

DOCUMENTATION OF COASTAL PROTECTION WORKS

AT 29, 31 & 33 PACIFIC STREET AND
23A, 23B & 25C OCEAN VIEW DRIVE, WAMBERAL, NSW

HORTON COASTAL ENGINEERING PTY LTD

18 Reynolds Cres. Beacon Hill NSW 2100

TEL: +61 (0)407 012 538

peter@hortoncoastal.com.au www.hortoncoastal.com.au

JAMES TAYLOR AND ASSOCIATES

SUITE 301, 115 MILITARY ROAD NEUTRAL BAY NSW 2089 A.C.N. 002 376 454

Tel: (02) 9969 1999 Email: mail@jamestaylorassociates.com.au

NOTES:

1. WALL, FOOTING AND ENGINEERED FILL STRUCTURAL & GEOTECHNICAL DESIGN TO BE CONFIRMED. ALL SIZES AND SECTIONS ARE INDICATIVE ONLY & SUBJECT TO REVIEW
2. WHERE PROPRIETARY ELEMENTS ARE USED THEY SHALL BE USED IN ACCORDANCE WITH MANUFACTURER DETAILS
3. SURVEY IS SOURCE OF EXISTING LEVELS, EL, SHOWN ON SECTIONS, AND REPRESENT ERODED POST-STORM LEVELS IN JUNE 2016

DRAWING LIST

Sheet Number	Sheet Title
S01	TITLE SHEET
S02	PRINCIPAL PLAN (CONCEPT)
S03	EROSION AND SEDIMENT CONTROL AND WASTE MANAGEMENT PLAN
S04	CONCEPT SECTION 1
S05	CONCEPT SECTION 2
S06	CONCEPT SECTION 3
S07	CONCEPT SECTION 4
S08	CONCEPT SECTION 5
S09	CONCEPT SECTION 6
S10	CONCEPT SECTION 7
S11	CONCEPT SECTION 8
S12	EAST ELEVATION

Application No: 52565/2017

Date of Consent: 21/06/2018

Plan Approved subject to conditions and the amendments, if any, shown in RED.

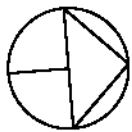
REFERENCE DOCUMENTS

1. SURVEY DRAWING PREPARED BY:
CLARKE DOWDLE & ASSOCIATES
Ph. +61 2 43443553
REF No. 20265
DATED: 24.06.14 (SEE NOTE 3)
2. PRE STORM PROFILES
DERIVED FROM OEH PHOTOGRAMMETRIC DATA
DATED: 05.04.16

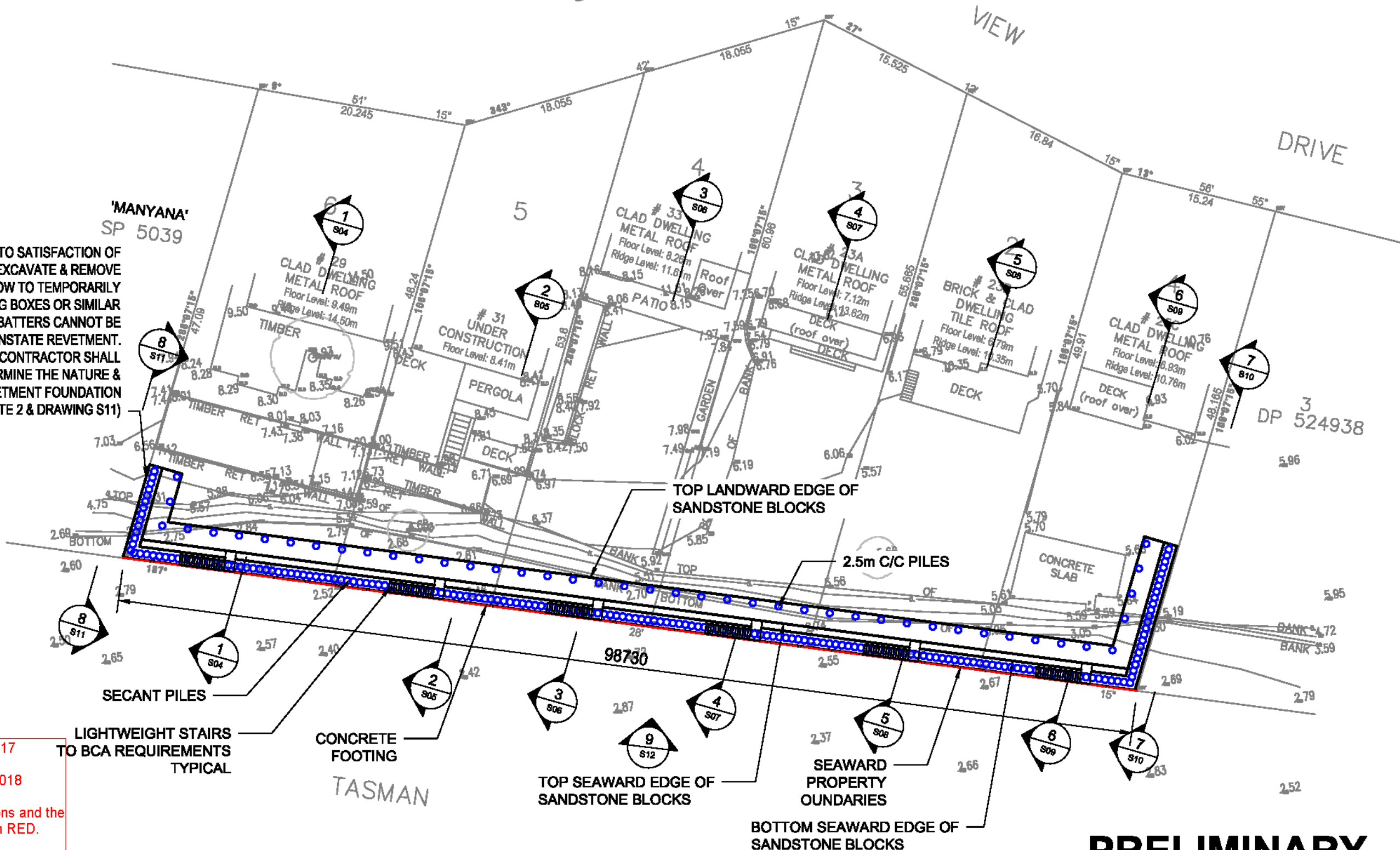
PRELIMINARY NOT FOR CONSTRUCTION

P.P.	R.Y.	ISSUED FOR APPROVAL	31.05.18	G
P.P.	R.Y.	NO WORKS SEAWARD OR NORTH	07.05.18	F
P.P.	R.Y.	RESPONSE TO COUNCIL REQUESTS	21.03.18	E
P.P.	R.Y.	ISSUED FOR REVIEW	30.10.17	D
P.P.	R.Y.	ISSUED FOR REVIEW	23.10.17	C
BY	CHKD	DESCRIPTION	DATE	REV

COASTAL PROTECTION WORKS 29, 31 & 33 PACIFIC STREET AND 23A, 23B & 25C OCEAN VIEW DRIVE, WAMBERAL, NSW	COASTAL ENGINEERING DESIGN: HORTON COASTAL ENGINEERING PTY LTD 18 Reynolds Cres Beacon Hill NSW 2100 TEL: +61 (0)407 012 538 peter@hortoncoastal.com.au www.hortoncoastal.com.au	STRUCTURAL ENGINEERING DESIGN: James Taylor & Associates Civil & Structural Consulting Engineers SUITE 301, 115 MILITARY ROAD NEUTRAL BAY NSW 2090 TEL: 02 99691999 EMAIL: mail@jamestaylorassociates.com.au	DESIGN R.Y.	DRAWN P.P.	PROJECT NO. 5968	
	TITLE SHEET		CHKD. R.Y.	APPRD. P.H.	DRAWING NO. S01	REV G
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TIE INTO ADJACENT REVETMENT TO SATISFACTION OF COASTAL ENGINEER. LOCALLY EXCAVATE & REMOVE PILING OBSTRUCTIONS. ALLOW TO TEMPORARILY SHORE LOCALLY USING SHORING BOXES OR SIMILAR WHERE TEMPORARY BATTERS CANNOT BE ACCOMMODATED. REINSTATE REVETMENT. PRIOR TO ESTABLISHMENT THE CONTRACTOR SHALL LOCALLY EXCAVATE TO DETERMINE THE NATURE & EXTENT OF EXISTING REVETMENT FOUNDATION (ALSO SEE NOTE 2 & DRAWING S11)



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1. WALL, FOOTING AND ENGINEERED FILL STRUCTURAL & GEOTECHNICAL DESIGN TO BE CONFIRMED. ALL SIZES AND SECTIONS ARE INDICATIVE ONLY & SUBJECT TO REVIEW
2. REFER TO REPORT "METHODOLOGY FOR LINKING TO ADJACENT PROTECTION WORKS AT MANYANA" (HORTON COASTAL ENGINEERING, 3 MAY 2018) FOR AN OUTLINE OF THE CONSTRUCTION SEQUENCE

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OCEAN VIEW DRIVE, WAMBERAL, NSW

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STRUCTURAL ENGINEERING DESIGN:
James Taylor & Associates
Civil & Structural Consulting Engineers
SUITE 301, 115 MILITARY ROAD NEUTRAL BAY NSW 2080
TEL: 02 99691999
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DESIGN R.Y. DRAWN P.P.
CHKD. R.Y.
APPRD. P.H.

PROJECT NO.

5968

DRAWING NO. REV

S02

G

SCALE 1 : 400 DATE MAY 2018

A3

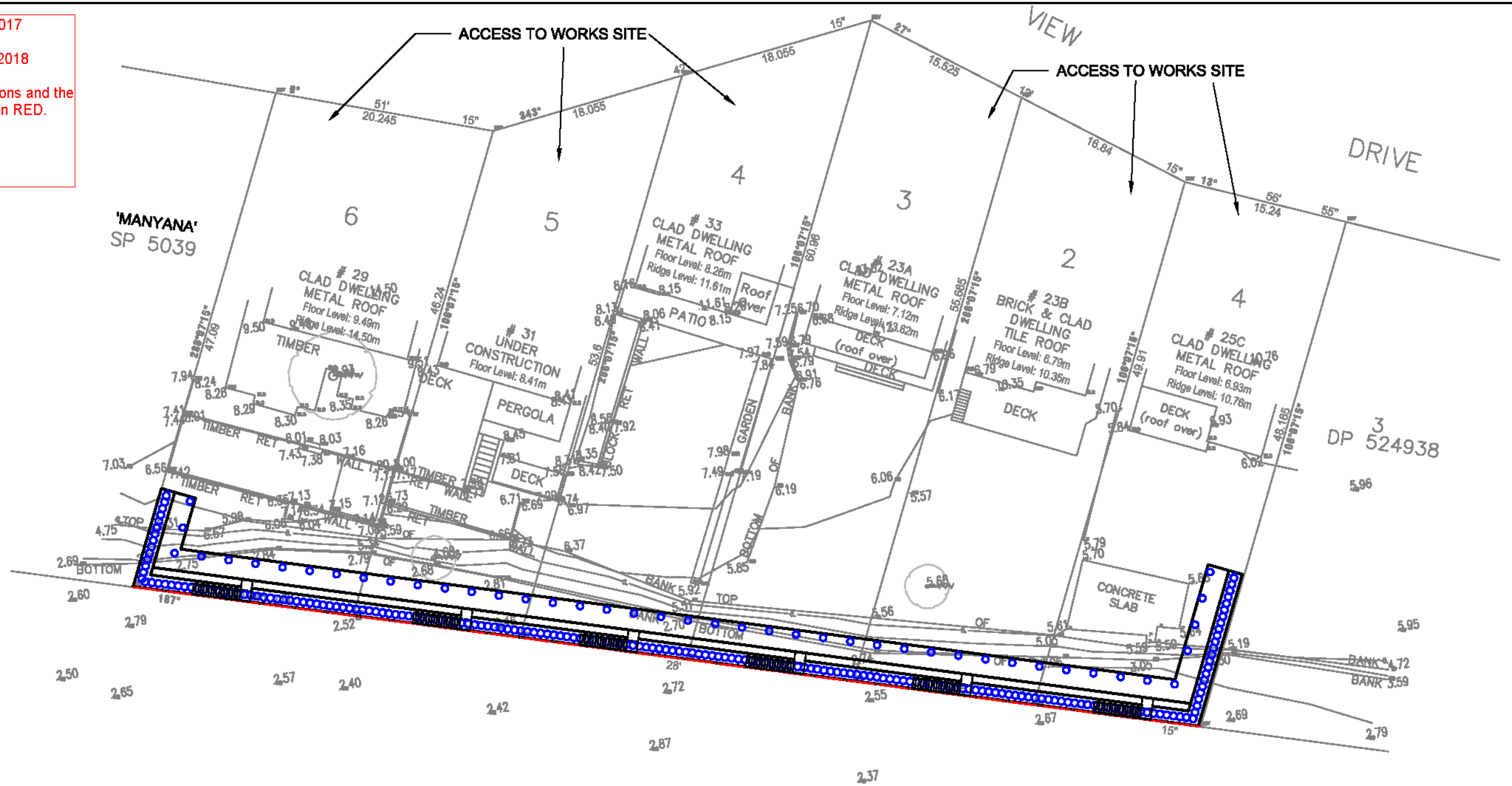
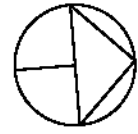
PRINCIPAL PLAN (CONCEPT)

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1. RUBBLE AND OTHER MATERIALS OR WASTE THAT WOULD BE UNSUITABLE ON A BEACH ARE TO BE SEPARATED AND STOCKPILED WHERE ENCOUNTERED DURING EXCAVATION (WITH RUBBLE POTENTIALLY TO BE REUSED, SEE NOTE 5)
2. ALL DELETERIOUS MATERIALS AND EQUIPMENT THAT COULD BE DAMAGED ARE TO BE PLACED AT LANDWARD EDGE OF WORK AREA OR REMOVED FROM WORK AREA, AS DIRECTED BY A COASTAL ENGINEER, IF STORM EROSION IS PREDICTED
3. WHEN PLACING SAND TO BURY THE FACE OF THE SEAWALL AT THE COMPLETION OF THE BLOCK WORKS, SCREENING IS TO BE UNDERTAKEN TO REMOVE RUBBLE AND OTHER MATERIALS THAT WOULD BE UNSUITABLE ON A BEACH
4. ANY WASTE MATERIALS SHALL BE DISPOSED OF AT AN APPROPRIATE WASTE MANAGEMENT FACILITY OFF SITE
5. RUBBLE MATERIALS MAY BE BURIED LANDWARD OF THE SEAWALL, SUBJECT TO A WASTE CLASSIFICATION UNDERTAKEN BY A SUITABLY QUALIFIED ENVIRONMENTAL CONSULTANT (WHO IS A MEMBER OF THE AUSTRALIAN CONTAMINATED LAND CONSULTANTS ASSOCIATION INC) AND TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER

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29, 31 & 33 PACIFIC STREET AND 23A, 23B & 25C
OCEAN VIEW DRIVE, WAMBERAL, NSW

**EROSION AND SEDIMENT CONTROL
AND WASTE MANAGEMENT PLAN**

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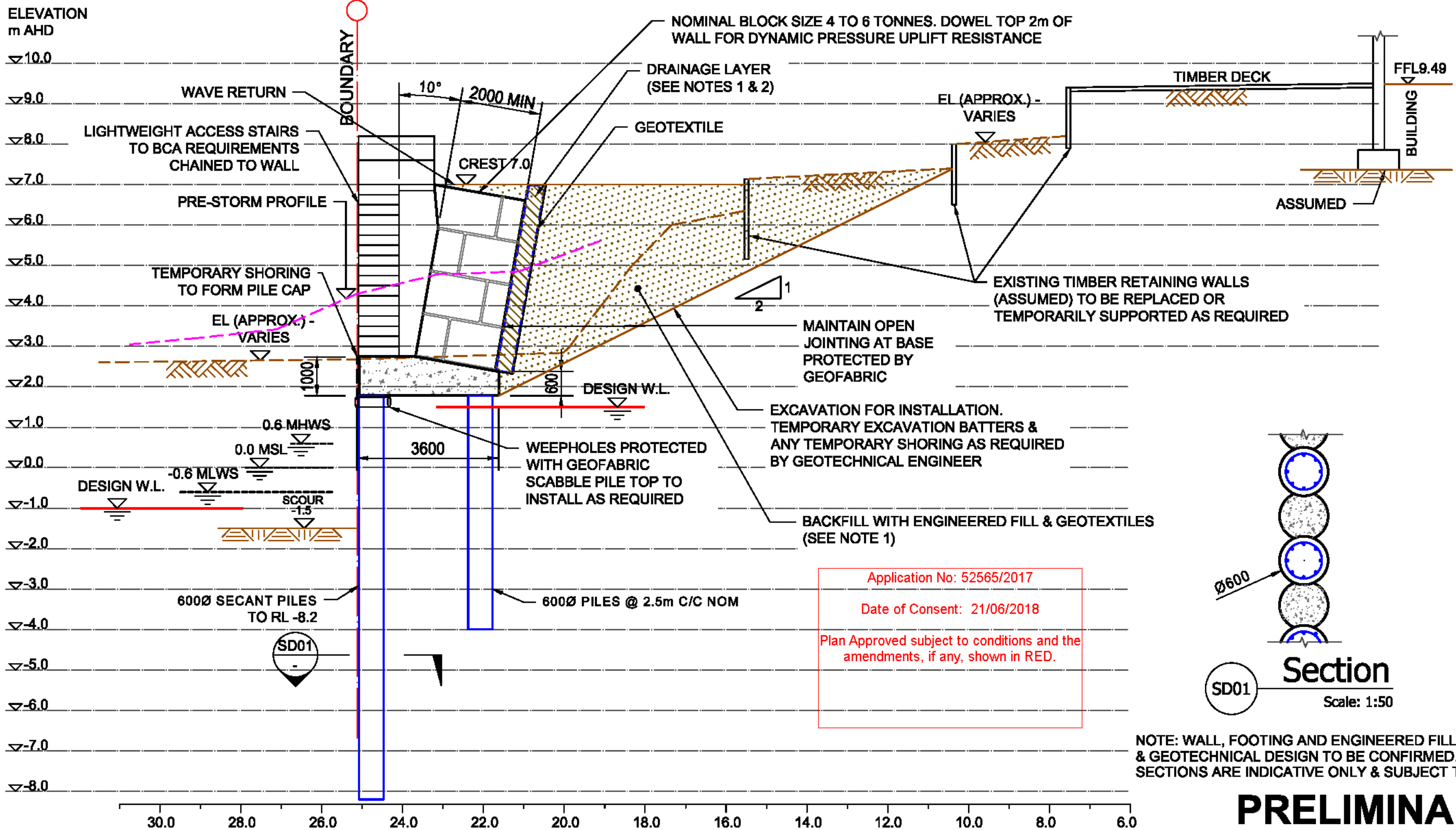
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CHKD. R.Y.
APPRD. P.H.
SCALE 1 : 400
DATE MAY 2018

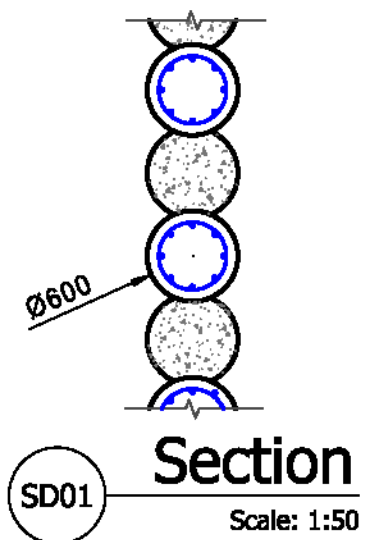
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5968
DRAWING NO. **S03** REV **G**

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SECTION THROUGH PROPERTY #29 PACIFIC STREET



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P.P.	R.Y.	ISSUED FOR REVIEW	23.10.17	C
BY	CHKD	DESCRIPTION	DATE	REV

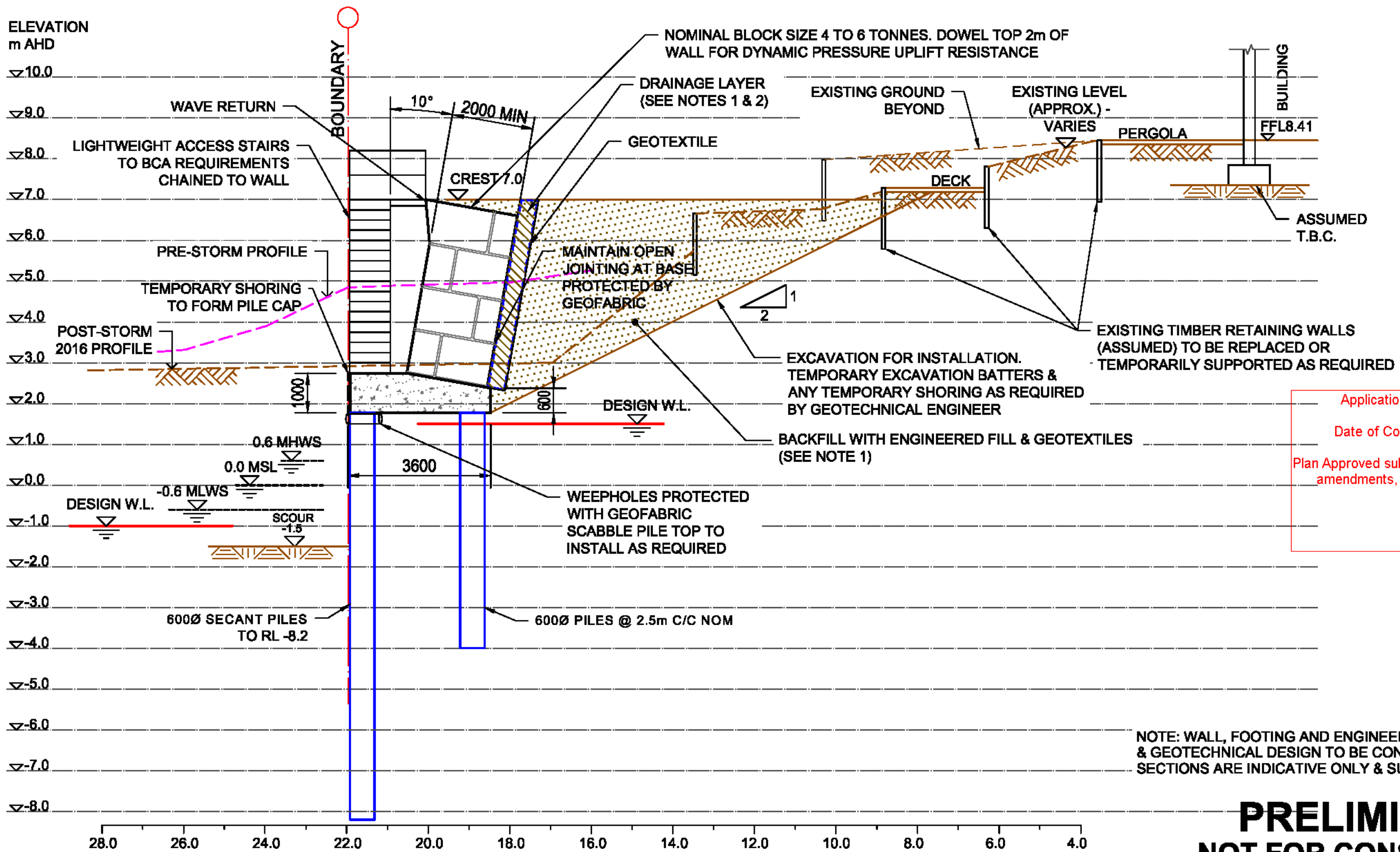
NOTE: ALLOW TO EXCAVATE & CONSTRUCT IN STAGES

- SPECIFICATIONS ARE SUBJECT TO GEOTECHNICAL ENGINEERING DETAILED DESIGN
- DRAINAGE LAYER IS LIKELY TO BE A PERMEABLE (NO FINES) GRAVEL, WRAPPED IN GEOTEXTILE. DRAINAGE PIPES WOULD ALSO BE PROVIDED THROUGH THE WALL WHERE NECESSARY

COASTAL PROTECTION WORKS 29, 31 & 33 PACIFIC STREET AND 23A, 23B & 25C OCEAN VIEW DRIVE, WAMBERAL, NSW	COASTAL ENGINEERING DESIGN: HORTON COASTAL ENGINEERING PTY LTD 18 Reynolds Cres Beacon Hill NSW 2100 TEL: +61 (0)407 012 538 peter@hortoncoastal.com.au www.hortoncoastal.com.au		STRUCTURAL ENGINEERING DESIGN: James Taylor & Associates Civil & Structural Consulting Engineers SUITE 301, 115 MILITARY ROAD NEUTRAL BAY NSW 2090 TEL: 02 99691999 EMAIL: mail@jamestaylorassociates.com.au		DESIGN R.Y. DRAWN P.P.	PROJECT NO. 5968	
	CONCEPT SECTION 1			CHKD. R.Y. APPRD. P.H.	SCALE 1 : 100 DATE MAY 2018	DRAWING NO. S04	REV G

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SECTION THROUGH PROPERTY #31 PACIFIC STREET



Application No: 52565/2017
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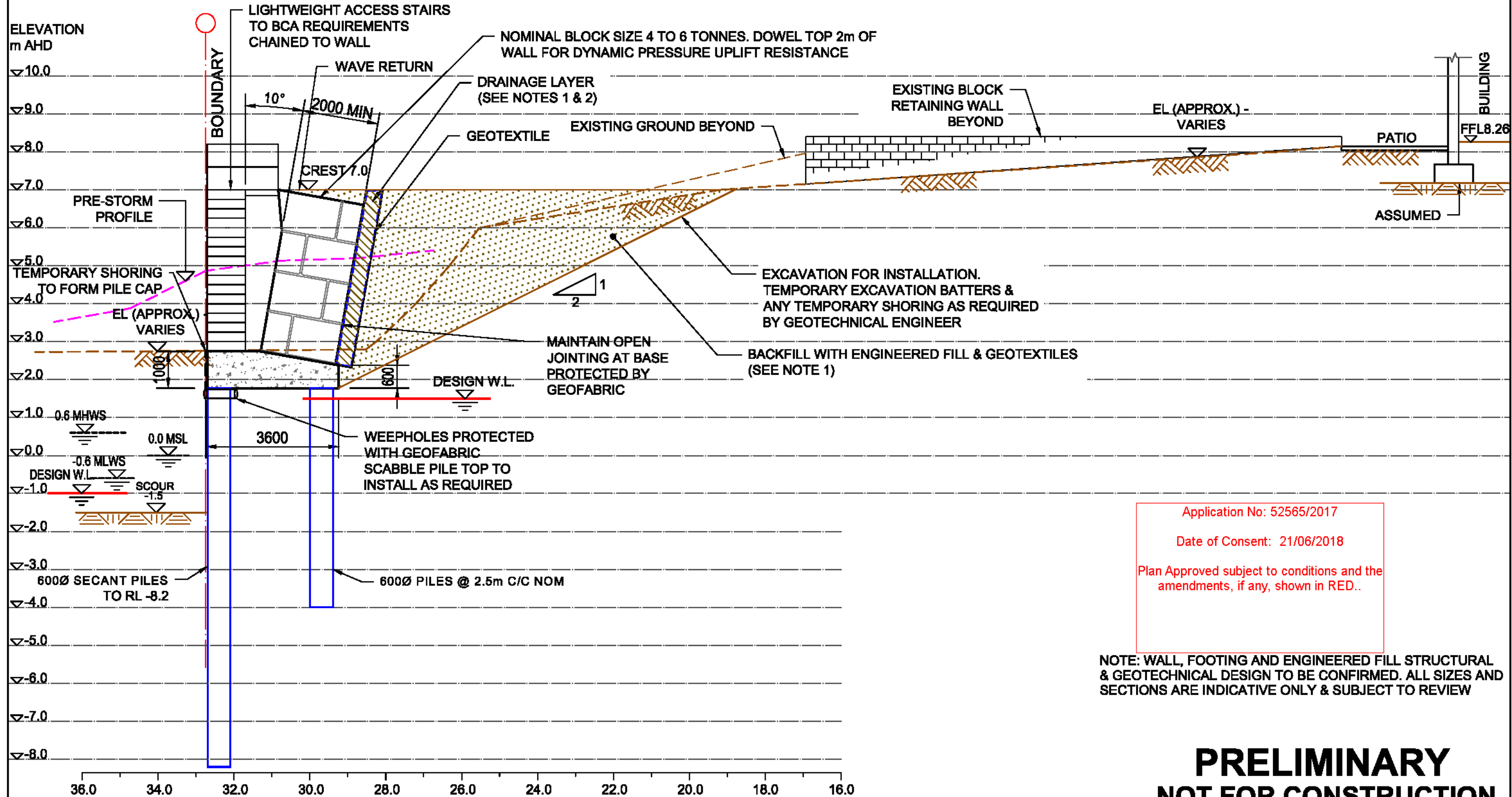
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P.P.	R.Y.	ISSUED FOR APPROVAL	31.05.18	G
P.P.	R.Y.	NO WORKS SEAWARD OR NORTH	07.05.18	F
P.P.	R.Y.	RESPONSE TO COUNCIL REQUESTS	21.03.18	E
P.P.	R.Y.	ISSUED FOR REVIEW	30.10.17	D
P.P.	R.Y.	ISSUED FOR REVIEW	23.10.17	C
BY	CHKD	DESCRIPTION	DATE	REV

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SECTION THROUGH PROPERTY #33 PACIFIC STREET



Application No: 52565/2017
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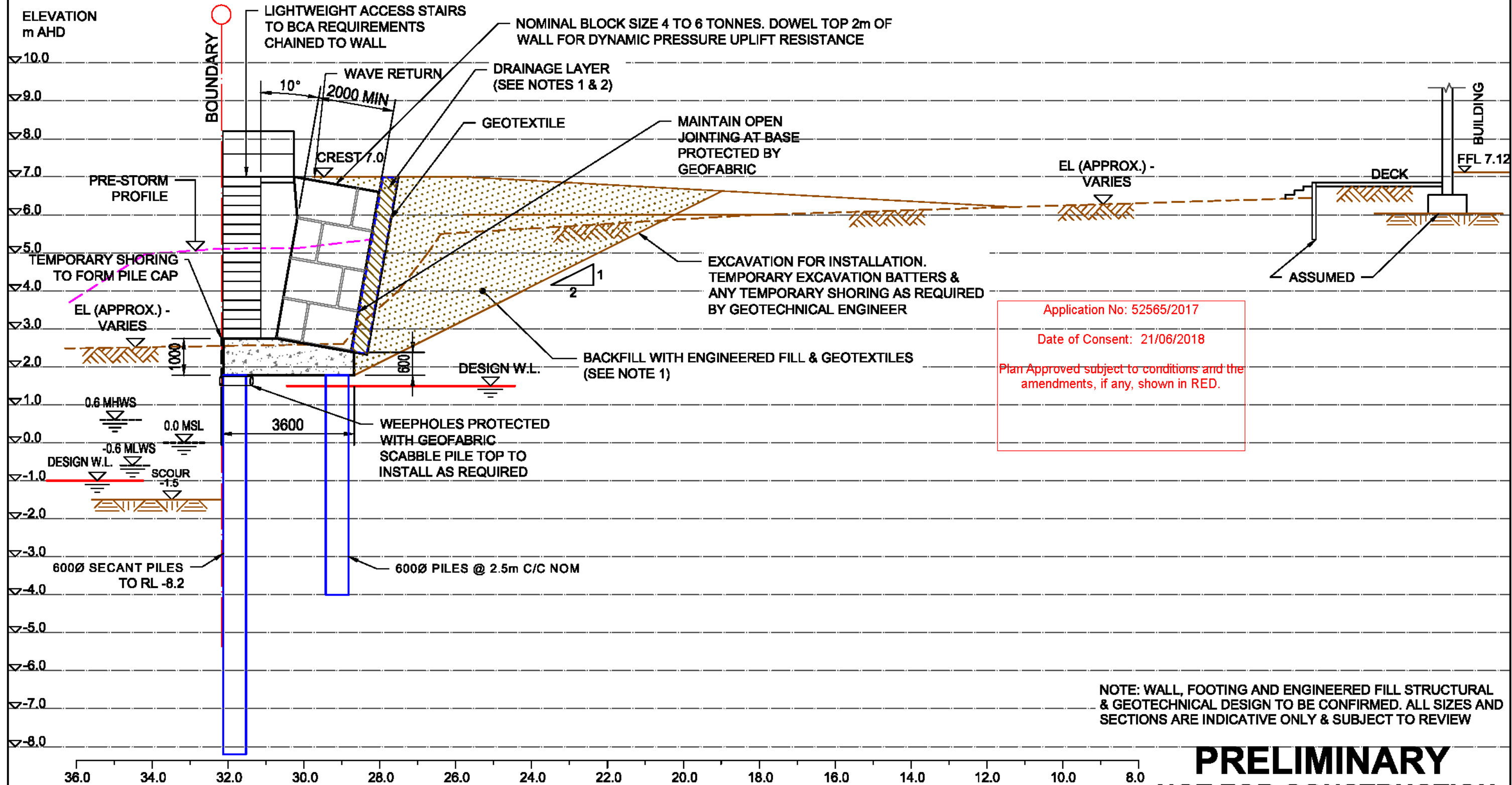
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P.P.	R.Y.	ISSUED FOR APPROVAL	31.05.18	G
P.P.	R.Y.	NO WORKS SEAWARD OR NORTH	07.05.18	F
P.P.	R.Y.	RESPONSE TO COUNCIL REQUESTS	21.03.18	E
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COASTAL PROTECTION WORKS 29, 31 & 33 PACIFIC STREET AND 23A, 23B & 25C OCEAN VIEW DRIVE, WAMBERAL, NSW <h3 style="text-align: center;">CONCEPT SECTION 3</h3>	COASTAL ENGINEERING DESIGN: HORTON COASTAL ENGINEERING PTY LTD 18 Reynolds Cres Beacon Hill NSW 2100 TEL: +61 (0)407 012 538 peter@hortoncoastal.com.au www.hortoncoastal.com.au	STRUCTURAL ENGINEERING DESIGN: James Taylor & Associates Civil & Structural Consulting Engineers SUITE 301, 115 MILITARY ROAD NEUTRAL BAY NSW 2090 TEL: 02 99691999 EMAIL: mail@jamestaylorassociates.com.au	DESIGN R.Y.	DRAWN P.P.	PROJECT NO. 5968	
				CHKD. R.Y.		DRAWING NO. S06
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SECTION THROUGH PROPERTY #23A OCEAN VIEW DRIVE



Application No: 52565/2017
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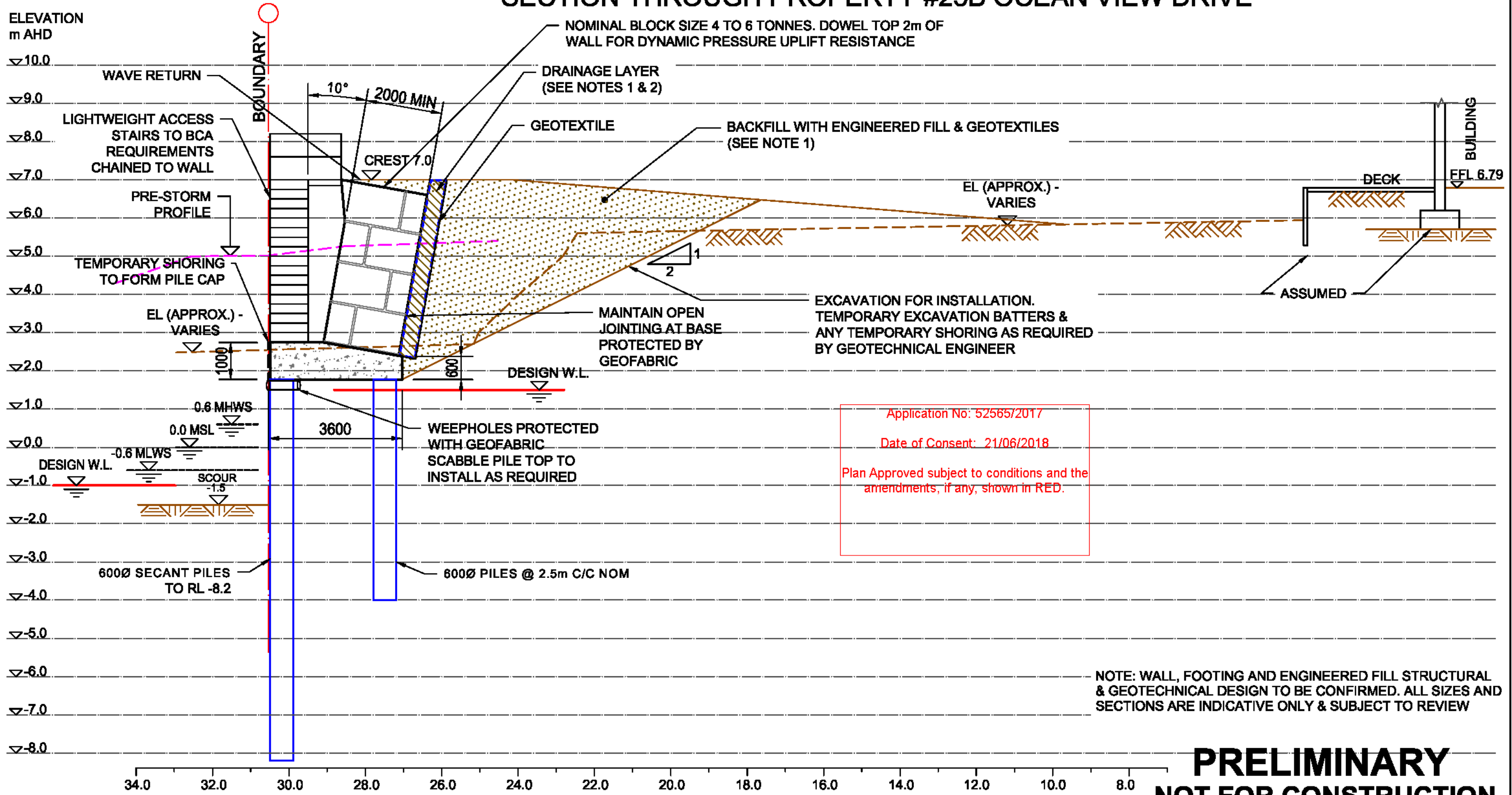
1. SPECIFICATIONS ARE SUBJECT TO GEOTECHNICAL ENGINEERING DETAILED DESIGN
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COASTAL PROTECTION WORKS 29, 31 & 33 PACIFIC STREET AND 23A, 23B & 25C OCEAN VIEW DRIVE, WAMBERAL, NSW	COASTAL ENGINEERING DESIGN: HORTON COASTAL ENGINEERING PTY LTD 18 Reynolds Cres Beacon Hill NSW 2100 TEL: +61 (0)407 012 538 peter@hortoncoastal.com.au www.hortoncoastal.com.au	STRUCTURAL ENGINEERING DESIGN: James Taylor & Associates Civil & Structural Consulting Engineers SUITE 301, 115 MILITARY ROAD NEUTRAL BAY NSW 2090 TEL: 02 99691999 EMAIL: mail@jamestaylorassociates.com.au	DESIGN R.Y. DRAWN P.P. CHKD. R.Y. APPRD. P.H.	PROJECT NO. <h3 style="text-align: center;">5968</h3> DRAWING NO. <h3 style="text-align: center;">S07</h3> REV <h3 style="text-align: center;">G</h3>
	CONCEPT SECTION 4			SCALE 1 : 100 DATE MAY 2018

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SECTION THROUGH PROPERTY #23B OCEAN VIEW DRIVE



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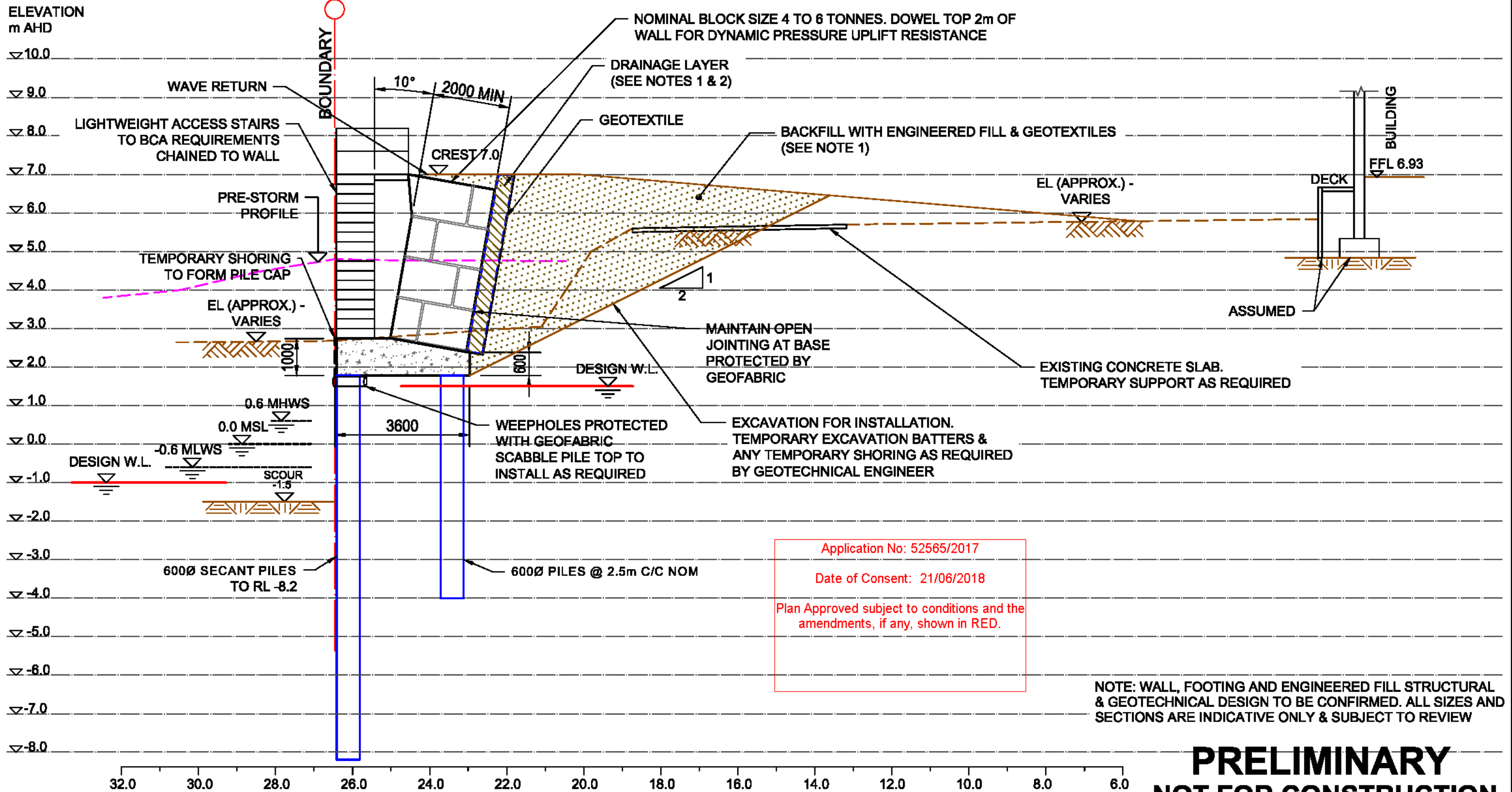
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CHKD.	R.Y.			5968
APPRD.	P.H.			DRAWING NO. REV
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CONCEPT SECTION 5

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SCALE 1 : 100 DATE MAY 2018

SECTION THROUGH PROPERTY #25C OCEAN VIEW DRIVE



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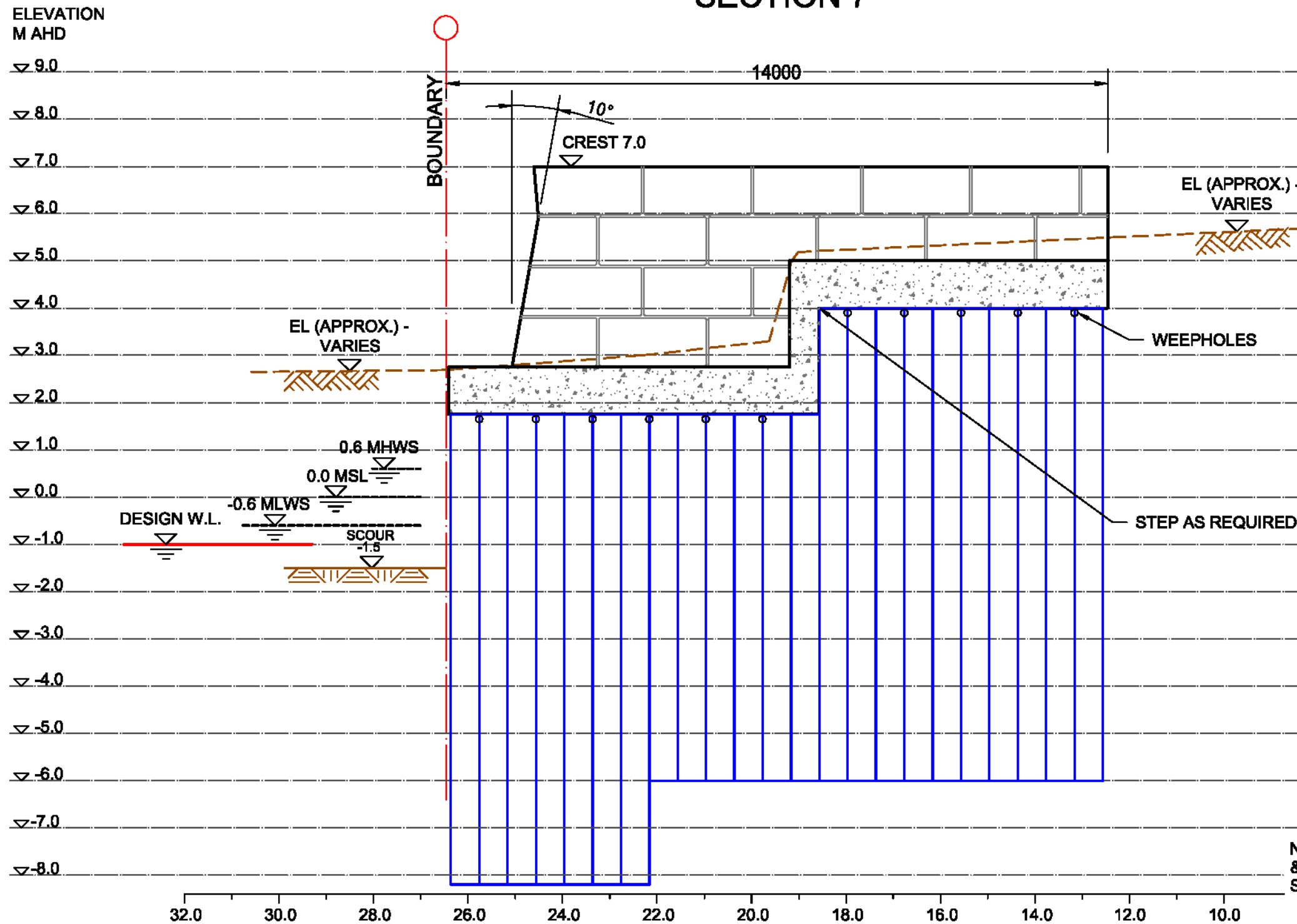
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SECTION 7

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P.P.	R.Y.	RESPONSE TO COUNCIL REQUESTS	21.03.18	E
P.P.	R.Y.	ISSUED FOR REVIEW	30.10.17	D
P.P.	R.Y.	ISSUED FOR REVIEW	23.10.17	C
BY	CHKD	DESCRIPTION	DATE	REV

COASTAL PROTECTION WORKS
 29, 31 & 33 PACIFIC STREET AND 23A, 23B & 25C
 OCEAN VIEW DRIVE, WAMBERAL, NSW

COASTAL ENGINEERING DESIGN:
HORTON COASTAL ENGINEERING PTY LTD
 18 Reynolds Cres Beacon Hill NSW 2100
 TEL: +61 (0)407 012 538
 peter@hortoncoastal.com.au
 www.hortoncoastal.com.au

STRUCTURAL ENGINEERING DESIGN:
James Taylor & Associates
 Civil & Structural Consulting Engineers
 SUITE 301, 115 MILITARY ROAD NEUTRAL BAY NSW 2090
 TEL: 02 99691999
 EMAIL: mail@jamestaylorassociates.com.au

DESIGN R.Y. DRAWN P.P.
 CHKD. R.Y.
 APPRD. P.H.

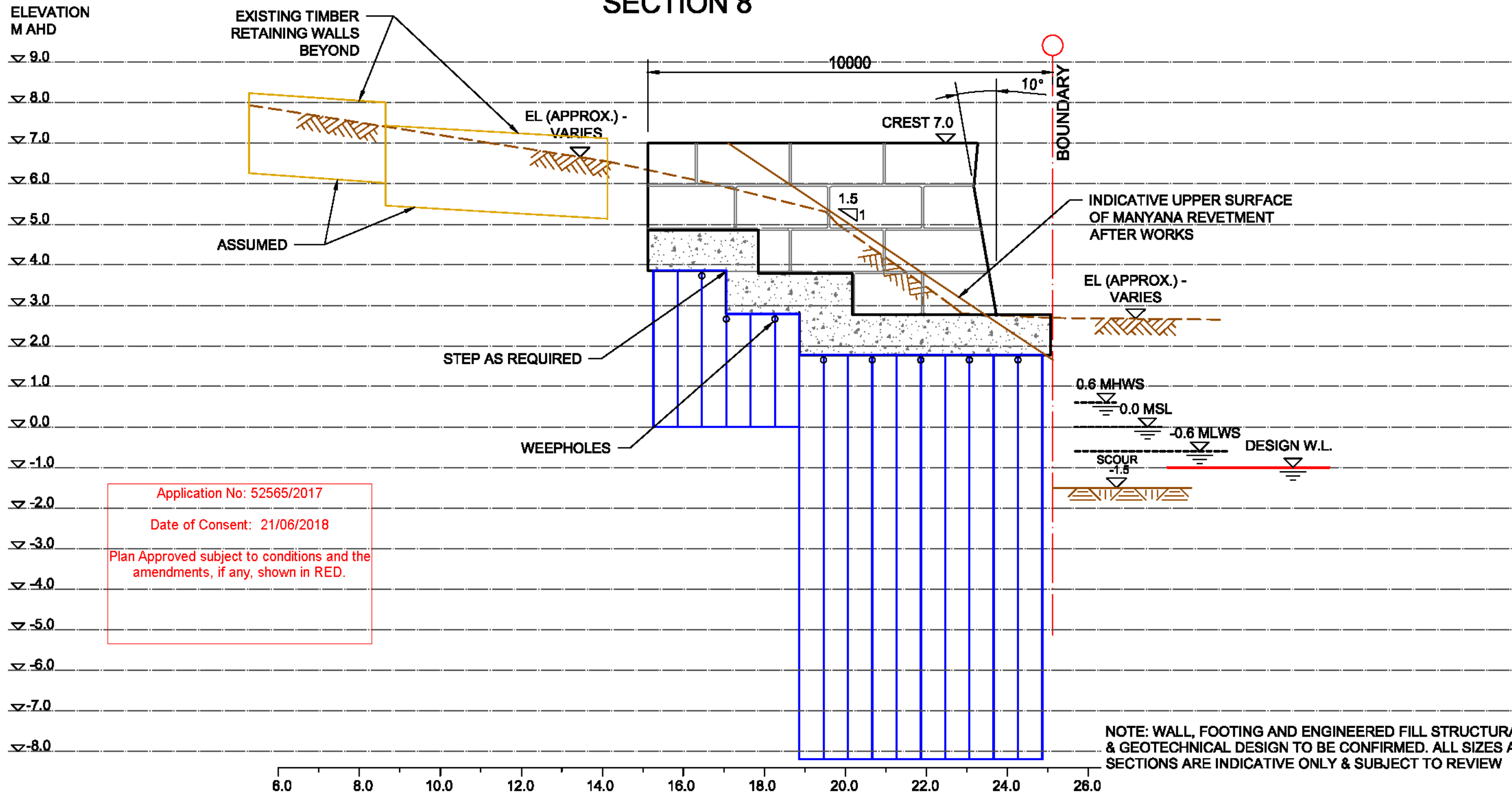
PROJECT NO.
5968
 DRAWING NO. REV
S10 G

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SCALE 1 : 100 DATE MAY 2018

CONCEPT SECTION 7

SECTION 8



Application No: 52565/2017
 Date of Consent: 21/06/2018
 Plan Approved subject to conditions and the amendments, if any, shown in RED.

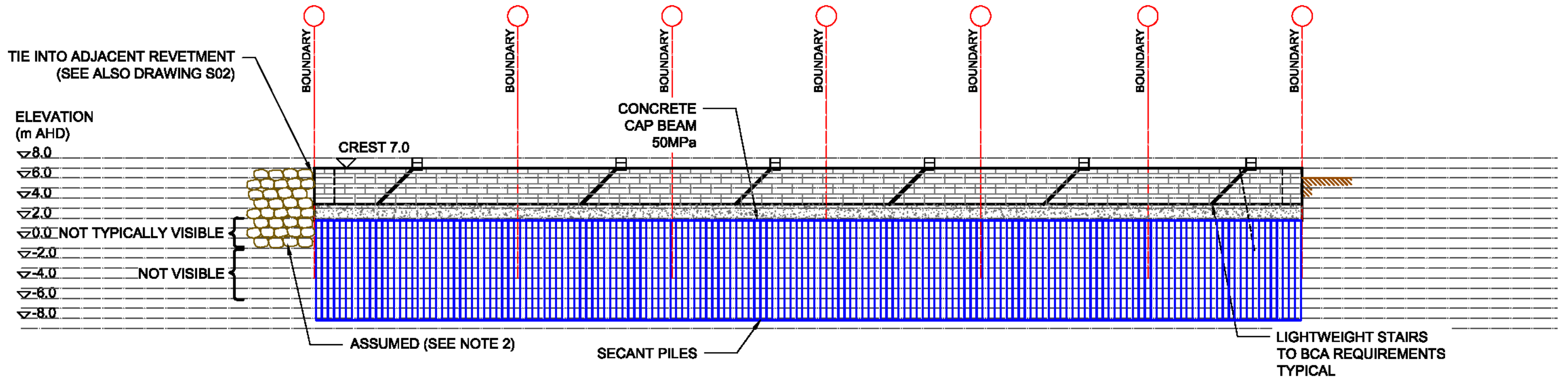
NOTE: WALL, FOOTING AND ENGINEERED FILL STRUCTURAL & GEOTECHNICAL DESIGN TO BE CONFIRMED. ALL SIZES AND SECTIONS ARE INDICATIVE ONLY & SUBJECT TO REVIEW

NOTE: ALLOW TO EXCAVATE & CONSTRUCT IN STAGES

PRELIMINARY NOT FOR CONSTRUCTION

BY	CHKD	DESCRIPTION	DATE	REV
P.P.	R.Y.	ISSUED FOR APPROVAL	31.05.18	G
P.P.	R.Y.	NO WORKS SEAWARD OR NORTH	07.05.18	F
P.P.	R.Y.	RESPONSE TO COUNCIL REQUESTS	21.03.18	E
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COASTAL PROTECTION WORKS 29, 31 & 33 PACIFIC STREET AND 23A, 23B & 25C OCEAN VIEW DRIVE, WAMBERAL, NSW	COASTAL ENGINEERING DESIGN: HORTON COASTAL ENGINEERING PTY LTD 18 Reynolds Cres Beacon Hill NSW 2100 TEL: +61 (0)407 012 538 peter@hortoncoastal.com.au www.hortoncoastal.com.au	STRUCTURAL ENGINEERING DESIGN: James Taylor & Associates Civil & Structural Consulting Engineers SUITE 301, 115 MILITARY ROAD NEUTRAL BAY NSW 2090 TEL: 02 99691999 EMAIL: mail@jamestaylorassociates.com.au	DESIGN R.Y. DRAWN P.P. CHKD. R.Y. APPRD. P.H.	PROJECT NO. 5968
	CONCEPT SECTION 8			DRAWING NO. S11 REV G
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EAST ELEVATION (SECTION 9)

Application No: 52565/2017
 Date of Consent: 21/06/2018
 Plan Approved subject to conditions and the amendments, if any, shown in RED.

NOTE: WALL, FOOTING AND ENGINEERED FILL STRUCTURAL & GEOTECHNICAL DESIGN TO BE CONFIRMED. ALL SIZES AND SECTIONS ARE INDICATIVE ONLY & SUBJECT TO REVIEW

1. THE NATURE OF THE TIE INTO THE EXISTING REVETMENT ON THE SOUTHERN SIDE WILL DEPEND ON THE CONFIGURATION OF THE EXISTING REVETMENT AT 'MANYANA'. THE REQUIREMENTS WOULD BE DETERMINED AFTER EXCAVATION FOR CONSTRUCTION AND ASSESSMENT AT THAT TIME. TEMPORARY SHORING MAY BE NECESSARY TO LIMIT SLUMPING OF THE EXISTING REVETMENT DURING CONSTRUCTION. SEE NOTE 2 ON S02
2. ROCK REVETMENT WOULD BE EXPECTED TO BE COVERED IN SAND AND VEGETATION FOR MOST OF THE TIME

PRELIMINARY NOT FOR CONSTRUCTION

P.P.	R.Y.	ISSUED FOR APPROVAL	31.05.18	G
P.P.	R.Y.	NO WORKS SEAWARD OR NORTH	07.05.18	F
P.P.	R.Y.	RESPONSE TO COUNCIL REQUESTS	21.03.18	E
P.P.	R.Y.	ISSUED FOR REVIEW	30.10.17	D
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BY	CHKD	DESCRIPTION	DATE	REV

COASTAL PROTECTION WORKS 29, 31 & 33 PACIFIC STREET AND 23A, 23B & 25C OCEAN VIEW DRIVE, WAMBERAL, NSW	COASTAL ENGINEERING DESIGN: HORTON COASTAL ENGINEERING PTY LTD 18 Reynolds Cres Beacon Hill NSW 2100 TEL: +61 (0)407 012 538 peter@hortoncoastal.com.au www.hortoncoastal.com.au	STRUCTURAL ENGINEERING DESIGN: James Taylor & Associates Civil & Structural Consulting Engineers SUITE 301, 115 MILITARY ROAD NEUTRAL BAY NSW 2090 TEL: 02 99691999 EMAIL: mail@jamestaylorassociates.com.au	DESIGN R.Y. CHKD. R.Y. APPRD. P.H.	DRAWN P.P. DATE MAY 2018	PROJECT NO. <h2 style="text-align: center;">5968</h2>
	<h2 style="margin: 0;">EAST ELEVATION</h2>	COPYRIGHT: THIS DESIGN AND PLANS ARE NOT TO BE USED OR REPRODUCED WHOLLY OR IN PART WITHOUT WRITTEN PERMISSION FROM HORTON COASTAL ENGINEERING AND JAMES TAYLOR & ASSOCIATES	SCALE 1 : 400	DRAWING NO. <h2 style="text-align: center;">S12</h2>	REV <h2 style="text-align: center;">G</h2>