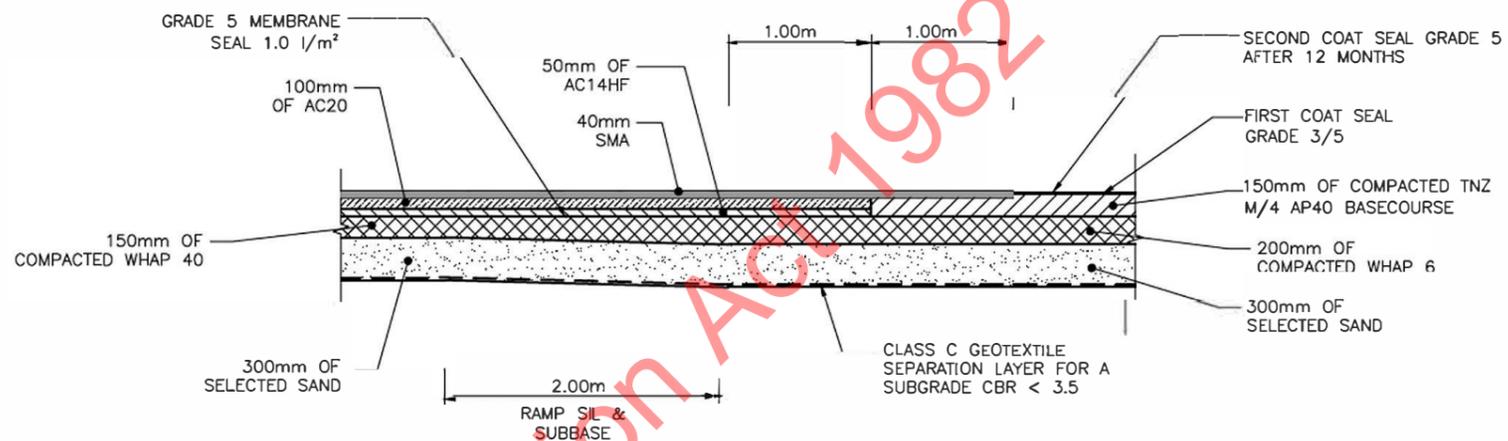


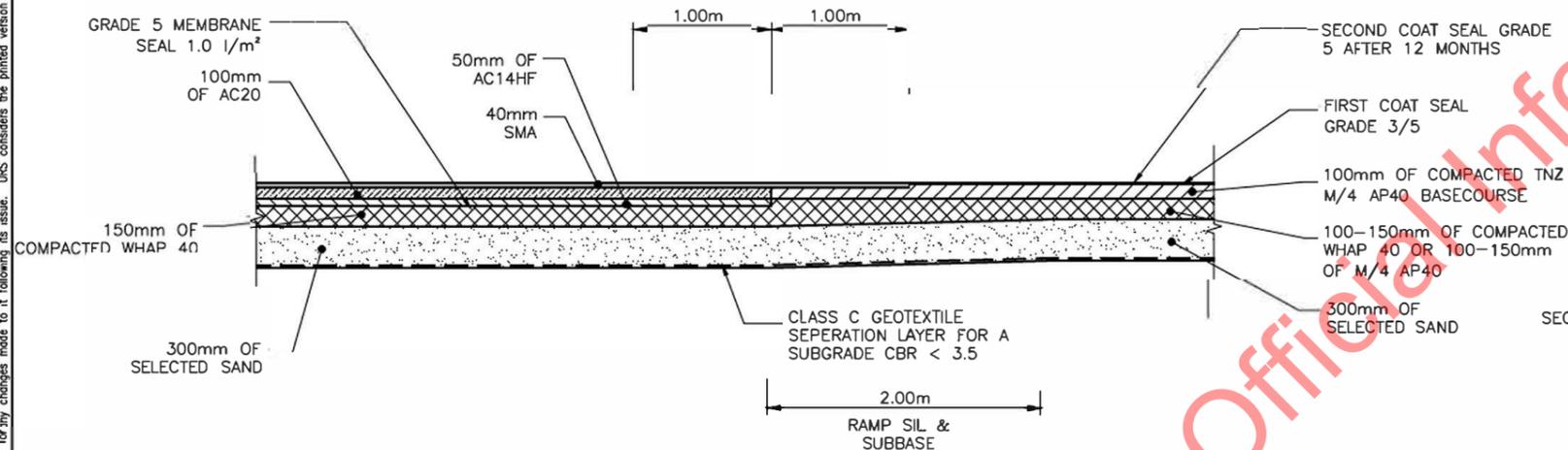
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**NOTE:**

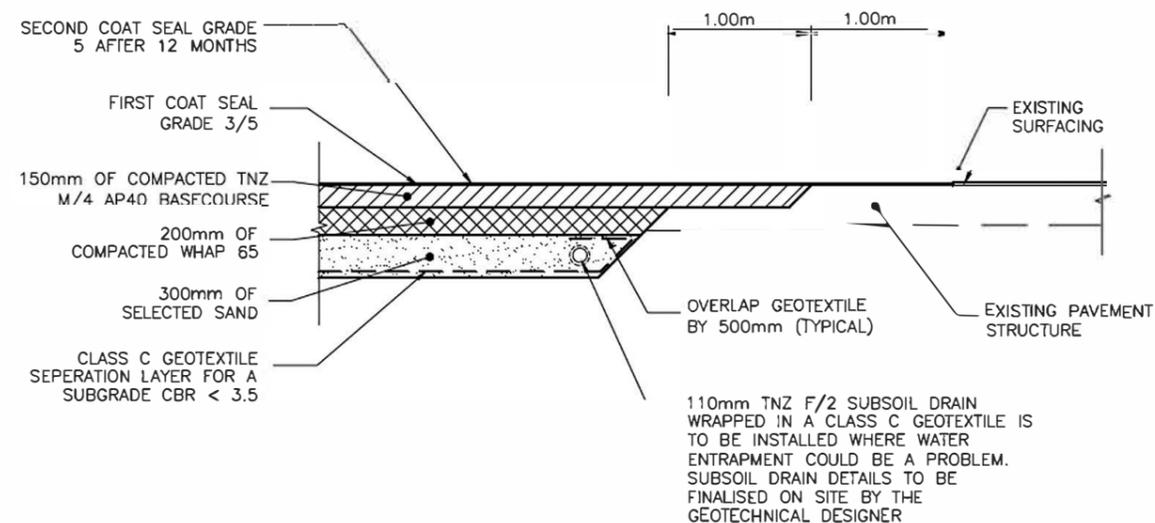
1. A TACK COAT IS TO BE APPLIED BETWEEN THE AC14HF & AC20 AT AN APPLICATION RATE OF 0.3 l/m<sup>2</sup>.
2. A TACK COAT IS TO BE APPLIED BETWEEN THE AC20 & SMA10 AT AN APPLICATION RATE OF 0.3 l/m<sup>2</sup>.



1 TYPE A PAVEMENT JOINT DETAIL



2 TYPE B PAVEMENT JOINT DETAIL



3 TYPE C PAVEMENT JOINT DETAIL

Approved for Issue		s 9(2)(a)	
Tob		032	
Scales		1:25 A1 1:50 A3	
Original Size		A1	
Date		16.09.15	
Drawn		s 9(2)(a)	
Designed		s 9(2)(a)	
Design Checked		s 9(2)(a)	
Approved		s 9(2)(a)	
Revision Description		AB AS-BUILT	
Revision		AS-BUILT	
Drawing Number		C-115-032	
Revision		AB	

**WAIKATO EXPRESSWAY: TAMAHERE TO CAMBRIDGE SECTION**

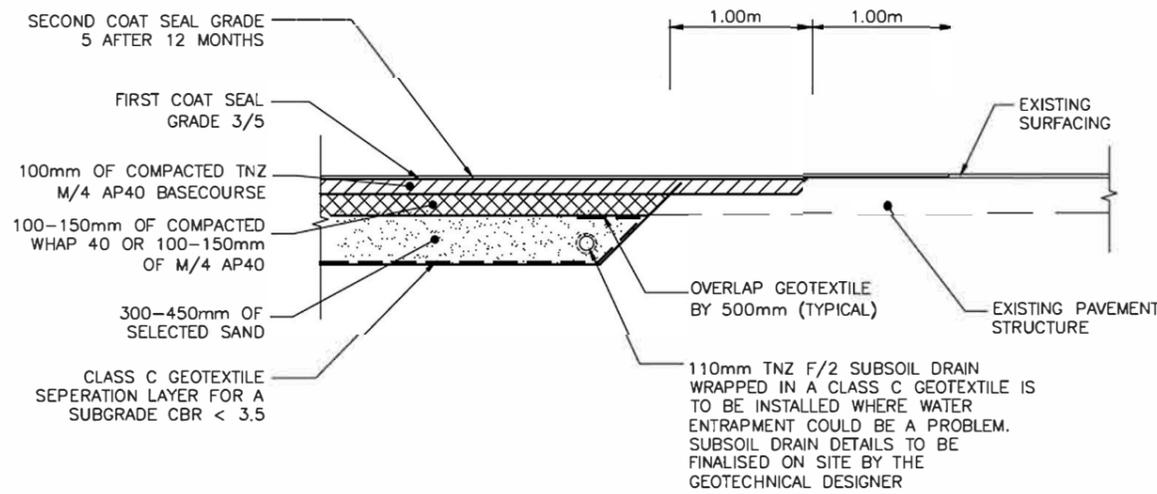
**LOCAL ROADS  
TYPICAL DETAILS  
SHEET 1 OF 2**

Approved for Issue

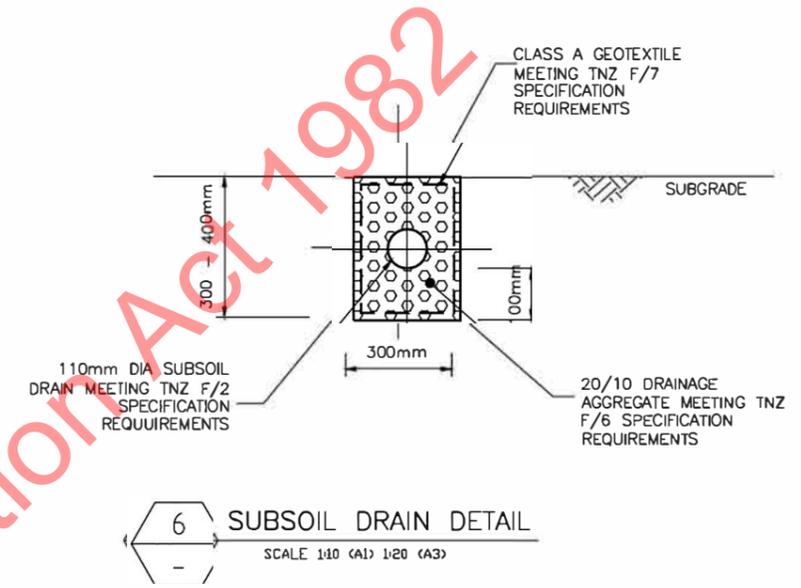
s 9(2)(a)

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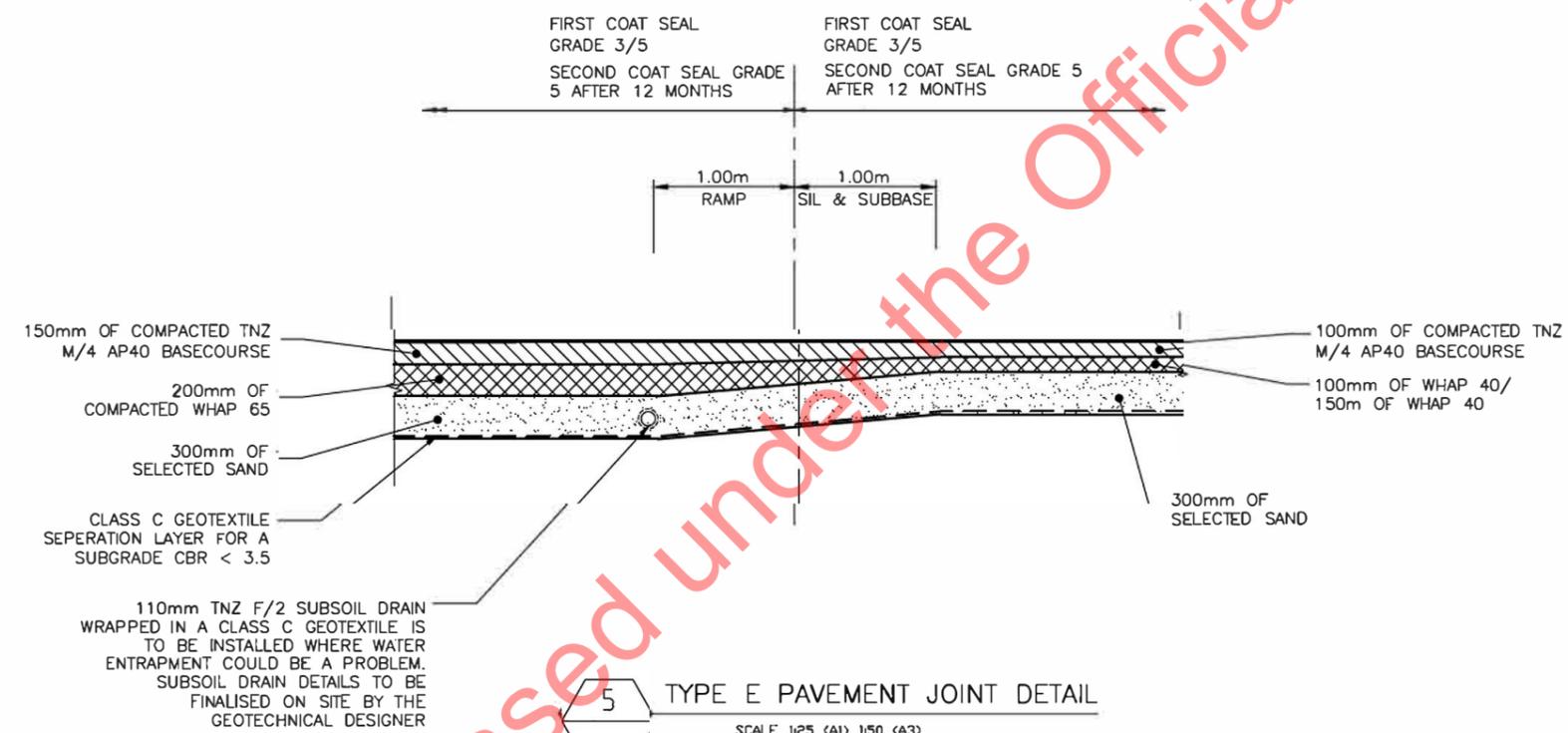
This design is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made. It is prepared in accordance with the scope of work and for the purpose outlined in the contract dated 27 Sept 2012. No responsibility is accepted for use of any part of this design in any other context or for any other purpose. URS accepts no liability for the use of this drawing where it has been provided in electronic format, nor for any changes made to it following its issue. URS considers the printed version to be binding. A hard copy of this drawing is held on file by URS and may be provided if requested.



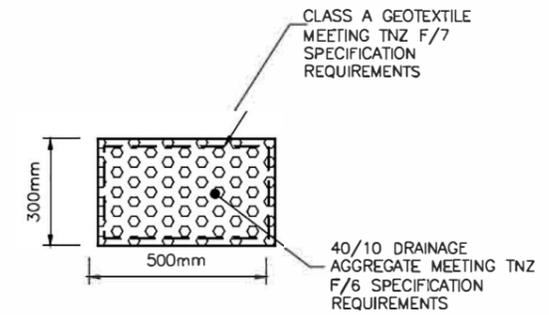
**4 TYPE D PAVEMENT JOINT DETAIL**  
 SCALE 1:25 (A1) 1:50 (A3)



**6 SUBSOIL DRAIN DETAIL**  
 SCALE 1:10 (A1) 1:20 (A3)



**5 TYPE E PAVEMENT JOINT DETAIL**  
 SCALE 1:25 (A1) 1:50 (A3)



**7 GEOTEXTILE WRAPPED AGGREGATE DRAIN DETAIL**  
 SCALE 1:10 (A1) 1:20 (A3)

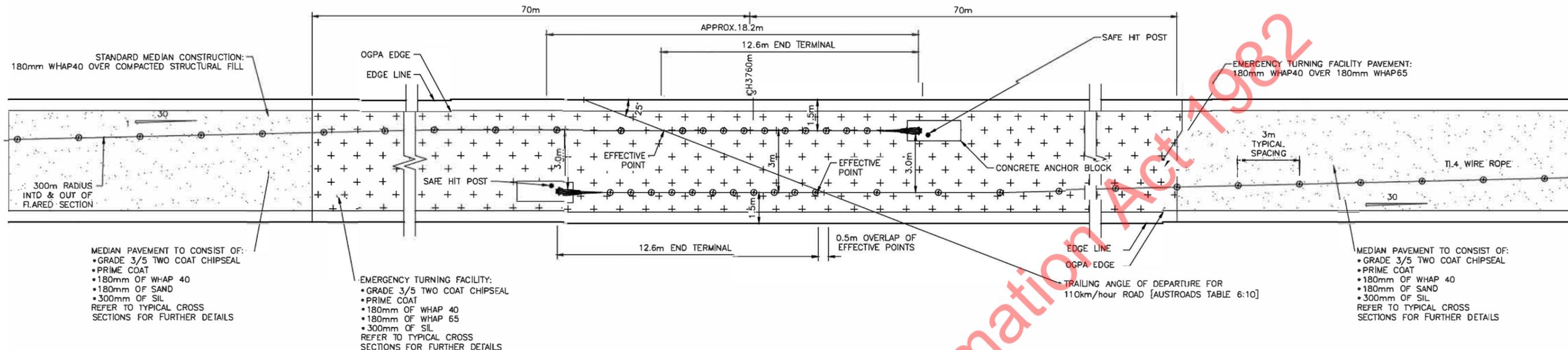
Approved for Issue  
s 9(2)(a)

AB	AS-BUILT	16.09.15	Original Size	A1
Rev	Revision Description	Drawn	Designed	Design Checked
		Approved		

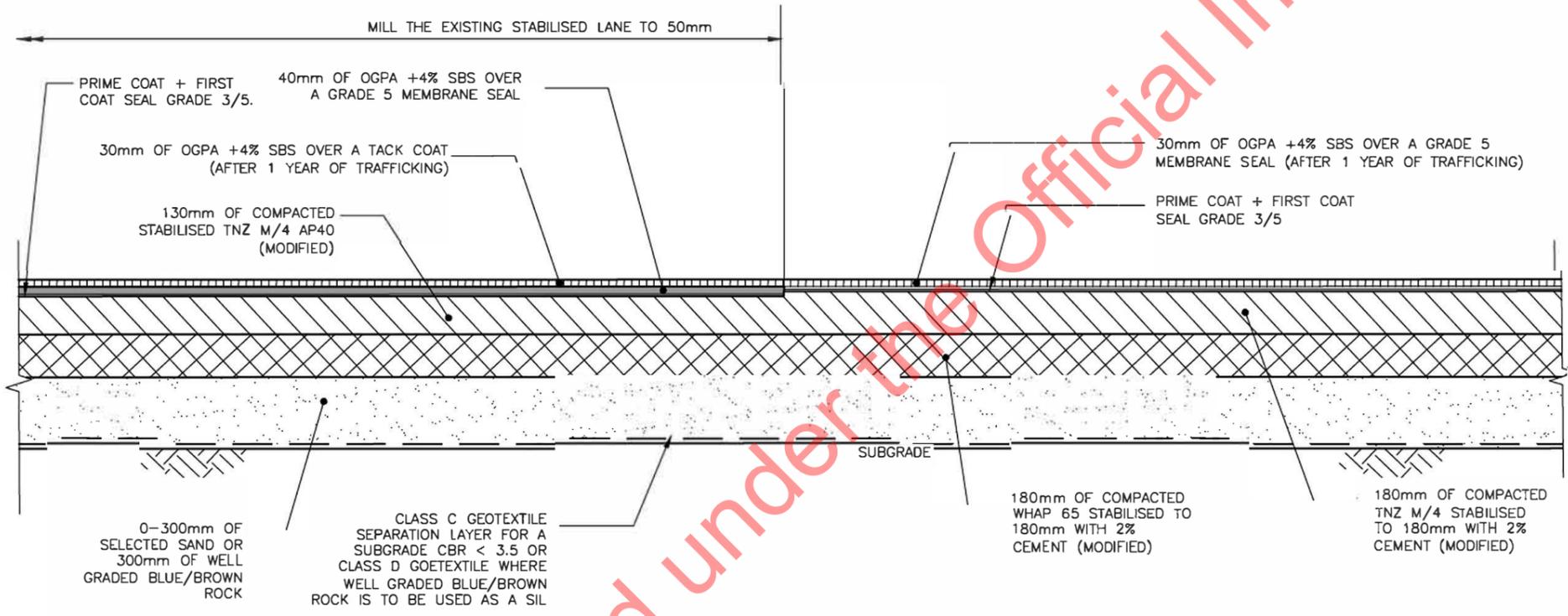
Tob 033  
 Scales 1:25 A1 1:50 A3  
 Date 16.09.15  
 Original Size A1

**WAIKATO EXPRESSWAY: TAMAHERE TO CAMBRIDGE SECTION**  
 LOCAL ROADS TYPICAL DETAILS SHEET 2 OF 2  
 Status AS-BUILT  
 Drawing Number C-115-033  
 Revision AB

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10 PAVEMENT DETAIL PLAN - MEDIAN EMERGENCY VEHICLE TURNING  
SCALE: 1:100 (A1)  
1:200 (A3)



1 MAIN ALIGNMENT LONG SECTION THROUGH TRANSITION BETWEEN CHIPSEAL & OGPA SURFACING AT OPENING WHERE MITIGATION WFD GREATER THAN 4mm  
SCALE: 1:25 (A1)  
1:50 (A3)

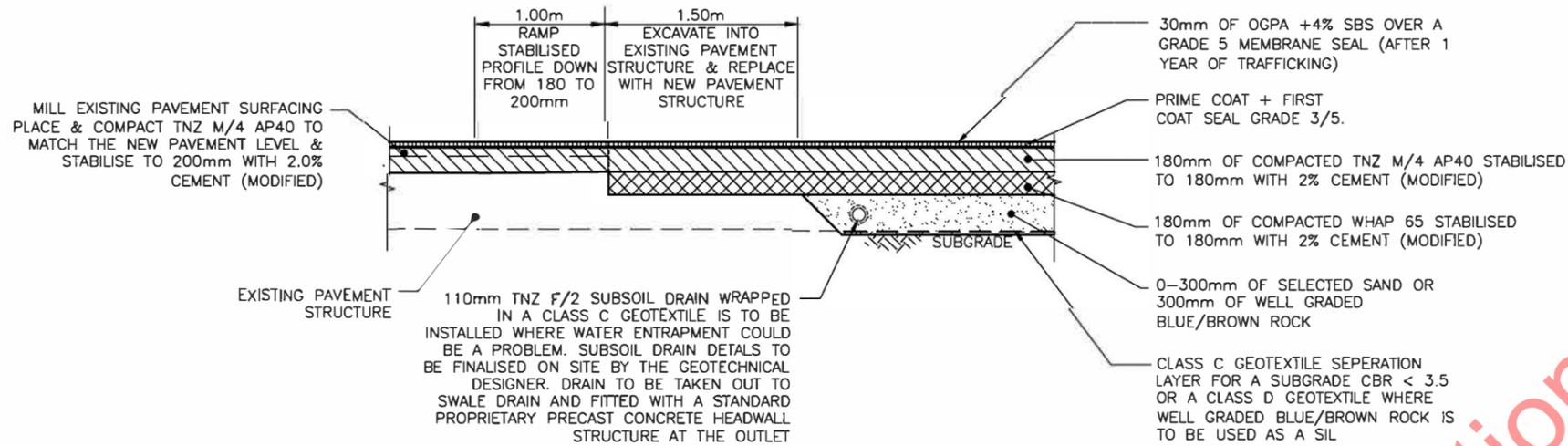
- NOTE:**
1. THE 40mm OGPA IS TO BE TAKEN OUT TO THE SHOULDER EDGE.
  2. WATERFILM MITIGATION LOCATIONS ARE SHOWN IN THE TABLE ON THIS SHEET. THE EXTENT OF WATER FILM MITIGATION FOR THESE SITES IS TO BE AGREED ON SITE WITH THE PRINCIPAL.
  3. THE 180mm STABILISED SUBBASE IS TO CONSIST OF 230mm OF WHAP65 STABILISED TO 180mm OF BLUE/BROWN ROCK IS USED. ALTERNATIVELY THE 230mm OF WHAP65 CAN BE MADE UP OF 180mm OF WHAP65 & 50mm OF SAND.
  4. A CEMENTED SUBBASE MAY BE ADOPTED AS A CONTINGENCY WHERE GROUND CONDITIONS DICTATE.
  5. CEMENTED SUBBASES ARE TO BE PRECRACKED USING A 12 TONNE STEEL WHEEL ROLLER IN STATIC MODE PRIOR TO THE CONSTRUCTION OF THE OVERLYING BASE LAYERS.
  6. IN ADDITION TO THE MITIGATION LOCATIONS LISTED IN TABLE 1 BELOW FURTHER INVESTIGATIONS ARE BEING CARRIED OUT RELATIVE TO POTENTIAL WATER FILM DEPTH ISSUES WHERE THE OGPA LAYER MAY ACT AS A BARRIER TO MEDIAN OR SHOULDER DRAINAGE. MITIGATION MEASURES MAY INCLUDE AN ADDITIONAL LAYER OF OGPA WHERE >4mm WATER FILM DEPTH OCCURS ON THE CARRIAGEWAY OR ADDITIONAL DRAINAGE FEATURES IN THE MEDIAN OR SHOULDERS. THESE WILL BE CONFIRMED WITH THE PRINCIPALS ADVISOR.

**WATER FILM MITIGATION LOCATIONS**

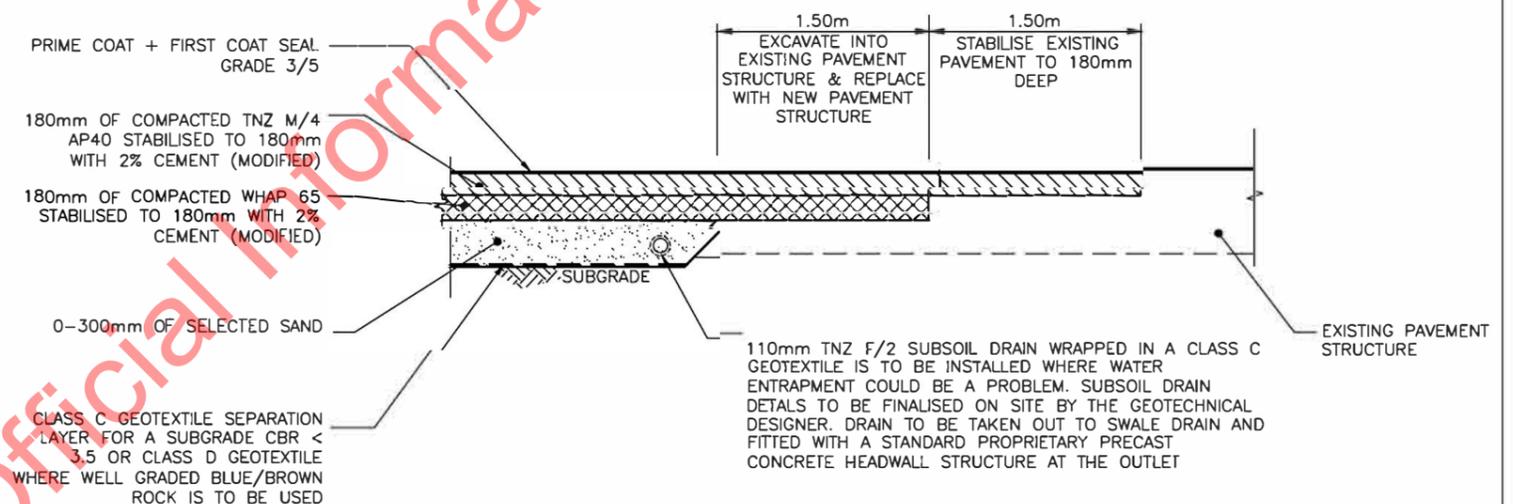
Ch. 1225-1230m Southbound
Ch. 1797-1802m Northbound
Ch. 4063-4073m Southbound
Ch. 4432-4437m Southbound
Ch. 5602-5612m Northbound
Ch. 6549-6554m Northbound
Ch. 11249-11264m Southbound
Ch. 12814-12824m Southbound

Approved for Issue		§ 9(2)(a)	
	Tab 035		<b>WAIKATO EXPRESSWAY: TAMAHERE TO CAMBRIDGE SECTION</b>
	Scales AS SHOWN		<b>MAIN ALIGNMENT TYPICAL DETAILS SHEET 1 OF 4</b>
	Original Size A1		Status <b>AS-BUILT</b> Drawing Number <b>C-115-035</b> Revision <b>AB</b>
AS-BUILT Rev Description § 9(2)(a) § 9(2)(a)	Date 16.09.15 § 9(2)(a)		

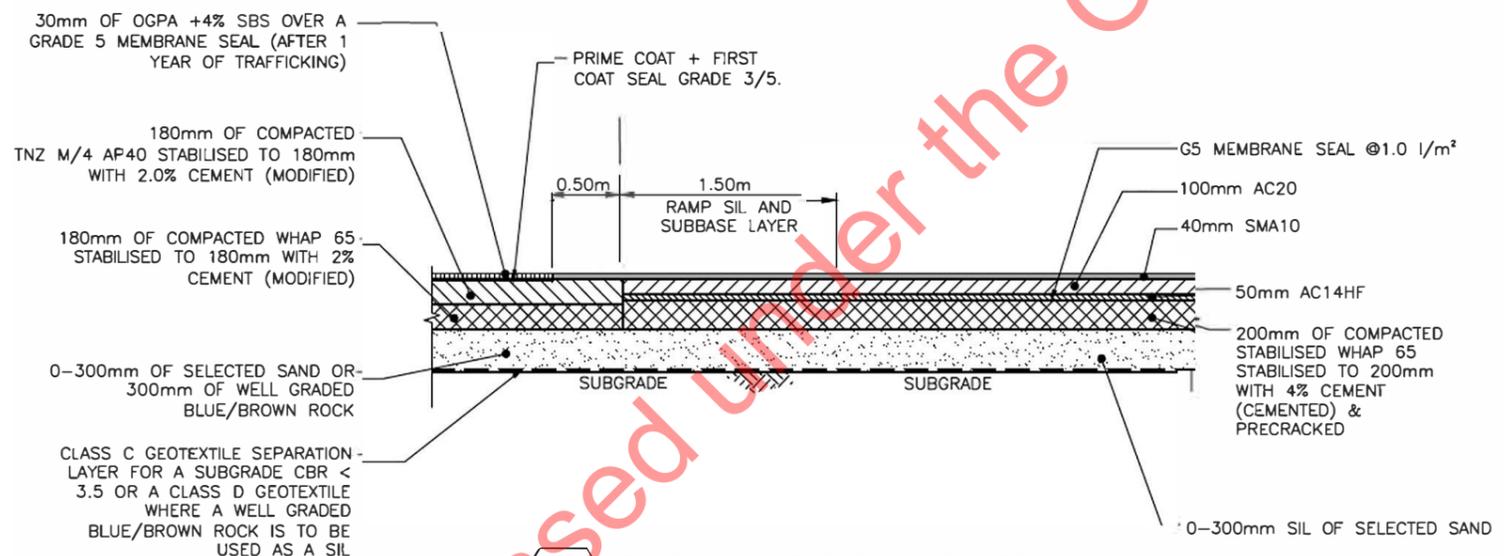
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2 TYPE A PAVEMENT JOINT DETAIL



3 TYPE B PAVEMENT JOINT DETAIL



4 TYPE C PAVEMENT JOINT DETAIL

- NOTES:**
1. THE 180mm STABILISED SUBBASE IS TO CONSIST OF 230mm OF WHAP65 MODIFIED TO 180mm IF BLUE/BROWN ROCK SIL IS USED. ALTERNATIVELY THE 230mm OF WHAP65 CAN BE MADE UP OF 180mm OF WHAP65 & 50mm OF SAND.
  2. A CEMENTED SUBBASE MAY BE ADOPTED AS A CONTINGENCY WHERE GROUND CONDITIONS DICTATE.
  3. CEMENTED SUBBASES ARE TO BE PRECRACKED USING A 12 TONNE ROLLER IN STATIC MODE PRIOR TO THE CONSTRUCTION OF THE OVERLYING BASE LAYERS.
  4. A TACK COAT IS TO BE APPLIED BETWEEN THE AC14HF & AC20 AT AN APPLICATION RATE OF 0.3 l/m².
  5. A TACK COAT IS TO BE APPLIED BETWEEN THE AC20 & SMA10 AT AN APPLICATION RATE OF 0.3 l/m².

AS-BUILT	S 9(2)(a)	S 9(2)(a)	16.09.15	Original Size	A1
Rev	Revision Description	Drawn	Designed	Design Checked	Approved

Approved for Issue  
 S 9(2)(a)

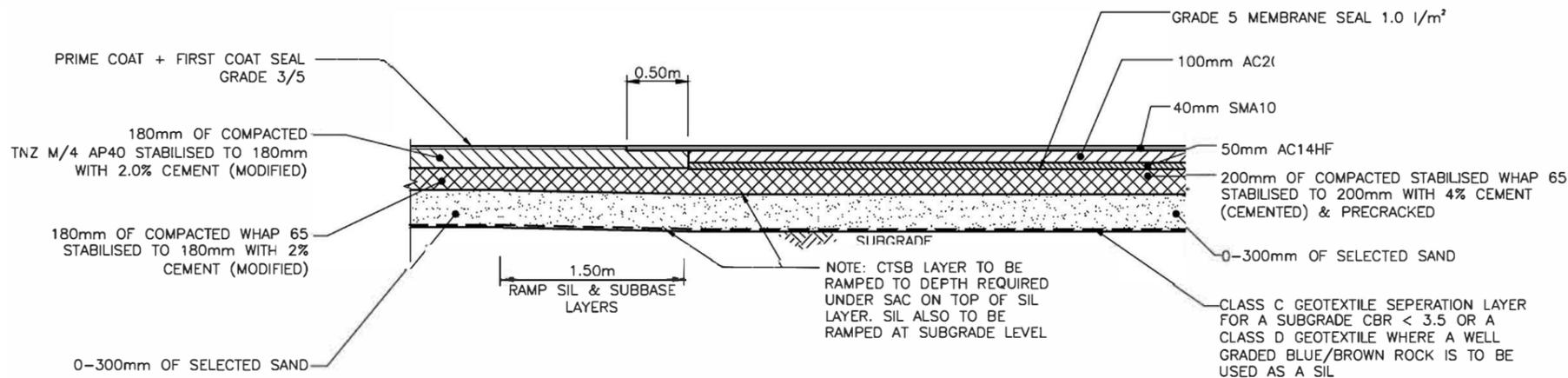
**WAIKATO EXPRESSWAY: TAMAHERE TO CAMBRIDGE SECTION**

**MAIN ALIGNMENT/ VICTORIA ROAD/ RAMPS**

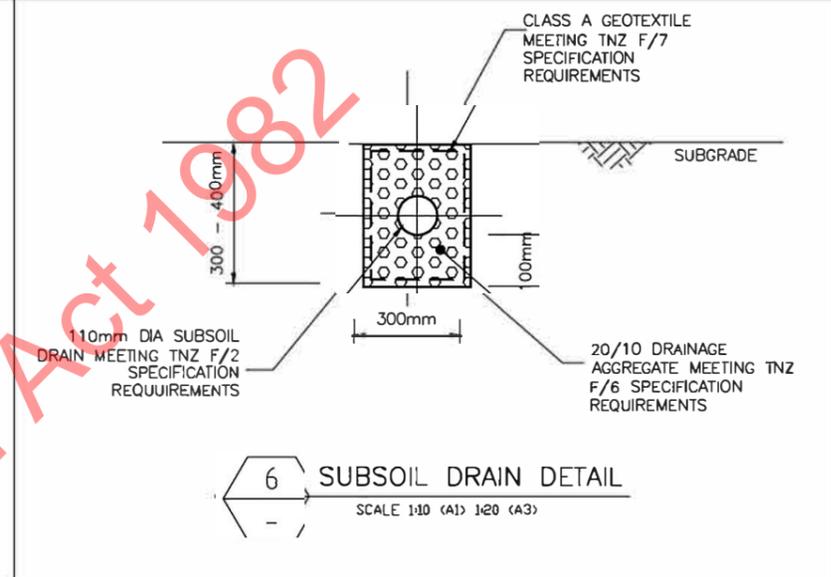
**TYPICAL DETAILS**  
**SHEET 2 OF 4**

Status: **AS-BUILT**  
 Drawing Number: **C-115-036**  
 Revision: **AB**

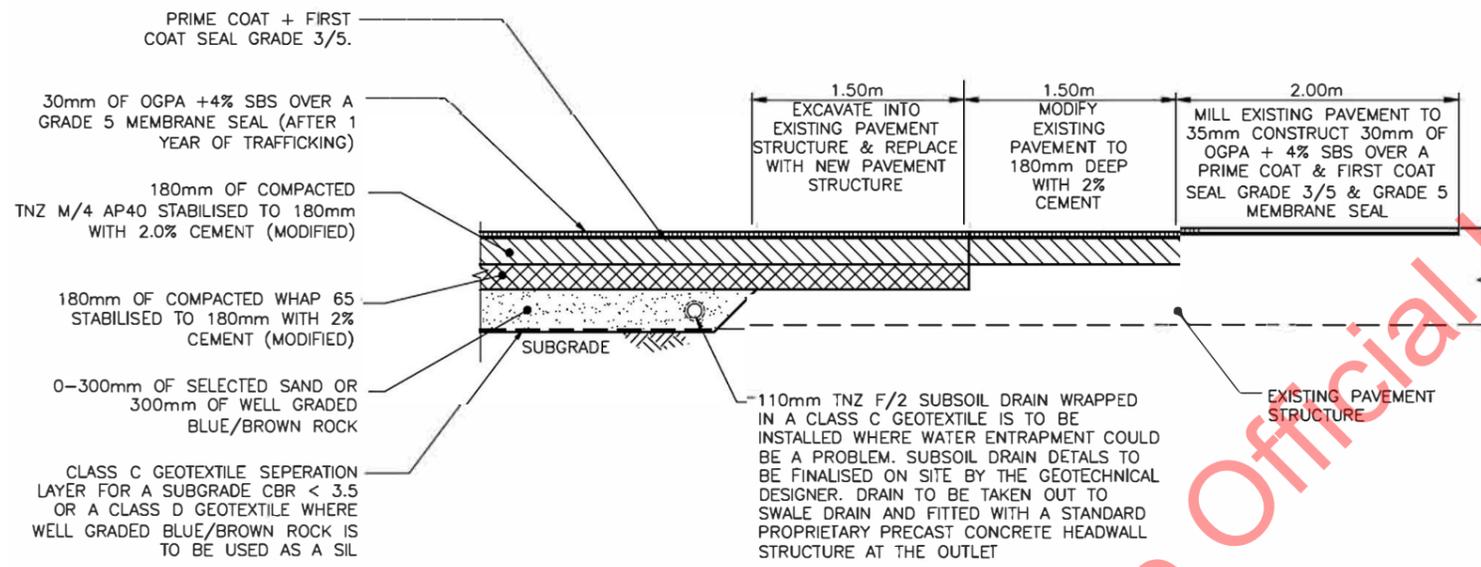
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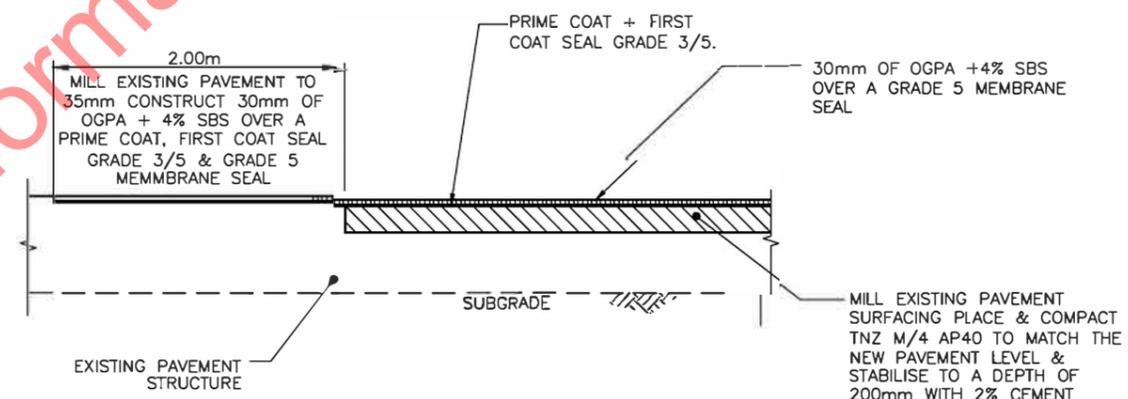
5 TYPE D PAVEMENT JOINT DETAIL



6 SUBSOIL DRAIN DETAIL  
SCALE 1:10 (A1) 1:20 (A3)



7 TYPE E PAVEMENT JOINT DETAIL



8 TYPE F PAVEMENT JOINT DETAIL

**NOTES:**

1. THE 180mm STABILISED SUBBASE IS TO CONSIST OF 230mm OF WHAP65 MODIFIED TO 180mm IF BLUE/BROWN ROCK SIL IS USED. ALTERNATIVELY THE 230mm OF WHAP6 CAN BE MADE UP OF 180mm OF WHAP65 & 50mm OF SAND.
2. A CEMENTED SUBBASE MAY BE ADOPTED AS A CONTINGENCY WHERE GROUND CONDITIONS DICTATE.
3. CEMENTED SUBBASES ARE TO BE PRECRACKED USING A 12 TONNE ROLLER IN STATIC MODE PRIOR TO THE CONSTRUCTION OF THE OVERLYING BASE LAYERS.
4. A TACK COAT IS TO BE APPLIED BETWEEN THE AC14HF & AC20 AT AN APPLICATION RATE OF 0.3 l/m<sup>2</sup>.
5. A TACK COAT IS TO BE APPLIED BETWEEN THE AC20 & SMA10 AT AN APPLICATION RATE OF 0.3 l/m<sup>2</sup>.

DETAIL 9 TRANSFERRED TO SHEET C-115-038

Approved for Issue  
§ 9(2)(a)

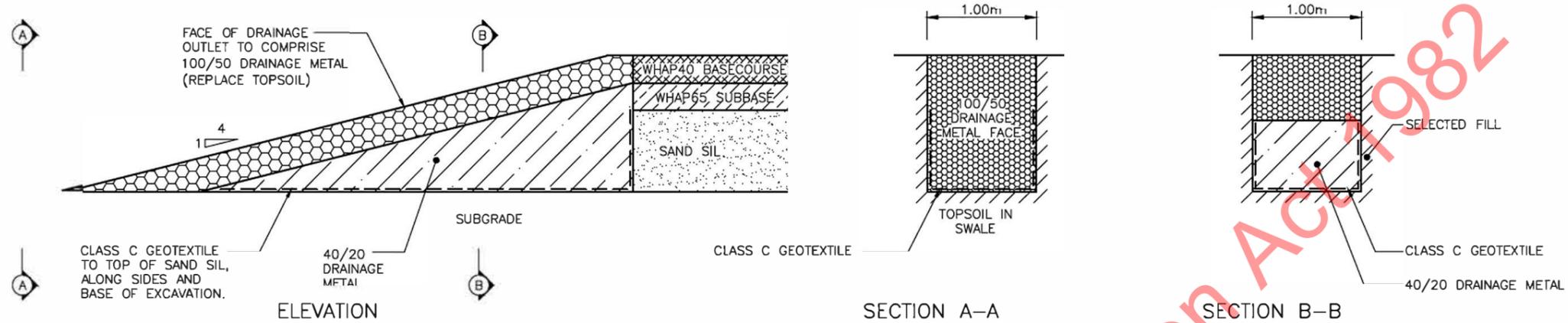
AS-BUILT	§ 9(2)(a)	§ 9(2)(a)	16.09.15	Original Size	A1
Rev	Revision Description	Drawn	Checked	Designed	Approved

Tab 037  
Scales 1:25 A1, 1:50 A3  
Original Size A1

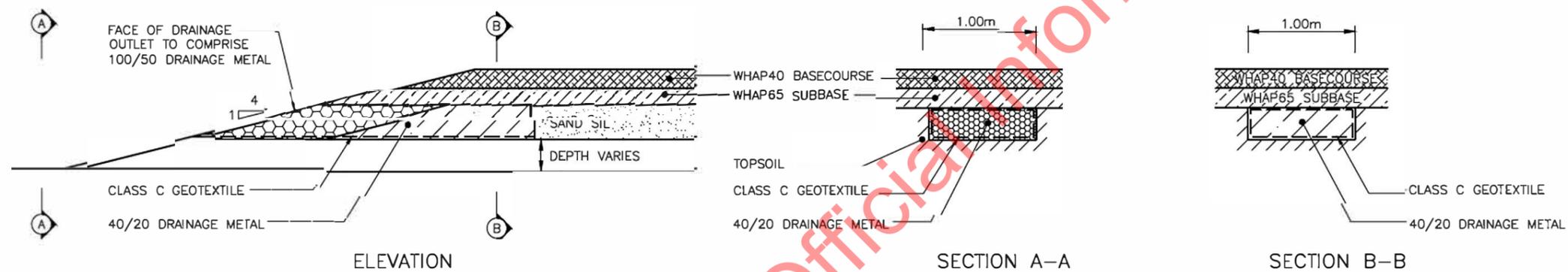
WAIKATO EXPRESSWAY: TAMAHERE TO CAMBRIDGE SECTION  
MAIN ALIGNMENT/ VICTORIA ROAD/ RAMPS  
TYPICAL DETAILS  
SHEET 3 OF 4

Status AS-BUILT  
Drawing Number C-115-037  
Revision AB

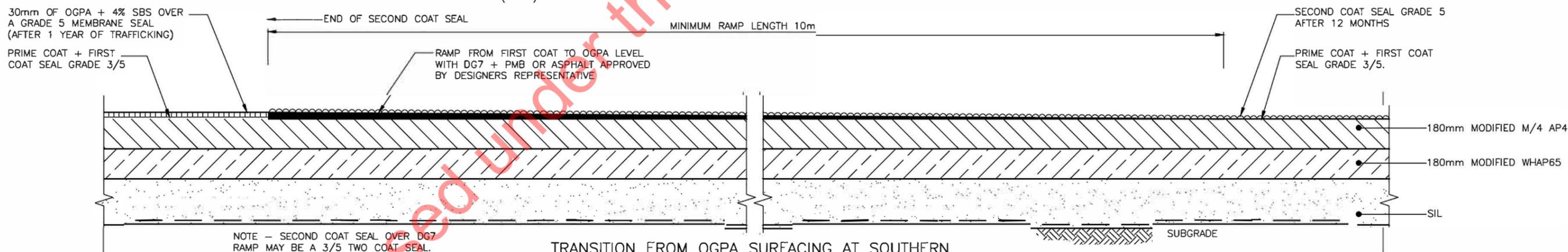
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9  
SIL DRAINAGE OUTLET DETAIL FOR RETROFITTING TO PAVEMENT ALREADY CONSTRUCTED AND AREAS WITH INFILTRATION SWALES



11  
SIL DRAINAGE OUTLET DETAIL FOR PAVEMENT CONSTRUCTION IN AREAS WITH CONVEYANCY SWALES



12

- NOTE:**
- SIL DRAINAGE OUTLETS ARE TO BE PROVIDED AT 50m SPACINGS ALONG THE MAIN ALIGNMENT.
  - WHAP40 ABOVE SIL DRAIN CAN BE REPLACED WITH DRAINAGE METAL IN DETAIL 9.
  - SIL DRAINAGE OUTLETS ARE NOT REQUIRED TO BE INSTALLED AT THE LOCATION OF A BALANCE DRAIN OR WITHIN 50m OF A BALANCE DRAIN

Approved for Issue  
S 9(2)(a)

AB	AS-BUILT	S 9(2)(a)	S 9(2)(a)	16.09.15	Date
Rev	Revision Description	Drawn	Designed	Design Checked	Approved

Tob 038

Scales 1:25 A1, 1:50 A3

Original Size A1

HEB Construction URS TDG Jasmox GAIA ENGINEER

WAIKATO EXPRESSWAY: TAMAHERE TO CAMBRIDGE SECTION

MAIN ALIGNMENT/ VICTORIA ROAD/ RAMPS

TYPICAL DETAILS SHEET 4 OF 4

Status AS-BUILT

Drawing Number C-115-038

Revision AB