

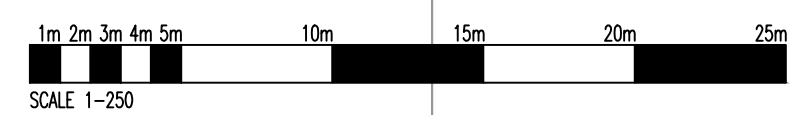
**KEY - ENGINEERING**

110mm KERB FACE CONSERVATION KERB.	—————
15mm KERB FACE PC BN KERB.	- - - - -
0-6mm KERB FACE PC BN KERB.	.....
145mm SILVER GREY CONSERVATION KERB FOR RADI	—————
'MARSHALLS' SPEED CHECK UNIT.	.....
50x150 PC EDGING	—————
PROPOSED SW DRAINAGE	—————

FOR KERBING DETAILS PLEASE SEE DRAWING C109

- NOTE:**
1. REUSE ALL AVAILABLE EXISTING GRANITE KERBS IF IN SOUND CONDITION. IF POSSIBLE, WITHIN THE SECTION 278 WORKS, LIFT ALL EXISTING KERBS TO MEET THE PROPOSED 110mm KERB HEIGHT - TO BE CONFIRMED ON SITE BY BRENT COUNCIL REPRESENTATIVE
  2. ALL POSTS AND STREET LIGHTING COLUMNS SHOULD BE PAINTED IN RAVEN BLACK
  3. ALL SIGNS SHOULD BE MOUNTED 450mm OFF KERB FACE, IN PARTICULAR THE SIGN EDGE
  4. ALL EXISTING ROAD MARKINGS THAT ARE NOT EFFECTED BY ALTERATIONS SHOULD BE REFRESHED TO COMPENSATE FOR DETERIORATION BY CONSTRUCTION ACTIVITY
  5. ALL FOOTWAYS AND CROSSOVERS TO HAVE 1:40 CROSS FALL

STATION CONTROL (FROM SDS DRG 203446)  
 STN1 E = 520675.027 N = 183910.279  
 STN1A E = 520752.557 N = 183924.122  
 STN2 E = 520660.561 N = 183968.196  
 STN3 E = 520617.192 N = 183882.639



- Notes:**
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  4. ALL TEMPORARY TRAFFIC SIGNS TO COMPLY WITH TRAFFIC SIGNS MANUAL CHAPTER 8 TRAFFIC SAFETY MEASURES AND SIGNS FOR ROAD WORKS AND TEMPORARY SITUATIONS.

5. ALL ROAD MARKINGS SHALL BE OF THERMOPLASTIC MATERIAL TO BS 3262 CLASS A
6. ALL PERMANENT WHITE ROAD MARKINGS SHALL BE REFLECTORISED
7. ALL PERMANENT WHITE ROAD MARKINGS SHALL HAVE A MINIMUM SKID RESISTANCE LEVEL OF 55.
8. A TACK COAT COMPATIBLE WITH THE MARKINGS MATERIALS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS PRIOR TO THE APPLICATION OF THERMOPLASTIC MATERIAL
9. THE APPROXIMATE LOCATION OF EXISTING UTILITY MAINS AND SERVICES HAS BEEN PRODUCED FROM UTILITY COMPANY RECORDS. B&R CANNOT THEREFORE GUARANTEE THE ACCURACY OF THIS INFORMATION.
10. PRIOR TO THE COMMENCEMENT OF THE WORKS, THE CONTRACTOR SHALL ESTABLISH THE PRESENCE OF EXISTING SEWERS AND SERVICES AND TO RECORD THE LOCATION AND APPROX DEPTH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ANY SERVICES ARE ADEQUATELY PROTECTED DURING THE WORKS.
11. SURVEY INFORMATION AS SURVEY DESIGN SERVICES REF: SDS 203446

**CDM REGULATIONS 2007 - RESIDUAL RISKS**

EXISTING UTILITY MAINS & SERVICES ARE PRESENT AND RECORDS MUST BE OBTAINED FROM THE UTILITY COMPANIES. THERE IS A RISK OF UNCHARTERED SERVICES BEING PRESENT. THE WORKS WILL INVOLVE THE MOVEMENT OF PLANT AND MACHINERY IN AND AROUND A LIVE CARRIAGEWAY AND PEDESTRIAN FOOTWAY. THERE IS A RISK OF POTENTIAL CONFLICT BETWEEN PLANT AND ROAD/PEDESTRIAN USERS.

**FOR APPROVAL**

Rev	Description	Drn	CHK	Date
P4	OVER-RUNNABLE AREAS REMOVED, ADDITIONAL BOLLARDS ADDED	DNT	D&M	15.11.2018
P3	CLIENT CHANGED, SPEED CUSHIONS PROPOSED, BOLLARDS ADDED, RAILING REPOSITIONED	DNT	D&M	10.08.2018
P2	AMENDED TO LBB COMMENTS	PRW	CJM	20.12.2013
P1	ISSUED FOR APPROVAL	ASM	CJM	17.10.2013

**BdR**  
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 Civil & Structural Engineering Consultants

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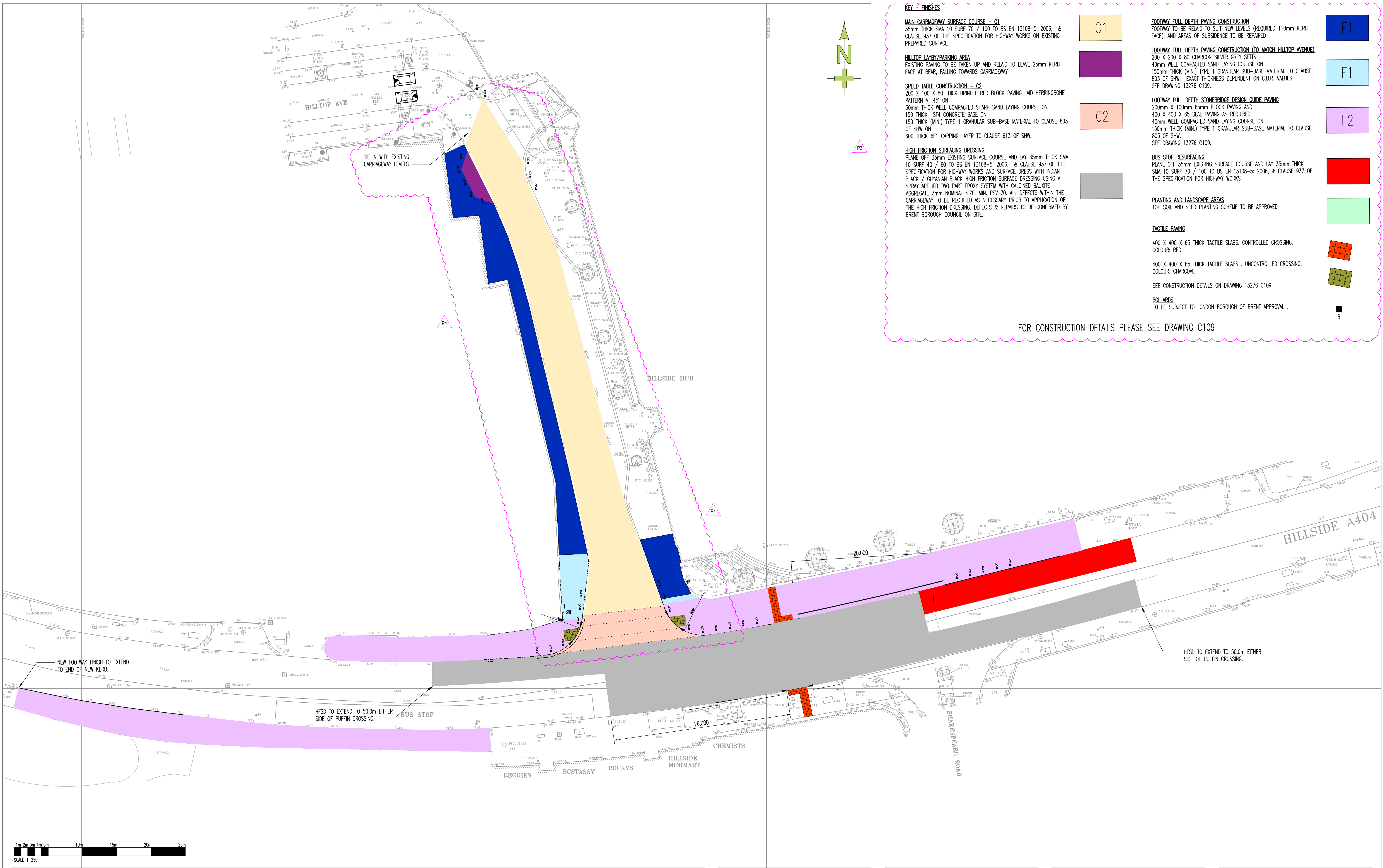
Client  
**HYDE HOUSING**

Project  
**SECTION 38/278  
 HILLSIDE IMPROVEMENT WORKS**

Drawing  
**ENGINEERING LAYOUT**

Scale @ A1	Date	Drawn by	Checked
1:250	JULY 2013	ASM	CJM
Job No.	Drng. No.	Rev	
<b>13276</b>	<b>C101</b>	<b>P4</b>	





**KEY - FINISHES**

**MAIN CARRIAGEWAY SURFACE COURSE - C1**  
35mm THICK SMA 10 SURF 70 / 100 TO BS EN 13108-5: 2006, & CLAUSE 937 OF THE SPECIFICATION FOR HIGHWAY WORKS ON EXISTING PREPARED SURFACE.

**HILLTOP LAYBY/PARKING AREA**  
EXISTING PAVING TO BE TAKEN UP AND RELAY TO LEAVE 25mm KERB FACE AT REAR, FALLING TOWARDS CARRIAGEWAY

**SPEED TABLE CONSTRUCTION - C2**  
200 X 100 X 80 THICK BRINDLE RED BLOCK PAVING LAID HERRINGBONE PATTERN AT 45° ON  
30mm THICK WELL COMPACTED SHARP SAND LAYING COURSE ON  
150 THICK (MIN.) TYPE 1 GRANULAR SUB-BASE MATERIAL TO CLAUSE 803 OF SHW ON  
600 THICK 6F1 CAPPING LAYER TO CLAUSE 613 OF SHW.

**HIGH FRICTION SURFACING DRESSING**  
PLANE OFF 35mm EXISTING SURFACE COURSE AND LAY 35mm THICK SMA 10 SURF 40 / 60 TO BS EN 13108-5: 2006, & CLAUSE 937 OF THE SPECIFICATION FOR HIGHWAY WORKS AND SURFACE DRESS WITH INDIAN BLACK / CUYANIAN BLACK HIGH FRICTION SURFACE DRESSING USING A SPRAY APPLIED TWO PART EPOXY SYSTEM WITH CALCINED BANXITE AGGREGATE 3mm NOMINAL SIZE. MIN. PSV 70. ALL DEFECTS WITHIN THE CARRIAGEWAY TO BE RECTIFIED AS NECESSARY PRIOR TO APPLICATION OF THE HIGH FRICTION DRESSING. DEFECTS & REPAIRS TO BE CONFIRMED BY BRENT BOROUGH COUNCIL ON SITE.

**FOOTWAY FULL DEPTH PAVING CONSTRUCTION**  
FOOTWAY TO BE RELAY TO SUIT NEW LEVELS (REQUIRED 110mm KERB FACE), AND AREAS OF SUBSIDENCE TO BE REPAIRED

**FOOTWAY FULL DEPTH PAVING CONSTRUCTION (TO MATCH HILLTOP AVENUE)**  
200 X 200 X 80 CHARCON SILVER GREY SETTS  
40mm WELL COMPACTED SAND LAYING COURSE ON  
150mm THICK (MIN.) TYPE 1 GRANULAR SUB-BASE MATERIAL TO CLAUSE 803 OF SHW. EXACT THICKNESS DEPENDENT ON C.B.R. VALUES. SEE DRAWING 13276 C109.

**FOOTWAY FULL DEPTH STONEBRIDGE DESIGN GUIDE PAVING**  
200mm X 100mm 65mm BLOCK PAVING AND  
400 X 400 X 65 SLAB PAVING AS REQUIRED.  
40mm WELL COMPACTED SAND LAYING COURSE ON  
150mm THICK (MIN.) TYPE 1 GRANULAR SUB-BASE MATERIAL TO CLAUSE 803 OF SHW. SEE DRAWING 13276 C109.

**BUS STOP RESURFACING**  
PLANE OFF 35mm EXISTING SURFACE COURSE AND LAY 35mm THICK SMA 10 SURF 70 / 100 TO BS EN 13108-5: 2006, & CLAUSE 937 OF THE SPECIFICATION FOR HIGHWAY WORKS

**PLANTING AND LANDSCAPE AREAS**  
TOP SOIL AND SEED PLANTING SCHEME TO BE APPROVED

**TACTILE PAVING**  
400 X 400 X 65 THICK TACTILE SLABS. CONTROLLED CROSSING. COLOUR: RED  
400 X 400 X 65 THICK TACTILE SLABS. UNCONTROLLED CROSSING. COLOUR: CHARCOAL  
SEE CONSTRUCTION DETAILS ON DRAWING 13276 C109.

**BOLLARDS**  
TO BE SUBJECT TO LONDON BOROUGH OF BRENT APPROVAL.

FOR CONSTRUCTION DETAILS PLEASE SEE DRAWING C109

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- SURVEY INFORMATION AS SURVEY DESIGN SERVICES REF: SDS 203446

**CDM REGULATIONS 2007 - RESIDUAL RISKS**

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Rev	Description	Drn	CHK	Date
P3	CLIENT CHANGED, FOOTPATH AND LAYBY TO BE RELAY, KEY UPDATED	DNT	CJM	10.08.2018
P2	AMENDED TO LBB COMMENTS	PRW	CJM	20.12.2013
P1	ISSUED FOR APPROVAL	ASM	CJM	17.10.2013

**FOR APPROVAL**

**BdR**  
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Civil & Structural Engineering Consultants

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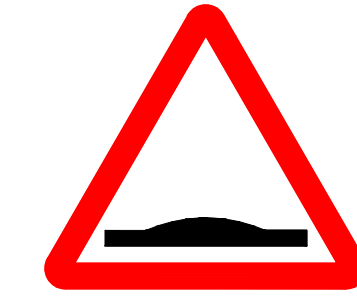
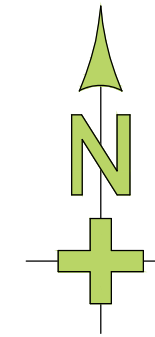
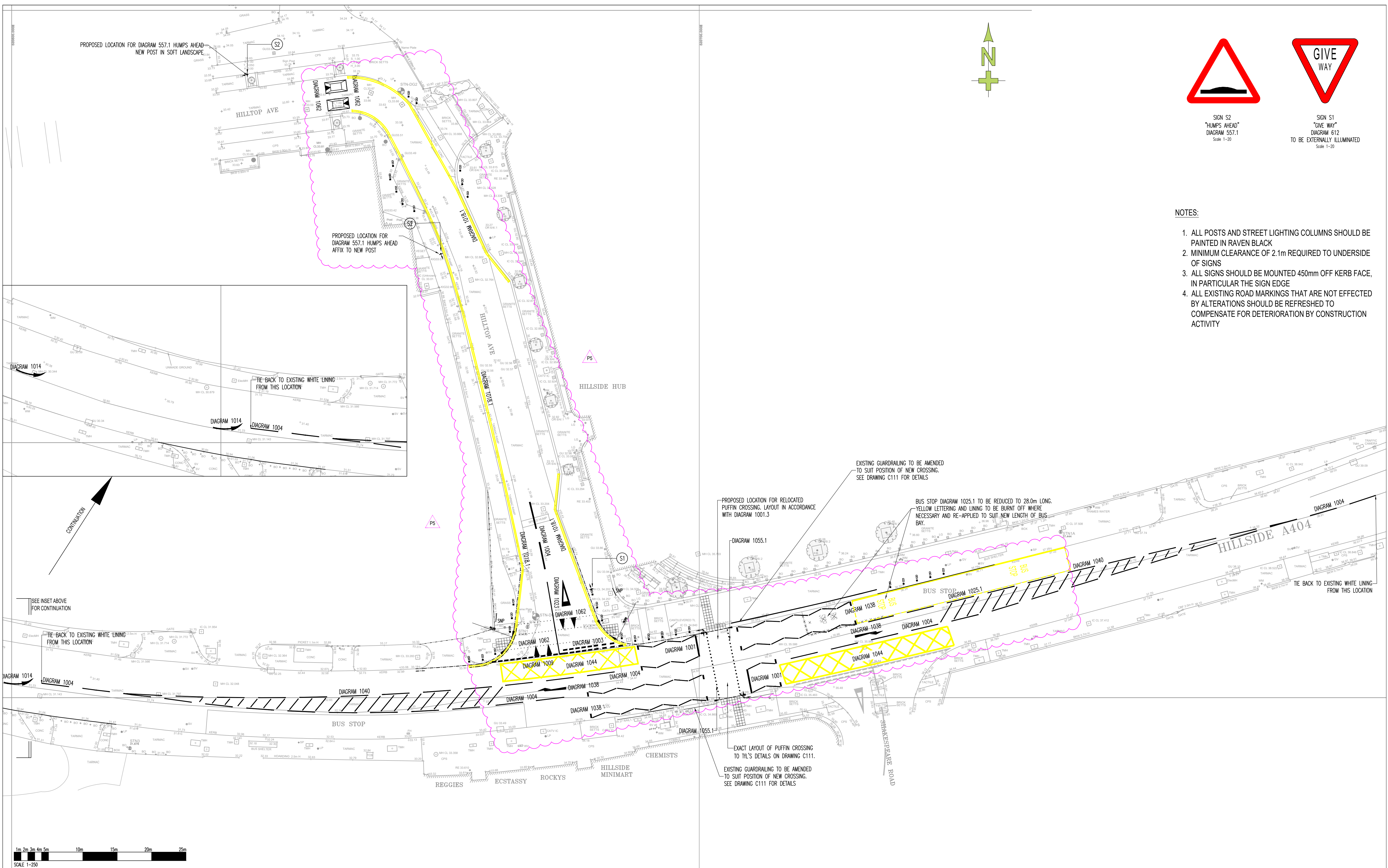
Client  
**HYDE HOUSING**

Project  
**SECTION 38/278  
HILLSIDE IMPROVEMENT WORKS**

Drawing  
**SURFACING LAYOUT**

Scale @ A1 <b>1:250</b>	Date <b>JULY 2013</b>	Drawn by <b>ASM</b>	Checked <b>CJM</b>
Job No. <b>13276</b>	Drng. No. <b>C102</b>	Rev <b>P4</b>	





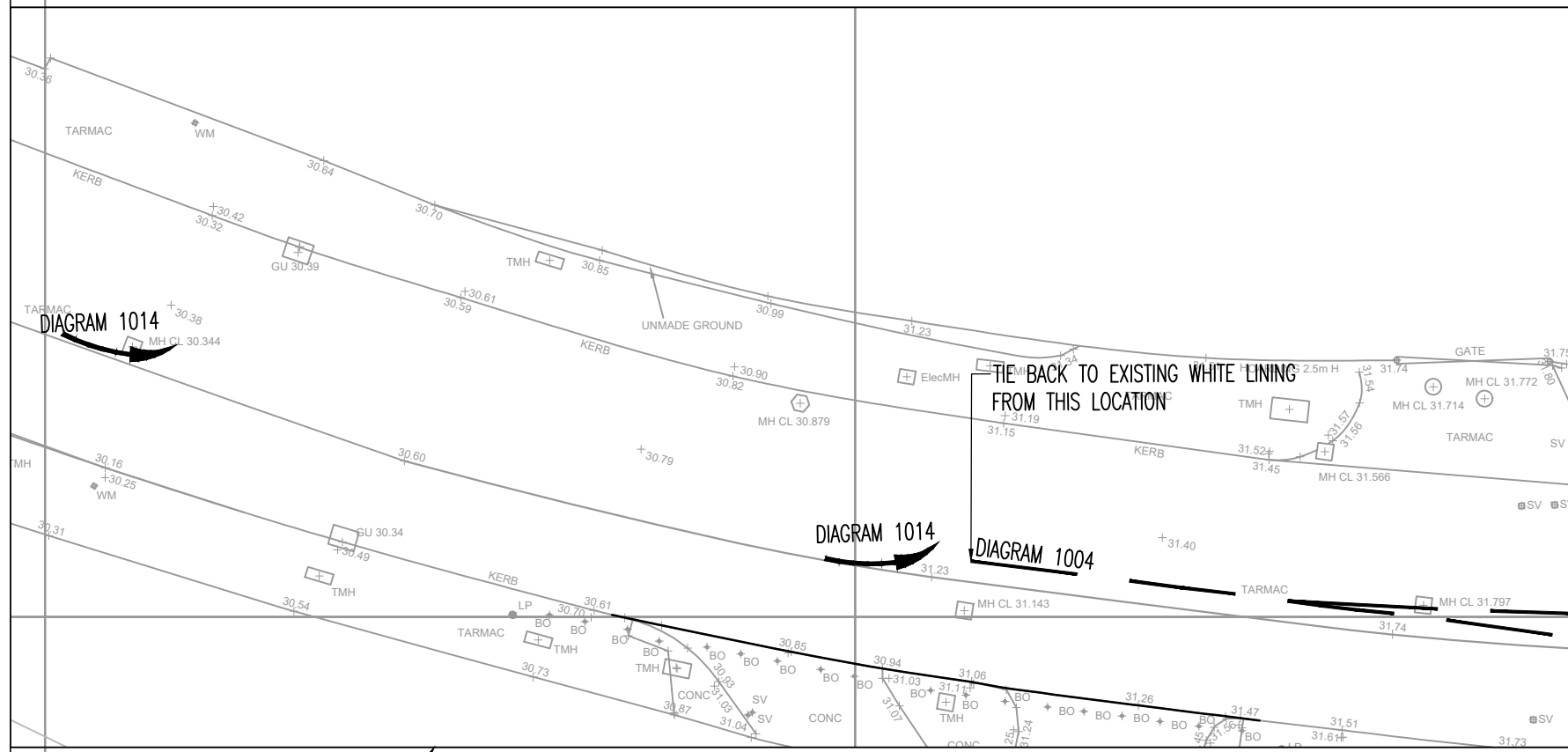
SIGN S2  
"HUMPS AHEAD"  
DIAGRAM 557.1  
Scale 1-20



SIGN S1  
"GIVE WAY"  
DIAGRAM 612  
TO BE EXTERNALLY ILLUMINATED  
Scale 1-20

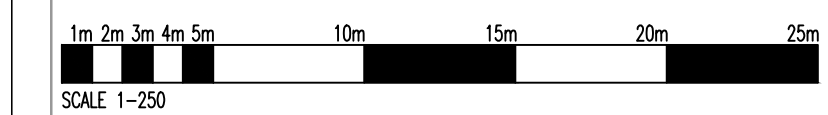
NOTES:

1. ALL POSTS AND STREET LIGHTING COLUMNS SHOULD BE PAINTED IN RAVEN BLACK
2. MINIMUM CLEARANCE OF 2.1m REQUIRED TO UNDERSIDE OF SIGNS
3. ALL SIGNS SHOULD BE MOUNTED 450mm OFF KERB FACE, IN PARTICULAR THE SIGN EDGE
4. ALL EXISTING ROAD MARKINGS THAT ARE NOT EFFECTED BY ALTERATIONS SHOULD BE REFRESHED TO COMPENSATE FOR DETERIORATION BY CONSTRUCTION ACTIVITY



CONTINUATION

SEE INSET ABOVE FOR CONTINUATION



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  11. SURVEY INFORMATION AS SURVEY DESIGN SERVICES REF: SDS 203446

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FOR APPROVAL				
Rev	Description	Drn	CHK	Date
P5	OVER-RUNNABLE AREAS REMOVED, YELLOW LINES EXTENDED & WHITE LINING AMENDED	DNT	CJM	16.11.2018
P4	CLIENT CHANGED, DIAG 557.1 HUMPS AHEAD ADDED	DNT	CJM	10.08.2018
P3	AMENDED TO LBB COMMENTS	PRW	CJM	21.01.2014
P2	AMENDED TO LBB COMMENTS	ASM	CJM	20.12.2013
P1	ISSUED FOR APPROVAL	ASM	CJM	17.10.2013

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Fax 01732 852200  
email: engineering@bdr.uk.com

Client  
**HYDE HOUSING**

Project  
**SECTION 38/278  
HILLSIDE IMPROVEMENT WORKS**

Drawing  
**SIGNING AND LINING LAYOUT**

Scale @ A1  
1:250

Date  
JULY 2013

Drawn by  
ASM

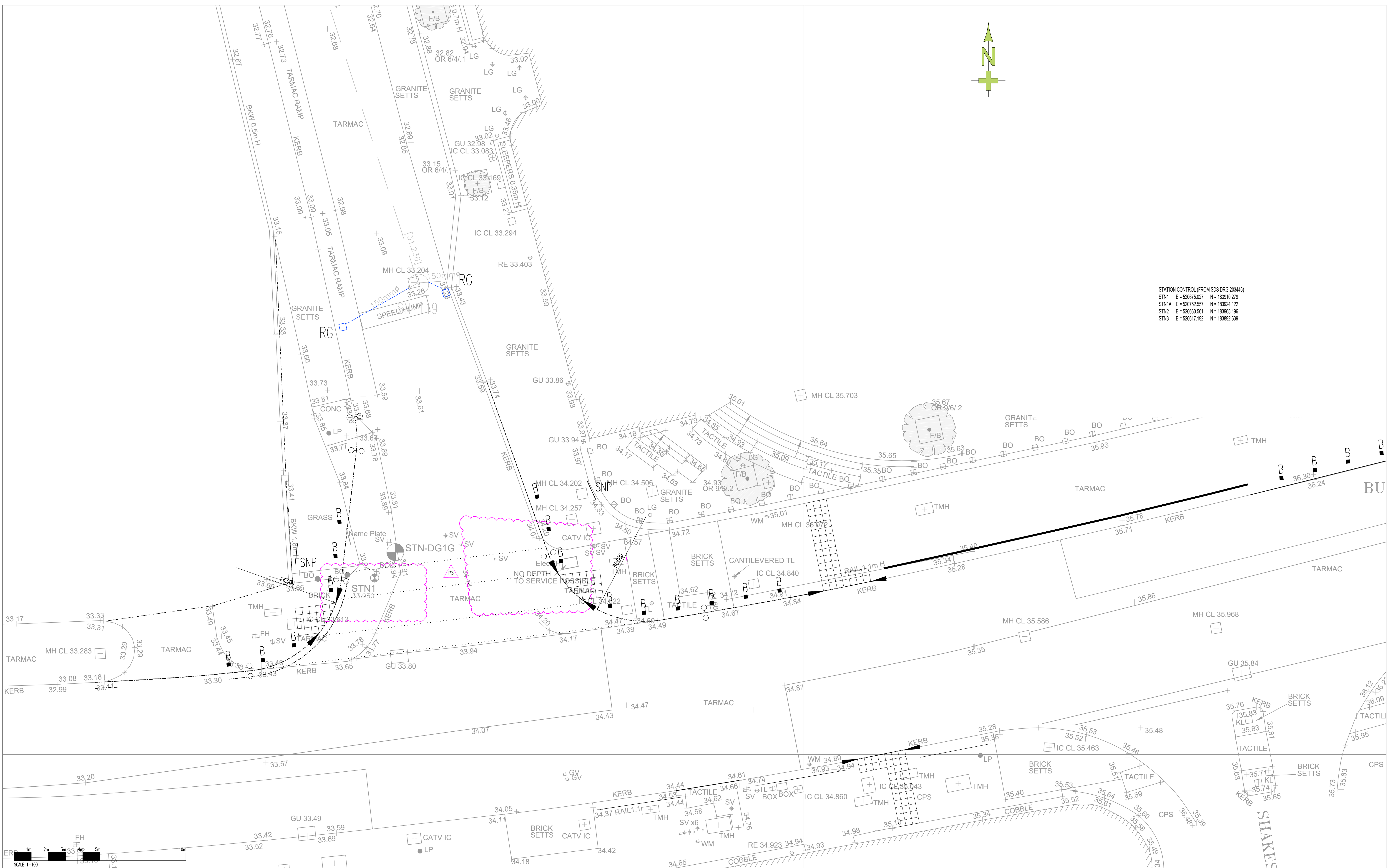
Checked  
CJM

Job No.  
**13276**

Drng. No.  
**C103**

Rev  
**P5**





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- SURVEY INFORMATION AS SURVEY DESIGN SERVICES REF: SDS 203446
- ALL TRAFFIC SIGNING AND LINING TO BE TO THE TRAFFIC SIGNS REGULATIONS AND GENERAL DIRECTIONS 2002.

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<b>FOR APPROVAL</b>				
P3	OVER-RUNNABLE AREAS REMOVED	DNT	CJM	15.11.2018
P2	CLIENT CHANGED & LAYOUT UPDATED	DNT	CJM	10.08.2018
P1	ISSUED FOR APPROVAL	ASM	CJM	17.10.2013
Rev	Description	Drn	CHK	Date

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Client  
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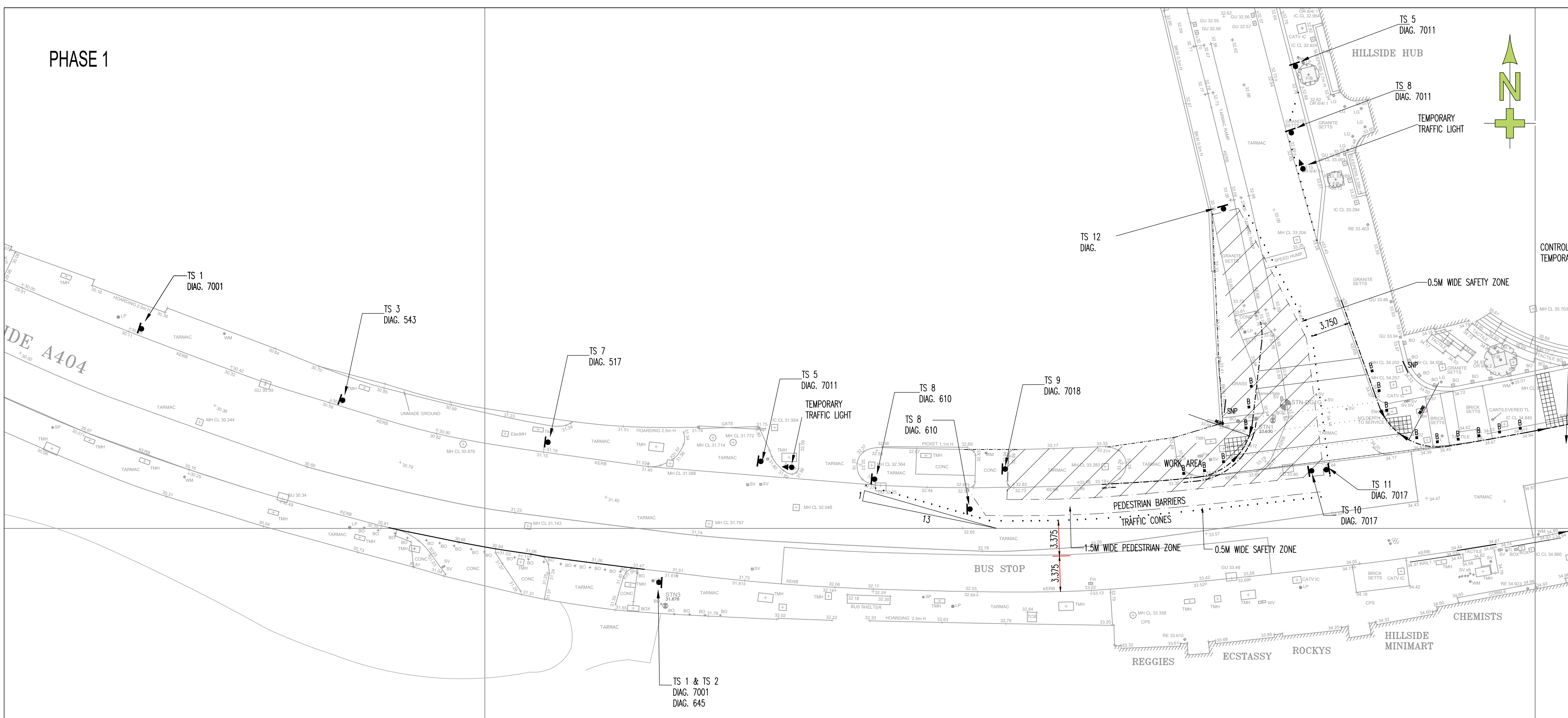
Project  
**SECTION 38/278  
 HILLSIDE IMPROVEMENT WORKS**

Drawing  
**SETTING OUT**

Scale @ A1 1:100	Date JULY 2013	Drawn by ASM	Checked CJM
Job No. <b>13276</b>	Drg. No. <b>C104</b>	Rev <b>P3</b>	

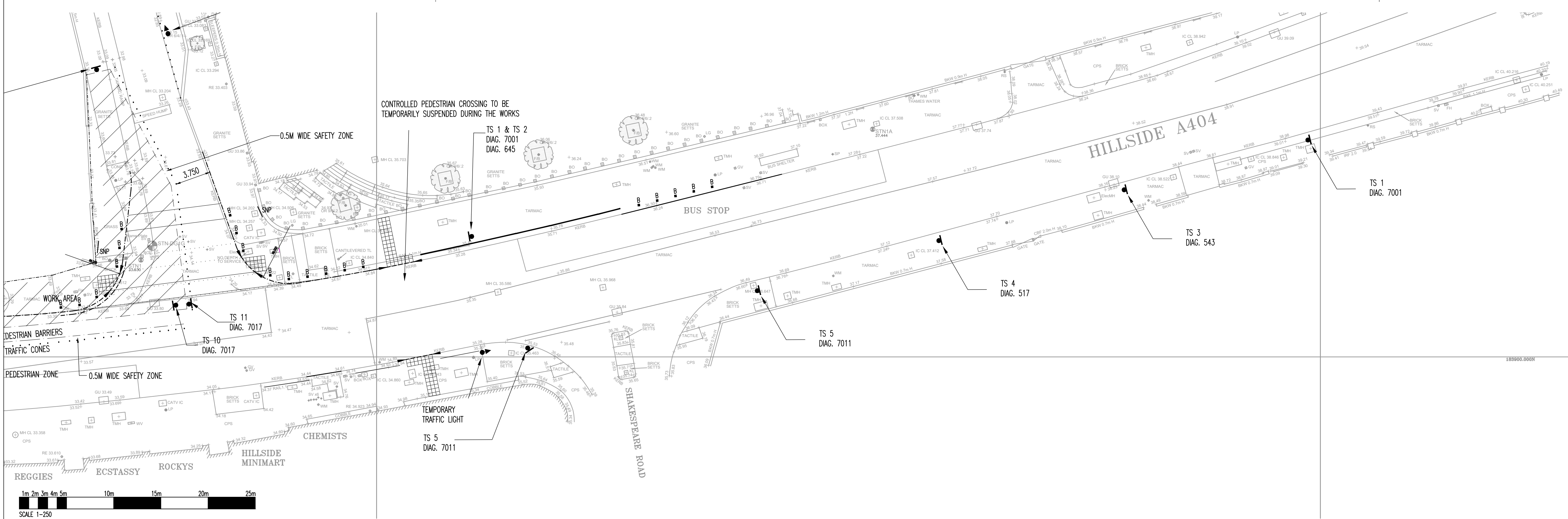


PHASE 1



**TEMPORARY SIGNS (REFER TO NOTE 4)**

 TS 1 DIAG. 7001	 TS 2 DIAG. 645	 TS 3 DIAG. 543	 TS 4 DIAG. 517
 TS 5 DIAG. 7011	 TS 6 DIAG. 7021	 TS 7 DIAG. 517	
 TS 8 DIAG. 610	 TS 9 DIAG. 7018	 TS 10 DIAG. 7017	 TS 11 DIAG. 7018
 TS 12 DIAG. 7018	PEDESTRIAN BARRIERS AS CHAPTER 8 REQUIREMENTS TRAFFIC CONE SPACING AS CHAPTER 8 REQUIREMENTS		



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**FOR APPROVAL**

Rev	Description	Drn	CHK	Date
P3	CLIENT CHANGED	DNT	CJM	10.08.2018
P2	AMENDED TO LBB COMMENTS	PRW	CJM	20.12.2013
P1	ISSUED FOR APPROVAL	ASM	CJM	17.10.2013

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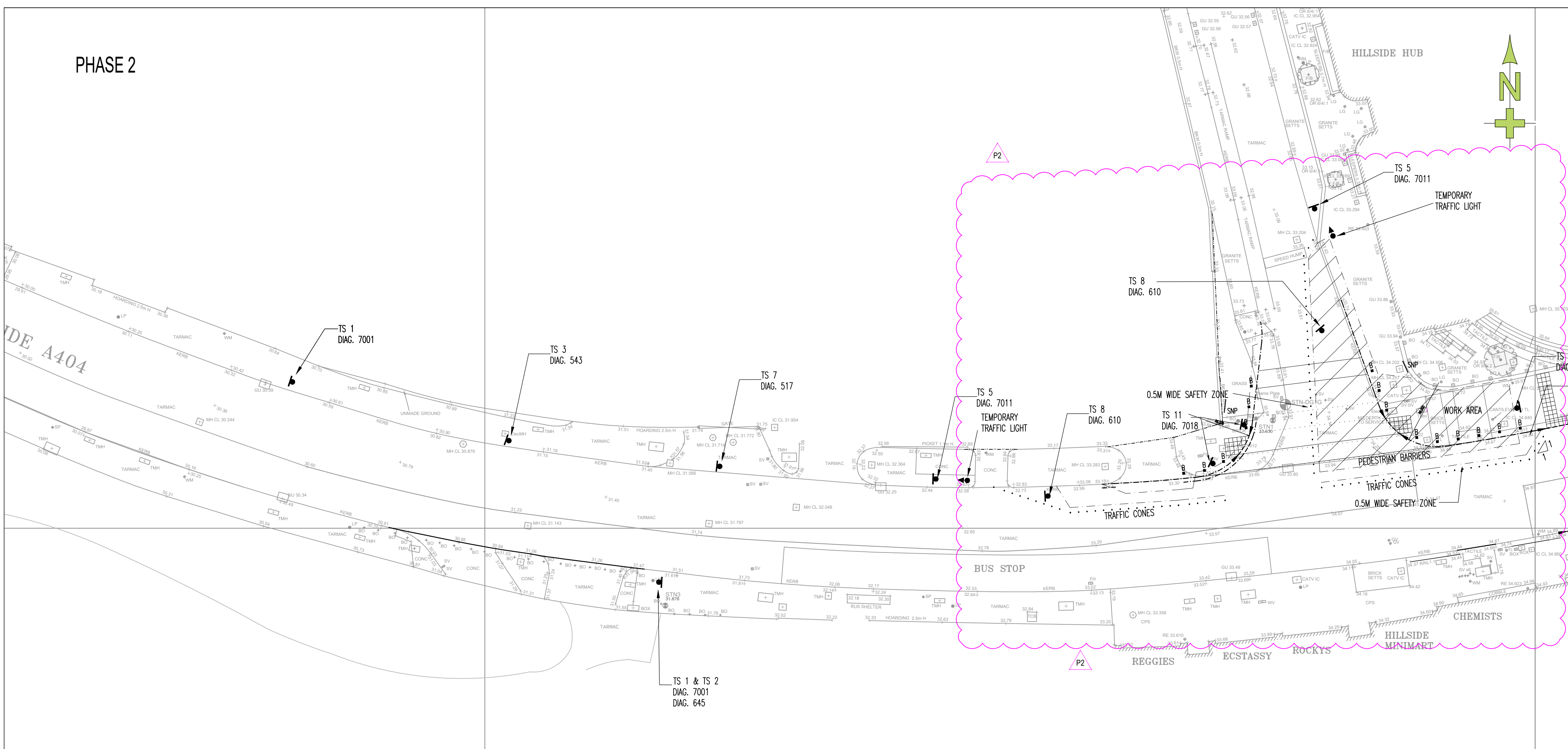
Project  
**SECTION 38/278  
 HILLSIDE IMPROVEMENT WORKS**

Drawing  
**TRAFFIC MANAGEMENT  
 SHEET 1 OF 4**

Scale @ A1 1:250	Date JULY 2013	Drawn by ASM	Checked CJM
Job No. <b>13276</b>	Drng. No. <b>C105</b>	Rev <b>P3</b>	



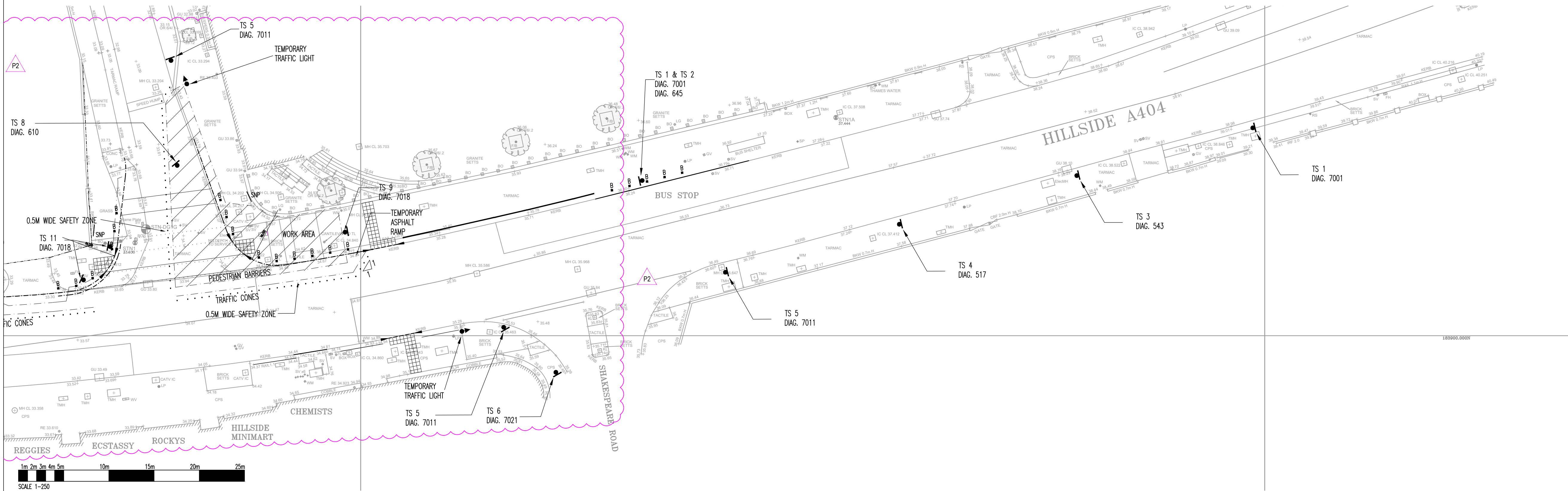
PHASE 2



**TEMPORARY SIGNS (REFER TO NOTE 4)**

<p>TS 1 DIAG. 7001</p>	<p>TS 2 DIAG. 645</p>	<p>TS 3 DIAG. 543</p>	<p>TS 4 DIAG. 517</p>
<p>TS 5 DIAG. 7011</p>	<p>TS 6 DIAG. 7021</p>	<p>TS 7 DIAG. 517</p>	
<p>TS 8 DIAG. 610</p>	<p>TS 9 DIAG. 7018</p>	<p>TS 11 DIAG. 7018</p>	

- - - - - PEDESTRIAN BARRIERS AS CHAPTER 8 REQUIREMENTS  
 ..... TRAFFIC CONE SPACING AS CHAPTER 8 REQUIREMENTS



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- SURVEY INFORMATION AS SURVEY DESIGN SERVICES REF: SDS 203446

**CDM REGULATIONS 2007 – RESIDUAL RISKS**

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**FOR APPROVAL**

P2	CLIENT CHANGED; TM AMENDED; PEDESTRIAN PATHWAY ADDED	DNT	CJM	27.07.2018
P1	ISSUED FOR APPROVAL	ASM	CJM	17.10.2013
Rev	Description	Drn	CHK	Date

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 email: engineering@bdr.uk.com

Client  
 HYDE HOUSING

Project  
 SECTION 38/278  
 HILLSIDE IMPROVEMENT WORKS

Drawing  
 TRAFFIC MANAGEMENT  
 SHEET 2 OF 4

Scale @ A1  
 1:250

Date  
 JULY 2013

Drawn by  
 ASM

Checked  
 CJM

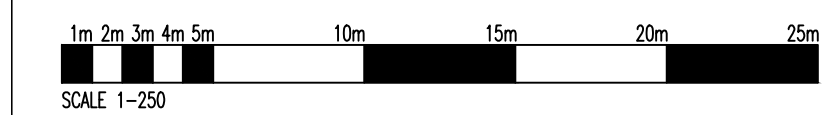
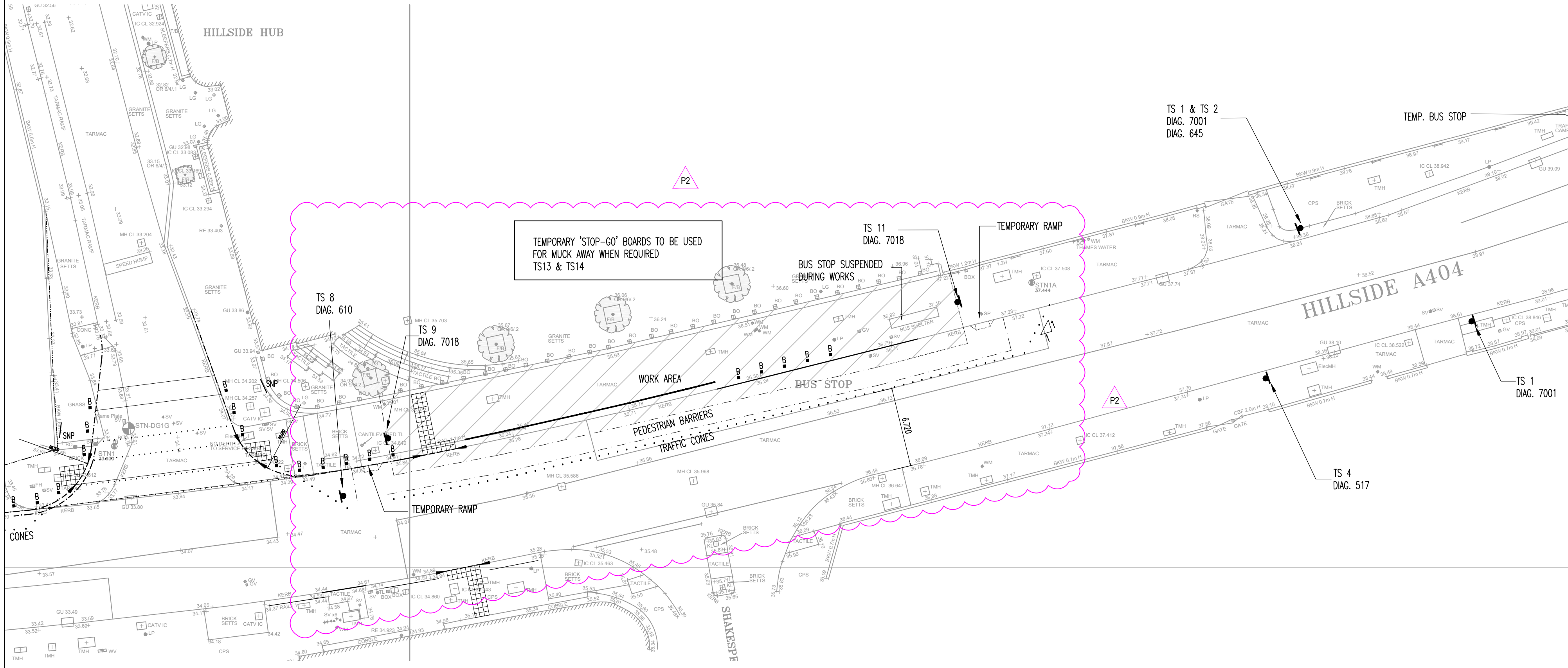
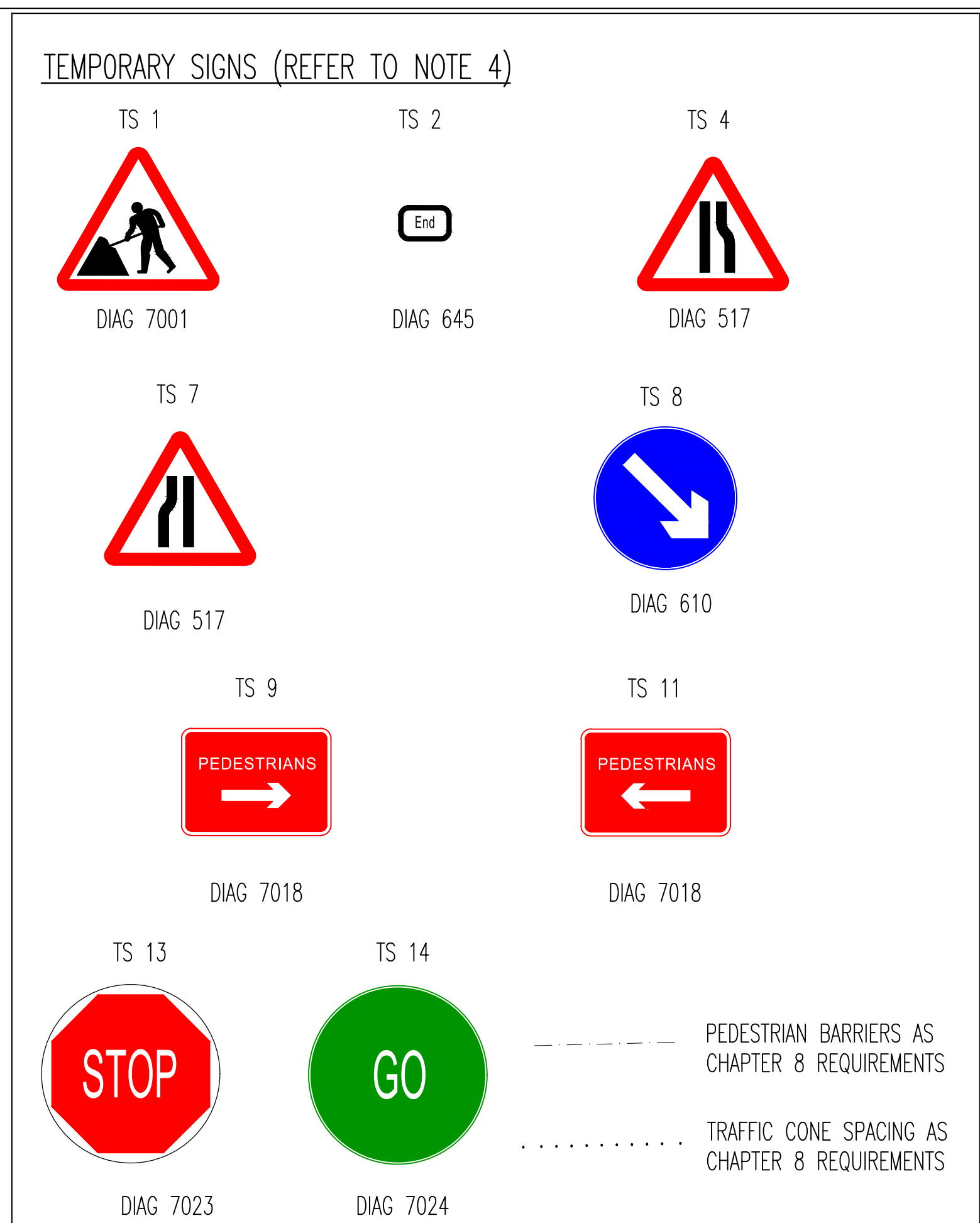
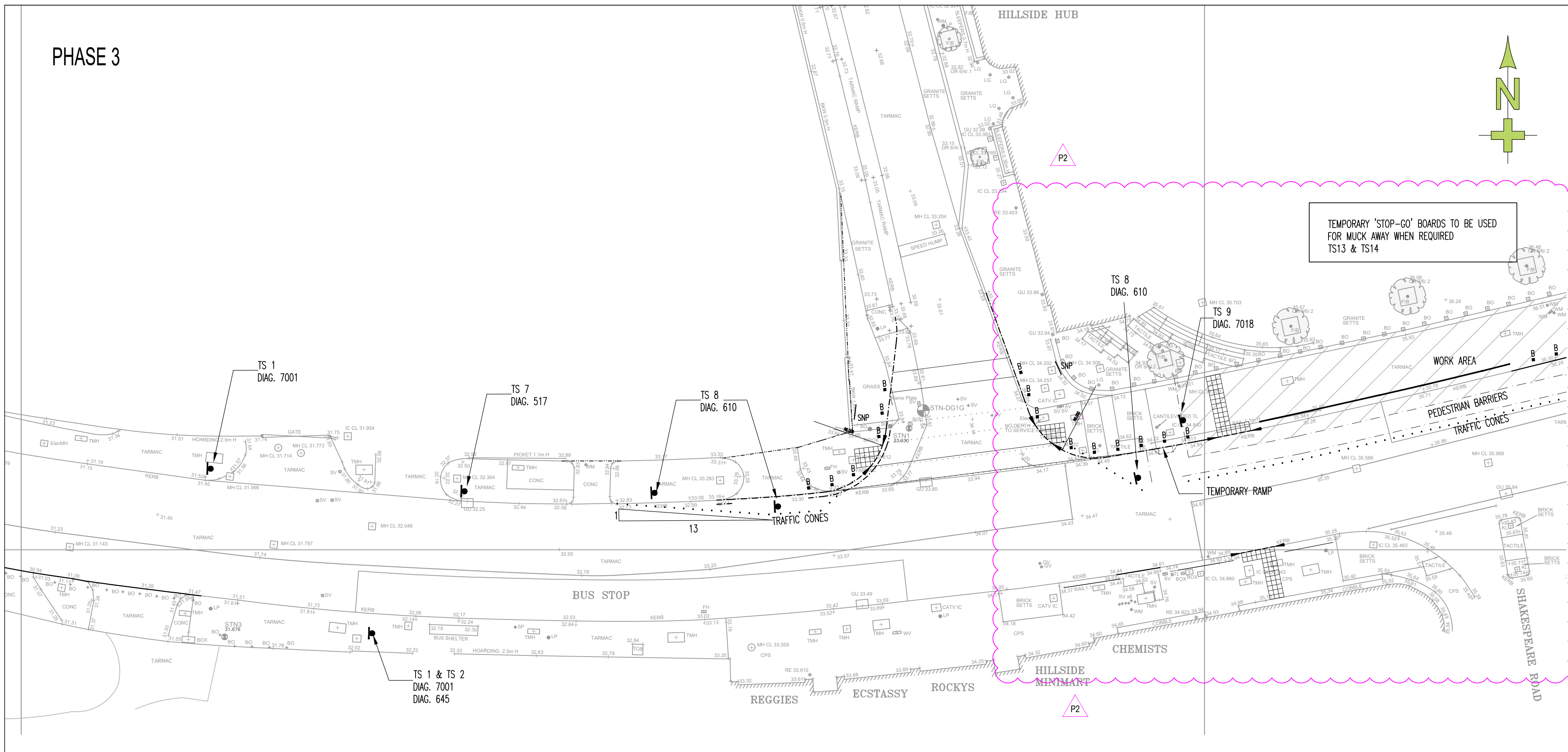
Job No.  
 13276

Drng. No.  
 C106

Rev  
 P2



PHASE 3



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**FOR APPROVAL**

P2	CLIENT CHANGED LANE WIDTH ADDED	DNT	CJM	10.08.2018
P1	ISSUED FOR APPROVAL	ASM	CJM	17.10.2013
Rev	Description	Drn	CHK	Date

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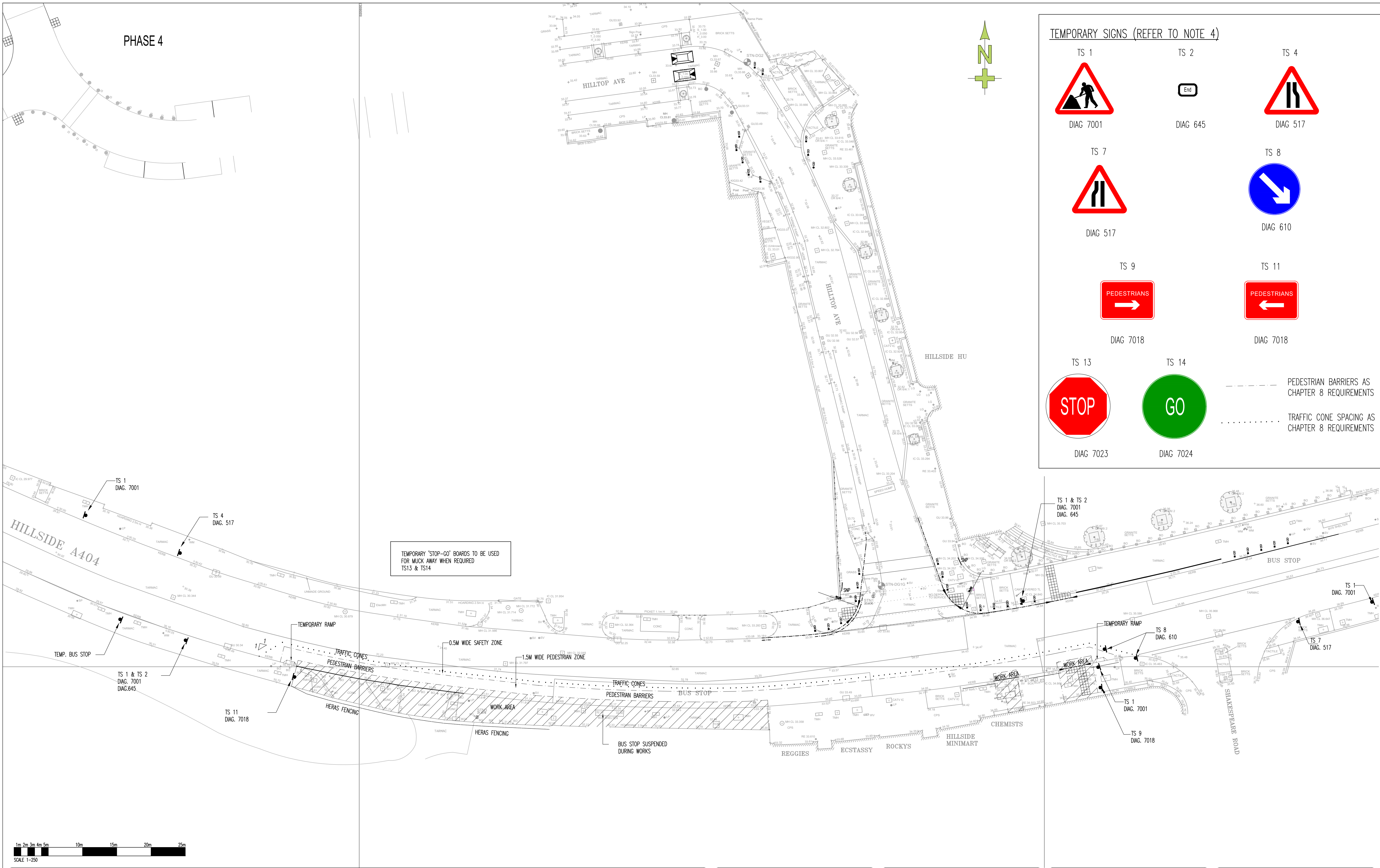
Client  
**HYDE HOUSING**

Project  
**SECTION 38/278  
HILLSIDE IMPROVEMENT WORKS**

Drawing  
**TRAFFIC MANAGEMENT  
SHEET 3 OF 4**

Scale @ A1 1:250	Date JULY 2013	Drawn by ASM	Checked CJM
Job No. <b>13276</b>	Drng. No. <b>C107</b>	Rev <b>P2</b>	





TEMPORARY 'STOP-GO' BOARDS TO BE USED FOR MUCK AWAY WHEN REQUIRED TS13 & TS14

TEMPORARY SIGNS (REFER TO NOTE 4)

 TS 1 DIAG 7001	 TS 2 DIAG 645	 TS 4 DIAG 517
 TS 7 DIAG 517	 TS 8 DIAG 610	 TS 11 DIAG 7018
 TS 9 DIAG 7018	 TS 14 DIAG 7024	PEDESTRIAN BARRIERS AS CHAPTER 8 REQUIREMENTS TRAFFIC CONE SPACING AS CHAPTER 8 REQUIREMENTS
 TS 13 DIAG 7023		

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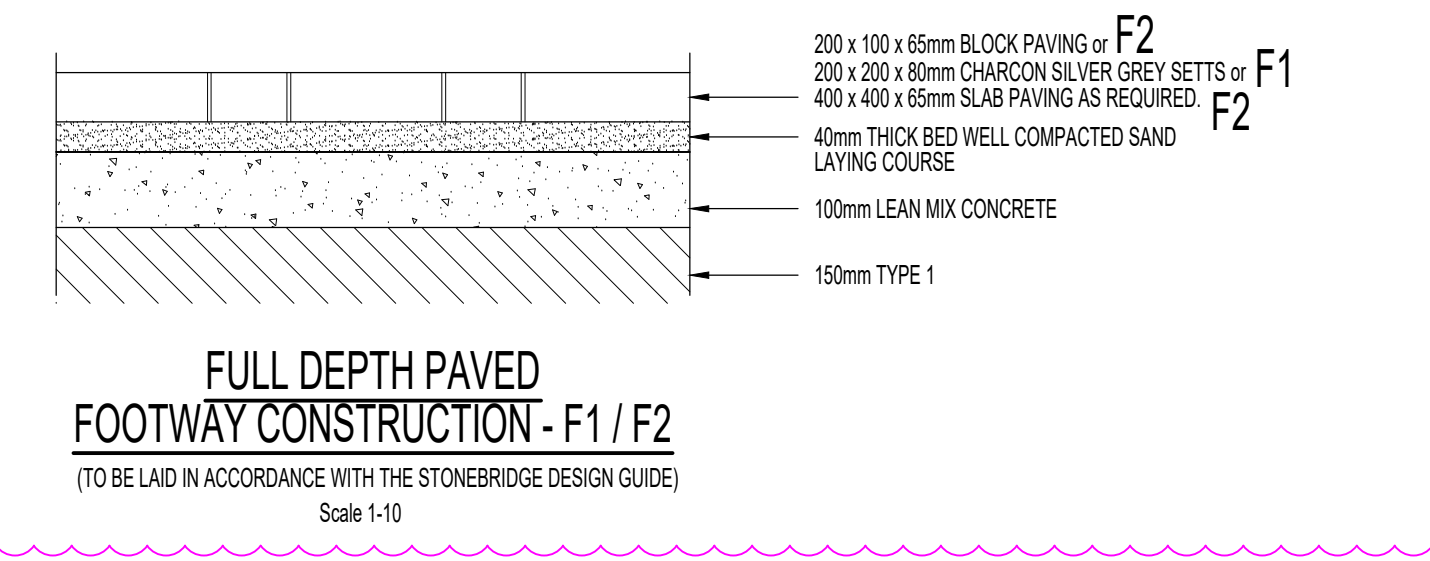
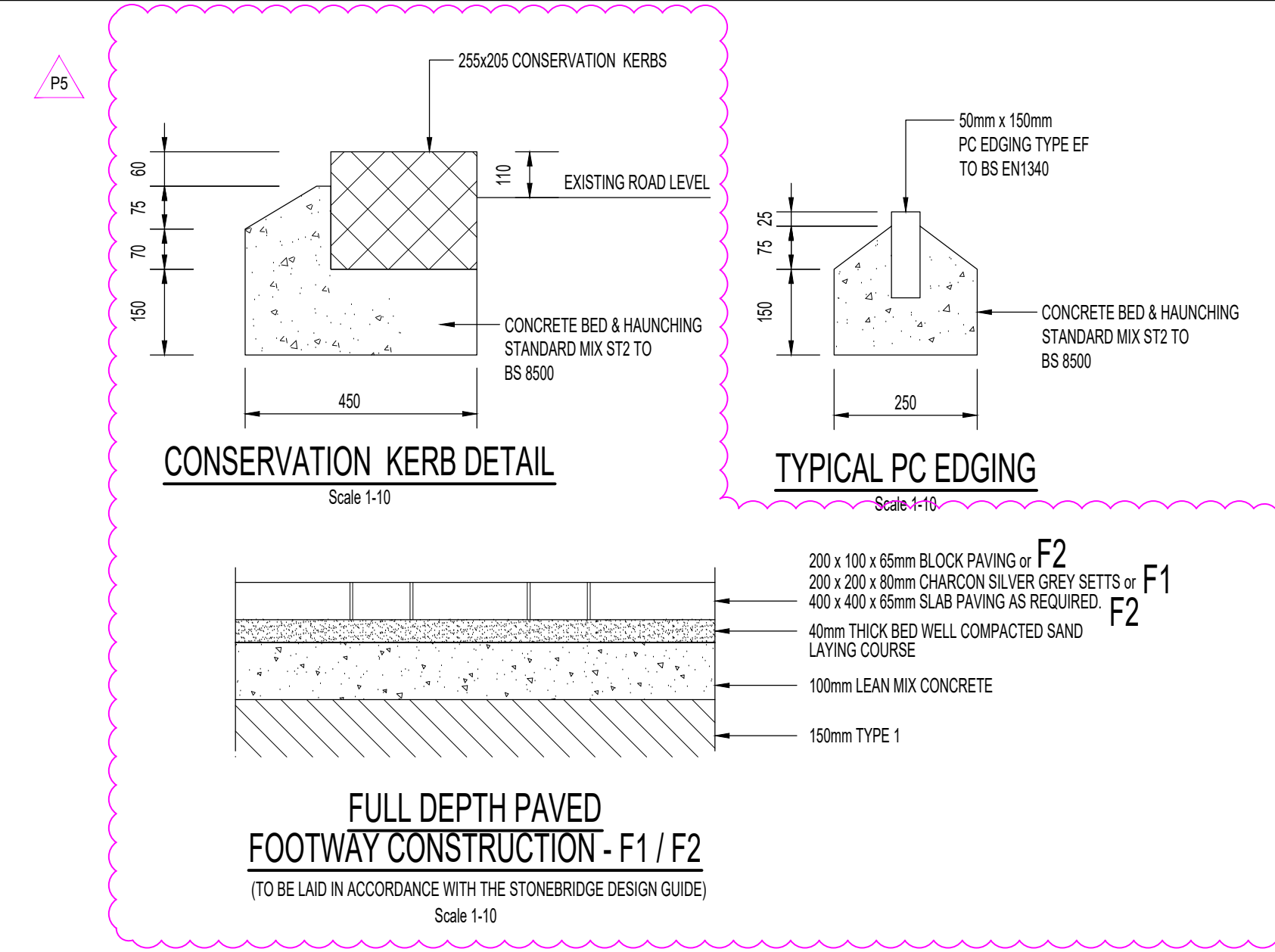
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**SECTION 38/278  
 HILLSIDE IMPROVEMENT WORKS**

Drawing  
**TRAFFIC MANAGEMENT  
 SHEET 4 OF 4**

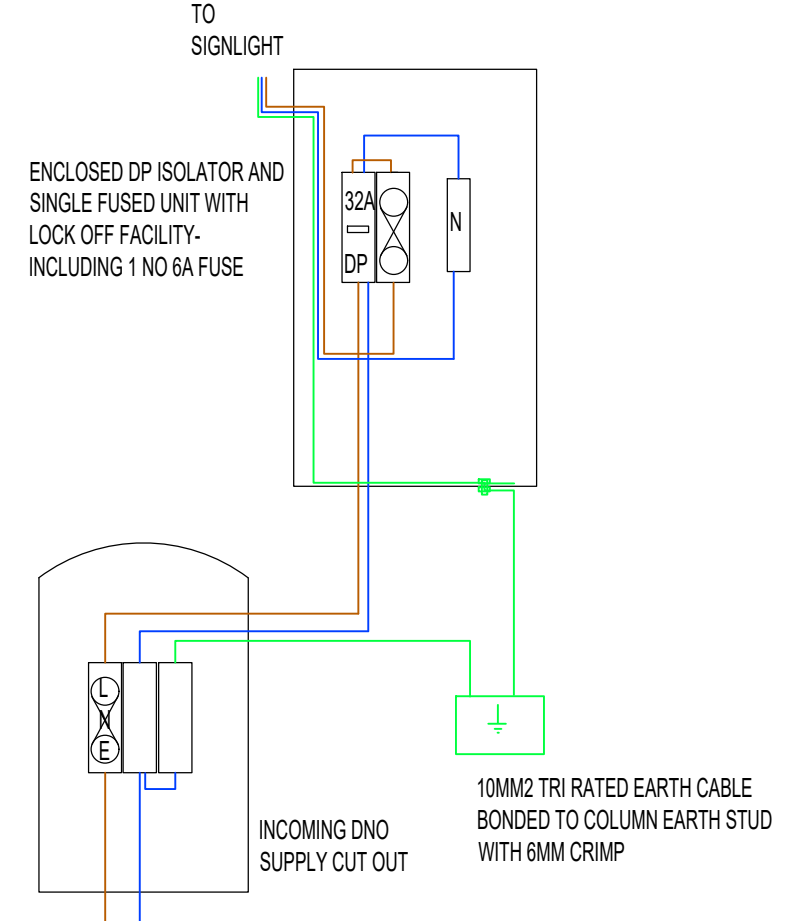
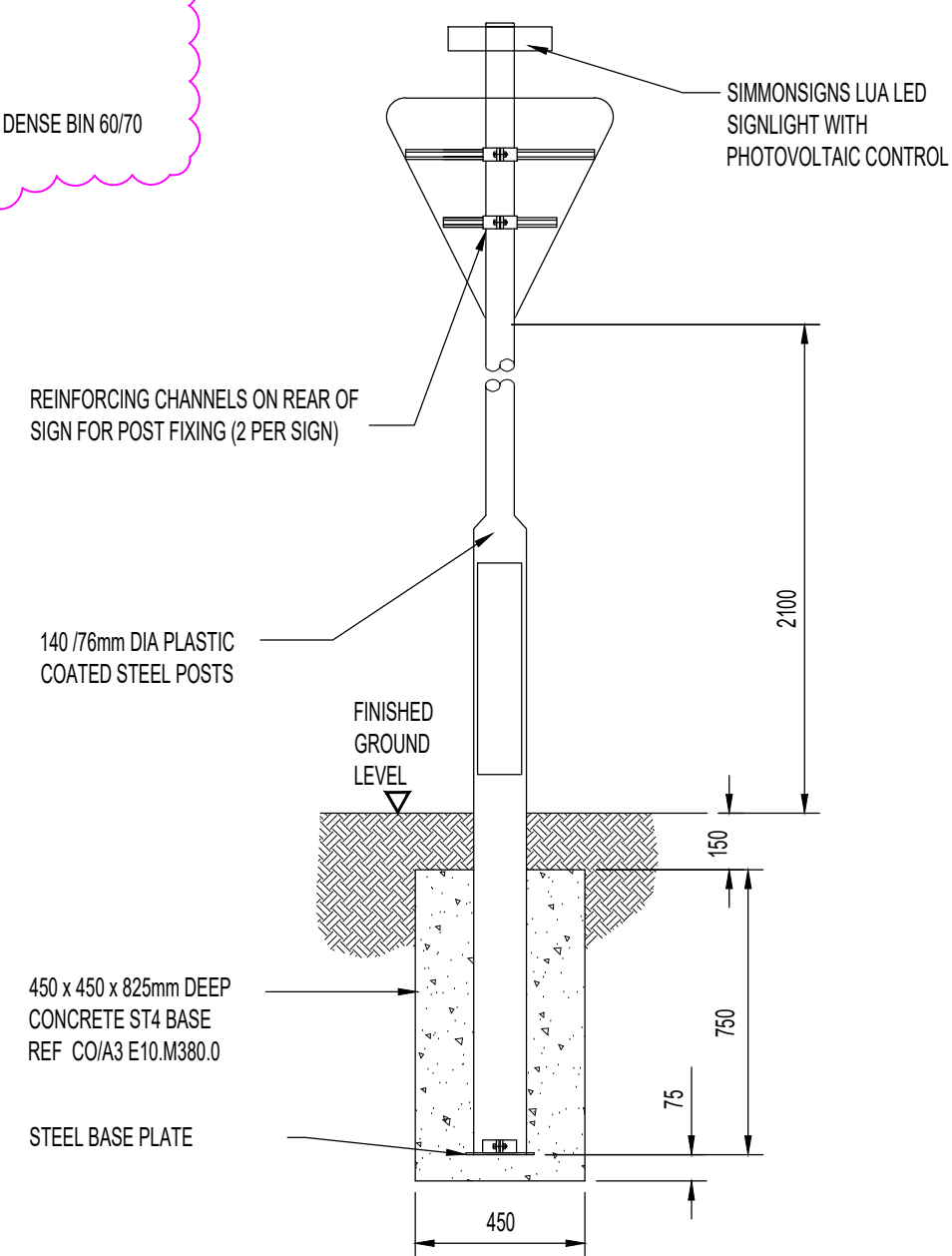
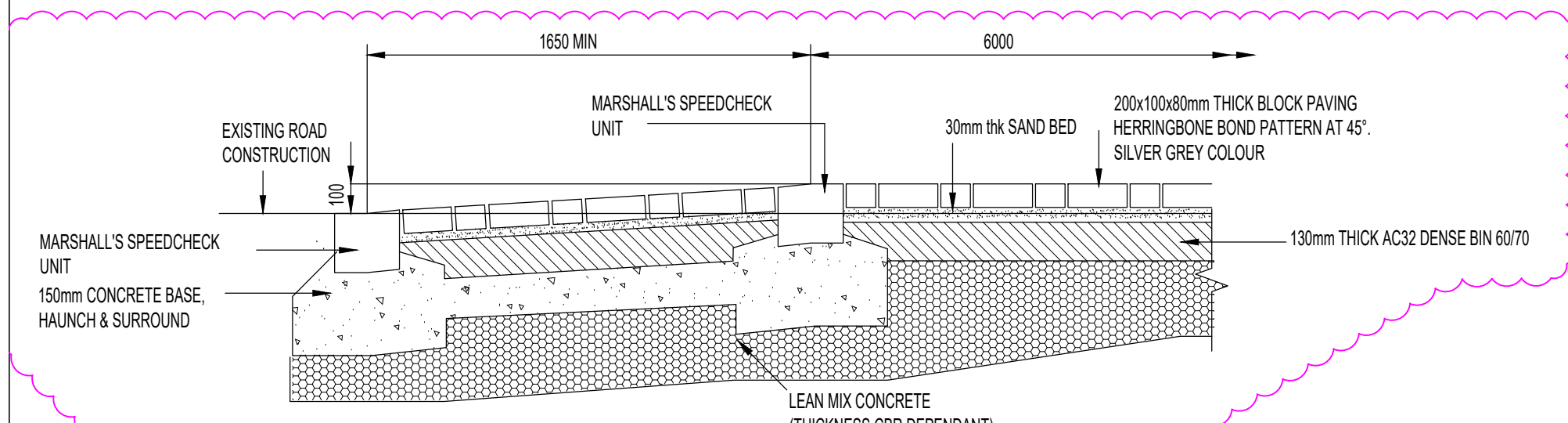
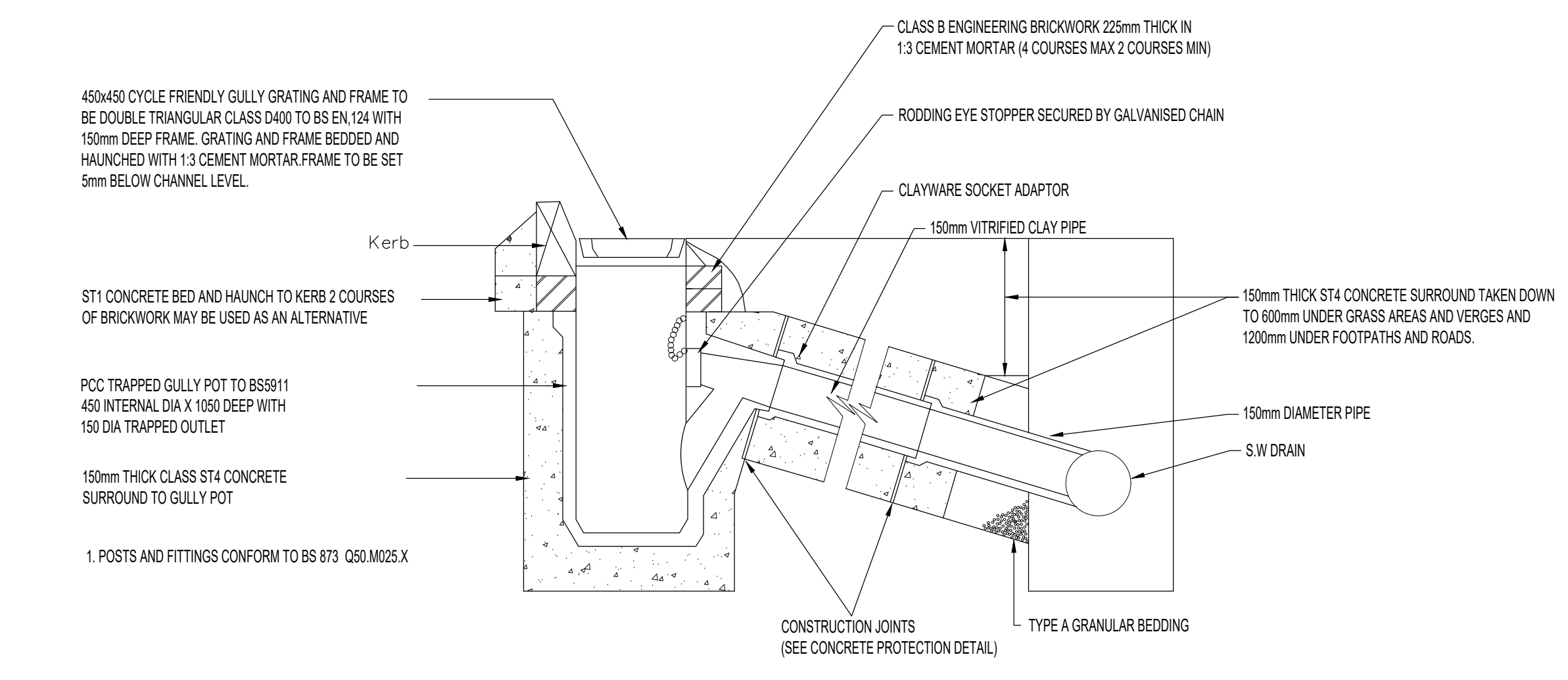
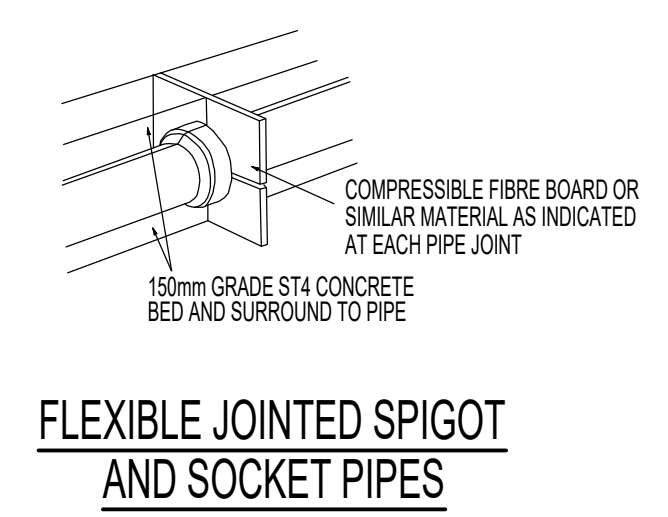
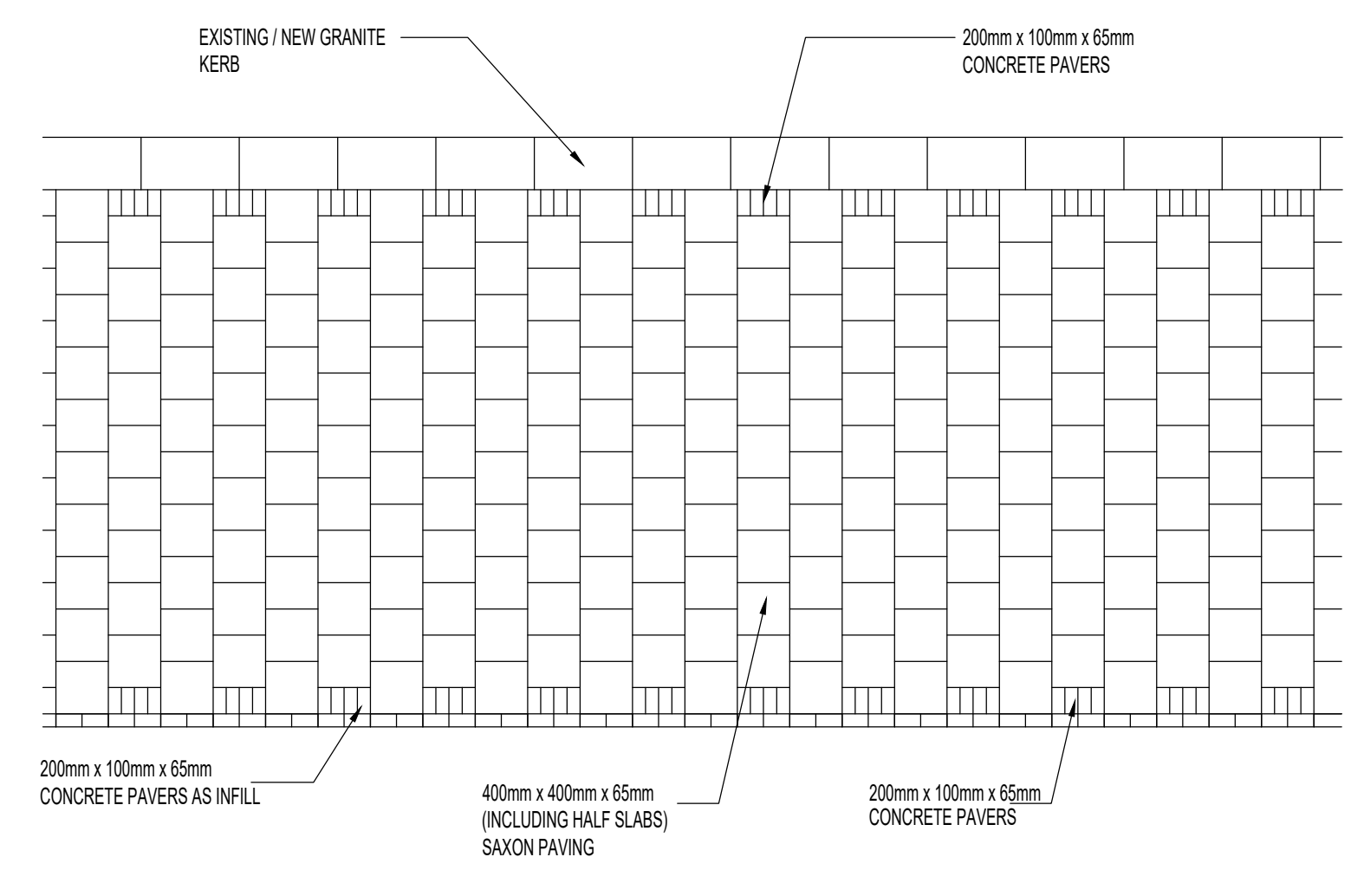
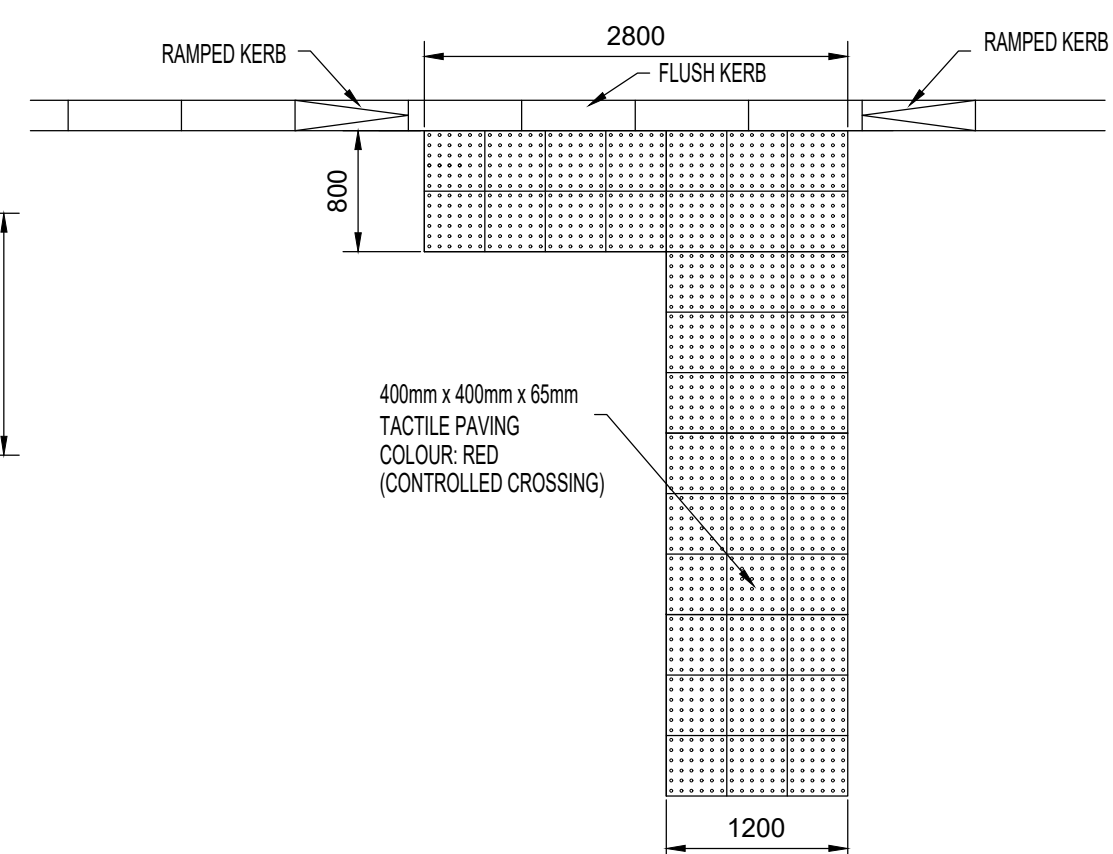
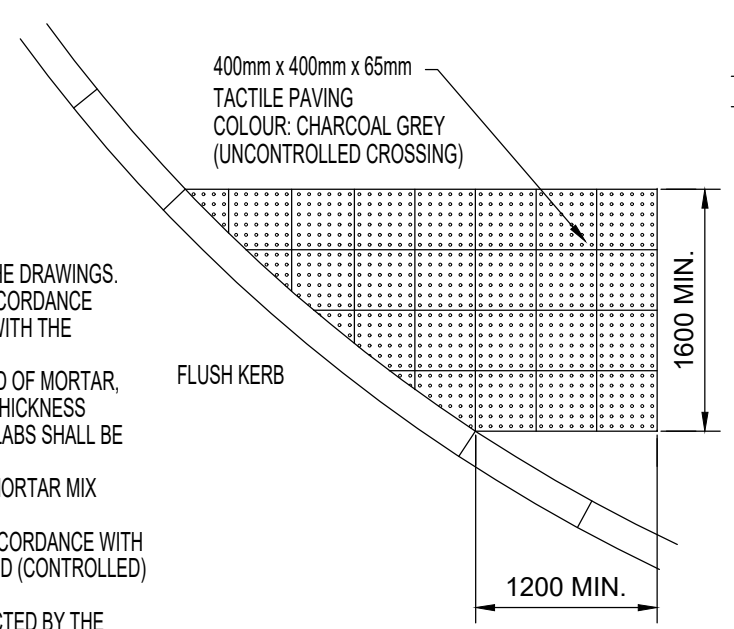
Scale @ A1	Date	Drawn by	Checked
1:250	JULY 2013	ASM	CJM
Job No.	Drw. No.	Rev	
<b>13276</b>	<b>C108</b>	<b>P2</b>	



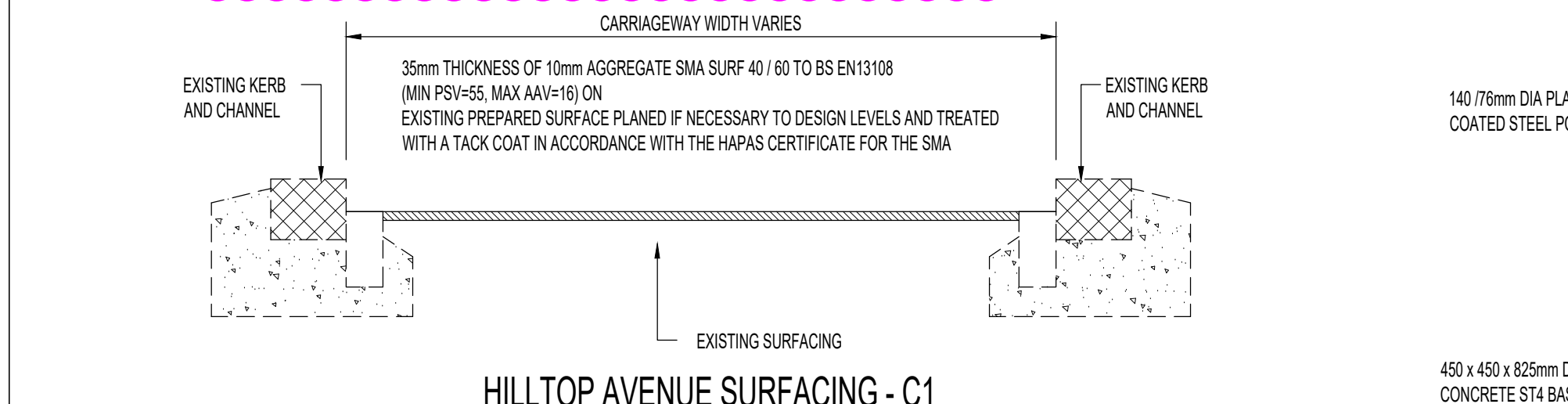


**TACTILE PAVING NOTES:**

- TACTILE PAVING ONLY TO BE PROVIDED AS SHOWN ON THE DRAWINGS.
- EXACT CONFIGURATION OF EACH CROSSING TO BE IN ACCORDANCE WITH D.O.T. CIRCULAR 1/91 AND IS TO BE AGREED ON SITE WITH THE ENGINEER.
- THE TACTILE PAVING SLABS SHALL BE LAID ON A FULL BED OF MORTAR, IN THE PROPORTIONS OF 3:1 SAND:CEMENT. THE MORTAR THICKNESS WHEN COMPACTED SHALL NOT BE LESS THAN 25mm. THE SLABS SHALL BE BEDDED DOWN USING A PAVOIRS MAUL.
- JOINTS SHALL BE FILLED WITH MOIST 4:1 SAND:CEMENT-MORTAR MIX TO WITHIN 2.3mm OF THE TOP SURFACE.
- THE TACTILE PAVING SLABS SHOULD BE 400x400x65 IN ACCORDANCE WITH BS EN 1339. COLOUR: BUFF (UNCONTROLLED CROSSING), RED (CONTROLLED).
- KERBS ARE TO BE FLUSH WITH THE ROAD SURFACE.
- TACTILE PAVERS TO BE LAID UPSIDE DOWN WHERE DIRECTED BY THE ENGINEER.
- KERB HEIGHTS TO BE ADJUSTED.
- THE TACTILE FORMATION TO BE IN COMPLIANCE WITH "GUIDANCE ON THE USE OF TACTILE PAVING SURFACES"



- POSTS AND FITTINGS CONFORM TO BS 873 Q50.M025.X
- GIVE WAY SIGN POST DETAILS AND POWER SUPPLY SUBJECT TO LONDON BOROUGH OF BRENT PFI STREET LIGHTING CONTRACTORS APPROVAL (BOUYGUES E&S INFRASTRUCTURE LTD)



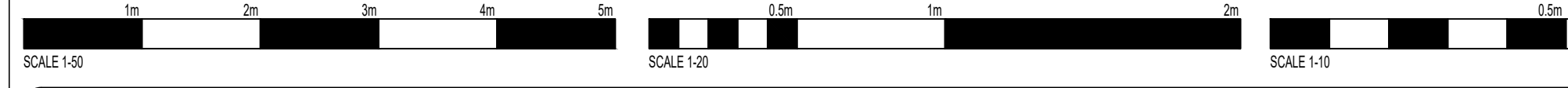
**CBR TESTS**

THICKNESS OF SUB-BASE AND CAPPING TO BE CONFIRMED BY CALIFORNIA BEARING RATIO TESTS, INCLUDING IN-SITU TESTS CARRIED OUT AT FORMATION LEVEL BY A NAMAS ACCREDITED LABORATORY AT POINTS SELECTED BY THE ENGINEER.

THICKNESS OF FOUNDATIONS FOR THE ROAD PAVEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE:

CBR	CAPPING	SUB-BASE
CBR < or = 2%	600mm	150mm
2% < CBR < 5%	450mm	150mm
5% < CBR < 15%	Not required	225mm
15% < CBR	Not required	150mm

THE AMOUNT OF MATERIAL REMOVED TO OBTAIN THE NECESSARY THICKNESS OF SUB-BASE AND CAPPING TO BE VARIED AS REQUIRED. THE THICKNESS OF ALL FOUNDATION LAYERS SHALL BE CONSTANT OVER THE FULL WIDTH OF THE PAVEMENT. REDUCTIONS IN FOUNDATION THICKNESS SHOULD NOT BE MADE FOR LENGTHS OF LESS THAN 100m. UNSUITABLE SUBGRADE, IE A SUBGRADE THAT TENDS TO DEFORM AND "WAVE" UNDER CONSTRUCTION TRAFFIC, IS TO BE REMOVED. CAPPING LAYER DESIGN IS TO ASSUME REPLACEMENT MATERIAL HAS A CBR OF 2%. MINIMUM CARRIAGEWAY CONSTRUCTION TO BE 450mm.



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**FOR APPROVAL**

Rev	Description	Drn	CHK	Date
P5	D.R AREA GRANITE KERB REMOVED, CONSERVATION KERB ADDED. SPEED TABLE DETAIL AMENDED.	DNT	DdeM	16.11.18
P4	CLIENT CHANGED: OVER-RUNNABLE AREA & SURFACING REFERENCES ADDED	DNT	DdeM	10.08.18
P3	AMENDED TO LBB COMMENTS	PRW	CJM	21.01.2014
P2	AMENDED TO LBB COMMENTS	PRW	CJM	20.12.2013
P1	ISSUED FOR APPROVAL	ASM	CJM	17.10.2013

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Client  
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Project  
**SECTION 38/278  
HILLSIDE IMPROVEMENT WORKS**

Drawing  
**TYPICAL CONSTRUCTION DETAILS**

Scale @ A1  
1:20

Date  
JULY 2013

Drawn by  
ASM

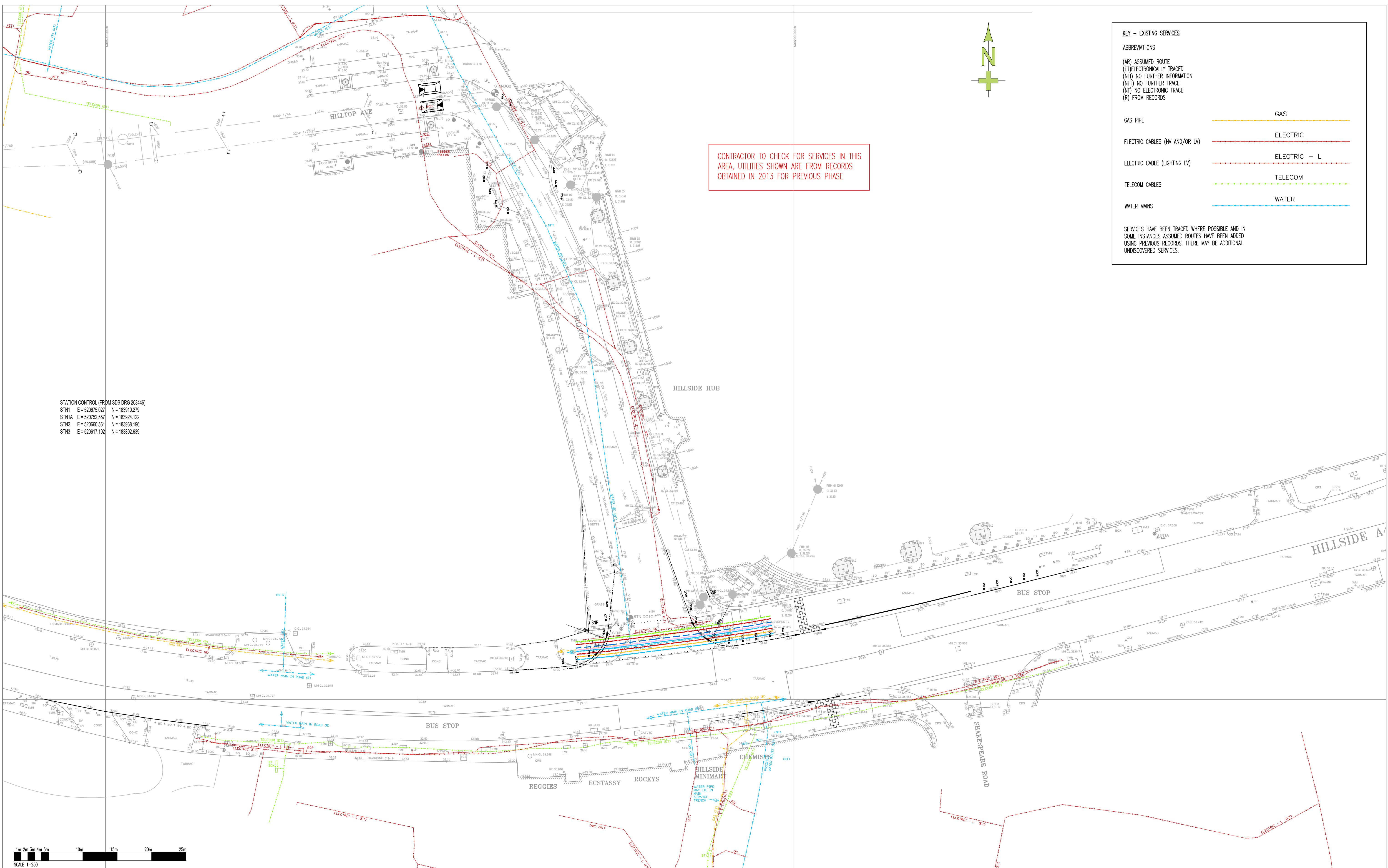
Checked  
CJM

Job No.  
**13276**

Drng. No.  
**C109**

Rev  
**P5**





CONTRACTOR TO CHECK FOR SERVICES IN THIS AREA, UTILITIES SHOWN ARE FROM RECORDS OBTAINED IN 2013 FOR PREVIOUS PHASE

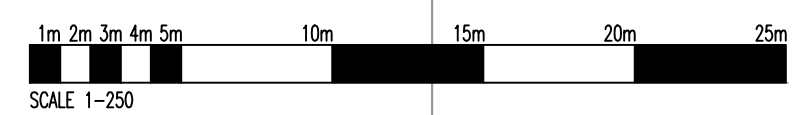
**KEY - EXISTING SERVICES**

ABBREVIATIONS  
 (AR) ASSUMED ROUTE  
 (ET) ELECTRONICALLY TRACED  
 (NFI) NO FURTHER INFORMATION  
 (NFT) NO FURTHER TRACE  
 (NT) NO ELECTRONIC TRACE  
 (R) FROM RECORDS

GAS PIPE ——— GAS  
 ELECTRIC CABLES (HV AND/OR LV) ——— ELECTRIC  
 ELECTRIC CABLE (LIGHTING LV) ——— ELECTRIC - L  
 TELECOM CABLES ——— TELECOM  
 WATER MAINS ——— WATER

SERVICES HAVE BEEN TRACED WHERE POSSIBLE AND IN SOME INSTANCES ASSUMED ROUTES HAVE BEEN ADDED USING PREVIOUS RECORDS. THERE MAY BE ADDITIONAL UNDISCOVERED SERVICES.

STATION CONTROL (FROM SDS DRG 203446)  
 STN1 E = 520675.027 N = 183910.279  
 STN1A E = 520752.557 N = 183924.122  
 STN2 E = 520660.561 N = 183968.196  
 STN3 E = 520617.192 N = 183892.639



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P2	CLIENT CHANGED, NOTE ADDED	DNT	CJM	10.08.2018
P1	ISSUED FOR APPROVAL	ASM	CJM	17.10.2013
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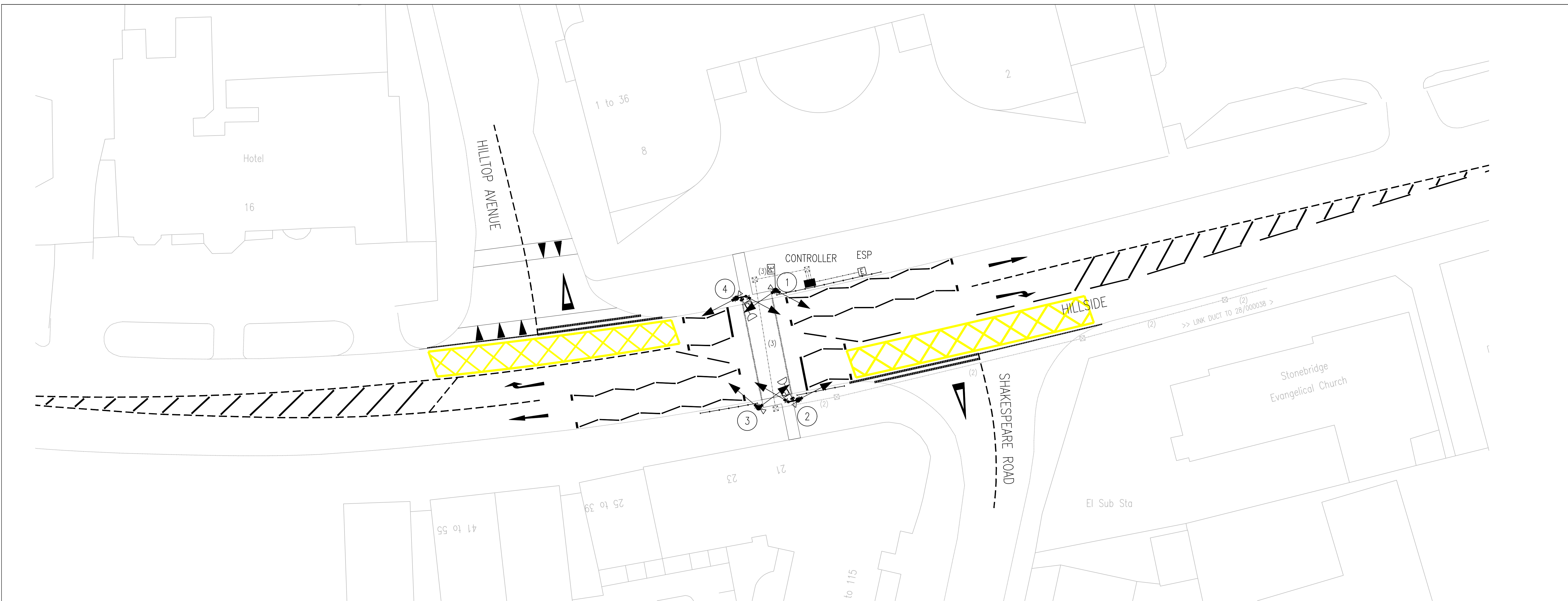
Client  
**HYDE HOUSING**

Project  
**SECTION 38/278  
 HILLSIDE IMPROVEMENT WORKS**

Drawing  
**EXISTING SERVICES**

Scale @ A1 1:250	Date JULY 2013	Drawn by ASM	Checked CJM
Job No. <b>13276</b>	Drw. No. <b>C110</b>	Rev <b>P2</b>	





- NOTES
- 1 ALL WORKS TO BE CARRIED OUT TO THE RELEVANT TfL SPECIFICATION
  - 2 EXISTING DUCT, CONDITION UNKNOWN — x — x —
  - 3 EXISTING DRAWPITS
  - 4 PROPOSED 50mm Ø DUCTS MARKED 'TRAFFIC SIGNALS' — — — — —
  - 5 PROPOSED 100mm Ø DUCTS MARKED 'TRAFFIC SIGNALS' - - - - -
  - 6 DUCT LAYOUT IS INDICATIVE ONLY & SUBJECT TO SITE CONDITIONS
  - 7 50mm DUCT FROM CONTROLLER TO ESP
  - 8 ALL POLES TO BE POSITIONED TO PROVIDE A MINIMUM OF 450mm CLEARANCE FROM KERB TO ALL SIGNAL HEADS
  - 9 ANTI-SKID SURFACING, TACTILE PAVING, GUARDRAILING & ROAD MARKINGS DESIGNED AND INSTALLED BY THIRD PARTY; INDICATIVE WHERE SHOWN
  - 10 PUSHBUTTONS TO BE MOUNTED AT 45° TO KERB ON ALL POLES
  - 11 TACTILE ROTATING CONES TO BE FITTED TO PUSHBUTTONS ON POLES 2 & 4
  - 12 AUDIBLES TO BE FITTED TO PUSHBUTTONS ON POLES 2 & 4
  - 13 COUNTDOWN UNITS ON POLES 2 & 4 AS PER FIG 1
  - 14 COUNTDOWN UNIT SYMBOL
  - 15 EXISTING MAST ARM TO BE REMOVED

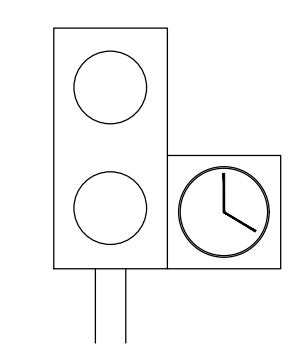


FIGURE 1



- Notes:
1. DO NOT SCALE FROM THIS DRAWING.
  2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT.
  3. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE LONDON BOROUGH OF BRENT'S SPECIFICATION FOR NEW STREETWORKS, AND TO THE SATISFACTION OF THE ENGINEER. EARTHWORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE DOT SPECIFICATION FOR HIGHWAYS WORKS.
  4. ALL TEMPORARY TRAFFIC SIGNS TO COMPLY WITH TRAFFIC SIGNS MANUAL CHAPTER 8 TRAFFIC SAFETY MEASURES AND SIGNS FOR ROAD WORKS AND TEMPORARY SITUATIONS.
  5. ALL ROAD MARKINGS SHALL BE OF THERMOPLASTIC MATERIAL TO BS 3282 CLASS A.
  6. ALL PERMANENT WHITE ROAD MARKINGS SHALL BE REFLECTORISED.
  7. ALL PERMANENT WHITE ROAD MARKINGS SHALL HAVE A MINIMUM SKID RESISTANCE LEVEL OF 55.
  8. A TACK COAT COMPATIBLE WITH THE MARKINGS MATERIALS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS PRIOR TO THE APPLICATION OF THERMOPLASTIC MATERIAL.
  9. THE APPROXIMATE LOCATION OF EXISTING UTILITY MAINS AND SERVICES HAS BEEN PRODUCED FROM UTILITY COMPANY RECORDS. BJR CANNOT THEREFORE GUARANTEE THE ACCURACY OF THIS INFORMATION.
  10. PRIOR TO THE COMMENCEMENT OF THE WORKS, THE CONTRACTOR SHALL ESTABLISH THE PRESENCE OF EXISTING SEWERS AND SERVICES AND TO RECORD THE LOCATION AND APPROX DEPTH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ANY SERVICES ARE ADEQUATELY PROTECTED DURING THE WORKS.
  11. SURVEY INFORMATION AS SURVEY DESIGN SERVICES REF: SDS 203446
  12. CONTROLLED CROSSING DETAILS ARE TO TRANSPORT FOR LONDON DRAWING NO. PRO/ 28 / 000104 / 03 OCT 13

**CDM REGULATIONS 2007 - RESIDUAL RISKS**

EXISTING UTILITY MAINS & SERVICES ARE PRESENT AND RECORDS MUST BE OBTAINED FROM THE UTILITY COMPANIES. THERE IS A RISK OF UNCHARTED SERVICES BEING PRESENT. THE WORKS WILL INVOLVE THE MOVEMENT OF PLANT AND MACHINERY IN AND AROUND A LIVE CARRIAGEWAY AND PEDESTRIAN FOOTWAY. THERE IS A RISK OF POTENTIAL CONFLICT BETWEEN PLANT AND ROAD/PEDESTRIAN USERS.

**FOR APPROVAL**

P3	CLIENT CHANGED	DNT	CJM	27.20.18
P2	AMENDED TO LBB COMMENTS	PRW	CJM	20.12.2013
P1	ISSUED FOR APPROVAL	ASM	CJM	17.10.2013
Rev	Description	Drn	Chk	Date

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Client  
**HYDE HOUSING**

Project  
**SECTION 38/278  
HILLSIDE IMPROVEMENT WORKS**

Drawing  
**TRANSPORT FOR LONDON  
CONTROLLED CROSSING DETAILS**

Scale @ A1 1:200	Date OCT 2013	Drawn by ASM	Checked CJM
Job No. <b>13276</b>	Drg. No. <b>C111</b>	Rev <b>P3</b>	





STATION CONTROL (FROM SDS DRG 203446)  
 STN1 E= 520675.027 N= 183910.279  
 STN1A E= 520752.557 N= 183924.122  
 STN2 E= 520660.561 N= 183968.196  
 STN3 E= 520617.192 N= 183892.639



- Notes:
- DO NOT SCALE FROM THIS DRAWING.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT.
  - ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE LONDON BOROUGH OF BRENT'S SPECIFICATION FOR NEW STREETWORKS, AND TO THE SATISFACTION OF THE ENGINEER. EARTHWORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE DOT SPECIFICATION FOR HIGHWAYS WORKS.
  - ALL TEMPORARY TRAFFIC SIGNS TO COMPLY WITH TRAFFIC SIGNS MANUAL CHAPTER 8 TRAFFIC SAFETY MEASURES AND SIGNS FOR ROAD WORKS AND TEMPORARY SITUATIONS.

- ALL ROAD MARKINGS SHALL BE OF THERMOPLASTIC MATERIAL TO BS 3262 CLASS A.
- ALL PERMANENT WHITE ROAD MARKINGS SHALL BE REFLECTORISED.
- ALL PERMANENT WHITE ROAD MARKINGS SHALL HAVE A MINIMUM SKID RESISTANCE LEVEL OF 55.
- A TACK COAT COMPATIBLE WITH THE MARKINGS MATERIALS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS PRIOR TO THE APPLICATION OF THERMOPLASTIC MATERIAL.
- THE APPROXIMATE LOCATION OF EXISTING UTILITY MAINS AND SERVICES HAS BEEN PRODUCED FROM UTILITY COMPANY RECORDS. B&R CANNOT THEREFORE GUARANTEE THE ACCURACY OF THIS INFORMATION.

- PRIOR TO THE COMMENCEMENT OF THE WORKS, THE CONTRACTOR SHALL ESTABLISH THE PRESENCE OF EXISTING SEWERS AND SERVICES AND TO RECORD THE LOCATION AND APPROX DEPTH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ANY SERVICES ARE ADEQUATELY PROTECTED DURING THE WORKS.
- SURVEY INFORMATION AS SURVEY DESIGN SERVICES REF: SDS 203446

**CDM REGULATIONS 2007 – RESIDUAL RISKS**

EXISTING UTILITY MAINS & SERVICES ARE PRESENT AND RECORDS MUST BE OBTAINED FROM THE UTILITY COMPANIES. THERE IS A RISK OF UNCHARTED SERVICES BEING PRESENT. THE WORKS WILL INVOLVE THE MOVEMENT OF PLANT AND MACHINERY IN AND AROUND A LIVE CARRIAGEWAY AND PEDESTRIAN FOOTWAY. THERE IS A RISK OF POTENTIAL CONFLICT BETWEEN PLANT AND ROAD/PEDESTRIAN USERS.

<b>FOR APPROVAL</b>				
P3	CLIENT CHANGED & HIGHWAY BOUNDARY ADDED	DNT	CJM	10.08.2018
P2	SECTION 38 AREA AMENDED	PRW	CJM	27.02.2014
P1	ISSUED FOR APPROVAL	PRW	CJM	20.12.2013
Rev	Description	Drn	CHK	Date

**BdR**  
 Incorporating:  
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 email: engineering@bdr.uk.com

Client  
**HYDE HOUSING**

Project  
**SECTION 38/278  
 HILLSIDE IMPROVEMENT WORKS**

Drawing  
**SECTION 38 AND 278 WORK AREAS**

Scale @ A1 1:250	Date DEC 2013	Drawn by ASM	Checked CJM
Job No. <b>13276</b>	Drg. No. <b>C112</b>	Rev <b>P3</b>	