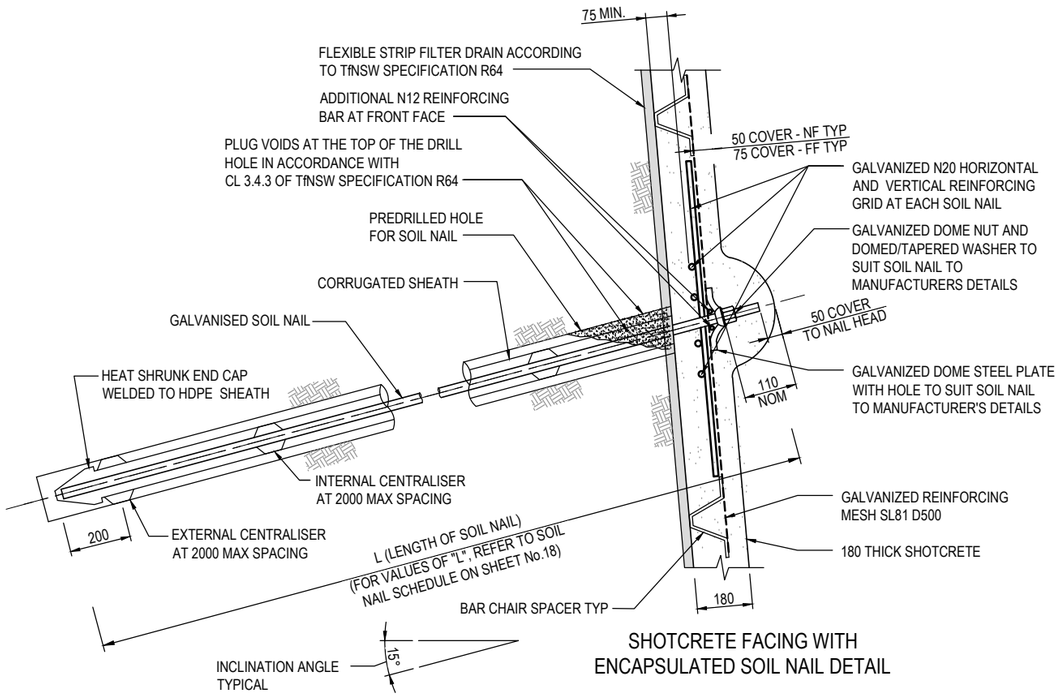
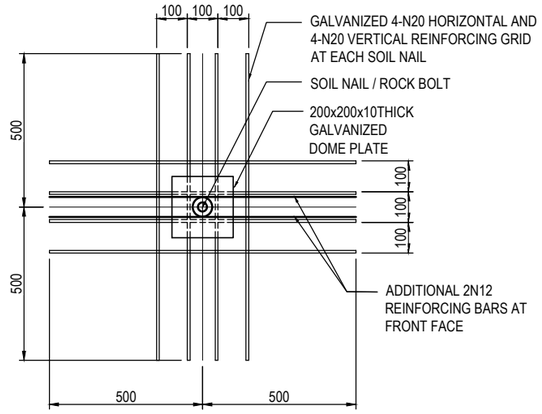
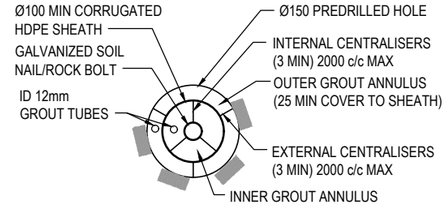


SHOTCRETE FACING WITH ENCAPSULATED SOIL NAIL DETAIL



TYPICAL REINFORCEMENT GRID DETAIL AT EACH SOIL NAIL / SPOT ROCK BOLT

NOTE: MESH NOT SHOWN FOR CLARITY



TYPICAL SECTION THROUGH ENCAPSULATED SOIL NAIL / SPOT ROCK BOLT

GENERAL NOTES

DIMENSIONS ARE IN MILLIMETRES.
FOR OTHER NOTES RELATING TO THIS SHEET, REFER TO SHEET 13 AND 18.

SHOTCRETE NOTES

SHOTCRETE EXPOSURE CLASSIFICATION: B1.

SHOTCRETE MIX DESIGN TO BE BASED ON A B2 EXPOSURE CLASSIFICATION.

MINIMUM 28 DAY COMPRESSIVE STRENGTH FOR SHOTCRETE, CAST IN-SITU AND PRECAST CONCRETE SHALL BE 40MPa UNLESS SPECIFIED OTHERWISE.

MAXIMUM TOTAL BINDER CONTENT SHALL BE MINIMUM 410 kg/m3 WITH TYPE GB CEMENT WITH 25% FLY ASH.

ALL SHOTCRETE WORK SHALL BE IN ACCORDANCE WITH TfNSW SPECIFICATION R68 AND B82.

SHOTCRETE TO BE APPLIED IN SUCCESSIVE LAYERS NOT EXCEEDING 75mm IN ACCORDANCE WITH R68.

REINFORCEMENT

ALL REINFORCEMENT BARS AND MESHES TO BE GRADE D500N TO AS/NZS 4671

SOIL NAIL MUST BE GRADE D500N IN ACCORDANCE WITH AS4671.

BEARING PLATE MUST BE GRADE 250 IN ACCORDANCE WITH AS3678.

UNLESS SPECIFIED OTHERWISE, NOMINAL COVER TO REINFORCEMENT MUST NOT BE LESS THAN 75mm TO ROCK/SOIL. 40mm COVER IS ACCEPTABLE TO STRIP DRAIN. CONSTRUCTION METHODOLOGY TO ENSURE COVER TO STRIP DRAIN IS ACHIEVED. LOCAL EXCAVATION MAY BE ACHIEVED, STEEL NAIL HEADS AND BEARING PLATES NOMINAL COVER NOT LESS THAN 50mm.

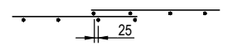
SOIL NAILS, BEARING PLATES, ASHERS AND STEEL MESH MUST BE HOT DIPPED GALVANISED IN ACCORDANCE WITH AS4680 WITH A COATING WEIGHT OF 600g/m2.

UNLESS SPECIFIED OTHERWISE, THE MINIMUM LAP LENGTHS SHALL BE AS TABULATED BELOW AND THE DEVELOPMENT LENGTHS SHALL BE 80% OF THE VALUES TABULATED BELOW.

BAR SIZE:	N20
a) LAP LENGTH - HORIZONTAL BARS WITH >300mm OF CONCRETE CAST BELOW THE BAR LAP	960
b) LAP LENGTH - OTHER BARS	760

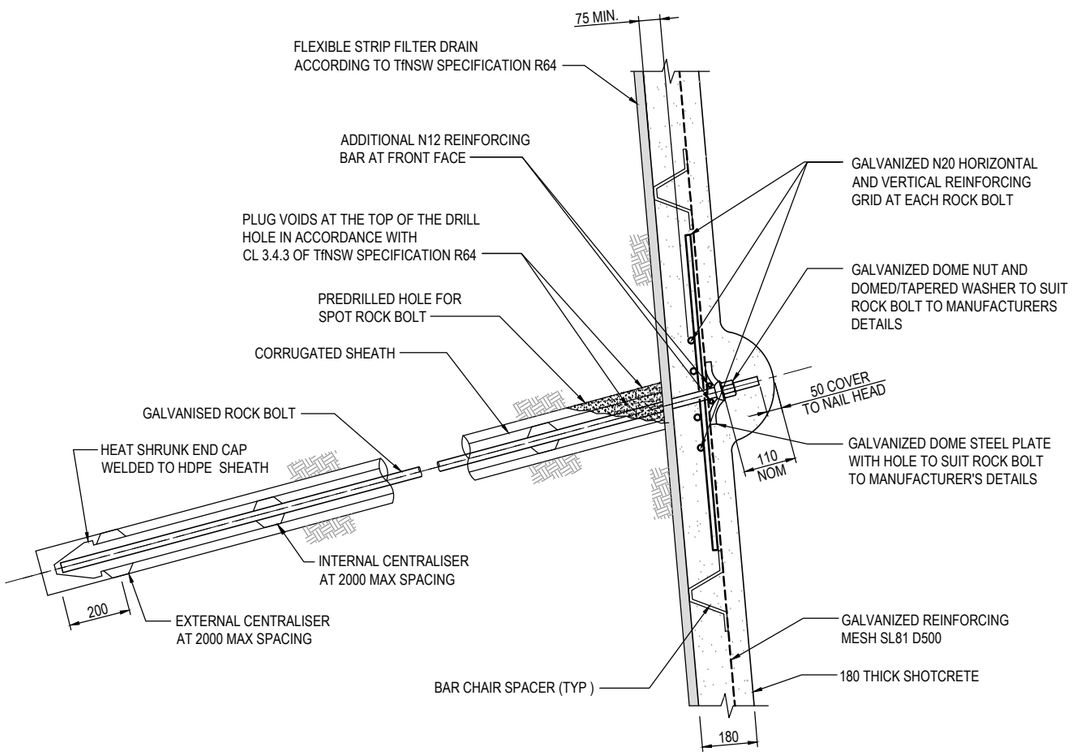
REINFORCEMENT MAY BE DISPLACED SLIGHTLY WHERE NECESSARY TO CLEAR STEEL DOWELS.

FABRIC SHALL BE LAPPED TWO (2) TRANSVERSE WIRES PLUS 25mm. A MAXIMUM OF THREE (3) SHEETS SHALL BE LAPPED AT ANY ONE POINT.



REINFORCEMENT ABBREVIATIONS FOR PLACEMENT ARE IN ACCORDANCE WITH AS/NZS 1100.501.

NF - DENOTES NEAR FACE
FF - DENOTES FAR FACE



TYPICAL SHOTCRETE FACING WITH ENCAPSULATED SPOT ROCK BOLT DETAIL

DR

DRAWING FILE LOCATION / NAME	PLOT DATE	TIME
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EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL
	A	29.02.2024	DRAFT DOCUMENT READINESS (DR) SUBMISSION	0036	T.VN

TITLE	NAME
DRAFTER	M.SURESH
DRAFTING CHECK	V. RAMAMURTHY
DESIGNER	S.MONTGOMERY
DESIGN CHECK	R. HUNTER
PROJECT MANAGER	K. DECANHA
PROJECT DIRECTOR	T. VAN NIEKERK

SCALES AT A1 SIZE DRAWING
SCALE 1:10 0.1 0 0.1 0.2 0.3 0.4 0.5 m

DESIGNER
SMEC
Member of the Surbana Jurong Group
ABN 47 065 475 149
LEVEL 9, 12 MOORE STREET
CANBERRA ACT 2601 AUSTRALIA
SMEC PROJECT No 3002750

CLIENT
ACT Government
Transport Canberra & City Services

PROJECT TITLE
WILLIAM HOVELL DRIVE DUPLICATION

STRUCTURES AND RETAINING WALLS
MW1D AND MW1E
SHOTCRETE WALL DETAILS- SHEET 1

SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS SHOWN	DETAIL DESIGN	3002750-RW-2211	A

A1
150 mm ON ORIGINAL
K:\3002750_SMEC.stl