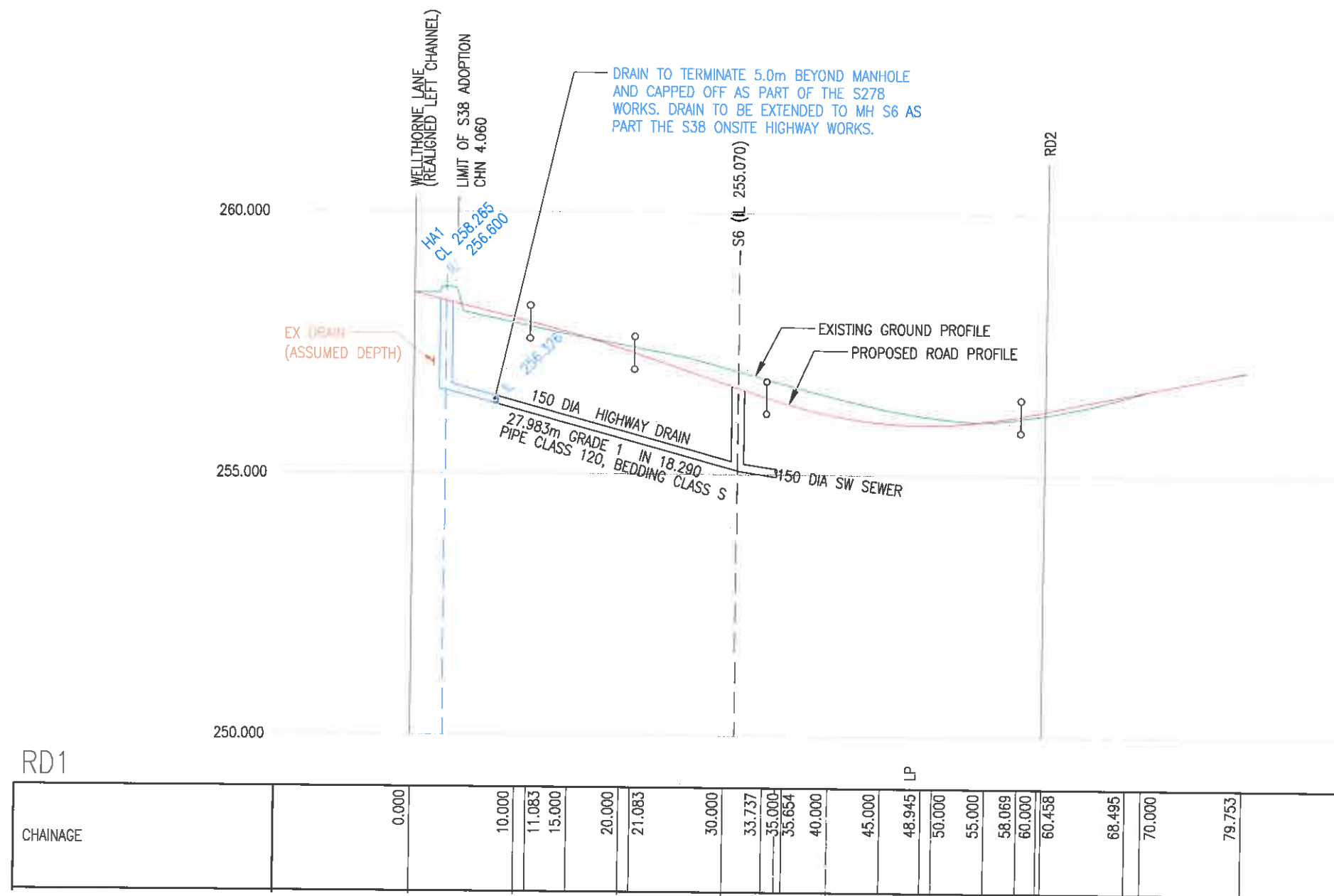
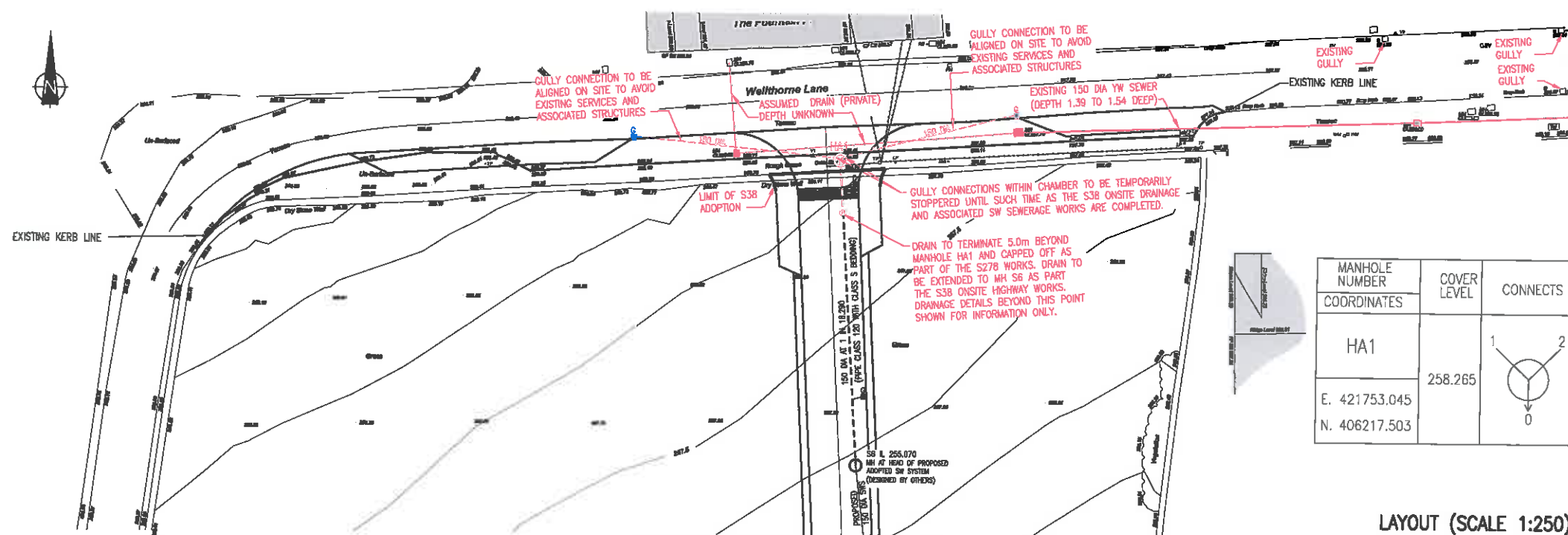




LONGITUDINAL SECTION (SCALE 1:250 HORIZ, 1:50 VERT)



LAYOUT (SCALE 1:250)

DO NOT SCALE

NOTES

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2. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DETAILS, DRAWINGS AND SPECIFICATIONS.
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4. ALL DIMENSION ARE IN METRES UNLESS OTHERWISE NOTED.

**AUTHORISED
SIGNATORY**

No. 1678
IN REGISTER

**National Westminster
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B	20.11.14	DHS	DRAWING UPDATED TO SUIT COMMENTS (DATED 13.11.14) RECEIVED FROM BMBC	JM
A	13.11.14	DHS	INITIAL ISSUE	JM
REV	DATE	BY	DESCRIPTION	CHK

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Tel: +44 (0)113 385 6200 Fax: +44 (0)113 385 6201
<http://www.wsgroup.com>

CLIENT: CONROY BROOK (DEVELOPMENTS) LTD

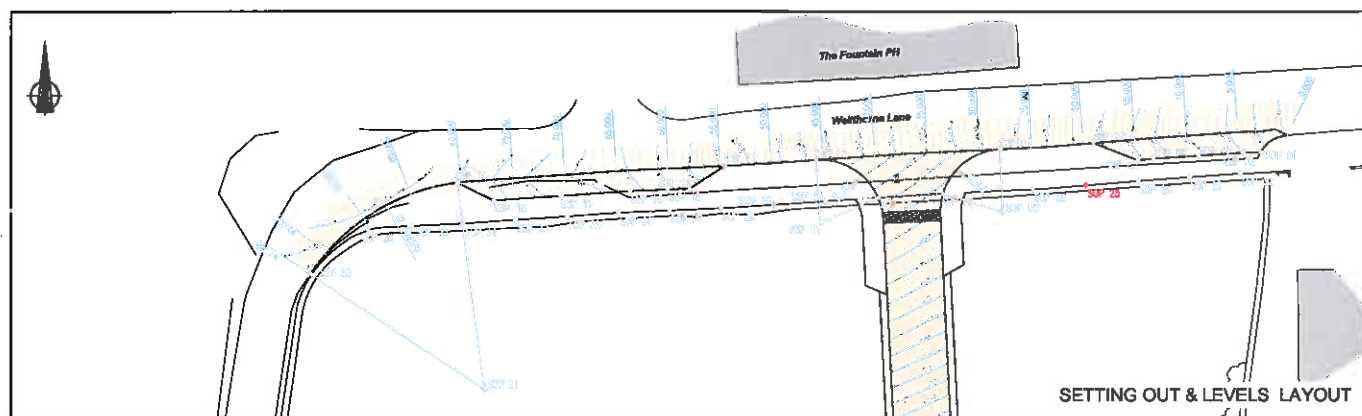
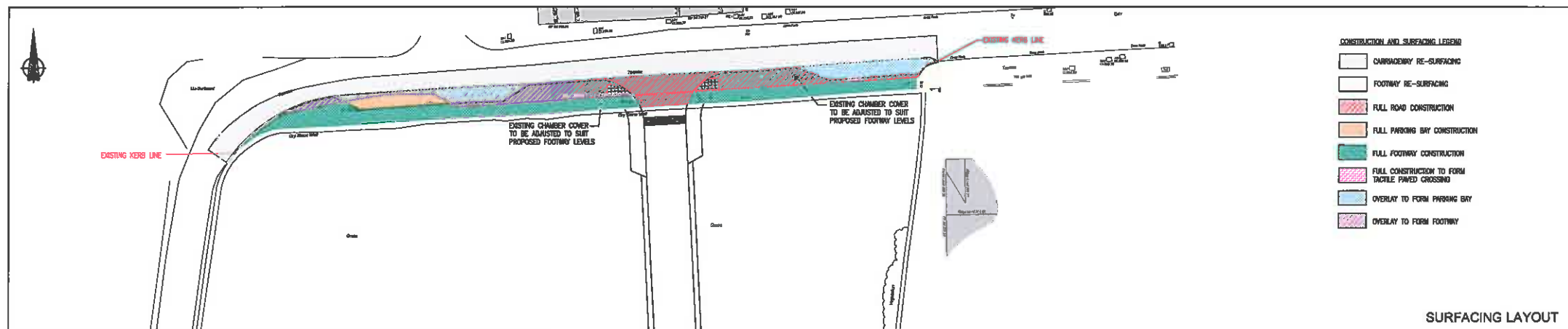
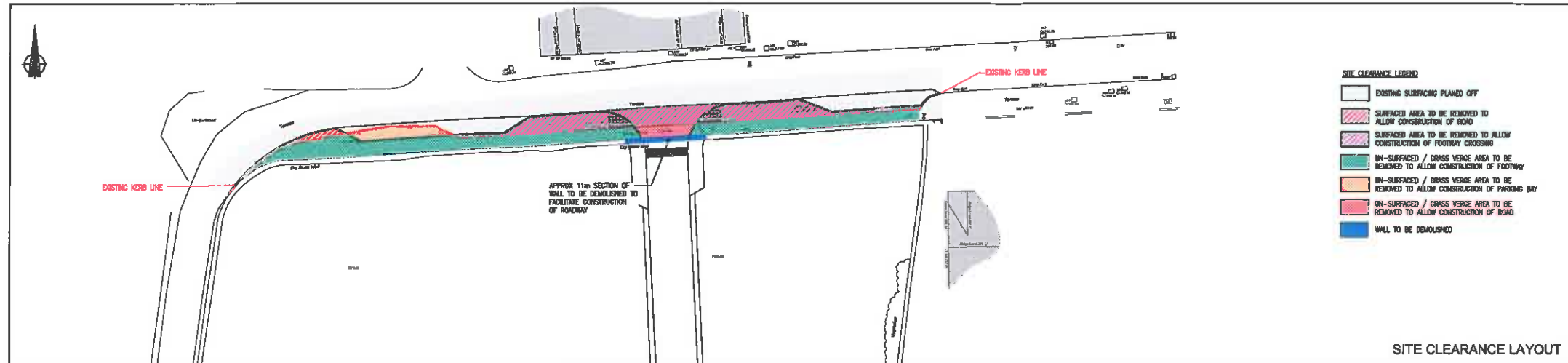
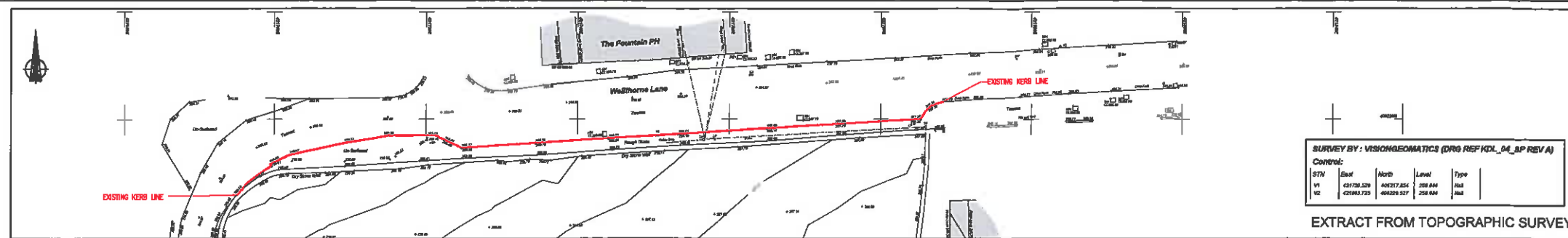
ARCHITECT:
MJP DESIGN ASSOCIATES LTD

**PROPOSED RESIDENTIAL DEVELOPMENT
WELLTHORNE LANE,
INGBIRCHWORTH**

DRAINAGE PROPOSALS (S278)

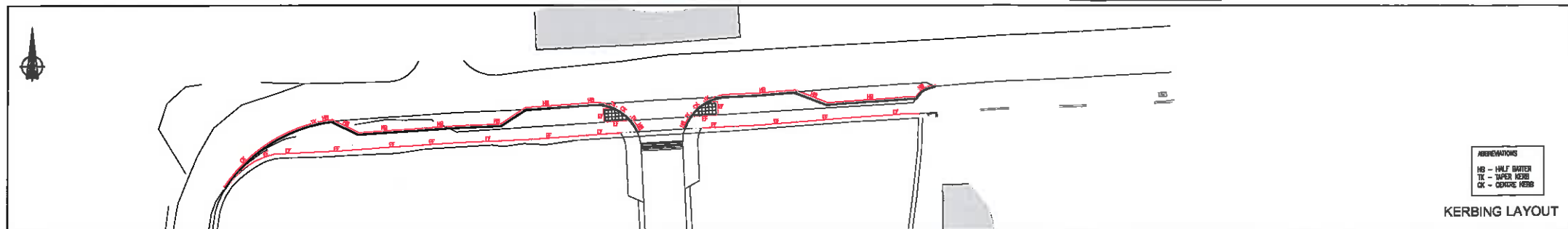
SCALE @ 1/4" = 1'-0"	CHECKED: JM	APPROVED: JM
AS SHOWN	JM	
CAD FILE: 8865-D-10	DESIGN ORIGIN: DHS	DATE: SEPT 2014
PROJECT No: 70006885	DRAWING No: 8865-D-10	REV: B

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STATION	EASTING	NORTHING	LEVEL
SOP 01	421728.529	406217.254	257.834
SOP 02	421728.529	406217.254	257.834
SOP 03	421728.529	406217.254	257.834
SOP 04	421728.529	406217.254	257.834
SOP 05	421728.529	406217.254	257.834
SOP 06	421728.529	406217.254	257.834
SOP 07	421728.529	406217.254	257.834
SOP 08	421728.529	406217.254	257.834
SOP 09	421728.529	406217.254	257.834
SOP 10	421728.529	406217.254	257.834
SOP 11	421728.529	406217.254	257.834
SOP 12	421728.529	406217.254	257.834
SOP 13	421728.529	406217.254	257.834
SOP 14	421728.529	406217.254	257.834
SOP 15	421728.529	406217.254	257.834
SOP 16	421728.529	406217.254	257.834
SOP 17	421728.529	406217.254	257.834
SOP 18	421728.529	406217.254	257.834
SOP 19	421728.529	406217.254	257.834
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SOP 33	421728.529	406217.254	257.834
SOP 34	421728.529	406217.254	257.834
SOP 35	421728.529	406217.254	257.834
SOP 36	421728.529	406217.254	257.834

CHAINAGE	EASTING	NORTHING	LEVEL
0.000	421728.529	406217.254	257.834
5.000	421728.529	406217.254	257.834
10.000	421728.529	406217.254	257.834
15.000	421728.529	406217.254	257.834
20.000	421728.529	406217.254	257.834
25.000	421728.529	406217.254	257.834
30.000	421728.529	406217.254	257.834
35.000	421728.529	406217.254	257.834
40.000	421728.529	406217.254	257.834
45.000	421728.529	406217.254	257.834
50.000	421728.529	406217.254	257.834
55.000	421728.529	406217.254	257.834
60.000	421728.529	406217.254	257.834
65.000	421728.529	406217.254	257.834
70.000	421728.529	406217.254	257.834
75.000	421728.529	406217.254	257.834
80.000	421728.529	406217.254	257.834
85.000	421728.529	406217.254	257.834
90.000	421728.529	406217.254	257.834
95.000	421728.529	406217.254	257.834
97.368	421728.529	406217.254	257.834



Guy KL

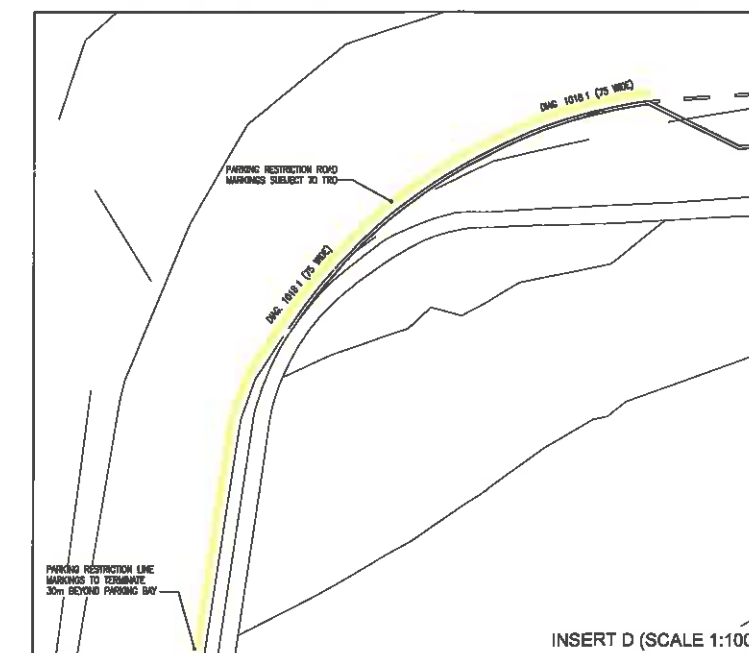
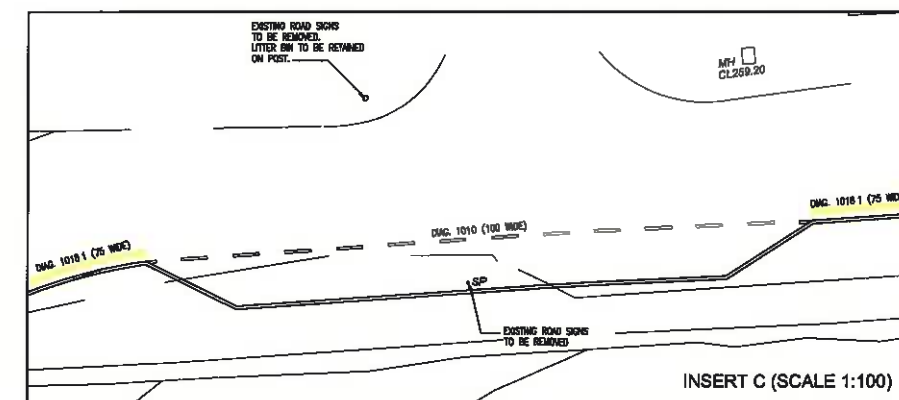
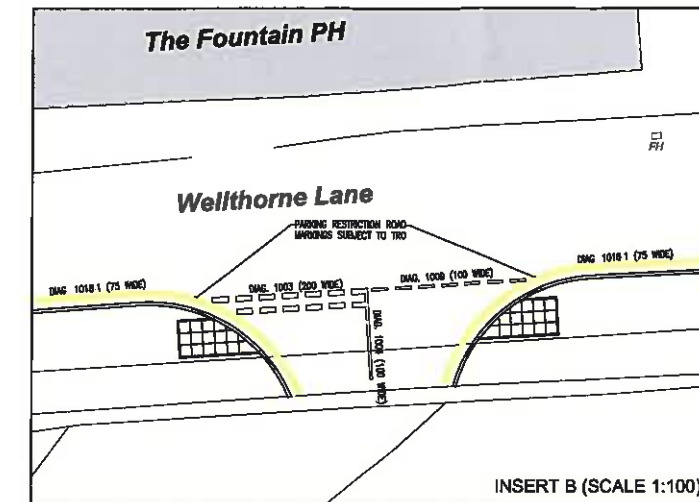
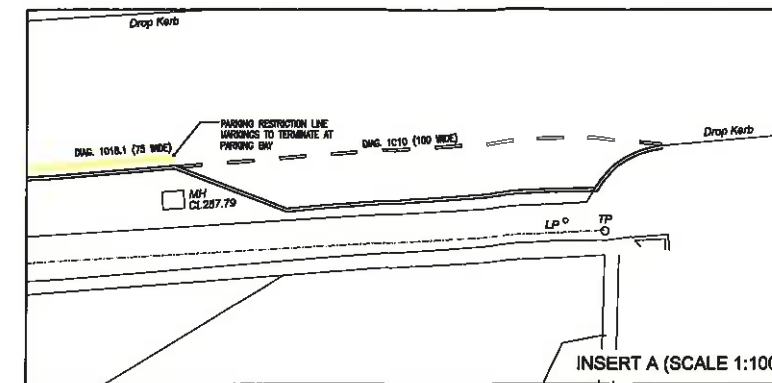
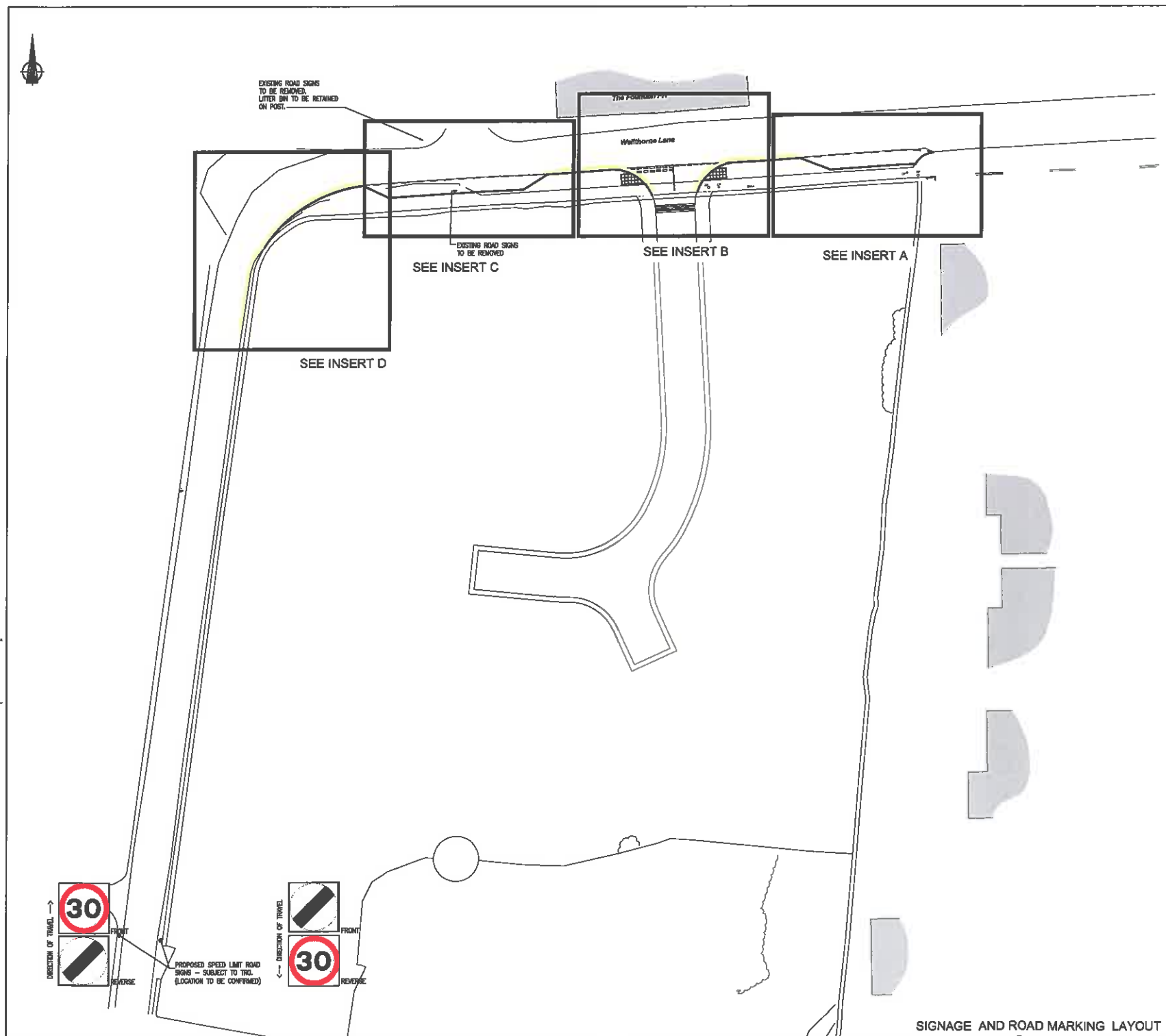
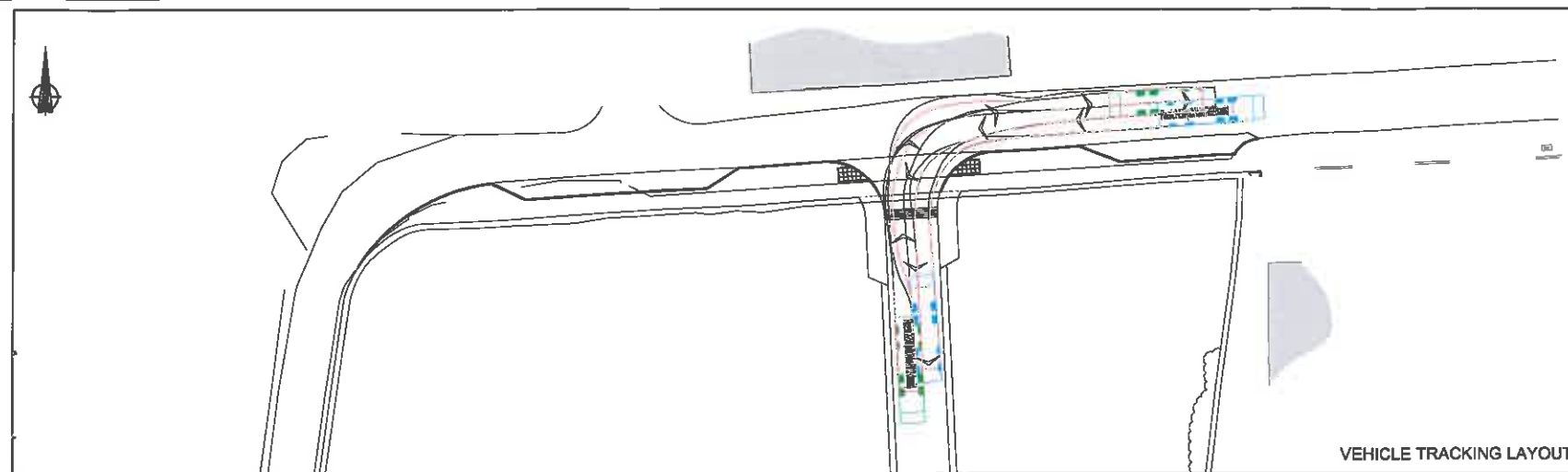
AUTHORISED SIGNATORY

No. 1678
IN REGISTER

Wilde

National Westminster
Bank Plc
Manchester Trade
Services Centre

FOR TECHNICAL APPROVAL			
Three White Rose Office Park, Midway Park Lane, Leeds LS11 0DT Tel: +44 (0)113 365 6200 Fax: +44 (0)113 395 0201 http://www.wspgroup.com			
CONROY BROOK (DEVELOPMENTS) LTD			
MPJ DESIGN ASSOCIATES LTD			
PROPOSED RESIDENTIAL DEVELOPMENT WELLTHORNE LANE INGBOROUGH			
SECTION 27B TECHNICAL LAYOUTS SHEET 1			
SCALE: 1:250 & 1:100	DRAWN: JM	CHECKED: JM	APPROVED: JM
DATE: 6865-GA-11_12	DESIGNED: CHS	DATE: NOV 2014	
PROJECT NO: 70006865	6865-GA-11	B	
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IN REGISTER

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National Westminster Bank Plc Manchester Trade Services Centre

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
20.11.14	DM	DRAWING UPLOADED TO SUE COMMENTS	20.11.14	DM	REVISION FROM DMS
13.11.14	DM	FINAL ISSUE	13.11.14	DM	FINAL ISSUE
13.11.14	DM	FINAL ISSUE	13.11.14	DM	FINAL ISSUE

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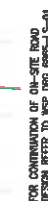
CONROY BROOK (DEVELOPMENTS) LTD
MPJ DESIGN ASSOCIATES LTD

PROPOSED RESIDENTIAL DEVELOPMENT
WELLTHORNE LANE, INGBURCHWORTH

SECTION 278
TECHNICAL LAYOUTS
SHEET 2

SCALE 1:100
DATE 13.11.14
PROJECT 70006885
6885-GA-12
8

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ARCHITECT:
MJP DESIGN ASSOCIATES LTD

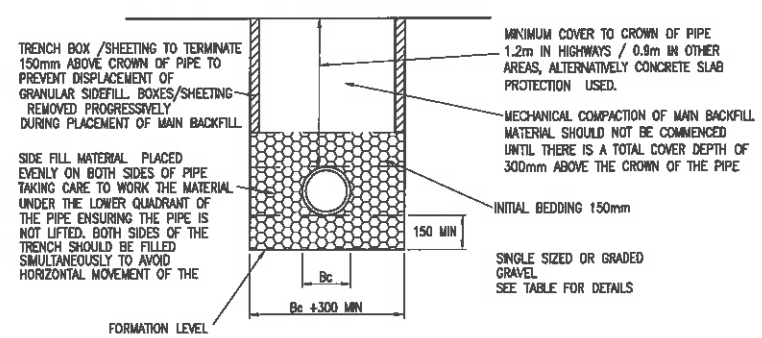
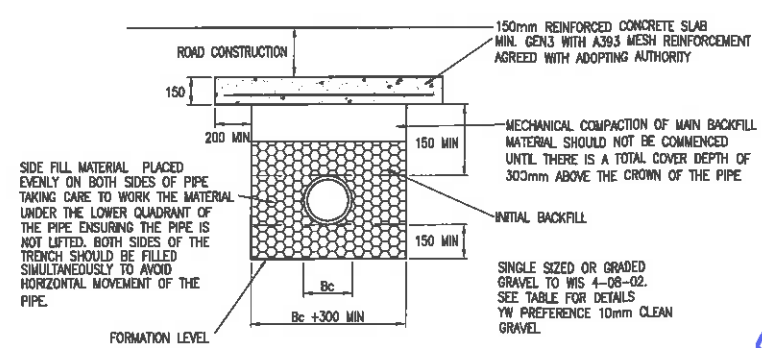
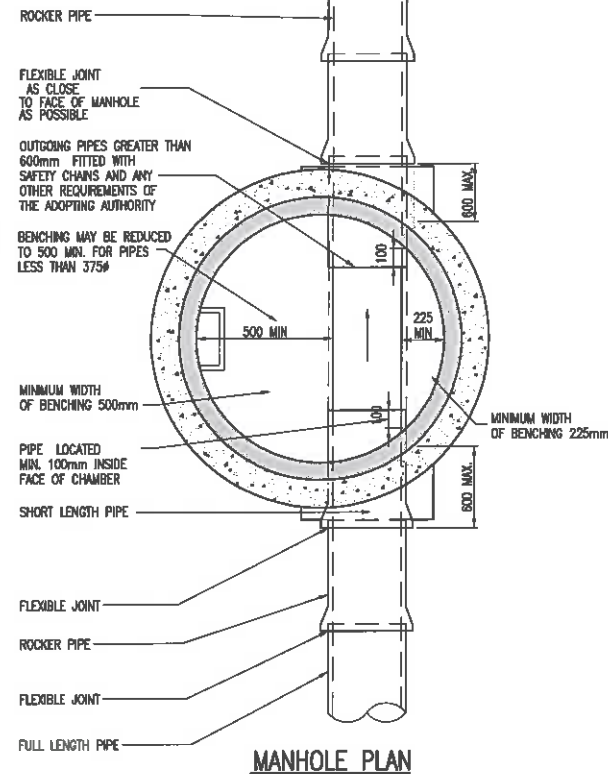
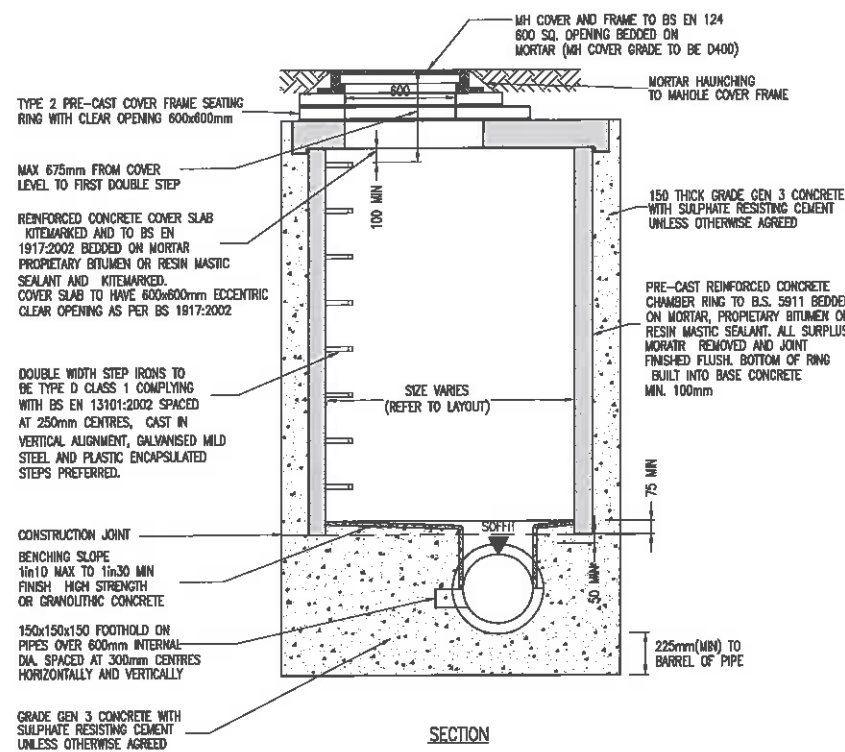
PROJECT:
PROPOSED RESIDENTIAL DEVELOPMENT
WELLTHORNE LANE,
INGBIRCHWORTH

LONGITUDINAL SECTIONS (S278)

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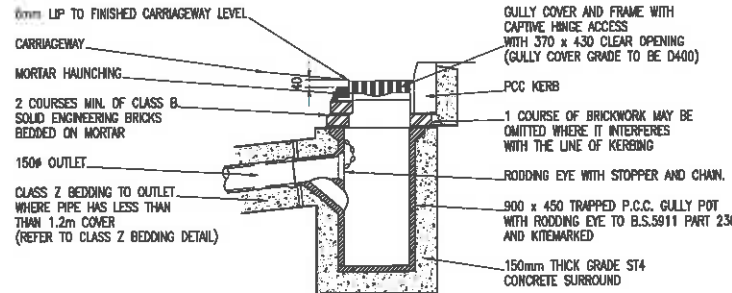
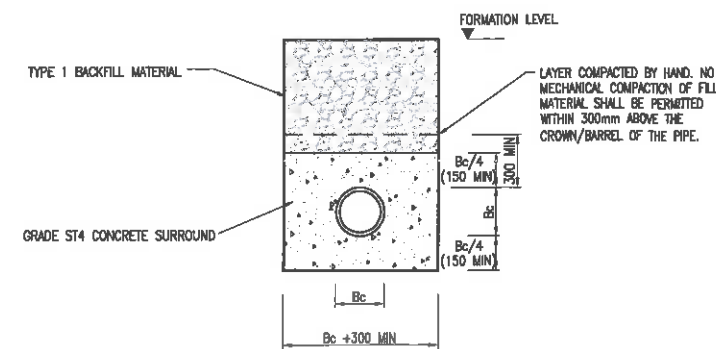
\\SER02LDSTL\UK\WSP\GROUP\PROJECTS\70006865 - WELLTHORNE LANE, INGBIRCHWORTH\MODELS AND DRAWINGS\DEVELOPMENT\AUTOCAD\SD STANDARD DETAILS\6865-SD-11.DWG



NOMINAL PIPE DIA (mm)	SINGLE SIZED (mm)	GRADED (mm)
150	10 OR 14	14 TO 5
200 TO 300	10,14 OR 20	14 TO 5 OR 20 TO 5
375 TO 525	14 OR 20	14 TO 5 OR 20 TO 5
GREATER THAN 525	14,20 OR 40	14 TO 5,20 TO 5 OR 40 TO 5

GRANULAR BEDDING MATERIAL
(ALL AGGREGATES TO TABLE 4 OF BS 882 :1983.)

NOTES
A) Bc = OUTSIDE DIAMETER OF PIPE BARREL.



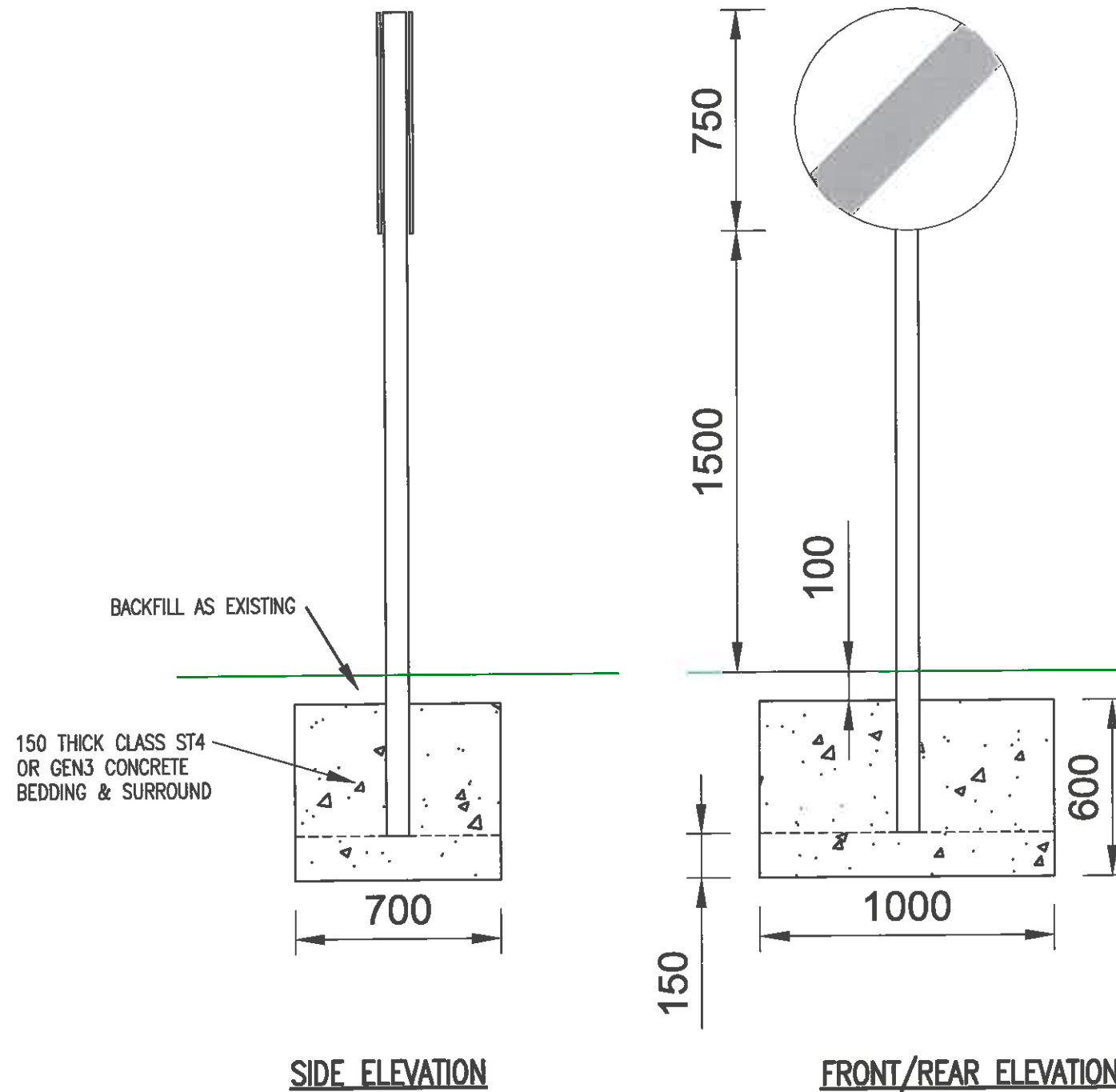
Geoffrey
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No 1678
IN REGISTER

B	20.11.14	DHS	DRAWING UPDATED TO SUIT COMMENTS (DATED 13.11.14) RECEIVED FROM BMRC	JM	JM
A	13.11.14	DHS	INITIAL ISSUE	JM	JM
REV	DATE	BY	DESCRIPTION	CHK	APP

FOR TECHNICAL APPROVAL		
Three White Rose Office Park, Millthorpe Park Lane, Leeds LS11 0DT Tel: +44 (0)113 395 6200 Fax: +44 (0)113 395 0201 http://www.wspgroup.com		
CLIENT:	CONROY BROOK (DEVELOPMENTS) LTD	
ARCHITECT:	MPJ DESIGN ASSOCIATES LTD	
PROJECT:	PROPOSED RESIDENTIAL DEVELOPMENT WELLTHORNE LANE, INGBIRCHWORTH	
TITLE:	HIGHWAY CONSTRUCTION DETAILS (S278) SHEET 2	
DATE: 01/11/14	CHECKED: JM	APPROVED: JM
DWG FILE: 0865-SD-11	DRAWN/DRAWN: DHS	DATE: NOV 2014
PROJECT NO: 70006865	DRAWING NO: 6865-SD-11	REV: B
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Manchester Trade
Services Centre



FOR INSTALLATION LOCATIONS REFER TO WSP DRG No 6865-GA-12

Structural Calculation Details (per post)

Note: 2 No posts required.

Signs:

Reference: 670 & 671
Width: 750mm, Height: 750mm
Shape: Roundel
Orientation: Facing front & Facing rear
Mounted on posts: 1
Mounting height: 1500mm

Posts:

Quantity: 2
Type: 76.1 x 3.2 CHS
Spacing: N/A
Post 1 Length: 2800mm

Base:

Type: Combined
Width: 1000mm
Length: 700mm
Depth: 600mm
Volume: 0.42cu.m
Earth cover: 100mm
Blinding layer: 150mm

DO NOT SCALE

Signature
AUT
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ORY

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No. 1678
IN REGISTER

A	02.12.14	DHS	INITIAL ISSUE	DS	JM
REV	DATE	BY	DESCRIPTION	CHK	APD

DRAWING STATUS:

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<http://www.wspgroup.com>

CLIENT:

CONROY BROOK (DEVELOPMENTS) LTD

ARCHITECT:

MPJ DESIGN ASSOCIATES LTD

PROJECT:

PROPOSED RESIDENTIAL DEVELOPMENT
WELLTHORNE LANE,
INGBIRCHWORTH

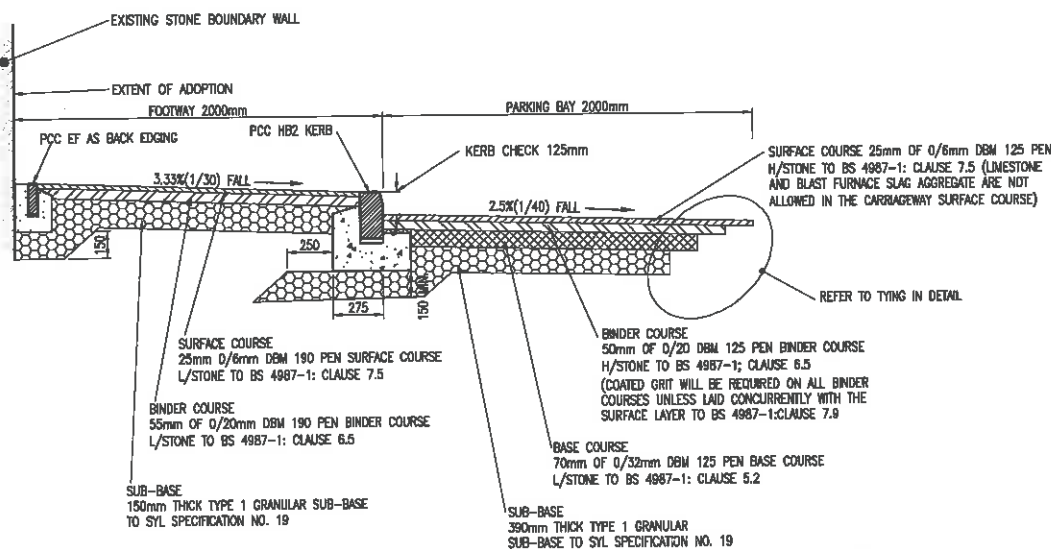
TITLE:

SECTION 278
SIGNAGE - POLE DETAIL

SCALE @ AS:	CHECKED:	APPROVED:
NTS	DS	JM
CAD FILE:	DESIGN-DRAWN:	DATE:
6865-SD-12	GM	DEC 2014
PROJECT No:	DRAWING No:	REV:
70006865	6865-SD-12	A

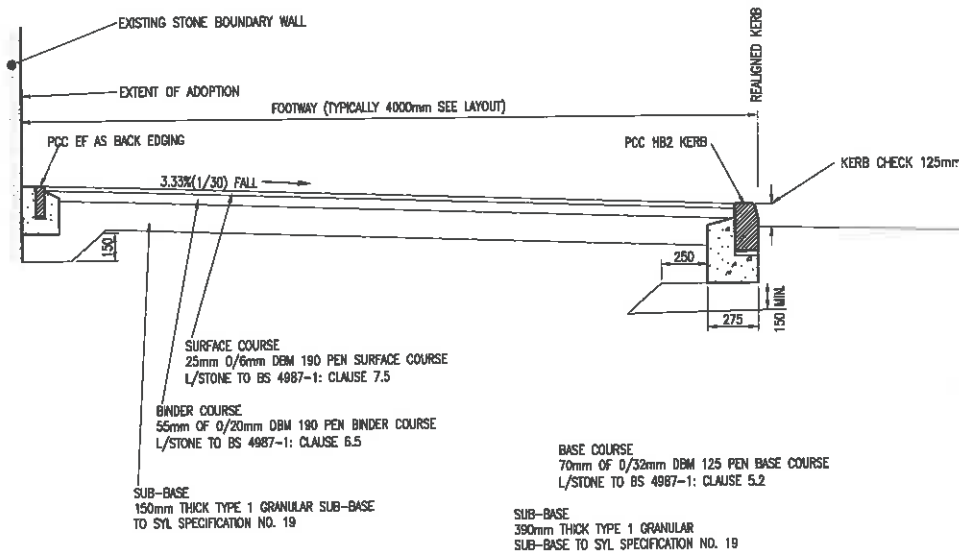
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- 1) GENERAL FILL
WHERE REQUIRED, FILL BENEATH ROADS AND CAR PARKS SHOULD BE SUITABLE APPROVED MATERIAL, NON-FROST SUSCEPTIBLE WHEN WITHIN 450MM OF THE FINISHED LEVEL, IN ACCORDANCE WITH MCHW CLAUSE 612. THE PLANT AND METHOD OF COMPACTION REQUIRED SHOULD BE AS TABLE 6/4 FOR THE CLASS OF MATERIAL BEING COMPACTED IN TABLE 6/1.
- 2) SUB-FORMATION/ FORMATION LEVEL
PREPARATION AND SURFACE TREATMENT OF SUB-FORMATION AND FORMATION LEVEL SHALL BE IN ACCORDANCE WITH MCHW CLAUSE 616.
SOFT SPOTS ARE TO BE REMOVED AND REPLACED WITH A SUITABLE MATERIAL IN ACCORDANCE WITH 1) ABOVE.
THE FORMATION LEVEL AND SUB-BASE SHALL BE COVERED AS SOON AS PRACTICABLE AND PROTECTION PROVIDED FROM CONSTRUCTION TRAFFIC / OPERATIONS AND INCLEMENT WEATHER CONDITIONS.
THE DESIGN OF THE SUB BASE HAS NO ALLOWANCE FOR USE BY CONSTRUCTION TRAFFIC. SHOULD THE CONTRACTOR WISH TO USE THE SUB BASE FOR CONSTRUCTION TRAFFIC THEN THE ENGINEER SHALL BE NOTIFIED AND THE DESIGN THICKNESS REVISED AS REQUIRED.

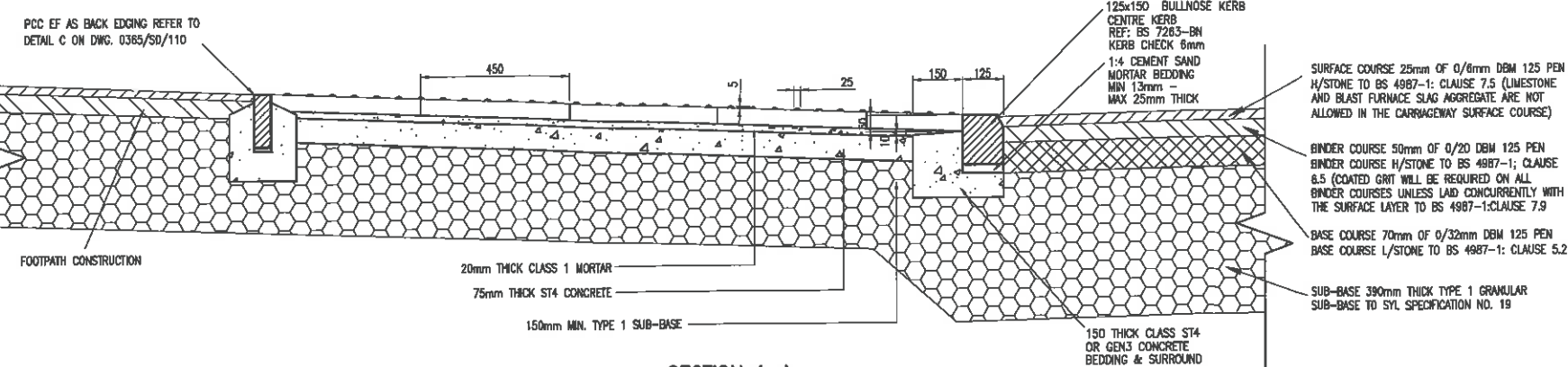


TYPICAL CROSS SECTION THROUGH PARKING BAY AND FOOTWAY
(SCALE 1:20)

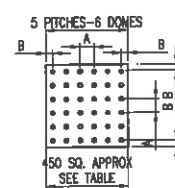
- 1) GENERAL FILL
WHERE REQUIRED, FILL BENEATH ROADS AND CAR PARKS SHOULD BE SUITABLE APPROVED MATERIAL, NON-FROST SUSCEPTIBLE WHEN WITHIN 450MM OF THE FINISHED LEVEL, IN ACCORDANCE WITH MCHW CLAUSE 612. THE PLANT AND METHOD OF COMPACTION REQUIRED SHOULD BE AS TABLE 6/4 FOR THE CLASS OF MATERIAL BEING COMPACTIONED IN TABLE 6/1.
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TYPICAL CROSS SECTION THROUGH REALIGNED KERB AND FOOTWAY
(SCALE 1:20)

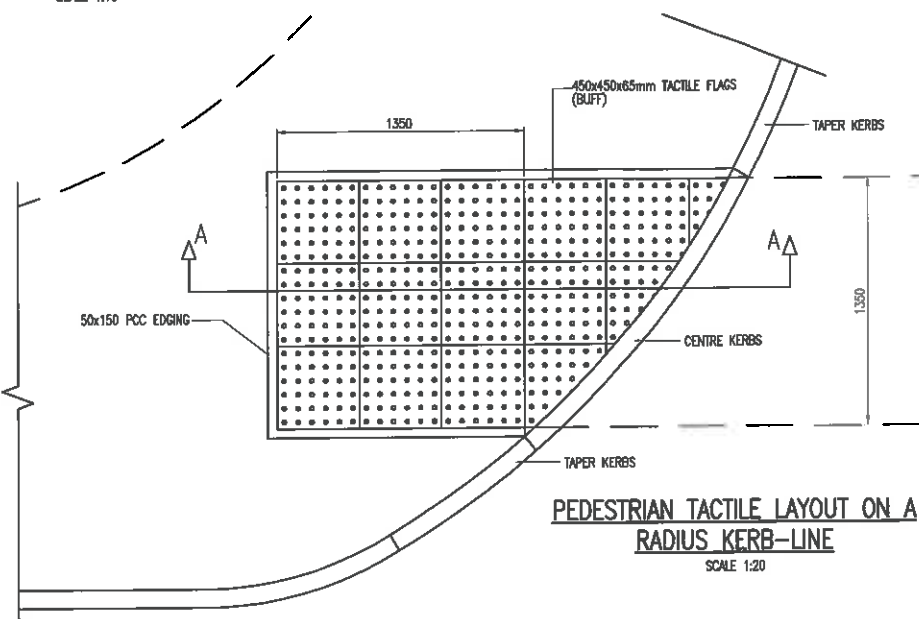


SECTION A-A
SCALE 1:10

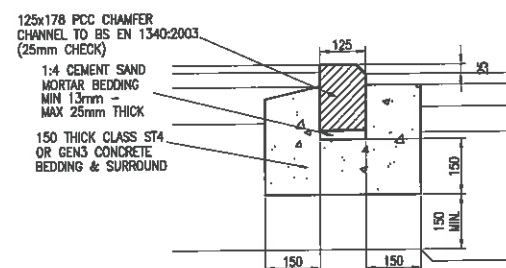


SIZE	PITCH DIMENSION	
	A	B
450 SQ	88	33

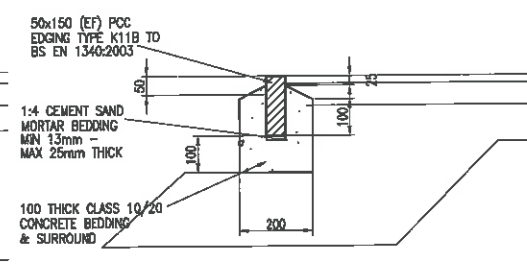
TYPICAL TACTILE PAVING DETAIL
SCALE 1:20



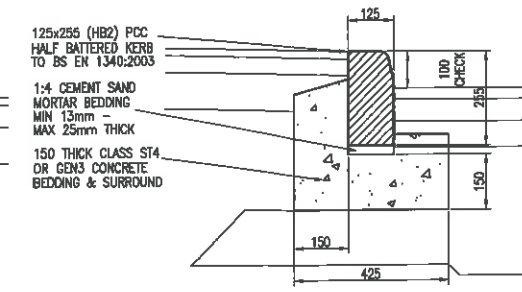
PEDESTRIAN TACTILE LAYOUT ON A RADIUS KERB-LINE
SCALE 1:20



STANDARD PCC CHAMFERED CHANNEL
(SCALE 1:10)

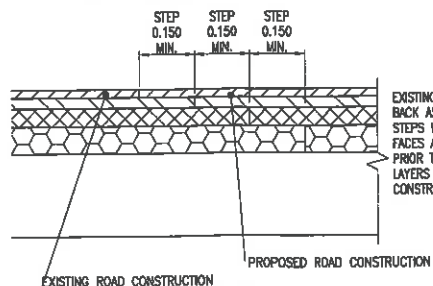


TYPICAL PCC (EF) FLAT TOP EDGING
(SCALE 1:10)



STANDARD PCC (HB2) KERB
(SCALE 1:10)

PRIOR TO LAYING SUBSEQUENT LAYERS OF BITUMINOUS MATERIAL THE SURFACE SHALL BE THOROUGHLY CLEANED AND A TACK COAT OF BITUMEN EMULSION CLASS K1-40 TO BS434 SHALL BE APPLIED AT A RATE OF 0.35 TO 0.5 LITRES PER SQUARE METRE.

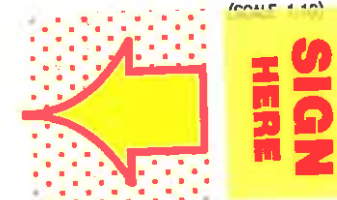


TYPICAL ROAD CONSTRUCTION TYING IN DETAIL
(NOT TO SCALE)

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Manchester Trade Services Centre

DO NOT SCALE

HIGHWAY SPECIFICATION

- ALL ROAD PAVEMENTS ARE TO BE BUILT IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE FOLLOWING SERIES OF THE SPECIFICATION FOR HIGHWAY WORKS (MCHW):
700 : ROAD PAVEMENTS GENERAL
800 : ROAD PAVEMENTS - ASPHALT BOUND MATERIALS
1100 : KERBS FOOTWAYS AND PAVED AREAS, CLAUSE 1107
- IN ACCORDANCE WITH THE SOUTH YORKSHIRE LABORATORY (SYL) SPECIFICATIONS FOR THE SUPPLY OF MATERIALS FOR USE IN HIGHWAY WORKS
- SUB-BASE SHALL BE IN ACCORDANCE WITH SYL SUB-BASE SPECIFICATION NO. 31. THE SOURCE MATERIAL SHALL BE APPROVED BY THE ENGINEER.
- ROADBASE TO BE DENSE BASE TO BS 4987 AND SYL BASE SPECIFICATION NO. 30. (ROADBASE)
- BINDER COURSE TO BE DENSE BINDER COURSE COMPLYING WITH BS 4987 AND SYL SPECIFICATION NO. 7.
- SURFACE COURSE TO BE 10MM SIZE CLOSE GRADED SURFACE COURSE COMPLYING WITH BS 4987 AND SYL SPECIFICATION NO. 33 OR 6MM SIZE SPECIFICATION NO. 34 OR INTERLOCKING BLOCK PAVING COMPLYING WITH BS 671.
- HOT BITUMINOUS MATERIALS SHALL BE LAID AND COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS FOR LAYING IN BS 4987 STANDARD FOR PART 2 OR BS 594: PART 2 AS APPROPRIATE. WHERE THERE IS NO BRITISH STANDARD FOR THE PARTICULAR MATERIAL IT SHALL BE LAID IN ACCORDANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS OF BS 594: PART 2. SUBJECT ALSO TO THE REQUIREMENTS OF CLAUSE 901 SUB CLAUSES 6 TO 31 (MCHW)
- A TACK COAT OF CLASS K1-40 BITUMEN EMULSION SHALL BE APPLIED TO THE BINDER COURSE AT THE RATE OF 0.35 TO 0.5 L/MT. THE EMULSION SHALL NOT BE ALLOWED TO ACCUMULATE IN HOLLOWES BUT SHALL BE DISPERSED BY BRUSHING. THE EMULSION SHALL COMPLY WITH BS 434: PART 1.
- BLOCK PAVING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF AND BRITISH RECOMMENDATIONS IN BS 7533 AND MCHW CLAUSE 1107
- ALL PRECAST CONCRETE KERBS, CHANNELS AND EDGING SHALL BE CONCRETE KERBS HYDRAULICALLY PRESSED AND SHALL COMPLY WITH THE REQUIREMENTS CHANNEL AND OF SYL SPECIFICATION NO. 11.
- STATUTORY AUTHORITY COVER FRAMES TO BE LIFTED TO THE NEW FINISHED SURFACE LEVELS. ANY COVERS / FRAMES THAT ARE DEFECTIVE, DAMAGED, POLISHED OR DAMAGED WITHIN THE SITE LIMITS TO BE REPLACED.
- WHERE AREA OF BACKFILL AND OR SUB-BASE IS LESS THAN 1.0m IN WIDTH CONCRETE MAY BE USED. SURFACING SHALL BE USED UP TO 100mm OF THE FINISHED CARRIAGEWAY SURFACE.
- WHERE THE CONCRETE KERB ABUTS THE TARMAC THE SURFACING TO BE PAINTED WITH A TACK COAT OF 200 PEN BITUMEN.
- ANY NEWLY LAID TARMAC THAT IS 24 HRS OLD EITHER IN THE CARRIAGEWAY OR IN THE FOOTWAY WILL REQUIRE TACK COAT APPLICATION PRIOR TO ANY FURTHER SURFACING WITH HAND LANCE APPLICATION. IN THE FOOTWAY AND IN THE CARRIAGEWAY A HOT TACKER APPLIED BITUMEN TACK COAT IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS, AS FOLLOWS:
I. BINDER CLASSIFICATION AND APPLICATION DETAILS TO BS 4987: PART 1
II. THE BINDER SHALL BE BITUMEN EMULSION TO BS 434: PART 1
III. THE BINDER SHALL BE CLASS A1-40 OR K1-40
IV. RATE OF SPREAD SHALL BE 0.3 TO 0.5/M2
V. PERMITTED ADDITIVES TO BINDER : NONE
VI. BLINDING MATERIAL: NONE

REV	DATE	BY	DESCRIPTION	CHK	APP
B	20.11.14	DHS	DRAWING UPDATED TO SUIT COMMENTS (DATED 13.11.14) RECEIVED FROM BMBC	JM	JM
A	13.11.14	DHS	INITIAL ISSUE	JM	JM

FOR TECHNICAL APPROVAL

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CONROY BROOK (DEVELOPMENTS) LTD

MPJ DESIGN ASSOCIATES LTD

**PROPOSED RESIDENTIAL DEVELOPMENT
WELLTHORNE LANE,
INGBIRCHWORTH**

**HIGHWAY CONSTRUCTION DETAILS (\$278)
SHEET 1**

SCALE @ A1:	AS SHOWN	DRAWN:	JM	APPROVED:	JM
DATE:	0865-SD-40	DESIGN CHECK:	DHS	DATE:	NOV 2014
PROJECT No:	70006865	DRAWING No:	6865-SD-10	REV:	B

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