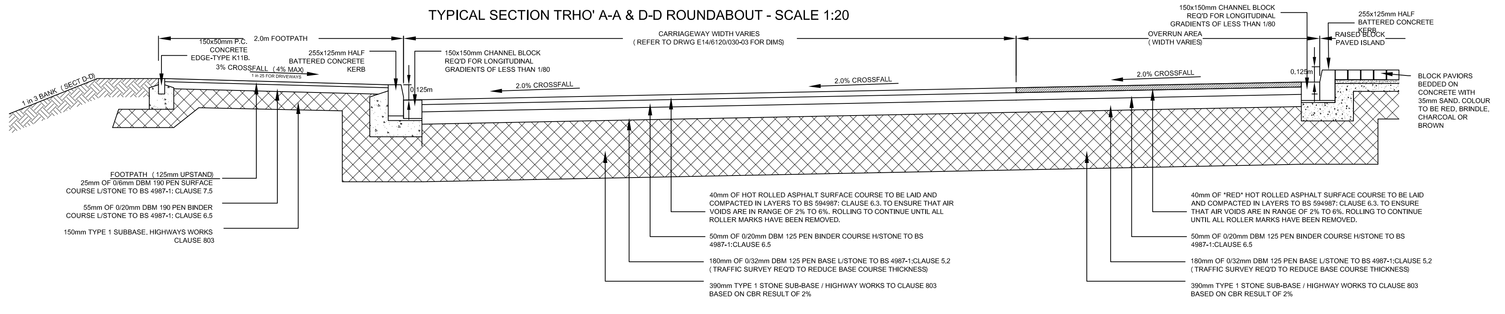
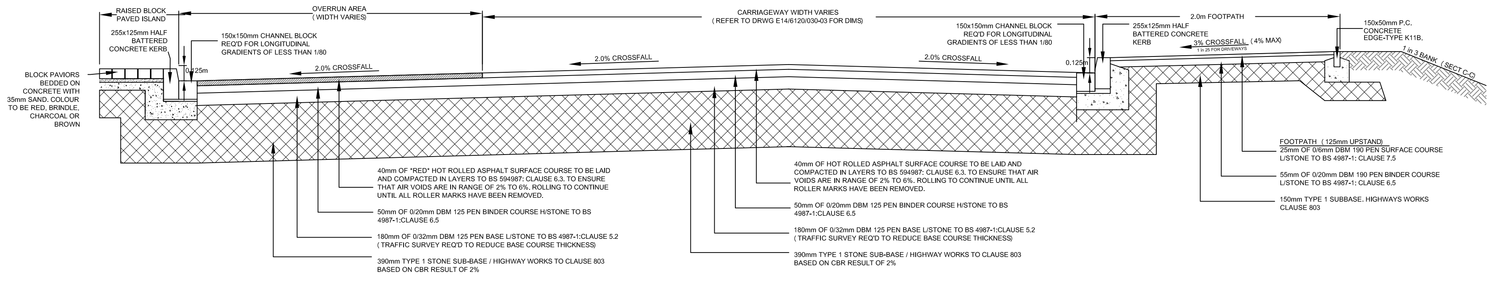
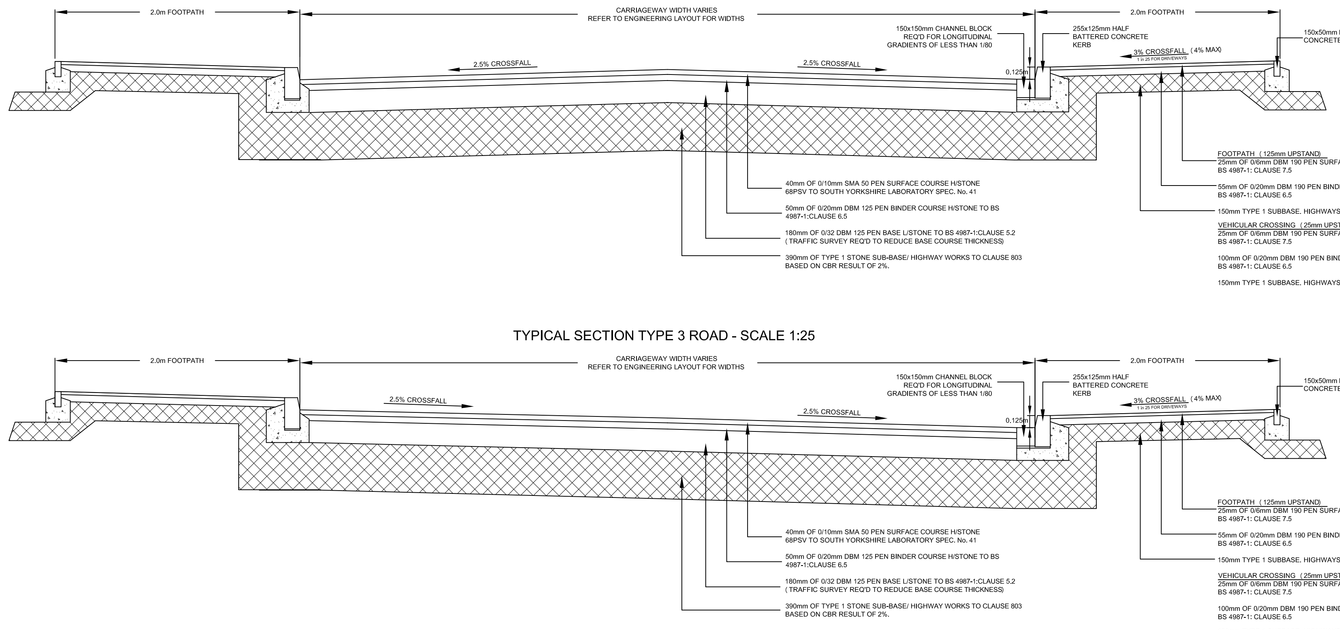
TYPICAL SECTION TRHO' A-A & D-D ROUNDABOUT - SCALE 1:20



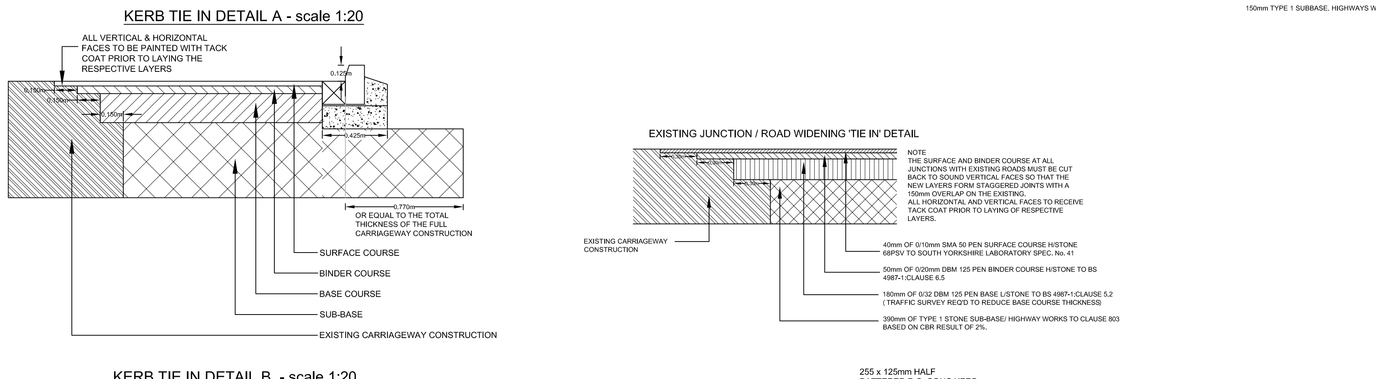
TYPICAL SECTION TRHO' B-B & C-C ROUNDABOUT - SCALE 1:20



TYPICAL SECTION TYPE 3 ROAD - SCALE 1:25



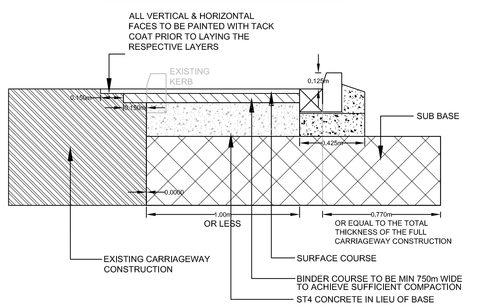
TYPICAL SECTION TYPE 3 ROAD - SCALE 1:25

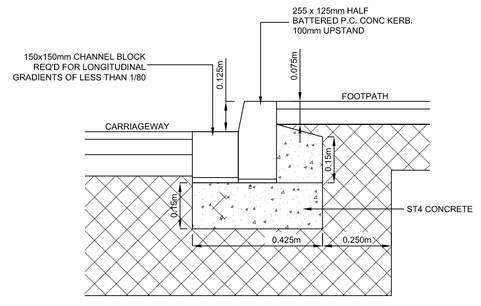


KERB TIE IN DETAIL A - scale 1:20

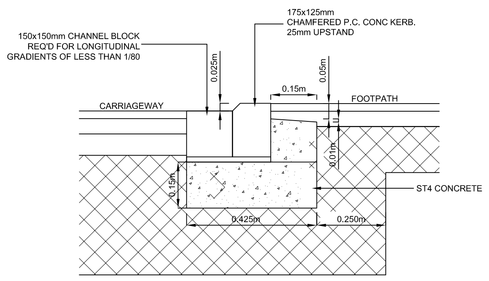
EXISTING JUNCTION / ROAD WIDENING 'TIE IN' DETAIL

KERB TIE IN DETAIL B - scale 1:20



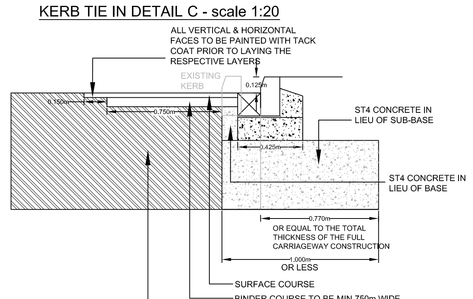


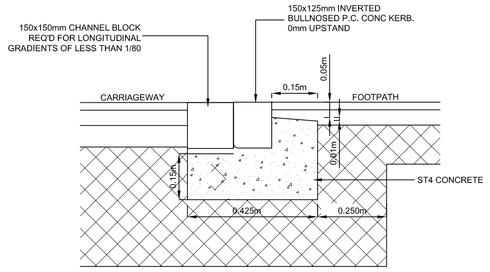
TYPE 3 ROAD KERB DETAIL. Scale 1:10



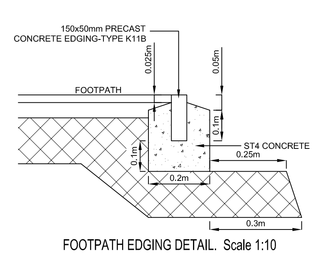
VEHICULAR CROSSING KERB DETAIL. Scale 1:10

KERB TIE IN DETAIL C - scale 1:20

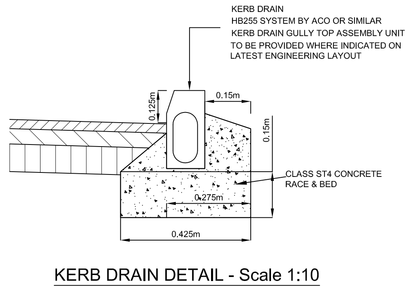




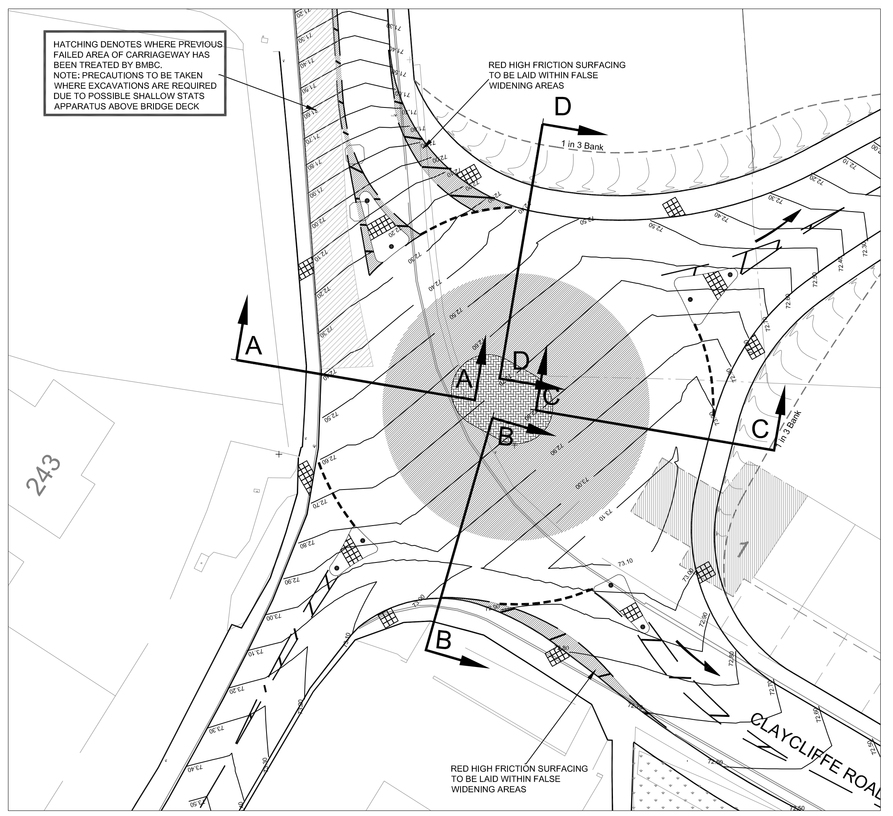
PEDESTRIN CROSSING KERB DETAIL. Scale 1:10



FOOTPATH EDGING DETAIL. Scale 1:10



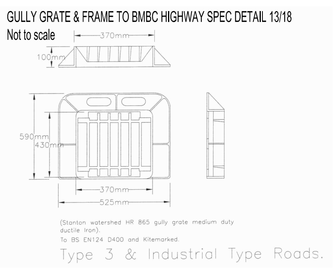
KERB DRAIN DETAIL - Scale 1:10

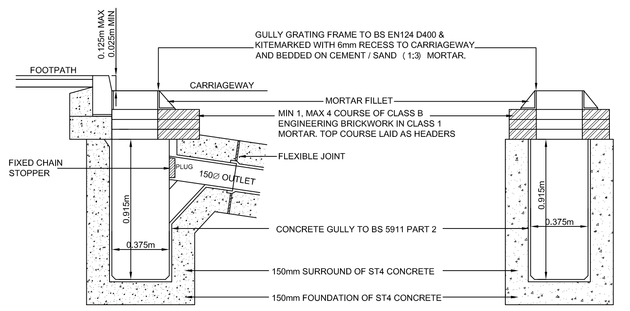


- BMBC COA to be full colour.
- Font to be used "Kindersley" all in capital letters.
- Signs are to be mounted on 2 No. 50mm square or circular posts in black powdercoat.
- Composite material to be Dibond or similar approved (MUST NOT BE SOLID ALUMINIUM)
- Signs to be mounted at 450mm from ground and 900mm to top edge.
- Nameplates should use the smallest plate size possible whilst maintaining the above specification
- Signs to be 205mm for 1 No. Street.

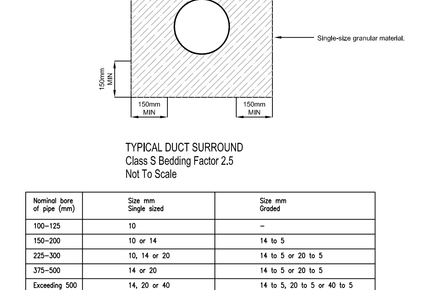
NOTE: DIMENSIONS OF NAMEPLATE TO BE CHECKED AGAINST APPROVED STREET NAME WHEN DECIDED.

TYPICAL STREET NAMEPLATE DETAIL - SCALE 1:25





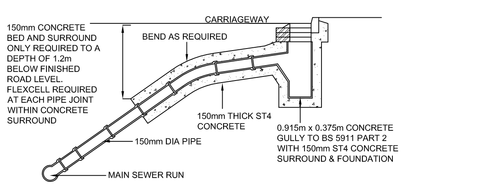
GULLY (TYPE 3 ROADS) - Scale 1:20



TYPICAL DUCT SURROUND
Class S Bedding Factor 2.5
Not To Scale

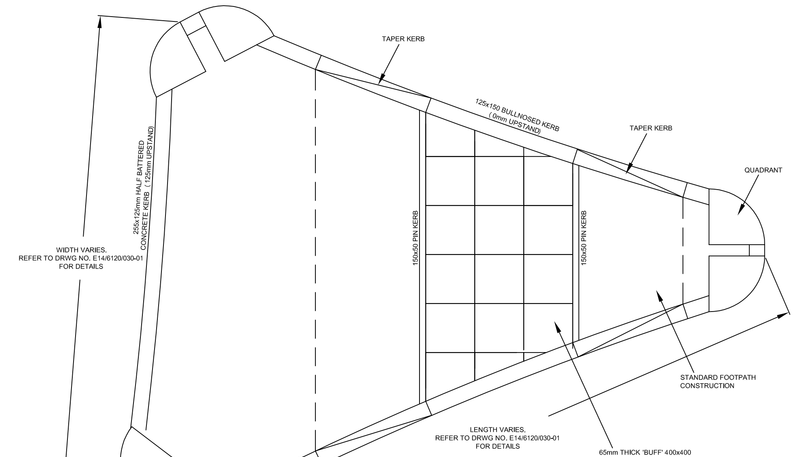
Nominal bore of pipe (mm)	Size, mm Single sized	Size mm Graded
100–125	10	–
150–200	10 or 14	14 to 5
225–300	10, 14 or 20	14 to 5 or 20 to 5
375–500	14 or 20	14 to 5 or 20 to 5
Exceeding 500	14, 20 or 40	14 to 5, 20 to 5 or 40 to 5

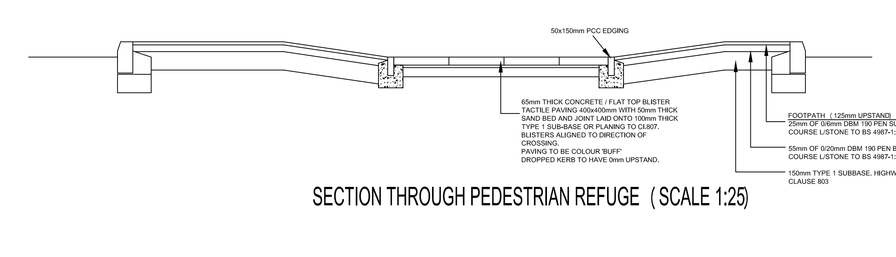
All granular material to be single sized or graded in accordance with BS 882: 1983, sintered pulverized-fuel ash to BS 3797: Part 2: 1976 and air-cooled blast furnace slags to BS 1047: 1983 are suitable.



GULLEY CONNECTION (N.T.S.)

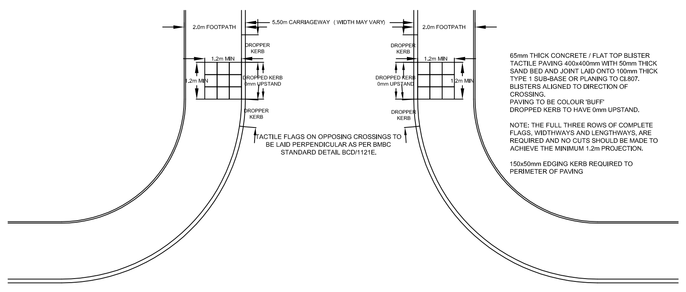
PEDESTRIAN REFUGE CONSTRUCTION DETAIL (SCALE 1:25)





SECTION THROUGH PEDESTRIAN REFUGE (SCALE 1:25)

TACTILE DROPPED CROSSING Scale 1:100 (OFF LINE DETAIL)



RISK ASSESSMENT: SIGNIFICANT RISKS THAT CANNOT BE DESIGNED OUT		
RISK	LEVEL OF RISK - H/M	SUGGESTED ACTION
DEEP EXCAVATIONS ASSOCIATED WITH NEW DRAINAGE WORKS	HIGH	ENSURE ALL EXCAVATIONS HAVE ADEQUATE TRENCH SUPPORTS
HANDLING LARGE DIAMETER MANHOLE RINGS AND CIRCULAR PIPES	HIGH	USE CORRECT LIFTING EQUIPMENT AND ENSURE OPERATIVES WEAR APPROPRIATE PROTECTIVE CLOTHING/HANDLING INSTRUCTIONS/CORRECT PPE
CONTACT WITH SEWAGE	MED	OPERATIVES TO USE CORRECT BREATHING EQUIPMENT/CORRECT PPE
NOISE	MED	OPERATIVES TO USE CORRECT EAR PROTECTION/CORRECT PPE
DRAINAGE EXCAVATIONS ADJACENT EXISTING BOUNDARY STRUCTURES	HIGH	ENSURE CORRECT SUPPORTS ARE PROVIDED TO TRENCHES AND BUILDINGS WHERE REQUIRED
DRAINAGE EXCAVATION IN PUBLIC HIGHWAY	HIGH	ENSURE CORRECT USE OF TRENCH SUPPORTS IN EXCAVATION AND SUITABLE BARRIERS TO PROTECT THE PUBLIC
MAINTAIN ACCESS TO ADJACENT PROPERTIES AND OCCUPIERS	HIGH	ENSURE ADEQUATE SIGNAGE AND BARRIERS ARE USED AND SIGNS TO GUIDE THE PUBLIC AWAY FROM THE WORKS
DRAINAGE EXCAVATIONS NEAR TO EXISTING SERVICES	HIGH	ENSURE WORKS ARE PROTECTED WITH BARRIERS AND SIGNS TO GUIDE MEMBERS OF THE PUBLIC AWAY FROM THE AREA
WORKING IN CONFINED SPACES, WORKING IN DRAINS AND MANHOLES	HIGH	ENSURE ALL OPERATIVES ARE TRAINED IN CONFINED SPACE ENTRY AND RESCUE. ENSURE ALL CONFINED SPACE ENTRY WORKS UNDER A PERMIT TO WORK SCHEME IMPLEMENTED BY CONTRACTOR, GAS TESTING TO TAKE PLACE BEFORE ALL ENTRIES INTO CONFINED SPACES
WORKING IN HIGHWAYS / RISKS FROM VEHICLE AND PLANT	HIGH	ALL WORKS TO BE SIGNED AND FENCED FROM WORKING VEHICULAR TRAFFIC. ALL WORKERS TO WEAR HIGH VISIBILITY CLOTHING. ALL PLANT TO BE USED BY TRAINED AND COMPETENT OPERATIVES
ROAD AND DRAINAGE CONSTRUCTION	HIGH	ALL EXCAVATIONS TO BE ADEQUATELY FENCED OFF AND SUPPORTED DURING CONSTRUCTION. ALL OPERATIVES TO BE TRAINED IN CORRECT METHODS OF LIFTING AND WORK IN ACCORDANCE WITH LOLER REGS.

IT IS ASSUMED THAT WORKS ASSOCIATED WITH THIS DESIGN WILL BE UNDERTAKEN BY A PERSON OR PERSONS WHO ARE COMPETANT AND HAVE THE REQUIRED LEVEL OF EXPERIENCE AND EXPERTISE

1. ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "SEWERS FOR ADOPTION" 6th EDITION, YORKSHIRE WATER AND KITEMARKED.
2. MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENING OF 600mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS OR CLASS B 125 IN FOOTWAYS, PEDESTRIAN AREAS AND COMPARABLE LOCATIONS.
3. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.
4. YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAINLAND DRAINAGE RUNOFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR INDIRECTLY) . AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUNOFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY. LAND DRAINAGE SECTION WITH REGARD TO THE DISPOSAL OF THE FILTER DRAINLAND DRAINAGE RUNOFF.
5. COVER SLABS MUST CARRY THE BSI KITEMARK OR WILL BE REJECTED BY YORKSHIRE WATER INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOADING BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 600x600mm FOR THE YORKSHIRE WATER SPECIFIED COVER SIZE. PLEASE REFER TO CONCRETE PIPE SYSTEMS ASSOCIATION (CPSA) , "TECHNICAL BULLETIN" ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES.
6. SULPHATE RESISTANT CEMENT AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
7. THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS.
8. SEWERS MUST HAVE 5m CLEARANCE FROM TREES AND HEDGES.
9. SEWERS TO BE LAID IN CLASS "S" BEDDING (150mm GRANULAR BED AND SURROUND) , WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2m (IN HIGHWAYS AND VERGES (OR LESS THAN 900mm IN NONE VEHICULAR ACCESS AREAS) THEN A 175mm CONCRETECOVER SLAB WILL BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
10. ALL PIPEWORK 300mm DIAM. OR LESS TO BE VITRIFIED CLAY CONFORMING WITH BS 65. MINIMUM CRUSHING STRENGTHS TO BE AS FOLLOWS: 150mm DIA 4kN/m,
225mm DIA 40kN/m, 300mm DIA, 72kN/m.
11. ALL PIPEWORK 375mm DIAM. OR GREATER TO BE CONCRETE CLASS 120, 54kN/m MINIMUM CRUSHING STRENGTH.
12. THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
13. YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES AND 1050mm DIAM. MANHOLE RINGS, INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200mm DIAM. OR 1500mm DIAM. RINGS, WITH THE OPENING SIGHTED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1.1m.
14. ALL HIGHWAY WORKS AND MATERIAL TO CONFORM WITH SOUTH YORKSHIRE SPECIFICATION.
15. GULLY COVER AND FRAMES SHALL BE D400 DUCTILE IRON AND COMPLY WITH EUROPEAN STANDARD BS EN 124, THOSE SIGHTED IN ACCESSWAYS AND MEWS COURTS MUST BE SUITABLE FOR USE IN PEDESTRIAN AREAS.
16. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.

Rev E Roundabout construction amended, widening details amended, refuse island amended & street nameplates added to suit BMBC comments dated 09.06.16.	17.03.17 HH
Rev D Amended to suit BMBC requirements for the Section 278 works	15.06.16 HH
Rev C Construction depths of carriageway sections amended	17.12.15 HH
Rev B Sections A-A, B-B, C-C & D-D amended.	24.11.15 JH
Rev A Roundabout alignment amended to suit BMBC requirements	17.11.15 HH

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Client
BARRATT DAVID WILSON HOMES

Project
LOW BARUGH

PRELIMINARY ISSUE

Detail
PROPOSED ROUNDABOUT CONSTRUCTION DETAILS (Located at junction of Barnsley Road & Claycliffe Road)

Dwn	Chkd	Date	Scale	Dwg No.
HH		NOV-14	As shown @A0	E14/6120/030-07E