

GENERAL LAYOUT

The general layout of the project notice board provides for a project title field in which the project is described and the client is identified. Below the project title field the board is divided into three vertical areas. The left hand side of this area is reserved for the seals/logos of the constituents of the BEP Grouping whose members may be commissioned to deliver professional services to the project. The central area is for listing the professional consultants on the project and the right hand area may be used for displaying individual company logos and any additional affiliation which the consultant may have in the BEP Grouping eg dual membership of SAIA and SABTACO.

RECOMMENDATIONS:

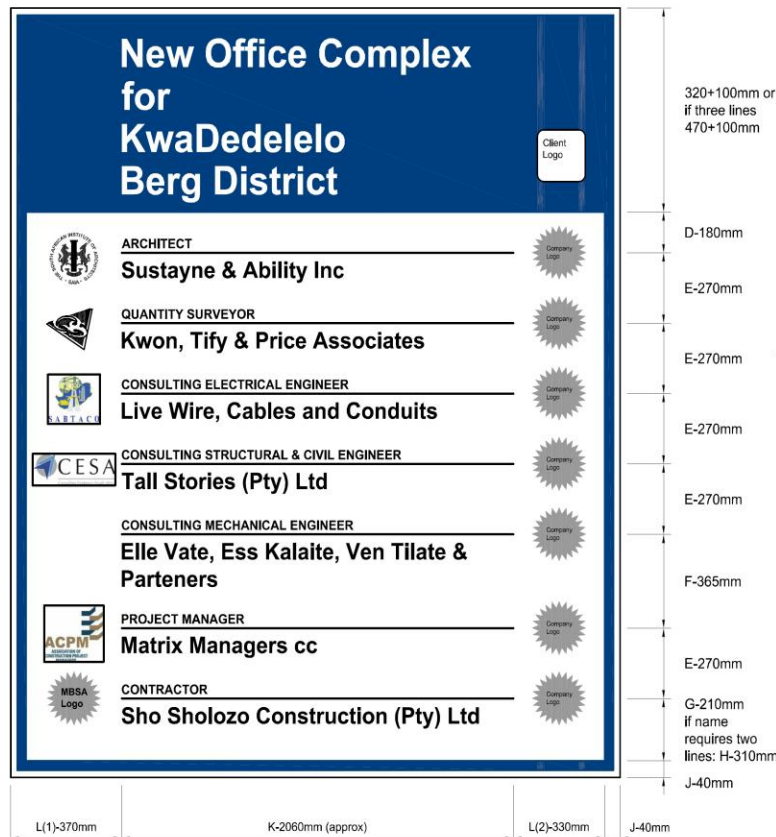
- The names of all professional consultants involved in the project and the main contractor should be displayed on the project notice board.
- Only bona fide members of the five constituents of the Built Environment Professions Grouping (ACPM, ASAQs, CESA, SABTACO and SAIA) may apply their association's seal/logo to the notice board.
- When applied, this seal/logo is placed to the left of the named discipline and consultant, centered in the vertical space provided and central on the horizontal line separating the discipline name from the consultant's name.
- Where a consultant is a member of more than one of the five BEP Grouping associations, the consultant may elect to display both associations' seals/logos. In this case, one appropriate seal is selected for display on the left hand side of the board while the other seal is displayed on the right hand side above the consultant's own logo (see item 7 below) – vertical spacing of the logos may require adjustment.
- Where the contractor is a member of MBSA or SAFCEC these seals may be applied in the same way as the professional associations' seals, i.e. to the left of the named contractor (see item 3 above).
- All parties are entitled to apply individual company logos in association with their names.
- When applied, the consultants' logos are placed to the right of the named discipline and consultant, centered in the vertical space provided and central on the horizontal line separating the discipline name from the consultant's name.
- The client's seal/logo is placed to the right hand side of the client's name in the bottom right hand portion of the project title field.
- Seals/logos may either all be in full colour and reproduced faithfully according to specification of the association/organisation represented, or all in black and white, as may be agreed by the parties concerned. It is the responsibility of each consultant to ensure that the appropriate information is provided.
- Seals/logos may either be provided in suitable electronic form or as print media, eg seal logo to full size, printed on transparent, adhesive media as supplied by the associations
- Variations which determine the height of the board are indicated.
- The signwriter should be issued with the relevant information for the board as well as copies of recommendation in hardcopy form. Alternatively the signwriter may be issued with the information in electronic form as long as these recommendations are clearly stated and followed.
- Where the architect is not architect, principal consultant and principal agent, the order in which the parties are listed on the project board is by mutual agreement. The contractor is generally the last name to be listed.

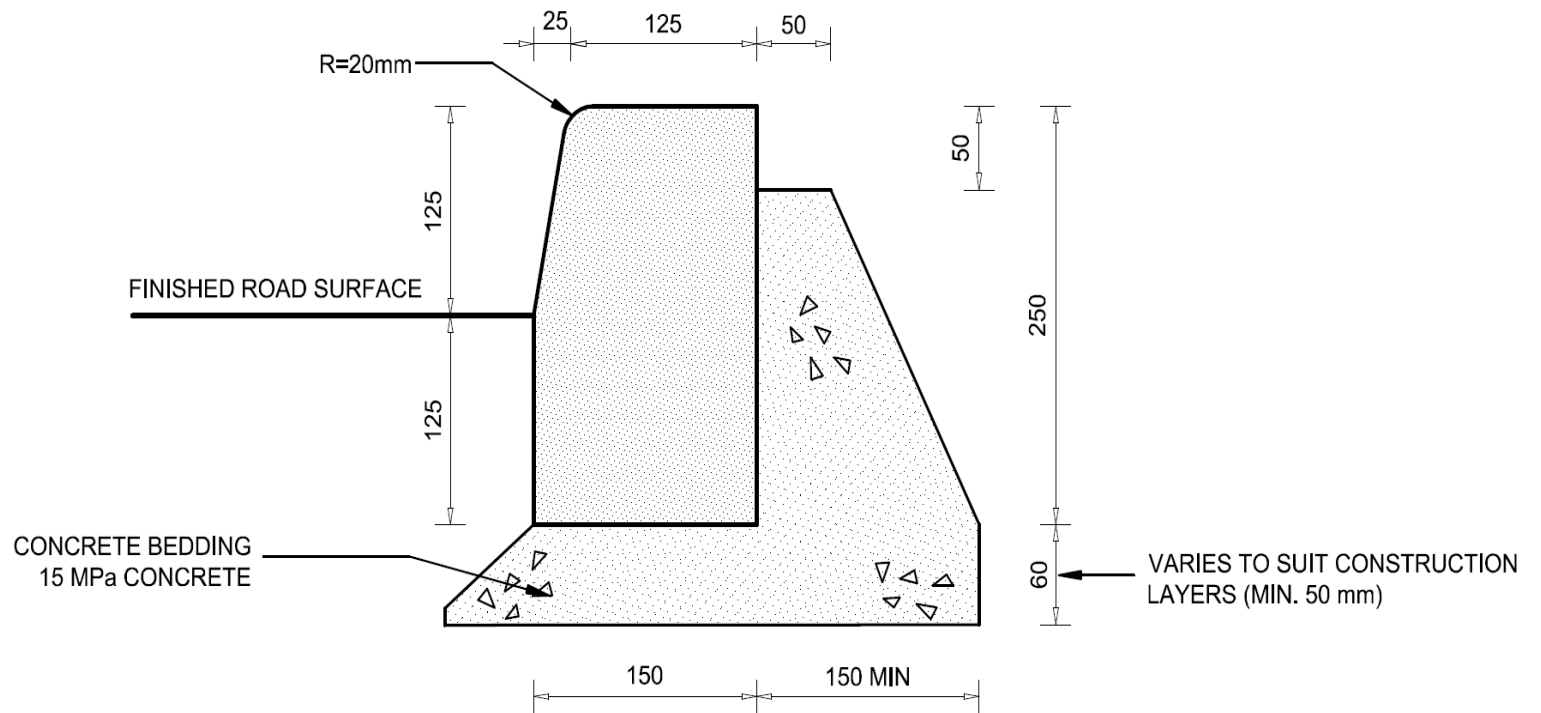
TECHNICAL DATA

LETTERING & SETTING OUT:	TITLE BLOCK	100mm Arial bold upper and lower case letters in white.
	NAMES OF PRACTICES & FIRMS PROFESSIONAL	75mm Arial bold upper and lower case letters in black. Allow 100mm between bottom of line and bottom of lettering.
	TITLES	50mm Arial bold upper case letters only in black. Allow 10mm between line and professional titles.
	HORIZONTAL LINE	8mm thick in black
	BORDERS, FIELDS & SEALS/LOGOS	OUTER BORDER
	INNER BORDER	Dimension: 24mm wide Colour: Blue to match RGB 3:91:51 (R:3, G:91, B:151)
	TITLE BLOCK FIELD	Dimension: As specified below Colour: Blue to match RGB 3:91:51 (R:3, G:91, B:151)
	CONSULTANTS/ CONTRACTOR FIELDS	Dimension: As specified below Colour: White
	SEAL/LOGO ACTUAL SIZES	The full-size SAIA logo is 190mm diameter (reference dimension) – other seals/logos to be scaled accordingly

LEGEND:

A	170mm	The dimension from the top of the board to the bottom of the letters on the first line of the title block.
B	320mm	The dimension from the top of the board to the bottom of the letters on the second line of the title block.
C	470mm	The dimension from the top of the board to the bottom of the letters on the third line of the title block (if the title requires three lines)
D	180mm	This dimension is standard, and is to the centre of the horizontal line.
E	270mm	This dimension is standard if only one line is required for the practice name.
F	365mm	This dimension is typical if two lines are required for the practice name.
G	210mm	This dimension should be used where the last practice on the board requires only one line.
H	310mm	This dimension should be used where the last practice on the board requires two lines.
J	40mm	White border: 8mm wide Blue border: 32mm wide The blue border shall have a radius of 60mm to the corners.
K	2060mm	This is an approximate dimension.
L(1)	370mm	Allow: 40mm white and blue borders 330mm width for professional associations, contractors seals/logos
L(2)	330mm	Net width for individual company logos





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MUNISIPALITEIT • UMASIPALA • MUNICIPALITY

STANDARD DETAIL DRAWING

BARRIER KERB : TYPE BK2

Scale

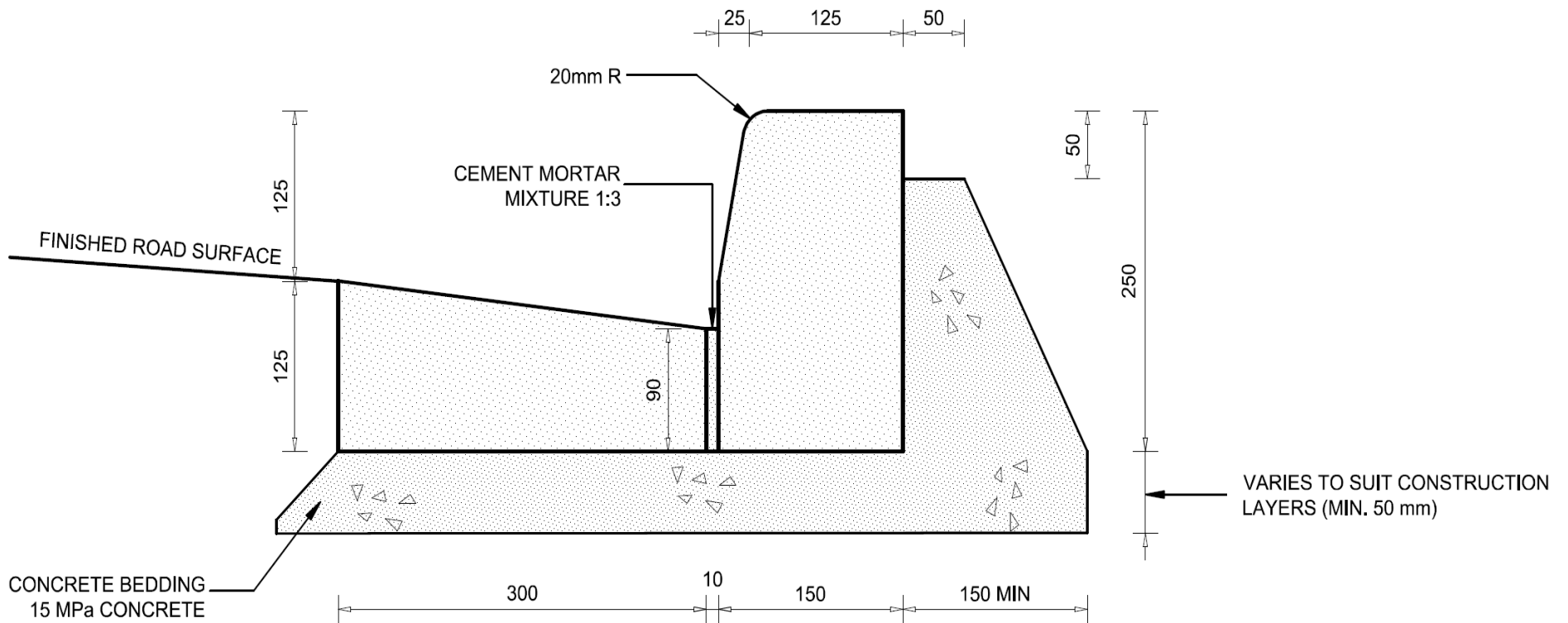
1 : 5

Paper Size

A4

Drawing No.

SR6



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STANDARD DETAIL DRAWING

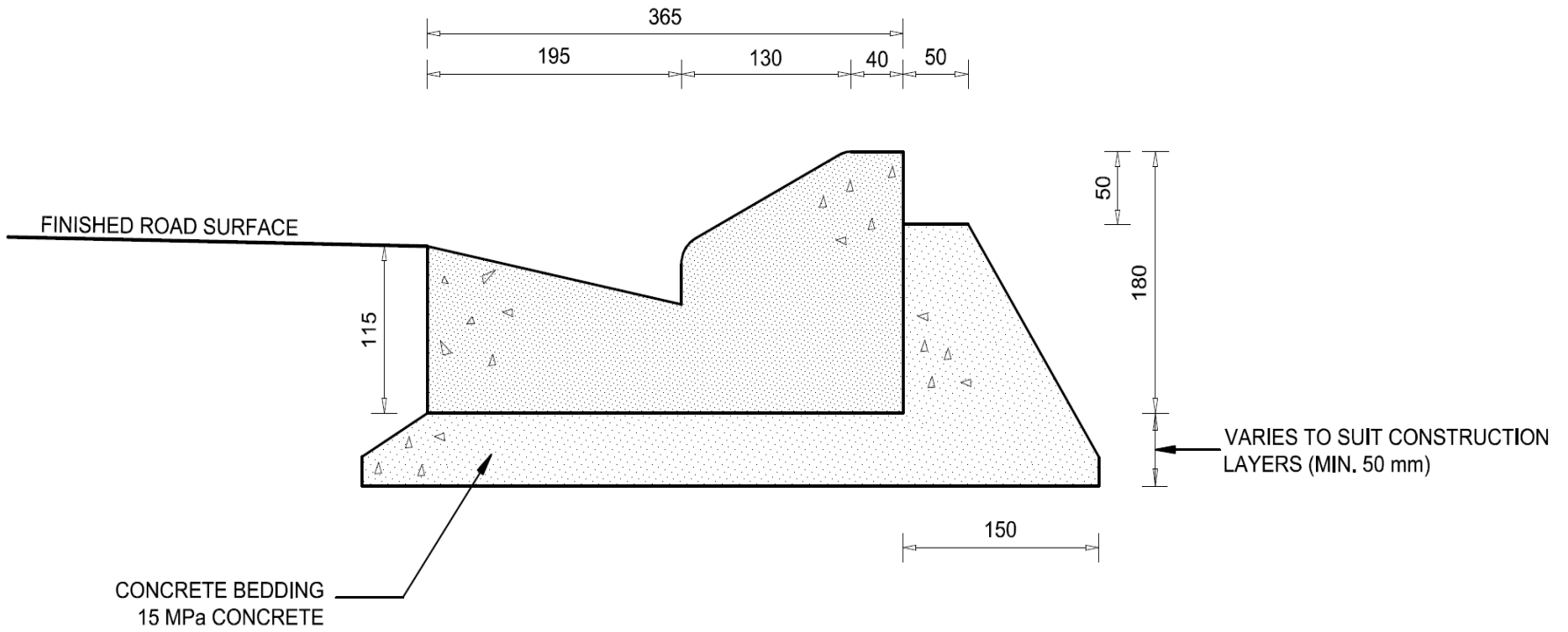
BARRIER KERB : TYPE BK2 & C1

Scale Paper Size

1 : 5 A4

Drawing No.

SR7



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STANDARD DETAIL DRAWING

MOUNTABLE KERB : TYPE CK5

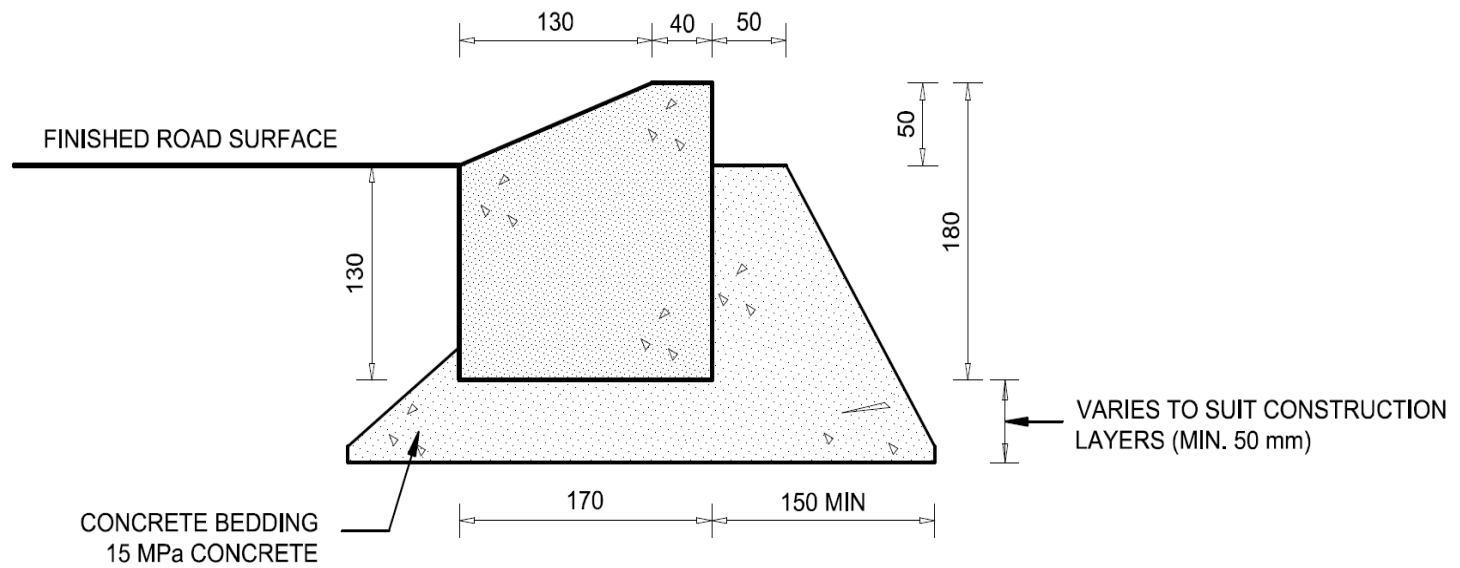
Scale Paper Size

1 : 5

A4

Drawing No.

SR8



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STANDARD DETAIL DRAWING

MOUNTABLE KERB : TYPE MK10

Scale

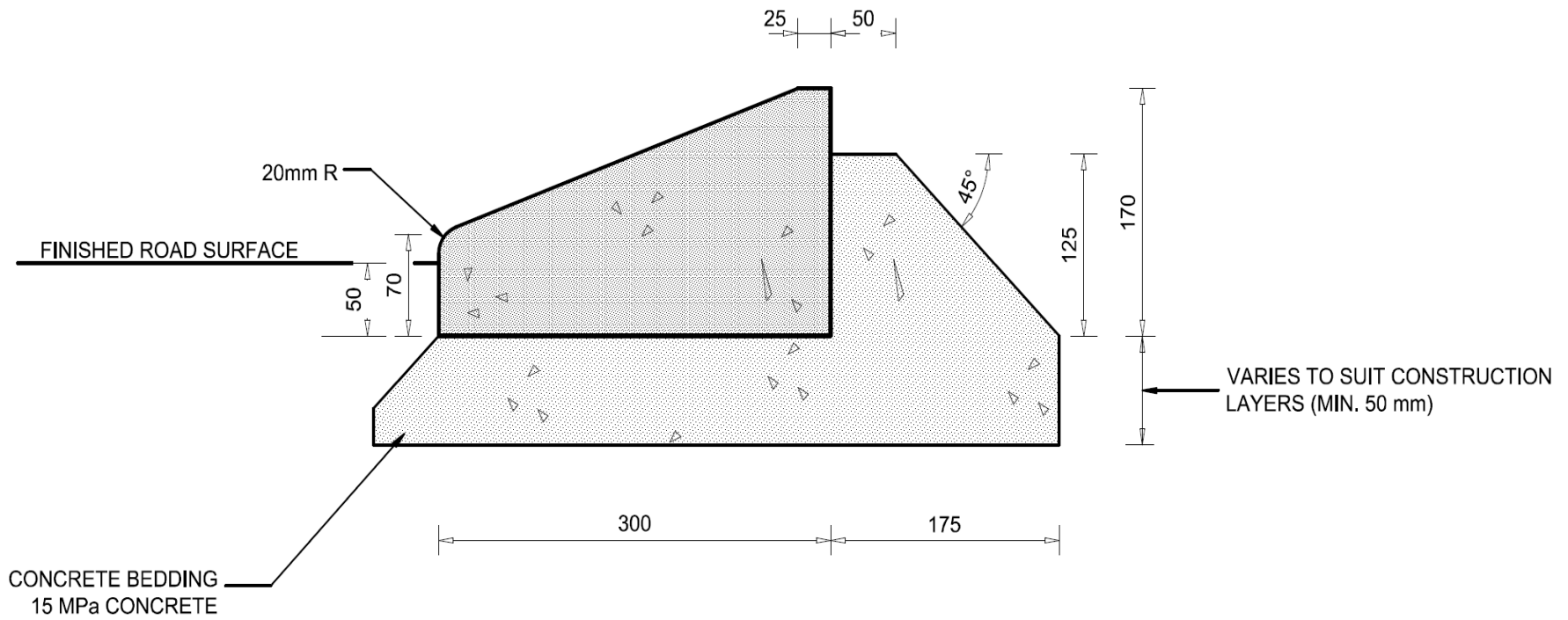
1 : 5

Paper Size

A4

Drawing No.

SR9



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STANDARD DETAIL DRAWING

MOUNTABLE KERB : TYPE MK7

Scale

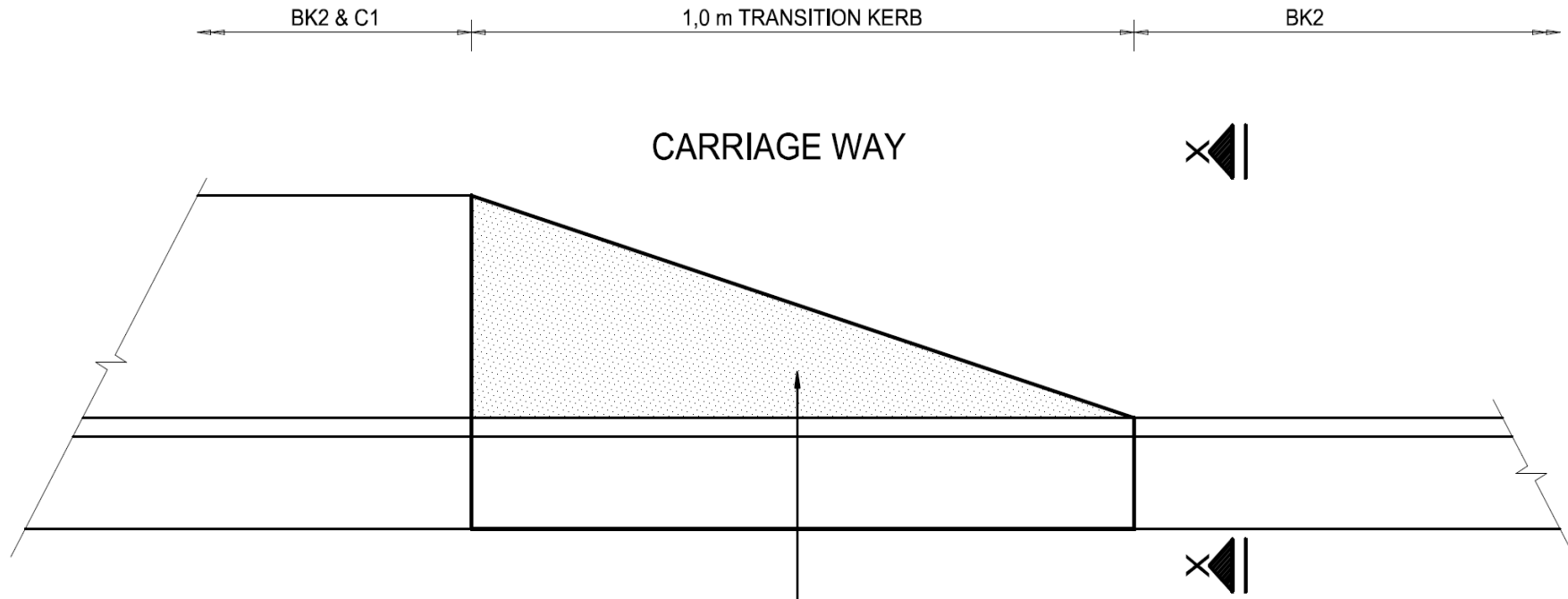
1 : 5

Paper Size

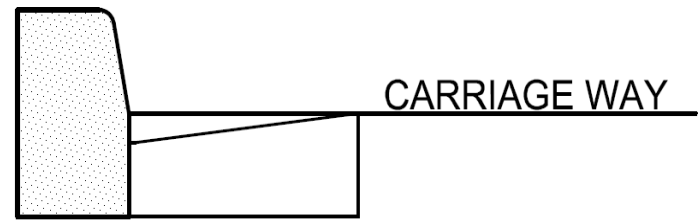
A4

Drawing No.

SR10

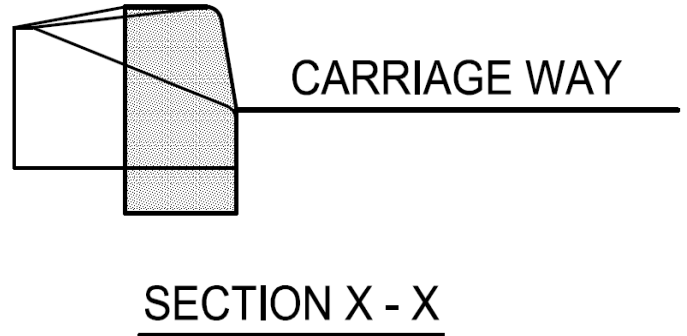
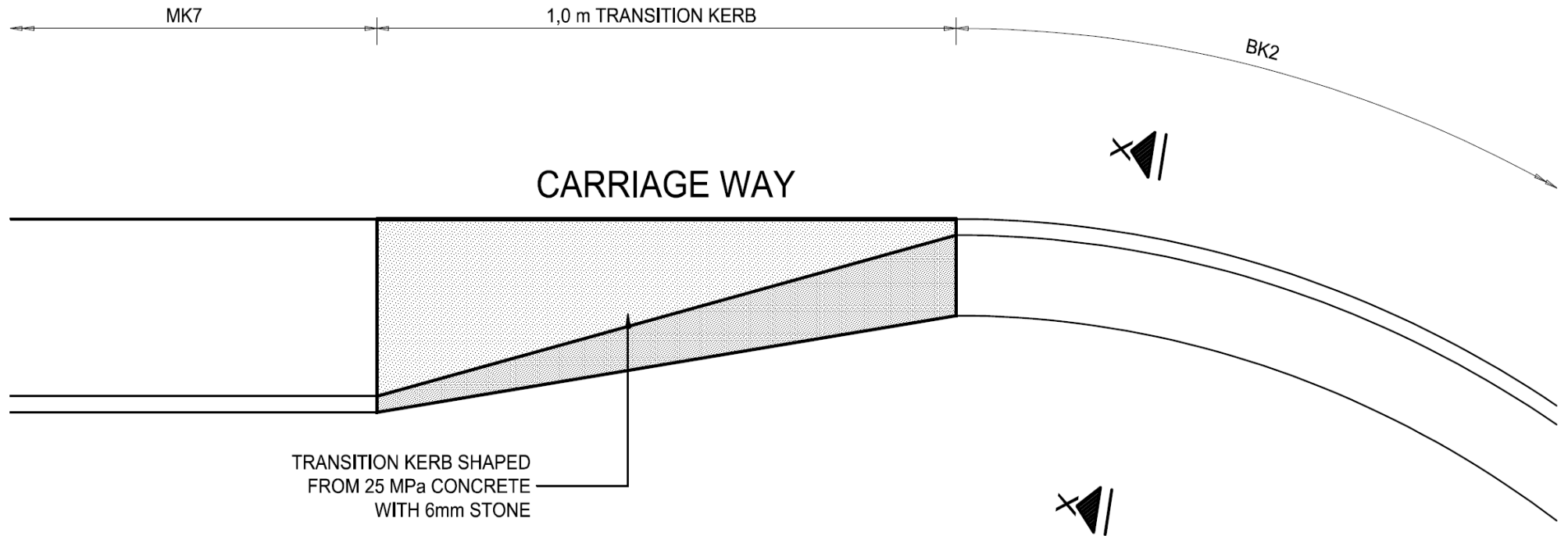


TRANSITION KERB SHAPED
FROM 25 MPa CONCRETE
WITH 6mm STONE



NOTE:
ALL EXPOSED SURFACES TO HAVE
A STEEL FLOAT FINISH

SECTION X - X



NOTE:
ALL EXPOSED SURFACES TO HAVE A STEEL FLOAT FINISH



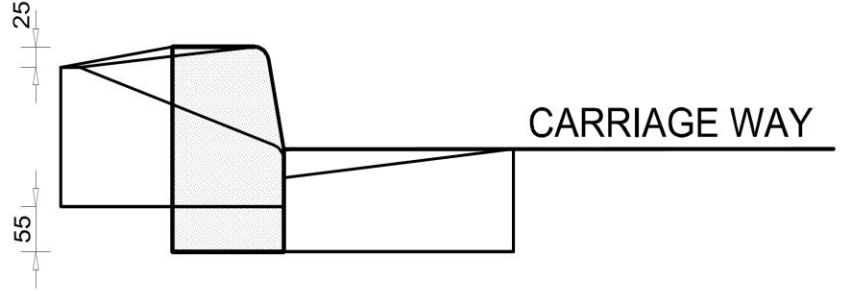
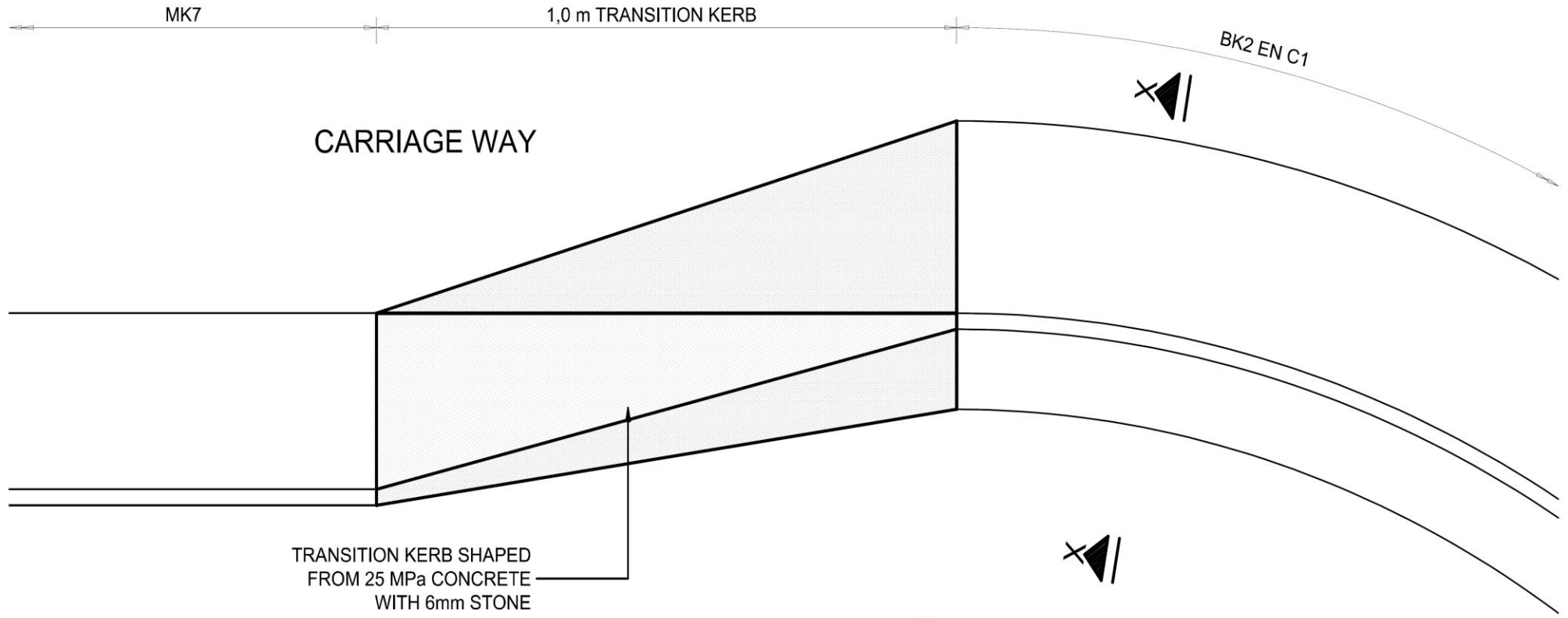
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STANDARD DETAIL DRAWING

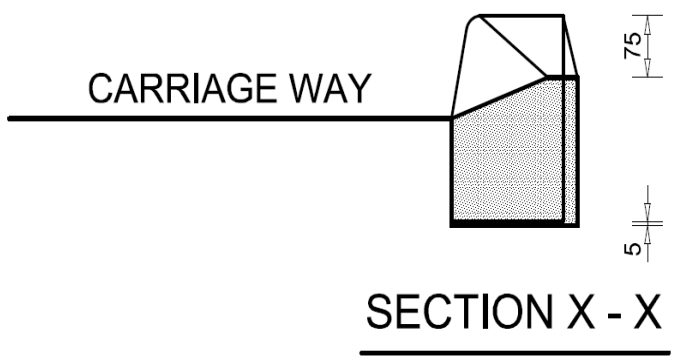
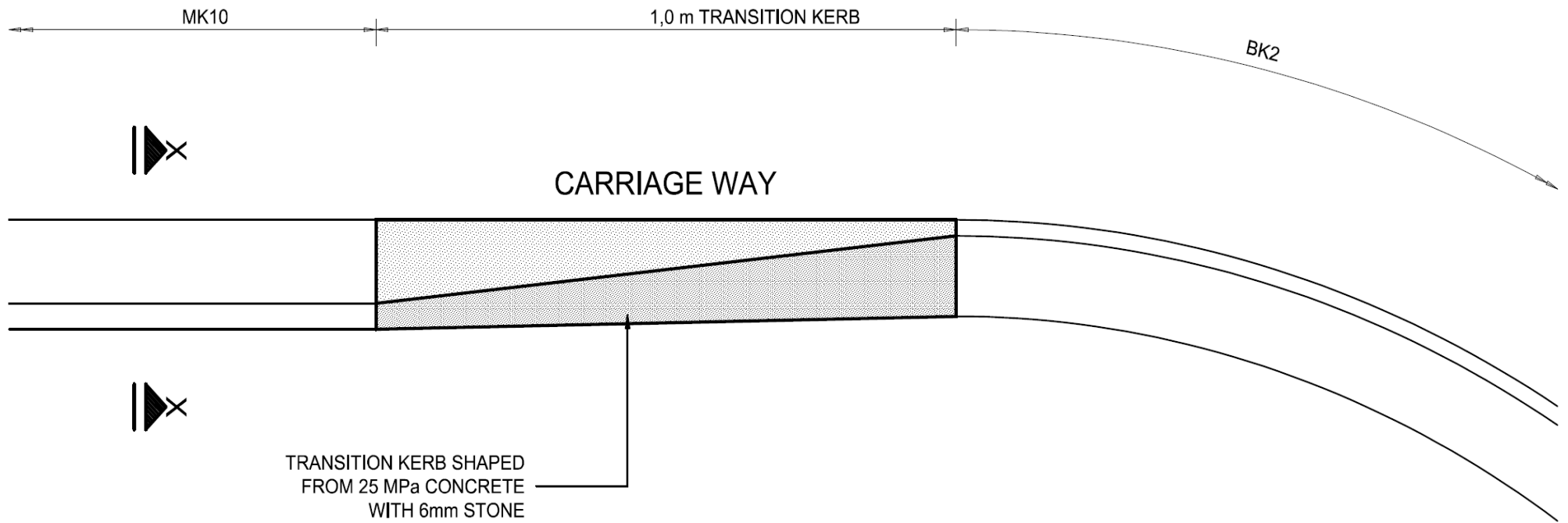
TRANSITION KERB : MK7 - BK2

Scale	Paper Size
1 : 10	A4
Drawing No.	
SR12	

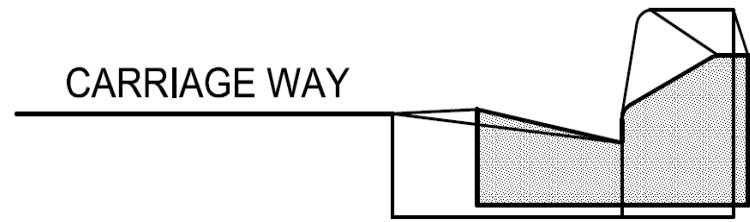
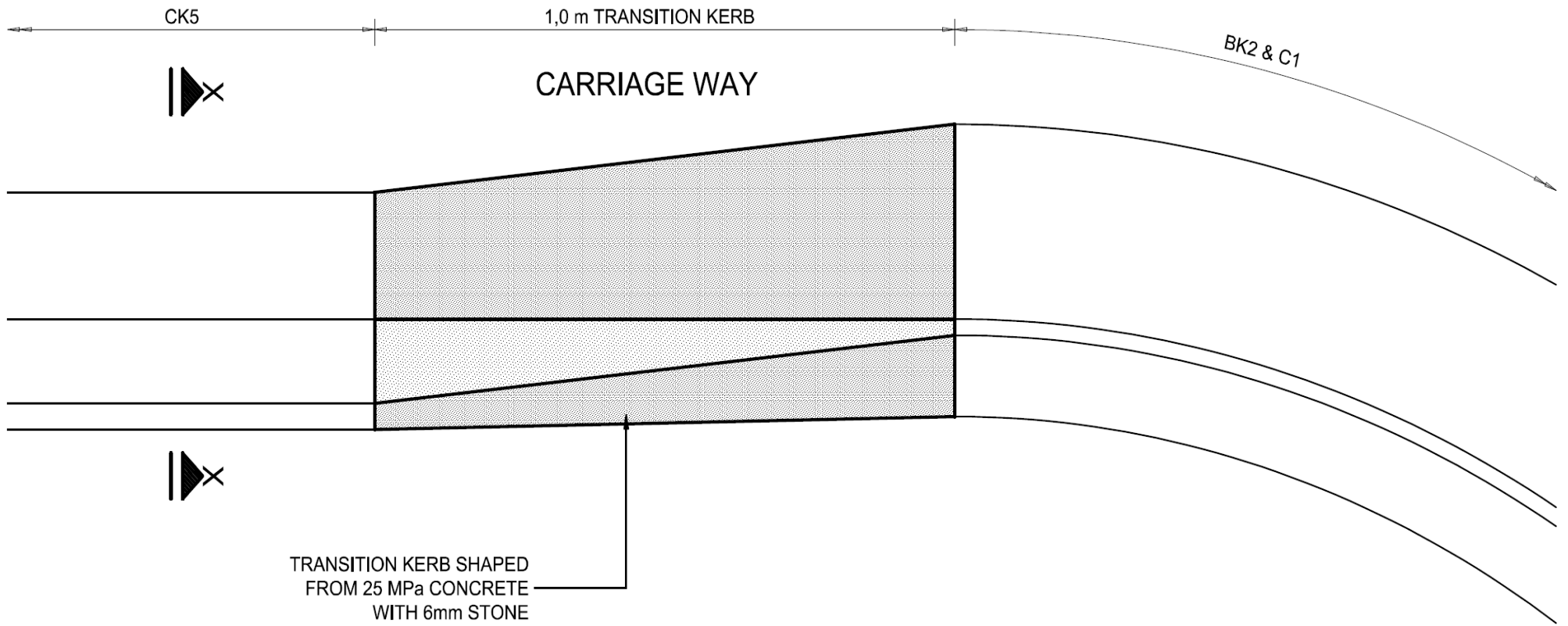


SECTION X - X

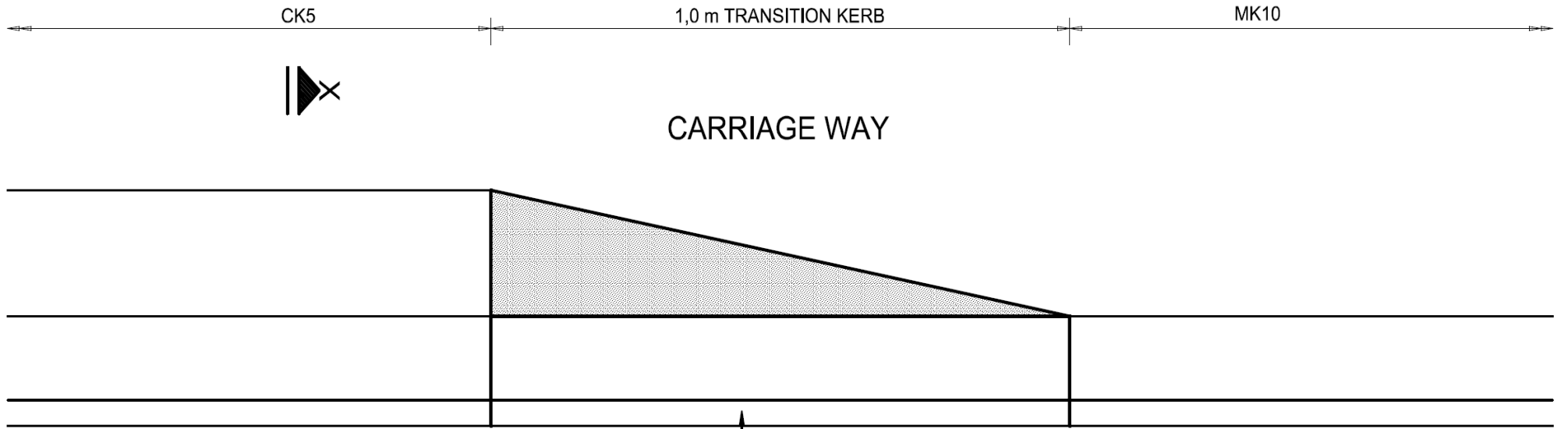
NOTE:
ALL EXPOSED SURFACES TO HAVE A STEEL FLOAT FINISH



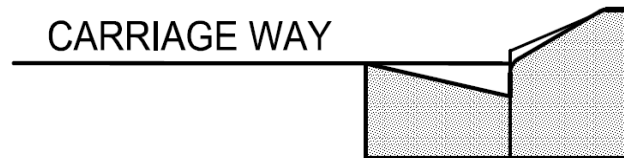
NOTE:
ALL EXPOSED SURFACES TO HAVE A STEEL FLOAT FINISH



NOTE:
ALL EXPOSED SURFACES TO HAVE A STEEL FLOAT FINISH



TRANSITION KERB SHAPED
FROM 25 MPa CONCRETE
WITH 6mm STONE



NOTE:
ALL EXPOSED SURFACES TO HAVE
A STEEL FLOAT FINISH



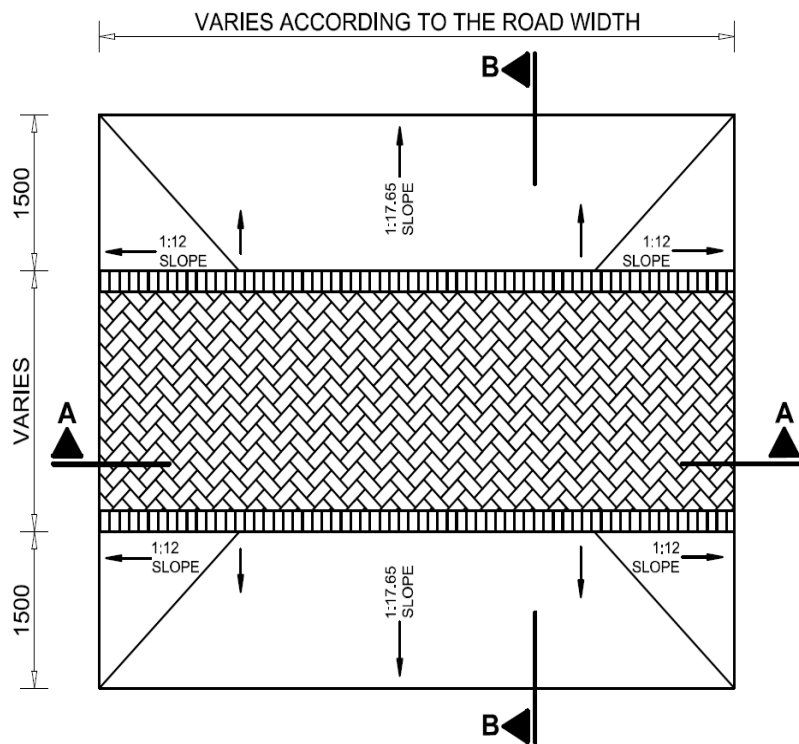
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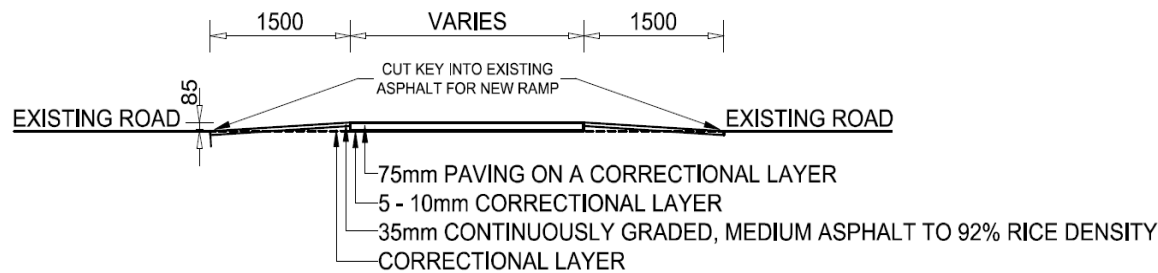
STANDARD DETAIL DRAWING

TRANSITION KERB : CK5 - MK10

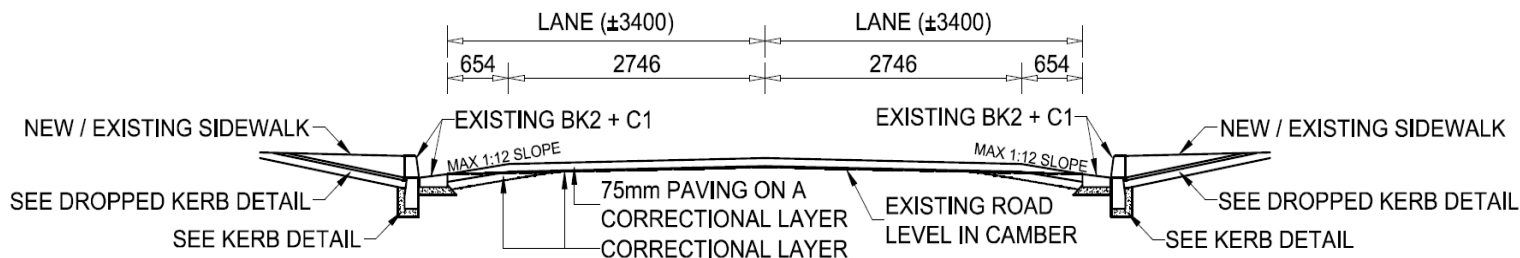
Scale	Paper Size
1 : 10	A4
Drawing No.	
SR16	



RAISED PEDESTRIAN CROSSING PLAN



LONG SECTION B - B THROUGH CROSSING



CROSS SECTION A - A THROUGH CROSSING



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STANDARD DETAIL DRAWING

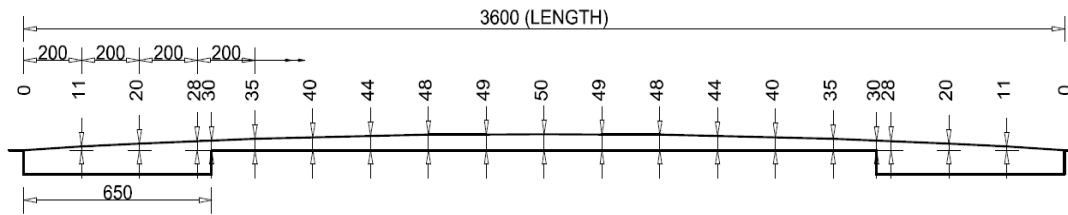
TYPICAL RAISED PEDESTRIAN CROSSING

Scale Paper Size

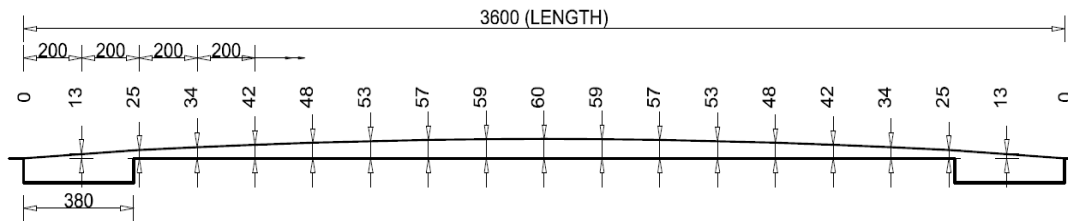
N.T.S. A4

Drawing No.

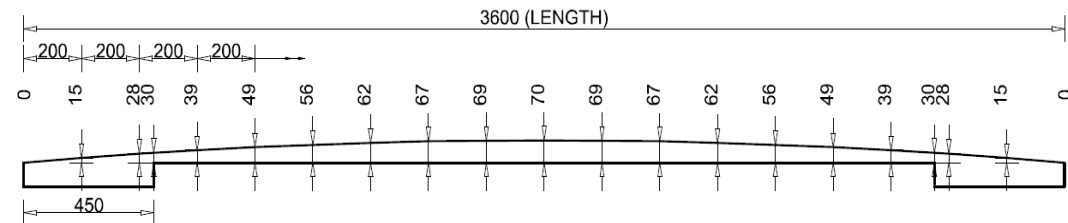
SR22



50mm SPEED HUMP PROFILE (50km/h)



60mm SPEED HUMP PROFILE (40km/h)



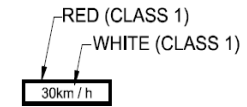
70mm SPEED HUMP PROFILE (30km/h)

NOTES:

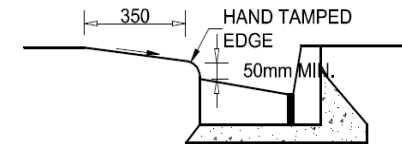
1. SPEED HUMPS SHOULD NOT BE PLACED AT DRIVEWAY ENTRANCES OR STORMWATER GULLIES.
2. W332 AND IN11.1 SHOULD PREFERABLY BE LOCATED WITHIN 30m AHEAD OF FIRST SPEED HUMP WHEN A SERIES OF SPEED HUMPS ARE USED.
3. SIGN MUST BE ERECTED BEFORE AND ROAD MARKINGS PROVIDED IMMEDIATELY AFTER CONSTRUCTION. ALLOW PREMIX TO COOL BEFORE PAINTING.
4. SPEED HUMP TO BE CONSTRUCTED FROM PREMIX 'TYPE A'. TACK COAT TO BE APPLIED ON ROAD SURFACE BEFORE CONSTRUCTION.



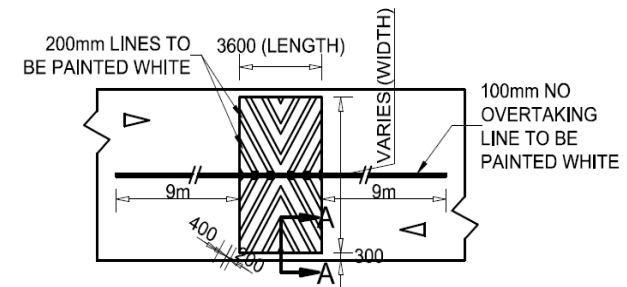
**W332
(SPEED HUMPS)**



**IN11.1
(SUPPLEMENTARY PLATE)**



**EXISTING KERB AND CHANNEL
CROSS - SECTION THROUGH A - A**



WM10 SPEED HUMP



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STANDARD DETAIL DRAWING

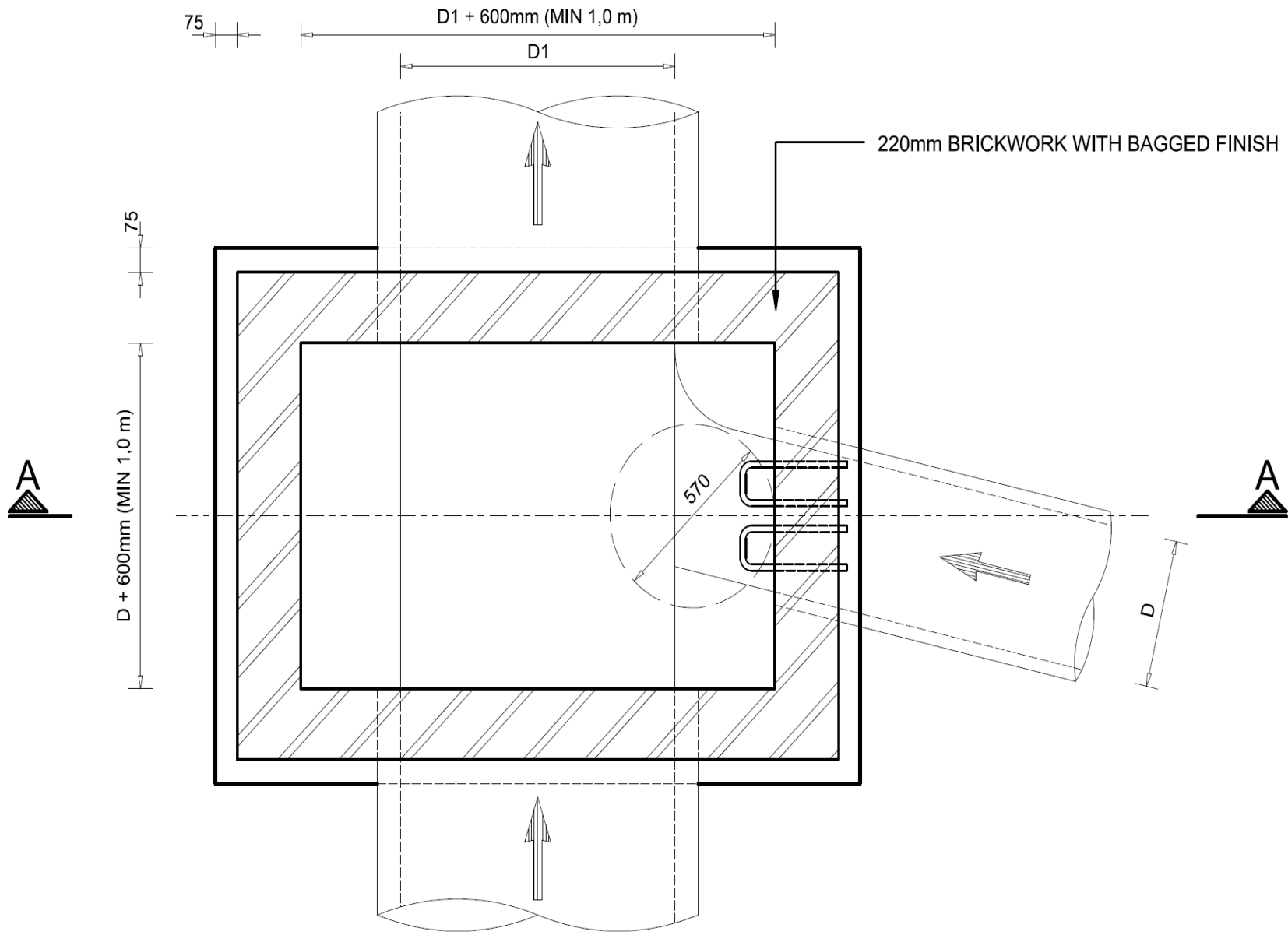
TYPICAL SPEED HUMP

Scale Paper Size

N.T.S. A4

Drawing No.

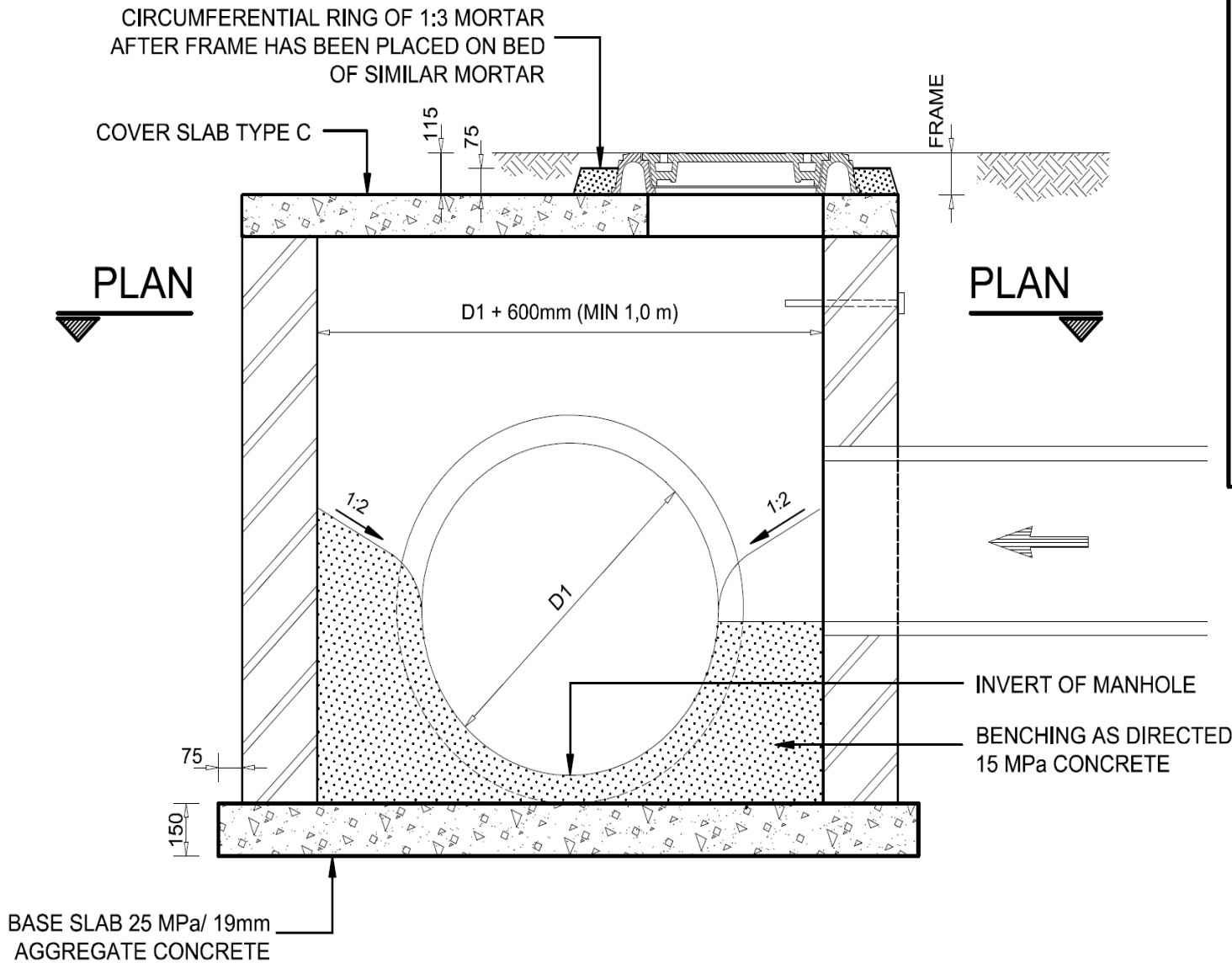
SR23



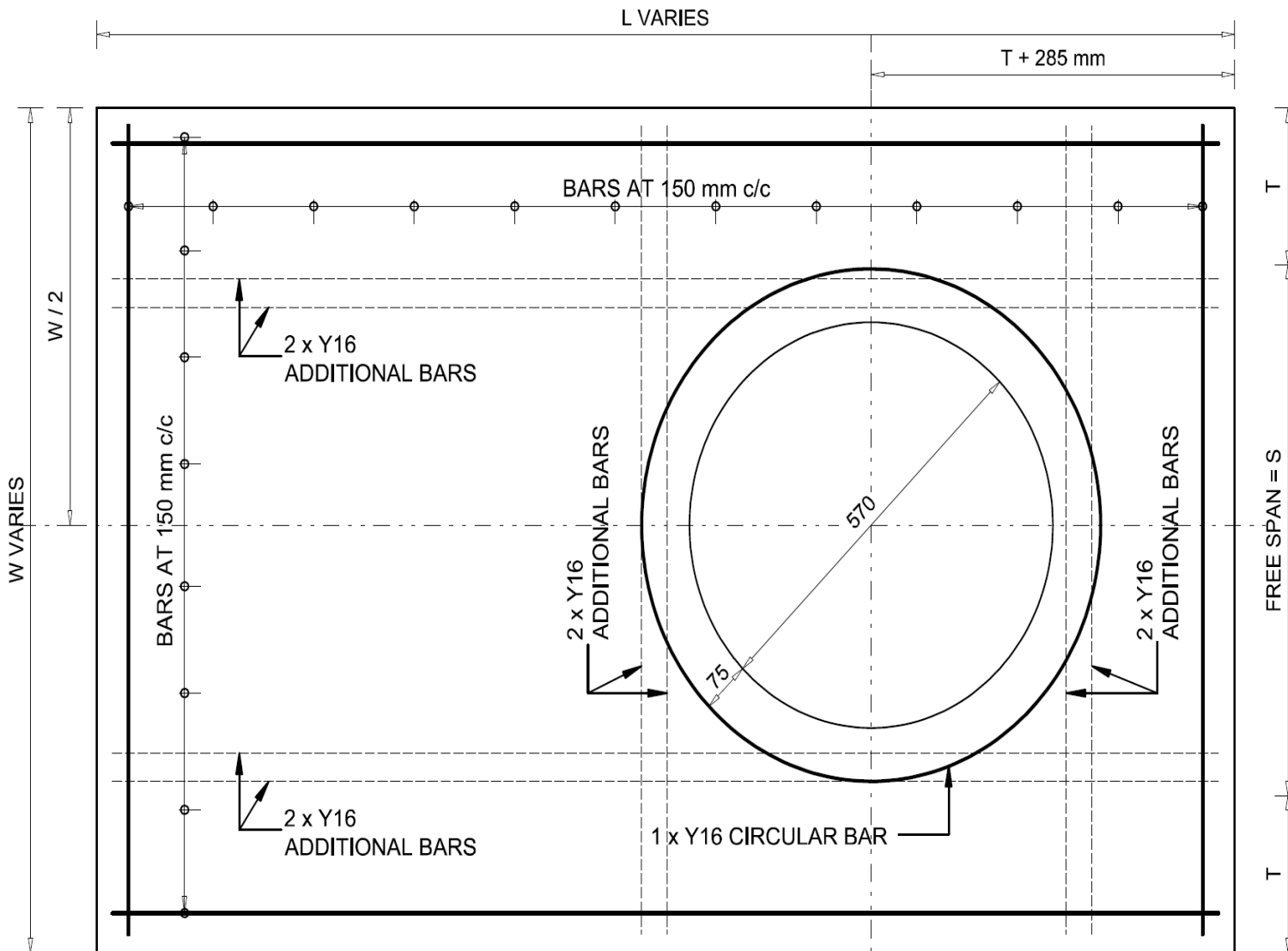
SECTIONAL PLAN

NOTES:

1. HINGED DUCTILE IRON COVER AND FRAME: SANS 50124 CLASS D400 SECUREZ Z-600-D (LOCKABLE) OR SIMILAR APPROVED
2. FOR USE WHERE DEPTH FROM COVER TO INVERT LEVEL IS 2,5M OR LESS.
3. STEP IRONS TO BE INSTALLED WHERE DEPTH FROM COVER TO INVERT IS MORE THAN 1,0M.
4. STEP IRONS SHALL HAVE A VERTICAL SPACING OF 300MM AND BE STAGGERED ALTERNATIVELY LEFT AND RIGHT AT 300MM C/C.
5. PIPE AND BENCHING ARRANGEMENT TYPICAL. VARIES WITH LAYOUT.



SECTION A - A



S	SLAB THICKNESS	BAR Ø
0 TO 1,5	150	Y16
>1,5 TO 2,5	200	Y25

NOTES:	
1. For use with Type C and D Manholes.	
2. Concrete 25 MPa.	
3. Minimum cover to reinforcement 25mm.	
4. All reinforcement to be placed at bottom of slab. Short span B1.	
5. T: Wall width of brickwork.	



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STANDARD DETAIL DRAWING

COVER SLAB : TYPE C

Scale Paper Size

N.T.S. A4

Drawing No.

SSW3

NOTES:

1. BENCHING REQUIRED TO PREVENT STANDING WATER.
2. BRICKWORK - ENGINEERING CLASS NFX
3. MORTAR FOR BRICKWORK TO BE 1:3
4. WHERE DEPTH > 1000 USE STANDARD SW MANHOLE

HINGED COVER AND FRAME : DUCTILE IRON CLASS B125
(SANS 50124) SAINT GOBAIN (AKSESS RANGE) OR
SIMILAR APPROVED

ROAD OR FOOTWAY LEVEL (OR AS DIRECTED BY ENGINEER)

MORTAR 1:3 BEDDING AND BACKING TROWEL FINISH
MIN. 1 COURSE, MAX. 3 COURSES BRICKWORK

PRECAST CONCRETE COVER SLAB
PRECAST CONCRETE RING 1000 DIA.

PERFORMED PETROLATUM FLEXIBLE JOINING COMPOUND

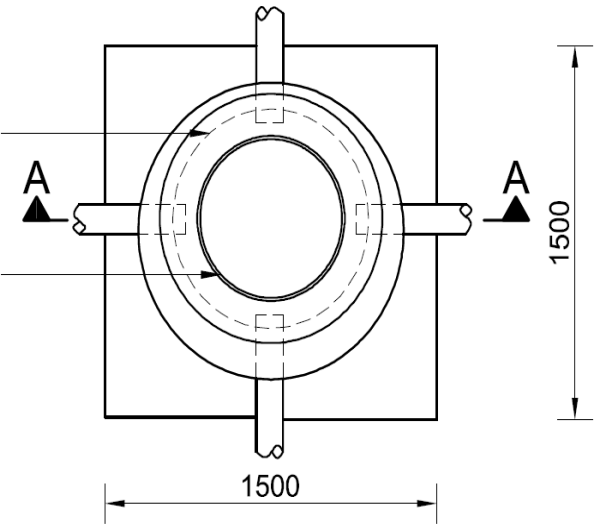
MORTAR 1:3 BEDDING AND BACKING TROWEL FINISH
BRICKWORK

110mmØ OR 160mmØ SUB-SOIL PIPE

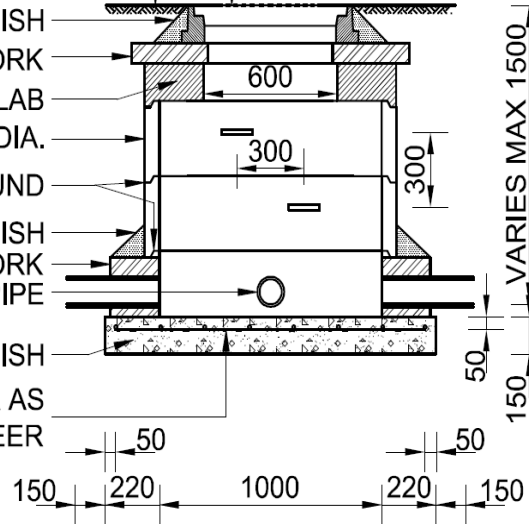
CONCRETE SLAB GRADE 20/19 TROWEL FINISH
MIN. MESH REINFORCEMENT REF NO. 311 OR AS
DIRECTED BY THE ENGINEER

PRECAST CONCRETE SLAB

ACCESS SHAFT OFFSET
TO SUIT STEP IRONS



PLAN



SECTION A - A



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STANDARD DETAIL DRAWING

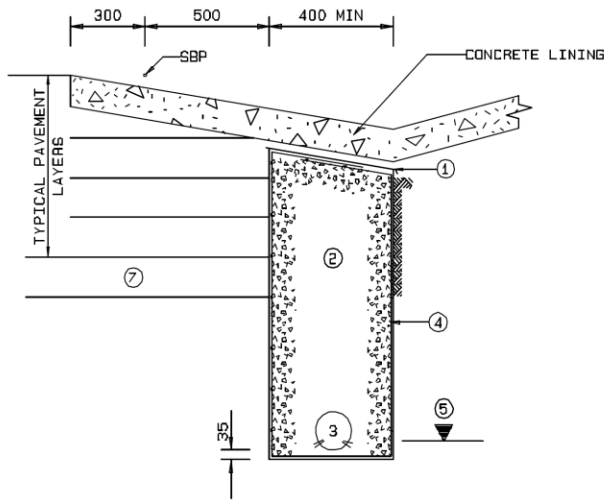
MANHOLE FOR SUB SURFACE DRAIN

Scale Paper Size

N.T.S. A4

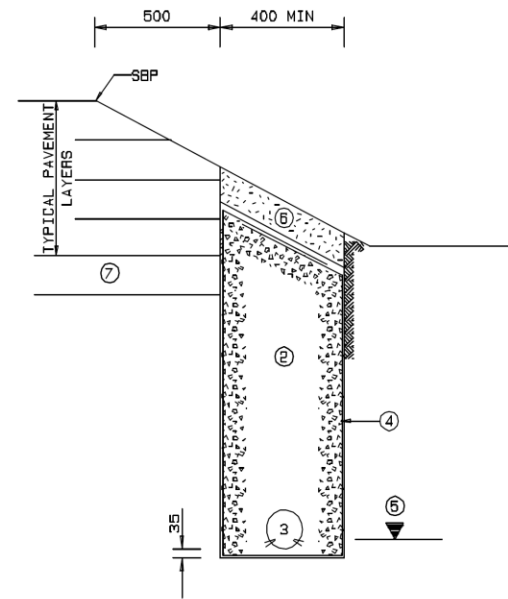
Drawing No.

SSW19



TYPICAL CROSS SECTIONS WITH A
CONCRETE SIDE DRAIN

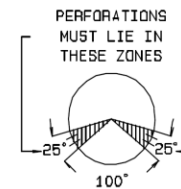
SCALE 1:15



TYPICAL CROSS SECTIONS WITH AN
UNLINED EARTH SIDE DRAIN

SCALE 1:15

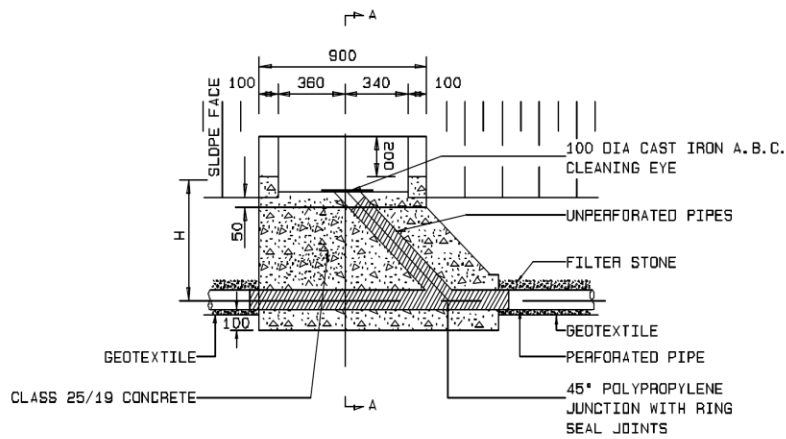
NO.	DESCRIPTION
①	150 MICRON POLYETHYLENE SHEETING
②	FILTER STONE : 19,0mm NOMINAL SIZE STONE
③	PERFORATED PIPES (MINIMUM 100mm DIA.)
④	GRADE 2 OR GRADE 3 GEOTEXTILE AS REQUIRED
⑤	LEVEL TO WHICH SURROUNDING AREA IS TO BE DRAINED
⑥	SDIL CEMENT SEAL USING STIFF MIXTURE AS DESCRIBED IN CLAUSE 2211 OF THE COLTO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE WORKS
⑦	DRAINABLE SELECTED SUBGRADE LAYER, IF REQUIRED



DETAIL OF PERFORATIONS

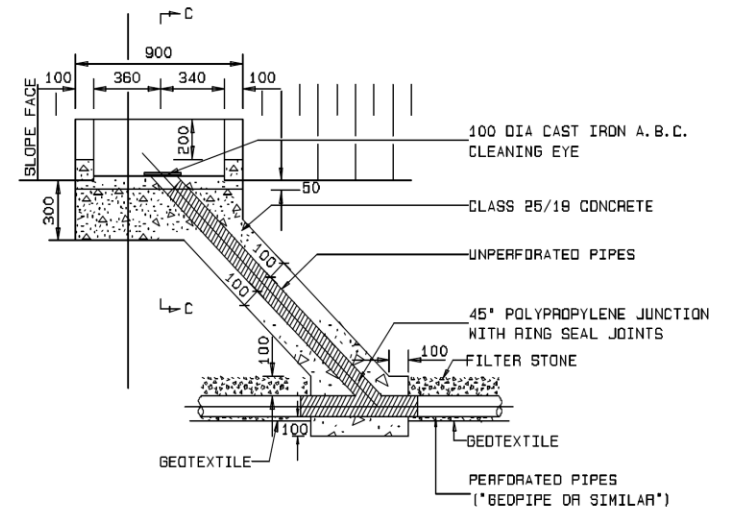
N. T. S.

INDEX NO. WCS/21/3/C2	NO. AMENDMENTS	APPROVED	DATE	PROVINCIAL ADMINISTRATION : WESTERN CAPE TRANSPORT BRANCH	DRAWN BY AFRICOM	SCALE : AS SHOWN	SUBSURFACE DRAINAGE	INDEX NO. WCS/21/3/C2
PLAN NO. SHEET 2 OF 4				B. H. W. VELDMAN CHIEF DIRECTOR	SEPTENBER 2000 DATE APPROVED	A2 ORIGINAL	DETAILS OF SUBSURFACE SYSTEMS	PLAN NO. SHEET 2 OF 4



SECTION B-B

SCALE 1:20

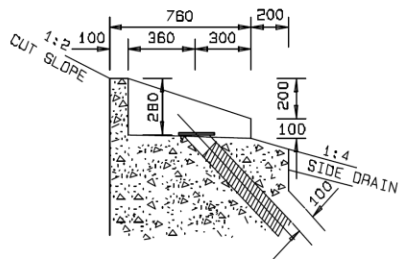


SECTION D-D

SCALE 1:20

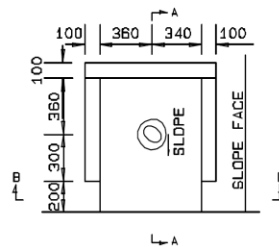
NOTES

1. POSITION OF CLEANING EYES :
 - (a) WHERE NO HAZARD IS CAUSED TO TRAFFIC OR MAINTENANCE IN THE ROAD RESERVE
 - (b) CLEARLY VISIBLE
2. MAXIMUM SPACING : 100m

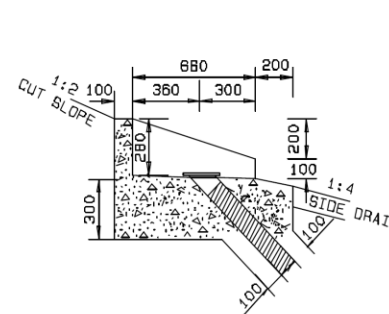


SECTION A-A

SCALE 1:20

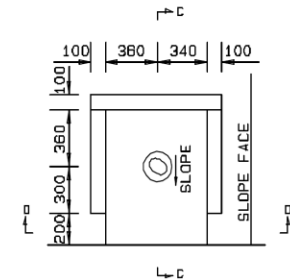


PART PLAN



SECTION C-C

SCALE 1:20



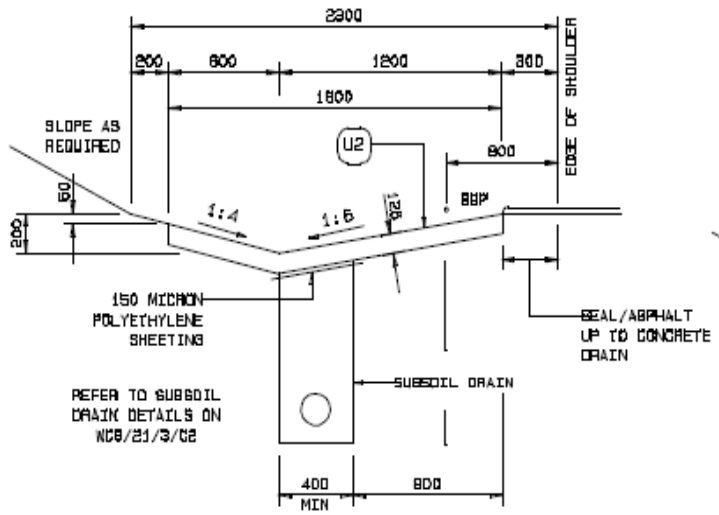
PART PLAN

CLEANING EYE TYPE 1 (H ≤ 1000)

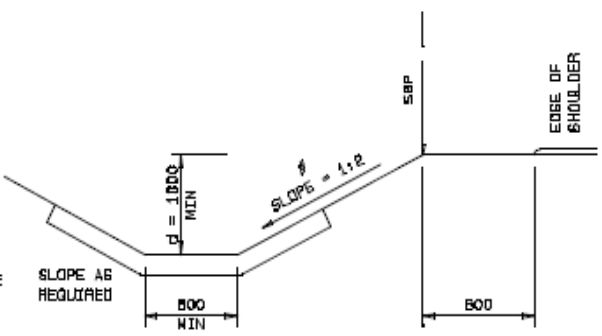
CLEANING EYE TYPE 2 (H > 1000)

INDEX NO. WCS/21/3/C3	NO	AMENDMENTS	APPROVED	DATE	PROVINCIAL ADMINISTRATION : WESTERN CAPE TRANSPORT BRANCH	DRAWN BY : AFRICAN	SCALE : N.T.S.	SUBSURFACE DRAINAGE	INDEX NO. WCS/21/3/C3
PLAN NO. SHEET 3 OF 4					B. H. N. VELDMAN CHIEF DIRECTOR	DESIGNED BY	A2 ORIGINAL	TYPICAL DETAILS OF CLEANING EYES	PLAN NO. SHEET 3 OF 4
					SEPTEMBER 2000 DATE APPROVED	CHECKED BY			
						FILE NO.			

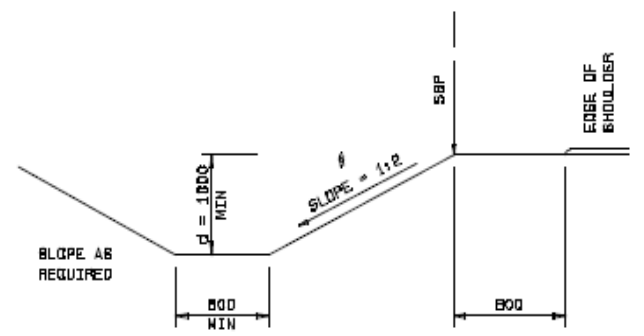
LEGEND
 SBP - SHOULDER BREAK POINT
 # = UNLESS OTHERWISE INDICATED IN THE PROJECT SPECIFICATIONS



CONCRETE SIDE DRAIN
 SCALE 1:20



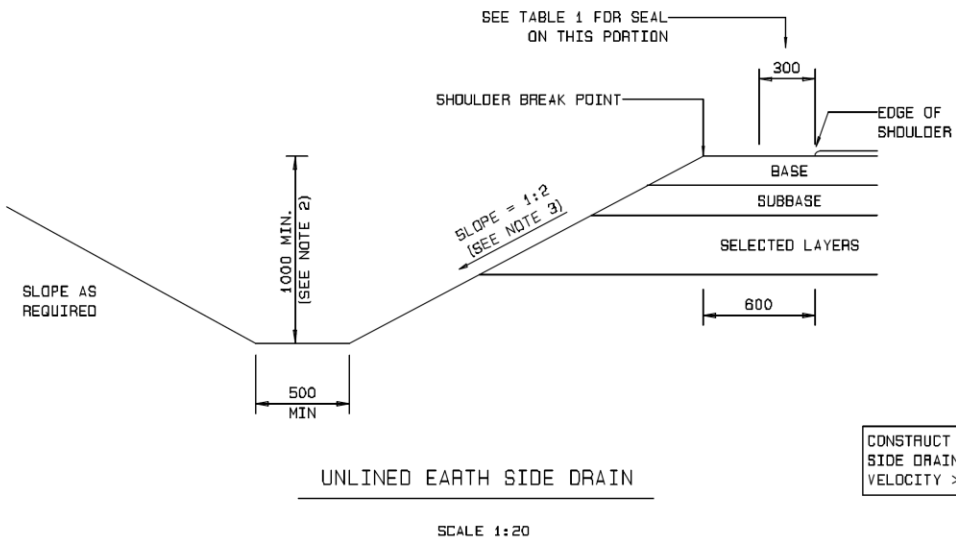
LINED



UNLINED

EARTH SIDE DRAIN
 SCALE 1:20

APPLICATION CRITERIA	<ul style="list-style-type: none"> SLOPE < 0,5% SLOPE > 2,0% WHERE SPECIFIED BY THE ENGINEER 	<ul style="list-style-type: none"> WHERE SPECIFIED BY THE ENGINEER 	<ul style="list-style-type: none"> 0,5% < SLOPE < 2,0% WHERE SPECIFIED BY THE ENGINEER
SUBSOIL DRAIN	COMPULSORY	<ul style="list-style-type: none"> WHERE SPECIFIED BY THE ENGINEER SUBJECT TO APPROVAL OF THE PROVINCIAL ADMINISTRATION WESTERN CAPE 	<ul style="list-style-type: none"> WHERE SPECIFIED BY THE ENGINEER SUBJECT TO APPROVAL OF THE PROVINCIAL ADMINISTRATION WESTERN CAPE



CONSTRUCT LINED SIDE DRAIN IF VELOCITY > 1,5 m/s

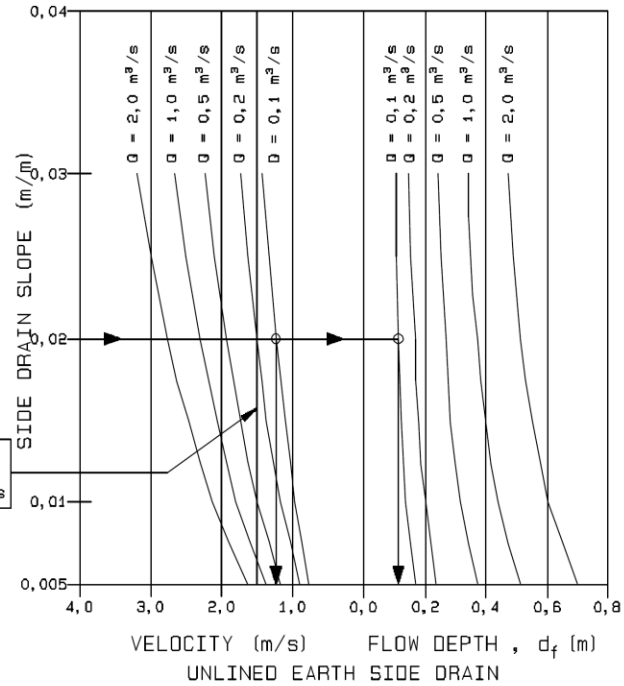
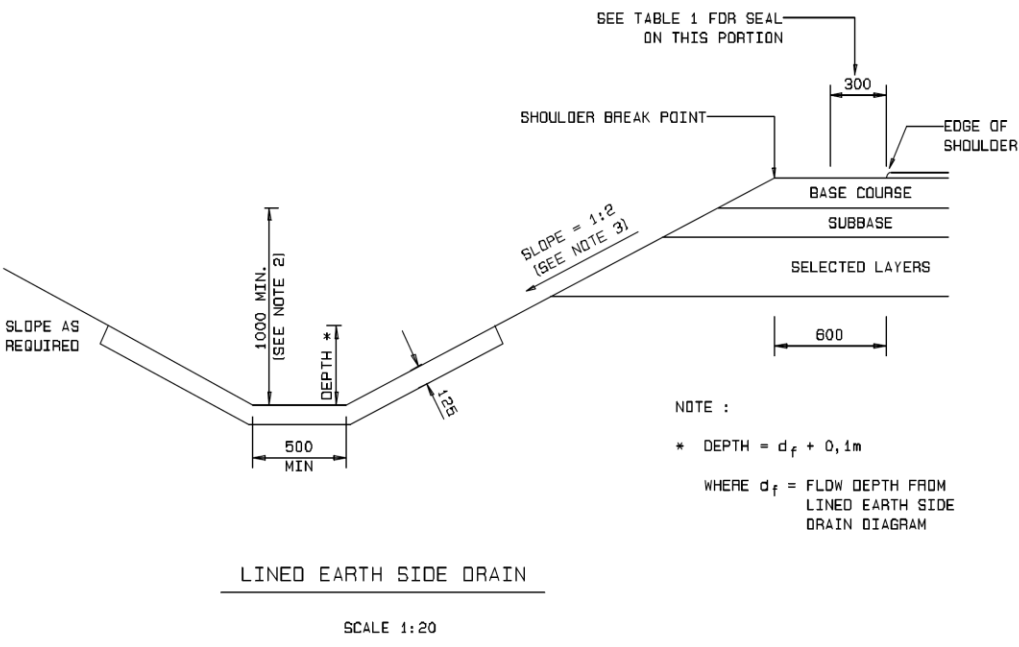
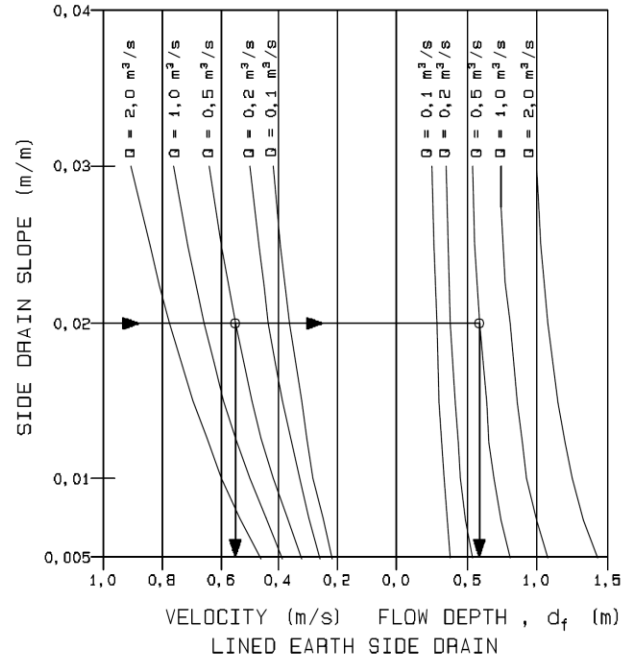


TABLE 1	
BITUMINOUS SURFACING	APPLICATION
CAPE SEAL	PRIME COAT + 2nd SLURRY
DOUBLE SEAL	PRIME COAT + 7mm STONE
ASPHALT	PRIME COAT

CONSTANTS USED IN CALCULATIONS	
INVERT WIDTH	= 0,5m
CUT SLOPE	= 1:1,5
MANNING CONSTANT	= 0,022 FOR UNLINED DRAINS
	= 0,012 FOR CONCRETE LINED DRAINS



NOTE :
* DEPTH = $d_f + 0,1m$
WHERE d_f = FLOW DEPTH FROM LINED EARTH SIDE DRAIN DIAGRAM



- NOTES :
- APPLICATION CRITERIA
(a) 0,5% < SLOPE < 2,0%
(b) IF REQUIRED BY THE ENGINEER
 - USE THE UNLINED EARTH SIDE DRAIN DIAGRAM TO DETERMINE WHETHER A LINED SIDE DRAIN IS REQUIRED.
 - WHERE THIS DEPTH CANNOT BE ACHIEVED, SHALLOWER DEPTHS MAY BE PERMITTED SUBJECT TO APPROVAL BY THE ENGINEER. IN SUCH CASES THE ENGINEER MUST DETERMINE WHETHER A SUBSOIL DRAIN IS REQUIRED.
 - UNLESS OTHERWISE INDICATED IN THE PROJECT SPECIFICATION

INDEX NO. WCS/23/3/D2	NO AMENDMENTS	APPROVED	DATE	PROVINCIAL ADMINISTRATION : WESTERN CAPE TRANSPORT BRANCH	DRAWN BY AFRICON	SCALE : AS SHOWN	SIDE DRAINS	INDEX NO. WCS/23/3/D2
PLAN NO. SHEET 2 OF 2				B. H. N. VELOMAN CHIEF DIRECTOR	SEPTEMBER 2000 DATE APPROVED			

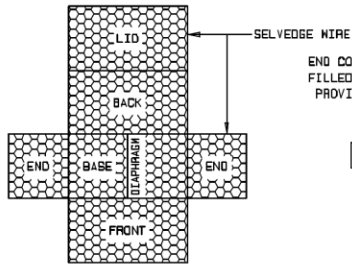


FIGURE 1

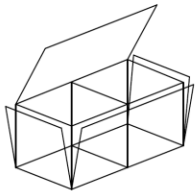


FIGURE 2

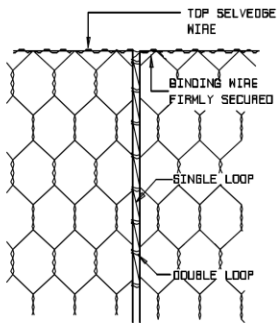


FIGURE 3

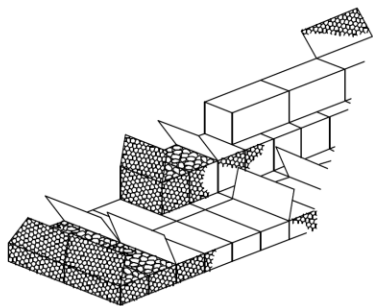


FIGURE 4

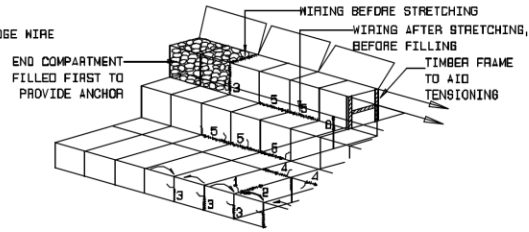


FIGURE 5

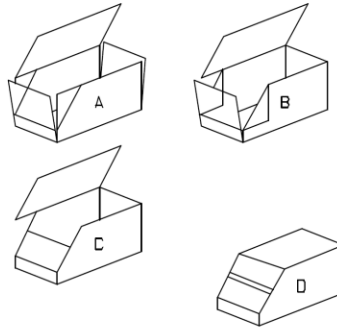


FIGURE 6

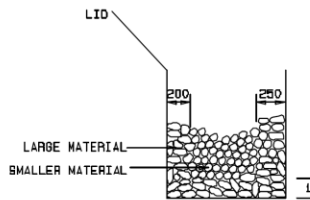


FIGURE 7

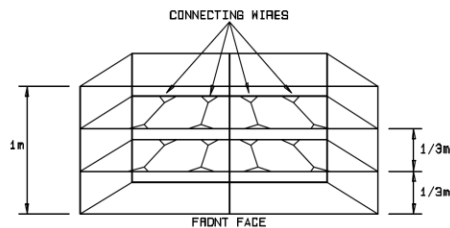


FIGURE 8

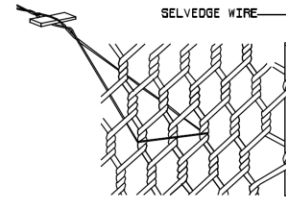


FIGURE 9

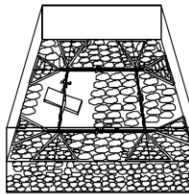


FIGURE 10

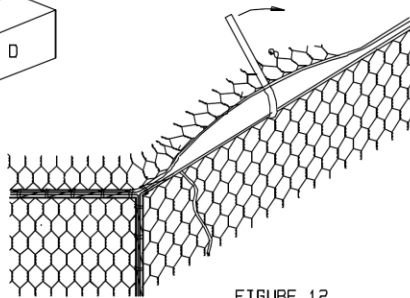


FIGURE 12

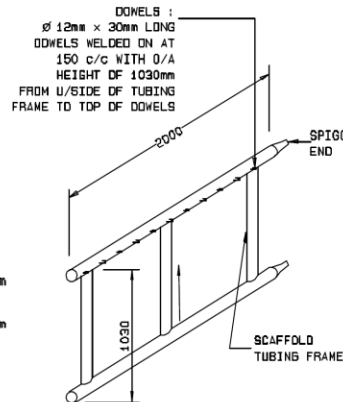


FIGURE 11

ASSEMBLY :

1. UNFOLD EACH GABION ON A HARD FLAT SURFACE. STRETCH IT OUT AND STAMP OUT ANY KINKS. MAKE SURE THAT ALL CREASES ARE IN THE CORRECT POSITIONS FOR FORMING THE BOX - ONE AT THE EDGE OF EACH PANEL AND EACH DIAPHRAGM (FIGURE 1).
2. FOLD THE SIDE AND END PANELS INTO THE UPRIGHT POSITION TO FORM A RECTANGULAR BOX. JOIN THE TOP CORNERS OF THE BOX TOGETHER WITH THE THICK SELVEDGE WIRE STICKING OUT FROM THE CORNERS OF EACH PANEL. THIS ENSURES THAT THE TOPS OF ALL FOUR SIDES OF THE BOX ARE LEVEL (FIGURE 2).
3. SECURING THE BINDING WIRE AROUND THE TOP SELVEDGES OF THE PANELS TO BE JOINED TOGETHER, LACE THE WIRE AROUND THE TWO EDGE SELVEDGES WITH SINGLE LOOPS AND DOUBLE LOOPS IN TURN AT 100mm INTERVALS (FIGURE 3). FINALLY, FASTEN THE WIRE SECURELY AT THE BOTTOM CORNER SELVEDGES AND POKE THE LOOSE END INSIDE THE GABION BOX. THEN LIFT THE DIAPHRAGMS INTO THE VERTICAL POSITION AND WIRE THEM UP TO THE SIDE PANELS IN EXACTLY THE SAME WAY. THE TIGHTNESS OF THE MESH AND WIRING IS ESSENTIAL AT ALL TIMES.
4. IT IS GOOD CONSTRUCTION PRACTICE TO LACE SMALL GROUPS OF GABION BOXES TOGETHER AS COMPLETE SECTIONS BEFORE JOINING THEM TO THE REST OF THE STRUCTURE, USING EXACTLY THE SAME METHOD AS FOR ASSEMBLING SINGLE BOXES. PLACE THEM FRONT TO FRONT AND BACK TO BACK, SO THAT PAIRS OF FACING LIDS CAN LATER BE WIRED DOWN SIMULTANEOUSLY (FIGURE 4).

FORMING THE STRUCTURE :

1. THE SURFACE ON WHICH THE GABION BOXES ARE TO BE CONSTRUCTED, SHALL BE CONSTRUCTED TO THE SPECIFIED DEPTH SO AS TO PRESENT AN EVEN SURFACE. CAVITIES BETWEEN HARD PROTRUSIONS SHALL BE FILLED WITH MATERIAL SIMILAR TO THAT BEING USED FOR FILLING THE GABIONS.
2. ONLY ASSEMBLED BOXES, OR GROUPS OF BOXES, SHALL BE POSITIONED IN THE STRUCTURE. THE SIDE OR END, FROM WHICH WORK IS TO PROCEED, SHALL BE SECURELY LACED TO COMPLETED WORK AT ALL CORNERS AND DIAPHRAGM POINTS (FIGURE 5), OR ANCHORED BY RODS DRIVEN INTO THE GROUND AT THESE POSITIONS. THE RODS MUST BE SECURED AND REACH AT LEAST TO THE TOP OF THE GABION BOX.
3. STRETCH THE OPPOSITE SIDE OF THE BOX OR SECTION BY INSERTING BARS INTO THE BOTTOM CORNERS AND LEVERING THEM FORWARD BY MEANS OF A WIRE STRAINER OR WINCH. THE TOP AND BOTTOM ARE THEN KEPT STRETCHED IN THIS WAY UNTIL THE GABION HAS BEEN FILLED. WHILE THE GABION IS BEING STRETCHED, ENSURE THAT THE OPPOSITE WIRING OR ANCHORING HAS BEEN PROPERLY CARRIED OUT AND IS NOT PULLING APART OR COLLAPSING (FIGURE 5) THE NEXT STEP IS TO WIRE ALL THE OTHER SIDES AND ENDS OF THE STRETCHED SECTION TO ADJOINING ALREADY FILLED GABIONS (FIGURE 5). THE STRONG INTER-CONNECTION OF ALL UNITS IN A GABION STRUCTURE IS AN IMPORTANT FEATURE OF THE TECHNIQUE AND IT IS THEREFORE ESSENTIAL THAT THE WIRING IS SECURE.
4. WHERE GABION STRUCTURES WITH NON-RECTANGULAR SHAPES ARE SPECIFIED, MODIFICATIONS TO THE BOXES ARE REQUIRED. GABION BOXES ARE FLEXIBLE ENOUGH TO CONFORM TO BENDS DOWN TO A RADIUS OF 25m WITHOUT WIRING. FIRST WIRE A NUMBER OF BOXES TOGETHER AND BEND THEM UP TO THE CURVE SET OUT PREVIOUSLY, HOLDING THEM IN POSITION DURING FILLING. OTHER SHAPES, BEVELS AND MITRES, SHOULD BE FORMED BY CUTTING AND FOLDING THE PANELS TO THE REQUIRED ANGLES AND SIZES (FIGURE 6).

ROCK FILLING :

1. FILLING SHALL BE CARRIED OUT ONLY WHILST GABION BOXES ARE UNDER TENSION.
2. FILLING MATERIAL SHOULD BE HARD DURABLE STONE NOT LARGER THAN 250mm AND NOT SMALLER THAN THE SIZE OF THE MESH. IDEALLY THE STONE SHOULD BE JUST SLIGHTLY LARGER THAN THE MESH SIZE IN ORDER TO ALLOW FLEXIBILITY IN THE STRUCTURE BUT AT THE SAME TIME FILLS THE GABION COMPARTMENTS WITH THE MINIMUM OF Voids AND THE MAXIMUM MASS.
3. IN AREAS WHERE LARGE ENOUGH FILL IS DIFFICULT TO OBTAIN, THE COMPARTMENT IS LINED WITH LARGE MATERIAL AND THE INTERIOR FILLED WITH SMALLER. THE SMALL MATERIAL CAN BE 5% TO 7% OF THE FILL (FIGURE 7). CARE SHALL BE TAKEN IN PACKING THE VISIBLE FACES OF GABION BOXES WHERE ONLY SELECTED STONE OF THE SPECIFIED SIZE SHALL BE USED SO AS TO OBTAIN AN EVEN FACED FINISH.
4. TO AVOID BULGING ON THE VISIBLE SIDE OF THE STRUCTURE, FILL ALL THE OUTSIDE BOXES IN STAGES (1.0m HIGH BOXES IN THREE LEVELS AND 0.5m HIGH BOXES IN TWO LEVELS) WITH HORIZONTAL BRACING IN BETWEEN (FIGURE 8). FIX THE BRACING WIRES IN THE GABION BOX DIRECTLY ABOVE THE STONE LEVEL MAKING SURE THE WIRE PASSES ROUND AT LEAST TWO MESH WIDTHS AND "SPANISH" HINDLASS THE BRACING WIRES TO KEEP THE FACE EVEN AND FREE FROM BULGING (FIGURE 8). BRACING IN BOTH DIRECTIONS SHOULD BE USED IN GABIONS AT CORNERS OF STRUCTURES (FIGURE 10). AS AN ADDITIONAL MEASURE, SCAFFOLD PLANKING AS SHUTTERING ALONG THE FRONT FACE OR A PRE-FABRICATED SCAFFOLD TUBING FRAME SYSTEM CAN BE USED (FIGURE 11).
5. LEVEL OFF THE FILL 25mm TO 50mm ABOVE THE TOP OF THE MESH TO ALLOW FOR SETTLEMENT. SMALL MATERIAL IS BEST FOR THIS.
6. STRETCH THE LIDS TIGHTLY OVER THE FILLING USING A CROWBAR. SECURE THE CORNERS FIRST, BY MEANS OF THE THICK SELVEDGE WIRE PROTRUDING FROM THE LID CORNERS, TO ENSURE THAT THERE IS ENOUGH MESH TO COVER THE WHOLE AREA. SOME FILLING MAY HAVE TO BE REMOVED FROM THE TOP OF THE GABION BOX TO PREVENT THE LID FROM OVERTRAINING, THEN SECURELY WIRE IT TO THE TOPS OF THE SIDES, ENDS AND DIAPHRAGMS, USING THE ALTERNATE SINGLE AND DOUBLE LOOPS (FIGURE 12).

INDEX NO. WCS/52/1/C1	NO	AMENDMENTS	APPROVED	DATE	PROVINCIAL ADMINISTRATION : WESTERN CAPE TRANSPORT BRANCH	DRAWN BY AFRZCHN	SCALE : N.T.S.	GABIONS	INDEX NO. WCS/52/1/C1
PLAN NO. SHEET 1 OF 2					B. H. V. VELDMAN CHIEF DIRECTOR	FILE NO.	A2 ORIGINAL		ASSEMBLY AND ERECTION OF GABION BOXES
					SEPTEMBER 2000 DATE APPROVED				