACKFILL MATERIAL
- GRANULAR MATERIAL AS DEFINED IN TABLES 1 AND 2, AS APPROPRIATE
- SELECTED FILL
- GRADE C20 CONCRETE (UNLESS SHOWN OTHERWISE)

PIPE NOMINAL DIA (mm)	MAXIMUM PARTICLE SIZE (mm)	BED TYPE	SUITABLE MATERIALS	
			IMPORTED GRANULAR MATERIALS (Note a)	MAXIMUM CF VALUE FOR 'AS-DUG' GRANULAR MATERIALS (Note b)
1000	10	S	10mm NOMINAL SINGLE SIZED	0.15
		B		0.30 (Note c)
		F		0.15
		N	COARSE, MEDIUM OR FINE SAND	
OVER 1000 TO 1500	15	S	10 OR 14 NOMINAL SINGLE SIZED, OR 14 TO 5mm GRADED	0.15
		B		0.30 (Note c)
		F		0.15
		N	COARSE, MEDIUM OR FINE SAND	
OVER 1500 TO 5000	20	S	10, 14 OR 20 NOMINAL SINGLE SIZED, OR 14 TO 5mm GRADED, OR 20 TO 5mm GRADED	0.15
		B		0.30 (Note c)
		F		0.15
		N	'ALL-IN AGGREGATE' OR COARSE, MEDIUM OR FINE SAND	
OVER 5000 (Note d)	40	S	10, 14, 20 OR 40mm NOMINAL SINGLE SIZED CRUSHED ROCK, OR 14 TO 5mm GRADED, OR 20 TO 5mm GRADED, OR 40 TO 5mm GRADED	0.15
		B		0.30 (Note c)
		F		0.15
		N	'ALL-IN AGGREGATE' OR COARSE, MEDIUM OR FINE SAND	

TABLE 1
GRANULAR BEDDING AND SIDE FILL MATERIALS FOR RIGID PIPES

NOTES

- a) IMPORTED GRANULAR MATERIAL TO INCLUDE AGGREGATES TO BS882, AIR-COOLED BLAST FURNACE SLAG TO BS1047 AND SINTERED PULVERISED FUEL ASH TO BS3797
- b) COMPACTION FRACTION VALUE (SEE APPENDIX A OF WIS 4 08-01)
- c) THE HIGHER THE CF VALUE FOR 'AS-DUG' BEDDING AND SIDE FILL MATERIALS THE GREATER THE REQUIRED EFFORT FOR ADEQUATE COMPACTION
- d) ANGULAR MATERIALS SHOULD BE CHOSEN TO ENSURE SUFFICIENT SUPPORT IS PROVIDED TO THESE HEAVIER PIPES. CRUSHED ROCK AGGREGATES TO BS882 ARE RECOMMENDED. AIR-COOLED BLAST FURNACE SLAG TO BS3797 OR OTHER GRANULAR MATERIALS MAY BE USED IF THEY SHOW A SIMILAR DEGREE OF ANGULARITY

ADDITIONAL NOTES

IN WET SOIL THE MIGRATION OF FINE SOIL PARTICLES WITH GROUND WATER INTO THE VOIDS OF THE BEDDING AND SIDE FILL MATERIAL MAY BE MINIMISED BY SURROUNDING THE GRANULAR MATERIAL WITH FILTER FABRIC. ALTERNATIVELY, THE GRADING OF THE MATERIAL MAY BE SELECTED SO THAT IT IS SELF-FILTERING WITH RESPECT TO THE SURROUNDING SOIL PROVIDED THE OTHER REQUIRED PROPERTIES ARE NOT IMPAIRED

AIR-COOLED BLAST FURNACE SLAG AND SINTERED PULVERISED FUEL ASH ARE NOT RECOMMENDED FOR USE WITH DUCTILE IRON OR STEEL PIPES DUE TO THE POTENTIAL RISK OF CORROSION

THE SULPHATE CONTENT OF BEDDING AND SIDE FILL MATERIALS FOR USE WITH CEMENTITIOUS PIPES SHOULD NOT BE GREATER THAN 0.3% AS SULPHUR TRIOXIDE

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
NOTES: THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RISK REGISTER PRODUCED FOR INCLUSION IN THE HEALTH AND SAFETY PLAN. THE HAZARDS NOTED ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPE OF WORKS DETAILED ON THIS DRAWING.

CONSTRUCTION RISKS
EXCAVATIONS, EXISTING SERVICES, OVERHEAD SERVICES, WORKING ADJACENT TO HIGHWAY

MAINTENANCE/CLEANING IN USE RISKS
NO SIGNIFICANT RISKS

DEMOLITION RISKS
NO SIGNIFICANT RISKS

NOTE

- 1 DO NOT SCALE, IF IN DOUBT ASK
- 2 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURAL ENGINEERS DRAWINGS AND DETAILS. THE SPECIFICATION FOR THE WORKS, THE RELEVANT ARCHITECT'S DRAWINGS AND ANY OTHER SPECIALIST'S DRAWINGS
- 3 ANY DISCREPANCIES FOUND ON THIS OR ANY OTHER DRAWINGS ARE TO BE REPORTED TO AND RESOLVED BY ROSSI LONG CONSULTING BEFORE THE COMMENCEMENT OF ANY WORK RELEVANT TO THE DISCREPANCY
- 4 THE PRINCIPAL CONTRACTOR IS TO PROVIDE FULLY DESIGNED PROPPING/SUPPORT TO FACILITATE THE WORKS. ALL PROPPING & BRACING IS TO BE ADEQUATELY FOUNDED TO ENSURE THE STABILITY/INTEGRITY OF THE EXISTING PROPOSED STRUCTURES &/OR EARTHWORKS IS MAINTAINED. UNLESS INDICATED ON THE DRAWINGS, THE TEMPORARY WORKS ARE NOT TO IMPOSE REACTIONS ON THE PERMANENT STRUCTURE WITHOUT PRIOR WRITTEN CONSENT FROM ROSSI LONG CONSULTING
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- 7 THE CONTRACTOR IS TO VERIFY THE ACCURACY OF INFORMATION PROVIDED BY OTHERS
- 8 EXISTING PUBLIC UTILITY SERVICES AND PRIVATE APPARATUS ARE NOT NECESSARILY ALL SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL Liaise WITH THE APPROPRIATE UTILITY PROVIDER TO DETERMINE PRECISELY WHERE ON SITE EXISTING SERVICES ARE LOCATED, SERVICES SHALL BE LOCATED AND MARKED OUT ON SITE PRIOR TO ANY EXCAVATION WORK BEING COMMENCED
- 9 ALL EXISTING SERVICES, SEWERS AND DRAINS INDICATED ON THIS AND ANY OTHER RELATED DRAWINGS ARE SHOWN ONLY INDICATIVELY, AND SHALL HAVE THEIR POSITION AND LEVEL CONFIRMED ON SITE BY THE CONTRACTOR
- 10 THE INVERT LEVELS OF ALL EXISTING SEWERS, DRAINS, DITCHES, TANKS OR OTHER FEATURES & APPARATUS WHERE A NEW CONNECTION IS TO BE MADE SHALL HAVE THEIR PRECISE POSITION AND LEVEL CONFIRMED ON SITE BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORK. THE RESULTS OF THE INVESTIGATIONS SHALL BE REFERRED TO ROSSI LONG CONSULTING SO THAT THE DESIGN CAN BE VERIFIED

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REV	DESCRIPTION	DATE	BY	AUTH
P02	AW MANHOLE DETAIL OMITTED	10/05/24	EF	BJD
P01	PRELIMINARY ISSUE	23/09/22	EF	BJD

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PROJECT

PEMBROKE CLOSE
MILDENHALL
SUFFOLK

TITLE

ADOPTABLE HIGHWAY
DETAILS
SHEET 2

DRAWN	AUTHORISED	DATE	SCALE AT A1
EF	BJD	SEPT 22	REFER TO DRAWING

SUITABILITY
S2 - INFORMATION

PROJECT NO.	DRAWING FIELD	DRAWING NO.	REV
221038		C-401	P02

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
 NOTES: THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE REGISTERED PRODUCTION FOR INCLUSION IN THE HEALTH AND SAFETY PLAN. THE HAZARDS NOTED ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPE OF WORKS DETAILED ON THIS DRAWING.

- CONSTRUCTION RISKS**
- EXCAVATIONS, EXISTING SERVICES, OVERHEAD SERVICES, WORKING ADJACENT TO HIGHWAY
- MAINTENANCE/CLEANING/USE RISKS**
- NO SIGNIFICANT RISKS
- DEMOLITION RISKS**
- NO SIGNIFICANT RISKS

GENERAL NOTES

- DO NOT SCALE. IF IN DOUBT ASK. DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURAL ENGINEER'S DRAWINGS AND DETAILS, THE SPECIFICATION FOR THE WORKS, THE RELEVANT ARCHITECT'S DRAWINGS AND ANY OTHER SPECIALISTS' DRAWINGS.
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- REFER ALSO TO THE GENERAL NOTES ON LAYOUT DRAWINGS.
- ALL CONSTRUCTION DETAILS, MATERIALS AND WORKMANSHIP TO BE IN ACCORDANCE WITH SUFFOLK COUNTY COUNCIL'S "SPECIFICATION FOR ESTATE ROADS" (CURRENT EDITION), READ IN CONJUNCTION WITH THE "SPECIFICATION FOR HIGHWAYS WORKS" (PUBLISHED BY THE DEPARTMENT FOR TRANSPORT).
- ALL PROPRIETARY ITEMS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- TP MCCANN SOAKAWAY UNITS ARE AVAILABLE FROM:
 FP/MCCAN
 3 DRUMARD RD
 KNOCKLOUGHBRUM
 MACHERFELT
 BT45 8QA
 TEL: 028 7064 2558 (ORDERS)
- ALL IN SITU CONCRETE AND PRECAST CONCRETE CHAMBER SECTIONS AND COVER SLABS TO BE DESIGNED TO BRE SPECIAL DIGEST 1 "CONCRETE IN AGGRESSIVE GROUND".
- ANY GROUND WATER ENCOUNTERED DURING EXCAVATION FOR THE SOAKAWAY SHALL BE REPORTED IMMEDIATELY TO ROSSI LONG CONSULTING LTD.
- ONLY HIGHWAY SURFACE WATER SHALL BE DRAINED TO THE SOAKAWAY(S) DETAILED ON THIS DRAWING.
- SOAKAWAYS SHALL BE POSITIONED NO CLOSER THAN 5m TO ANY BUILDING FOUNDATIONS.
- THE SOAKAWAY HAS BEEN DESIGNED TO ACCOMMODATE A STORM OF RETURN PERIOD 1 IN 10 YEARS (NOT LITING) AND A 4% DIAPHRAGM.

PRELIMINARY DRAWING:
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P02	CATCHPIT DETAIL ADDED	10.05.24	BJD	-
P01	PRELIMINARY ISSUE	23.09.22	EF	BJD
REV	DESCRIPTION	DATE	BY	AUTH

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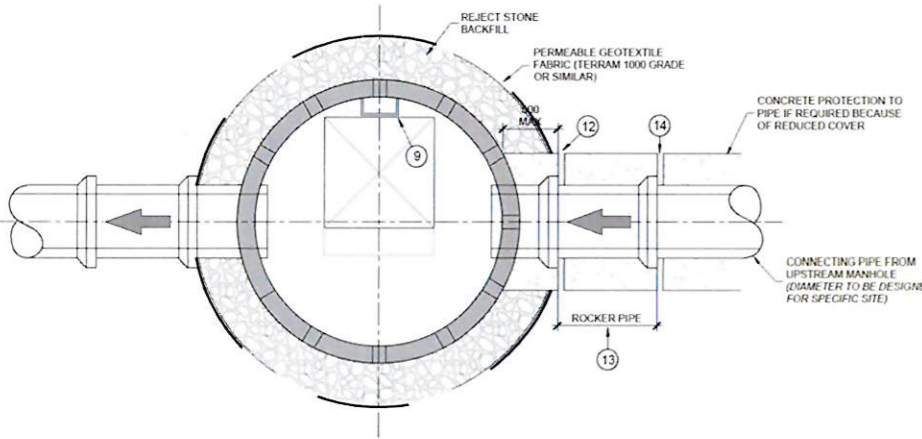
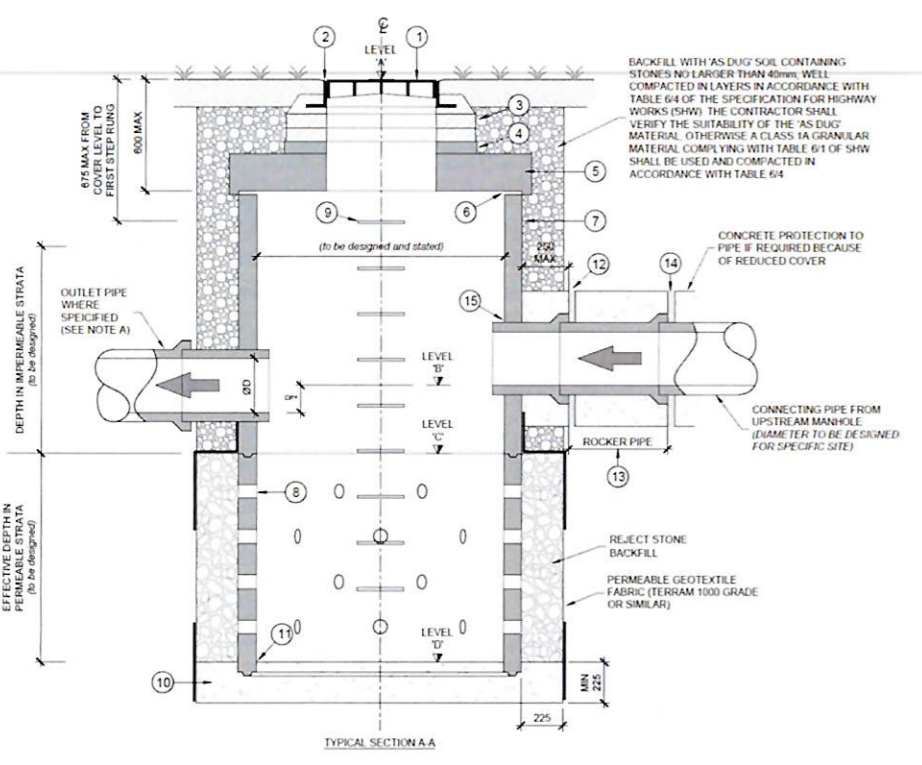
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PROJECT
**PEMBROKE CLOSE
 MILDENHALL
 SUFFOLK**

TITLE
**ADOPTABLE HIGHWAY
 DETAILS
 SHEET 3**

DRAWN	AUTHORISED	DATE	SCALE AT A1
EF	BJD	SEPT 22	REFER TO DRAWING
SUITABILITY			
S2 - INFORMATION			
PROJECT NO	DRAWING FIELDS	DRAWING NO	REV
221038		C-402	P02



ADDITIONAL NOTES
 (A) WHERE SPECIFIED THE OUTLET PIPE INVERT SHALL BE HALF ITS DIAMETER BELOW THE INLET PIPE.
 (B) THE MINIMUM CHAMBER DIAMETER SHALL NORMALLY BE 1200mm. A 900mm Ø CHAMBER SHALL ONLY BE USED WHERE RESTRICTION OF SPACE PREVENTS INSTALLATION OF A LARGER DIAMETER.
 (C) ACCESS COVER TO HAVE A MINIMUM CLEAR OPENING OF 700mm ACROSS THE DIAGONAL FOR RECTANGULAR OPENING, 700mm DIAMETER FOR CIRCULAR OPENING AND 70mm INSCRIBED DIAMETER FOR TRIANGULAR OPENING.

- ACCESS COVERS AND FRAMES SHALL BE TO BS EN124 CLASS D400, MANUFACTURED IN DUCTILE IRON AND HAVING A CLEAR OPENING OF DIMENSIONS STATED IN TABLE 2. COVERS SHALL BE SILENT IN USE AND HAVE A MINIMUM FRAME DEPTH OF 100mm. THE UPPER SURFACE OF THE COVERS SHALL BE CLEARLY MARKED WITH THE MARKERS NAME LOGO, EN124, THE LOADING CLASS, MARK OF THE CERTIFYING BODY AND THE LETTERS "SW" IN ONE CORNER. COVERS SHALL INCORPORATE PRISING SLOTS TO ENABLE THE COVERS TO BE LOOSEND PRIOR TO LIFTING THEM FROM THEIR FRAME. THEY SHALL ALSO INCORPORATE A NON-CAPTIVE HINGE AND BE DESIGNED IN SUCH A WAY AS TO ENSURE THAT THE COVERS CAN BE FULLY REMOVED WITHOUT THE NEED FOR ANY SINGLE OPERATIVE BEING EXPOSED TO LOADS IN EXCESS OF 25kg.
- COVER FRAME BEDDED AND HAUNCHED IN A 10-20mm THICK RESIN MORTAR AS SET OUT IN THE HIGHWAY AGENCY GUIDANCE NOTE HA1042.
- MINIMUM OF TWO COURSES OF CLASS B ENGINEERING BRICKWORK LAID IN A 225mm HEADER PATTERN. PRECAST CONCRETE SEATING RINGS TO BS5911.3 WITH ACCESS OPENING TO TABLE 2.
- TYPE 1 COVER FRAME SEATING RING TO BS5911.3 WITH OPENING TO TABLE 3, BEDDED ON MORTAR.
- REINFORCED PRECAST CONCRETE (SULPHATE RESISTING) HEAVY DUTY COVER SLAB TO BS5911.3 WITH ACCESS OPENING TO TABLE 2.
- 10mm UNCOMPRESSED THICKNESS OF 'TOKSTRIP' OR SIMILAR APPROVED COMPRESSIBLE SEALANT TO ALL HORIZONTAL JOINTS.
- PRECAST CONCRETE (SULPHATE RESISTING) CHAMBER RINGS TO BS5911.3.
- PRECAST CONCRETE (SULPHATE RESISTING) CHAMBER RINGS TO BS5911.3 WITH 37mm DIA HOLES (WITHIN EFFECTIVE DEPTH OF SOAKAWAY).
- GALVANISED STEP IRONS COMPLYING WITH BS EN13101 BUILT IN AT VERTICAL INTERVALS OF 300mm. THE TOP STEP SHALL BE MAX 500mm FROM COVER LEVEL AND THE BOTTOM STEP SHALL BE MAX 300mm ABOVE CONCRETE BASE. WHERE THE DEPTH TO INVERT EXCEEDS 3m A FIXED GALVANISED STEEL LADDER SHALL BE INSTALLED.
- CONCRETE BASE RING MIX 'S14' MIN 225mm THICK.
- BOTTOM CHAMBER SECTION TO BE BUILT INTO BASE CONCRETE MIN 75mm.
- ALL PIPES ENTERING OR LEAVING MANHOLES SHALL HAVE A FLEXIBLE JOINT MAX 500mm FROM THE FACE OF THE CONCRETE SURROUND.
- ROCKER PIPE LENGTH (SEE TABLE 1).
- JOINT FILLER BOARD WHERE ADJOINING TRENCH CONSTRUCTION IS CONCRETE BED.

TABLE 1

PIPE DIA (mm)	ROCKER PIPE LENGTH (m)
150 - 600	600
600 - 750	1000
OVER 750	1250

TABLE 2 POSITION AND SIZE OF ACCESS OPENING

SHAFT/CHAMBER SIZE (mm)	COVER LEVEL TO PIPE SOFFIT LESS THAN 5m	COVER LEVEL TO PIPE SOFFIT GREATER THAN OR EQUAL TO 1.5m
1050	750 x 750 CENTRAL	600 x 600 ECCENTRIC
1200	750 x 600 ECCENTRIC*	750 x 600 ECCENTRIC
1500	1200 x 675 CENTRAL	750 x 600 ECCENTRIC
1800	1200 x 675 ECCENTRIC	750 x 600 ECCENTRIC
2100	1200 x 675 ECCENTRIC	750 x 600 ECCENTRIC
2400	1200 x 675 ECCENTRIC	750 x 600 ECCENTRIC
3000	1200 x 675 ECCENTRIC	750 x 600 ECCENTRIC

* 1200x675mm PERMITTED BUT NOT RECOMMENDED

- ACCESS COVERS AND FRAMES SHALL BE TO BS EN124 CLASS D400, MANUFACTURED IN DUCTILE IRON AND HAVING A CLEAR OPENING OF DIMENSIONS STATED IN TABLE 1. COVERS SHALL BE SILENT IN USE AND HAVE A MINIMUM FRAME DEPTH OF 100mm. THE UPPER SURFACE OF THE COVERS SHALL BE CLEARLY MARKED WITH THE MARKERS NAME LOGO, EN124, THE LOADING CLASS, MARK OF THE CERTIFYING BODY AND THE LETTERS "SW" IN ONE CORNER. COVERS SHALL INCORPORATE PRISING SLOTS TO ENABLE THE COVERS TO BE LOOSEND PRIOR TO LIFTING THEM FROM THEIR FRAME. THEY SHALL ALSO INCORPORATE A NON-CAPTIVE HINGE AND BE DESIGNED IN SUCH A WAY AS TO ENSURE THAT THE COVERS CAN BE FULLY REMOVED WITHOUT THE NEED FOR ANY SINGLE OPERATIVE BEING EXPOSED TO LOADS IN EXCESS OF 25kg.
- COVER FRAME BEDDED AND HAUNCHED IN A 10-20mm THICK RESIN MORTAR AS SET OUT IN THE HIGHWAY AGENCY GUIDANCE NOTE HA1042.
- CLASS B ENGINEERING BRICKWORK LAID IN A 225mm HEADER PATTERN. IN CARRIAGEWAYS THE TOP OF THE CONCRETE COVER SLAB WILL BE AT FORMATION LEVEL AND THE DEPTH BETWEEN THE SLAB AND COVER FRAME WILL BE CONSTRUCTED IN ENGINEERING BRICKWORK. ELSEWHERE UP TO THREE COURSES OF BRICKWORK MAY BE USED. PRECAST CONCRETE SEATING RINGS TO BS EN124 MAY BE USED IN PLACE OF BRICKWORK.
- TYPE 1 COVER FRAME SEATING RING TO BS5911.3 WITH OPENING TO TABLE 3, BEDDED ON MORTAR.
- REINFORCED PRECAST CONCRETE (SULPHATE RESISTING) HEAVY DUTY COVER SLAB TO BS5911.3 WITH ACCESS OPENING TO TABLE 3, PLACED WITH OPENING AWAY FROM TRAFFIC WHEREVER POSSIBLE.
- 10mm UNCOMPRESSED THICKNESS OF 'TOKSTRIP' OR SIMILAR APPROVED COMPRESSIBLE SEALANT TO ALL HORIZONTAL JOINTS.
- PRECAST CONCRETE (SULPHATE RESISTING) CHAMBER RINGS TO BS5911.3. TAPER AND SHAFT RINGS MAY BE USED PROVIDED BOTTOM OF TAPER IS MINIMUM OF 1m ABOVE THE CONCRETE BASE.
- MIX 'S14' SULPHATE RESISTING CONCRETE SURROUND MIN 150 THICK.
- WHERE THE DEPTH OF THE MANHOLE FROM FINISHED COVER LEVEL TO INVERT EXCEEDS 1m GALVANISED STEP IRONS COMPLYING WITH BS EN13101 SHALL BE PROVIDED. THEY SHALL BE BUILT IN AT VERTICAL INTERVALS OF 300mm. THE TOP STEP SHALL BE MAX 500mm FROM COVER LEVEL AND THE BOTTOM STEP SHALL BE MAX 300mm ABOVE CONCRETE BASE. WHERE THE DEPTH TO INVERT EXCEEDS 3m A FIXED GALVANISED STEEL LADDER SHALL BE INSTALLED.
- BOTTOM CHAMBER SECTION TO BE 150mm ABOVE CROWN OF HIGHEST PIPE.
- MIX 'S14' CONCRETE, MECHANICALLY VIBRATED.
- 300mm SLUMP DEPTH BELOW LOWEST PIPE INVERT.
- ALL PIPES ENTERING OR LEAVING MANHOLES SHALL HAVE A FLEXIBLE JOINT MAX 500mm FROM THE FACE OF THE CONCRETE SURROUND. THE NEXT PIPE SHALL BE A ROCKER PIPE OF LENGTH STATED IN TABLE 1.
- JOINT FILLER BOARD WHERE ADJOINING TRENCH CONSTRUCTION IS CONCRETE BED.
- ALL CARRIER PIPES SHALL HAVE THE SAME SOFFIT UNLESS DETAILED OR NOTED OTHERWISE ON OTI DRAWINGS.

ALL CONCRETE TO BS8500

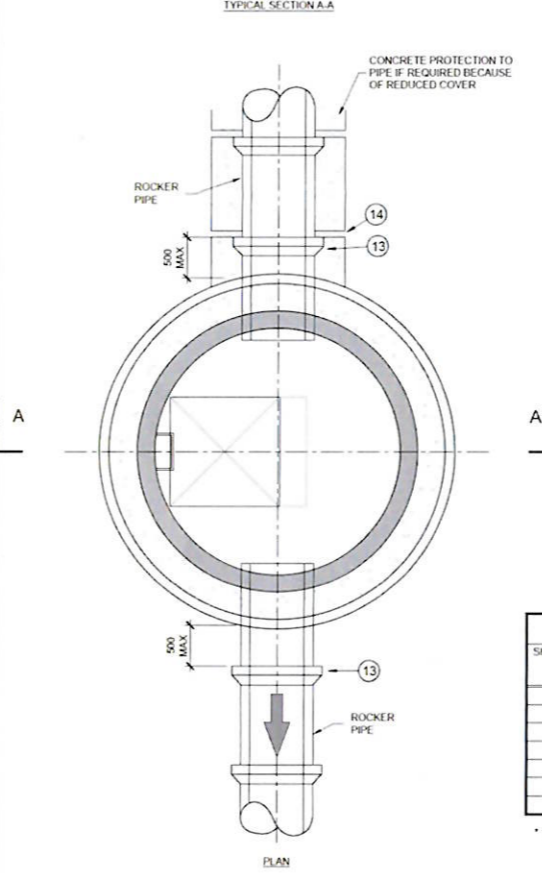
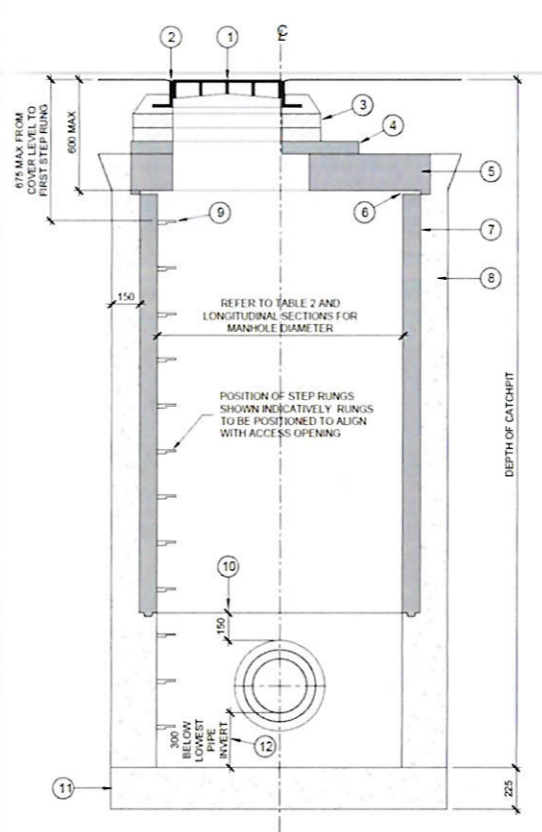


TABLE 2 INTERNAL DIAMETER OF CHAMBER SECTION

DIAMETER OF LARGEST PIPE IN CHAMBER (mm)	INTERNAL DIAMETER OF CHAMBER SECTION (mm)
LESS THAN 375	1200 (1050 WHERE DEPTH TO SOFFIT IS BETWEEN 1.35m AND 1.5m)
375 - 450	1350
500 - 700	1500
750 - 900	1800

TABLE 3 POSITION AND SIZE OF ACCESS OPENING

SHAFT/CHAMBER SIZE (mm)	COVER LEVEL TO PIPE SOFFIT LESS THAN 5m	COVER LEVEL TO PIPE SOFFIT GREATER THAN OR EQUAL TO 1.5m
1050	750 x 750 CENTRAL	600 x 600 ECCENTRIC
1200	750 x 600 ECCENTRIC*	750 x 600 ECCENTRIC
1500	1200 x 675 CENTRAL	750 x 600 ECCENTRIC
1800	1200 x 675 ECCENTRIC	750 x 600 ECCENTRIC
2100	1200 x 675 ECCENTRIC	750 x 600 ECCENTRIC
2400	1200 x 675 ECCENTRIC	750 x 600 ECCENTRIC
3000	1200 x 675 ECCENTRIC	750 x 600 ECCENTRIC

* 1200x675mm PERMITTED BUT NOT RECOMMENDED