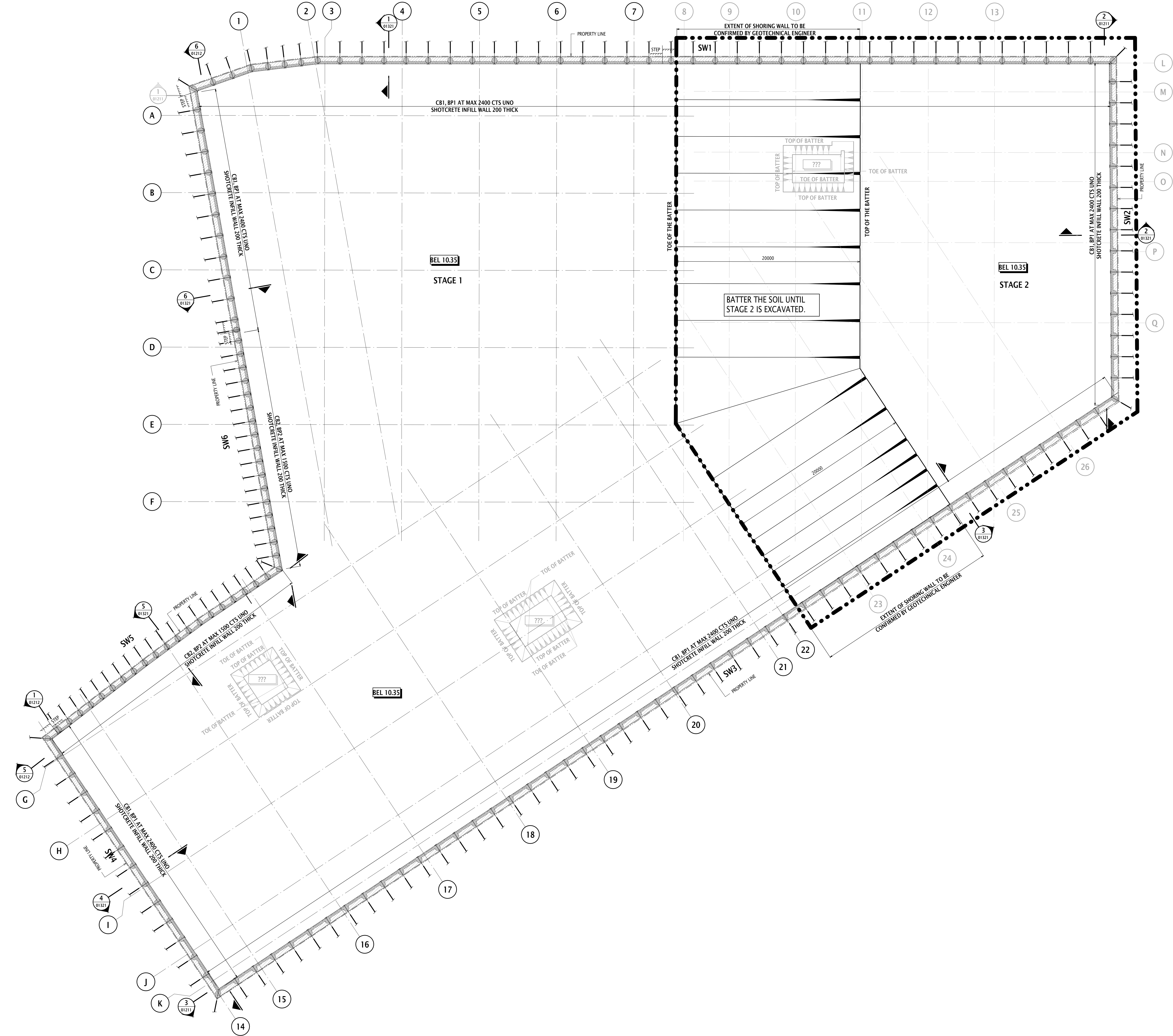




SHORING GENERAL ARRANGEMENT PLAN - OPTION 2B
SCALE 1 : 150

BULK EARTHWORKS & RETENTION LEGEND:

- DENOTES SHOTCRETE WALL
- DENOTES BORED PIER AND TEMPORARY GROUND ANCHORS
- DENOTES SHORING WALL NUMBER
- DENOTES MONITORING POINT FOR NEW RETAINING WALL (TBC)
- DENOTES MONITORING POINT TO ADJOINING BUILDING PARAPET (TBC)
- DENOTES APPROXIMATE LOCATION OF BOREHOLE & REFERENCE NUMBER REFER GEOTECHNICAL REPORT (TBC)
- DENOTES BULK EXCAVATION LEVEL BASED ON ARCH LEVELS MINUS SUBGRADE AND SLAB DEPTH.

REFER DRAWING SERIES S00 FOR ALL RELEVANT SITE RETENTION AND EARTHWORKS NOTES

EXCAVATION NOTES:

1. LOCAL EXCAVATION FOR COLUMNS, PILE CAPS, AND STRIP FOOTINGS NOT SHOWN.
2. EXCAVATION SEQUENCE AND REQUIREMENTS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER.
3. GEOTECHNICAL ENGINEER TO INSPECT EXCAVATION.
4. INSPECTION PLAN TO BE CONFIRMED BY GEOTECHNICAL ENGINEER.

GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR ALL STEPS IN CAPPING BEAMS UNO.
2. ALL IN GROUND SERVICES LOCATIONS AND EXISTING FOOTINGS TO BE CONFIRMED BY BUILDER PRIOR TO ANY ANCHOR INSTALLATION WORKS. CONTRACTOR TO ENSURE THAT ALL ANCHOR LOCATIONS ARE CLEAR OF EXISTING SERVICES AND FOOTINGS CLEARANCE TO BE 1600 MIN. AND/OR IN ACCORDANCE WITH THE RELEVANT SERVICES AUTHORITIES SPECIFICATIONS.
3. PILE AND TEMPORARY ANCHORS SYSTEM DESIGN TO BE ADJUSTED TO PREVENT CLASH WITH ANY ADJACENT FOOTINGS AND SERVICES.
4. REFER TO SHORING WALL ELEVATION DRAWINGS FOR RELEVANT SCHEDULES (TBC).

CONCRETE NOTES :
REFER NOTES ON COVER SHEET
MIN CONC. STRENGTH AT 28 DAYS

LOCATION	Fc
SHOTCRETE	40MPa
BORED PIER	40MPa
CAPPING BEAM	40MPa

-CONCRETE COVER

LOCATION	COVER
BORED PIER	65mm
CAPPING BEAM	50mm
SHOTCRETE	
- RETAINED SOIL SIDE	65mm
- EXCAVATION SIDE	30mm

STAGING NOTES:

1. RBG UNDERSTANDS THAT TWO BULK EXCAVATION OPTIONS ARE CONSIDERED BY BUILT AT THIS STAGE, INCLUDING:
 - OPTION 1 - BULK EXCAVATION UNDER THE WHOLE DEVELOPMENT.
 - OPTION 2: DIVIDING THE BULK EXCAVATION INTO TWO STAGES.
2. THE TWO-STAGE EXCAVATION PROCESS WILL INCLUDE EXCAVATION UNDER THE LIBRARY AND COUNCIL BUILDINGS AS PART OF STAGE 1, AND EXCAVATION UNDER THE COMMERCIAL AND HOTEL BUILDINGS AS PART OF STAGE 2.
3. IF THE TWO-STAGE EXCAVATION IS CONSIDERED, STAGE 1 AND 2 SHALL BE SEPARATED EITHER BY CONSTRUCTING A TEMPORARY SHORING WALL (OPTION 2A) OR BATTERING THE SOIL TOWARDS STAGE 2 AS PER THE REQUIREMENTS SPECIFIED BY GEOTECHNICAL ENGINEER (OPTION 2B).

P2	SHRILY WORKS (INFORMATION ONLY)	ST	CA	28.11.19
P1	EARLY WORKS (INFORMATION ONLY)	ST	CA	25.11.19

Rev	Revision Description	By	App	Date
01	Issue for construction	1	1	1
02	Issue for construction	1	1	1
03	Issue for construction	1	1	1
04	Issue for construction	1	1	1
05	Issue for construction	1	1	1
06	Issue for construction	1	1	1
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24	Issue for construction	1	1	1
25	Issue for construction	1	1	1
26	Issue for construction	1	1	1

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS
REFER TO GENERAL NOTES UNLESS NOTED OTHERWISE

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ACN191519 580 108

Client
BUILT PTY LTD

Project
LIVERPOOL CIVIC PLACE

Title
**SHORING GENERAL ARRANGEMENT
PLAN
OPTION 2**

Date
01.11.19
Scale
1:150
Job Number
19280

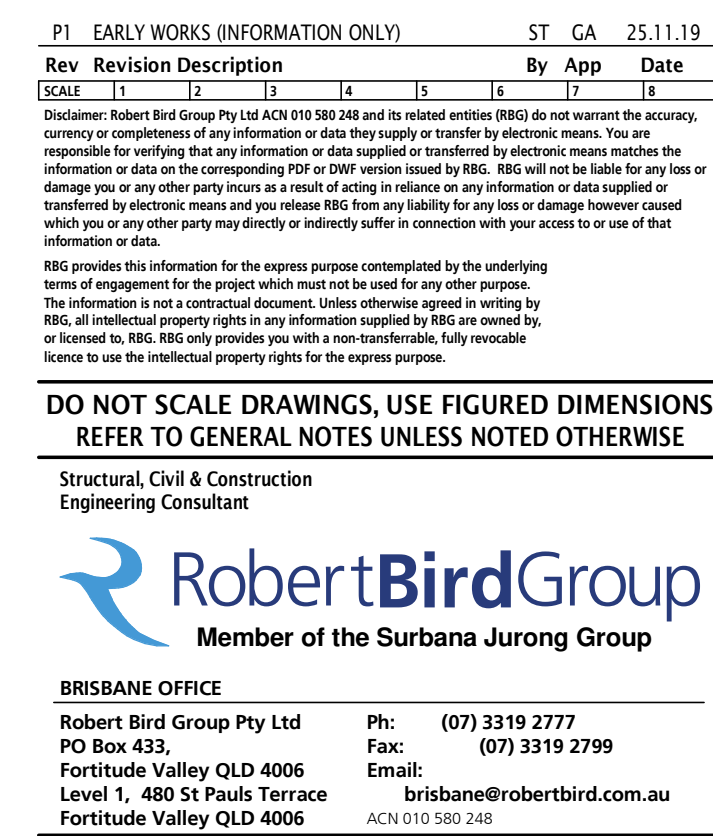
Drawn
S.TRIMARCHI
Designed
M.MOGHADDASI
Design Checker

Approved
G.ANDRIANAKOS

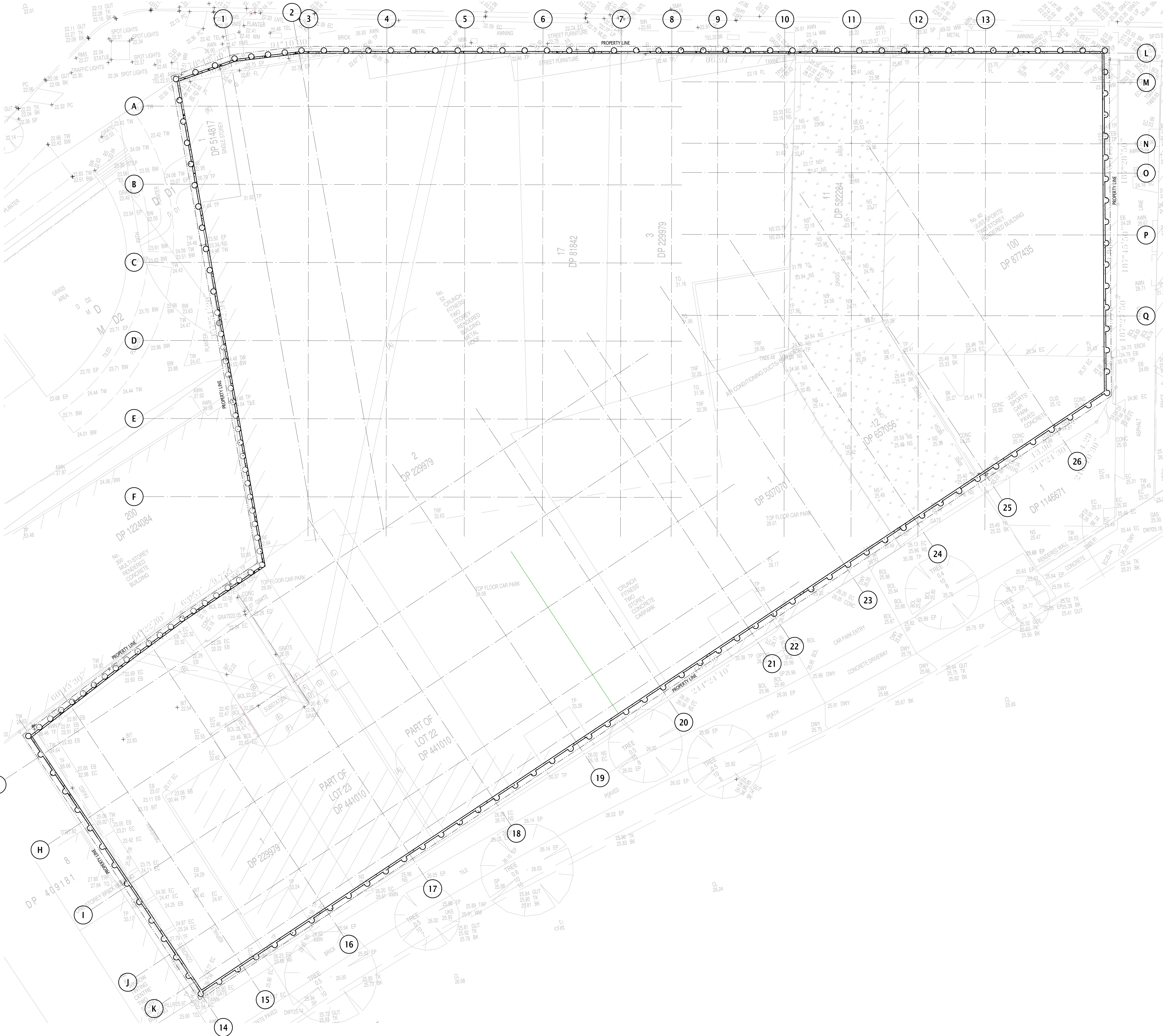
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Drawing Number
Revision

RBG-XX-XX-DR-ST-01122
P2



Drawing Number	Revision
RBG-XX-XX-DR-ST-01321	P1



SHORING SURVEY PLAN
SCALE 1:150

NOTES:
- SURVEY OVERLAY AS PER VERIS AUSTRALIA PTY LTD
SURVEY PLAN ISSUED 06.09.2019

Rev	Revision Description	By	App	Date
01	1	1	1	1

Rev 01: EARLY WORKS INFORMATION ONLY

ST CA 25.11.19

Rev 01: EARLY WORKS INFORMATION ONLY

ST CA 25.11.19

Rev 01: EARLY WORKS INFORMATION ONLY

ST CA 25.11.19

DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS
REFER TO GENERAL NOTES UNLESS NOTED OTHERWISE

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Client
BUILT PTY LTD

Project
LIVERPOOL CIVIC PLACE

Title
SHORING SURVEY PLAN

Date
01.11.19
Scale at 40
1:150

Drawn
S.TRIMARCHI
Designer
M.MOGHADDASI
Design Checker
G.ANDRIANAKOS

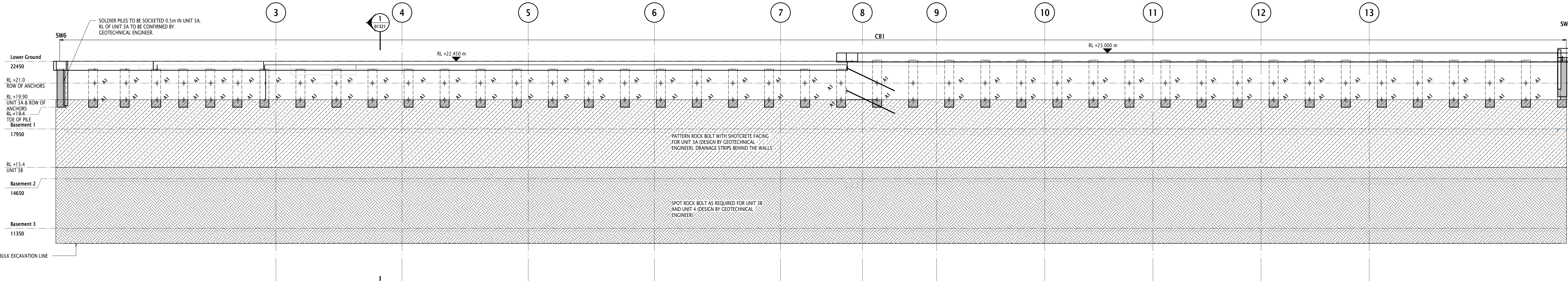
Job Number
19280

Approved
G.ANDRIANAKOS

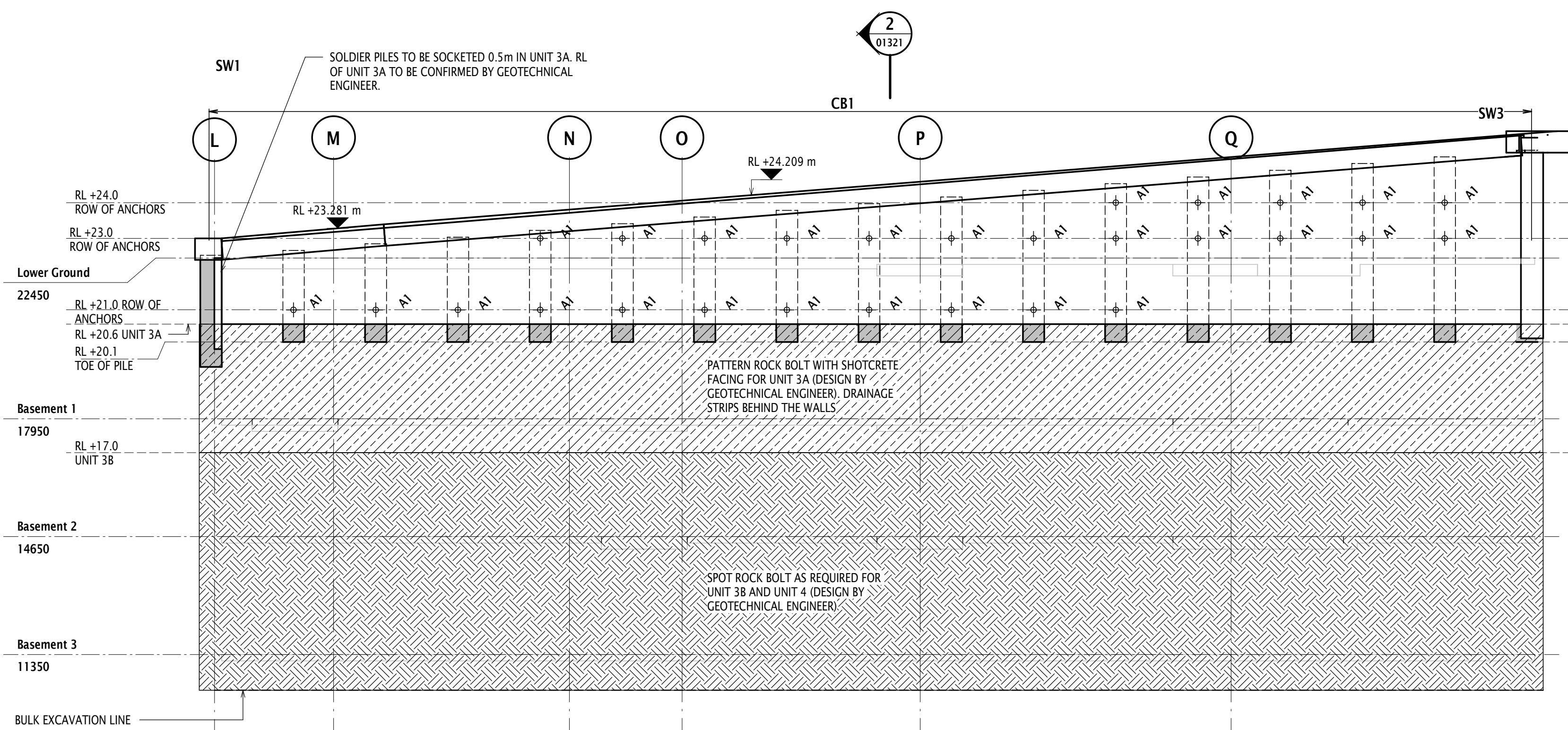
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Drawing Number
RBG-XX-XX-DR-ST-01010

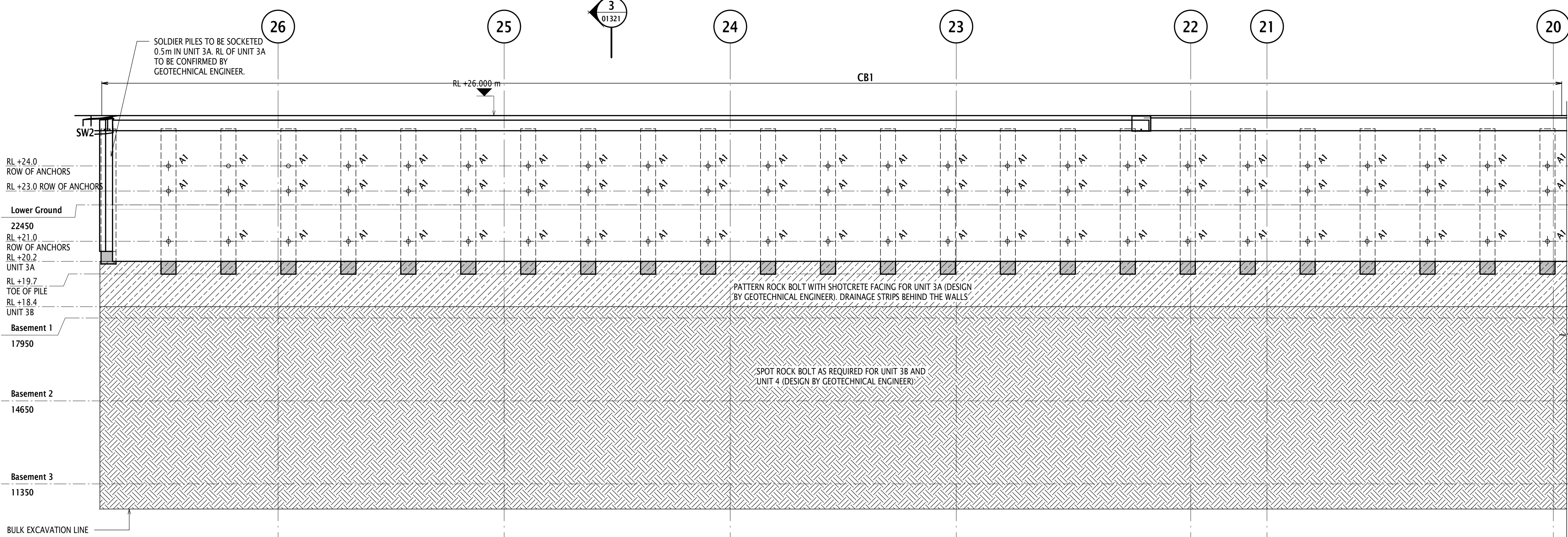
Revision
P1



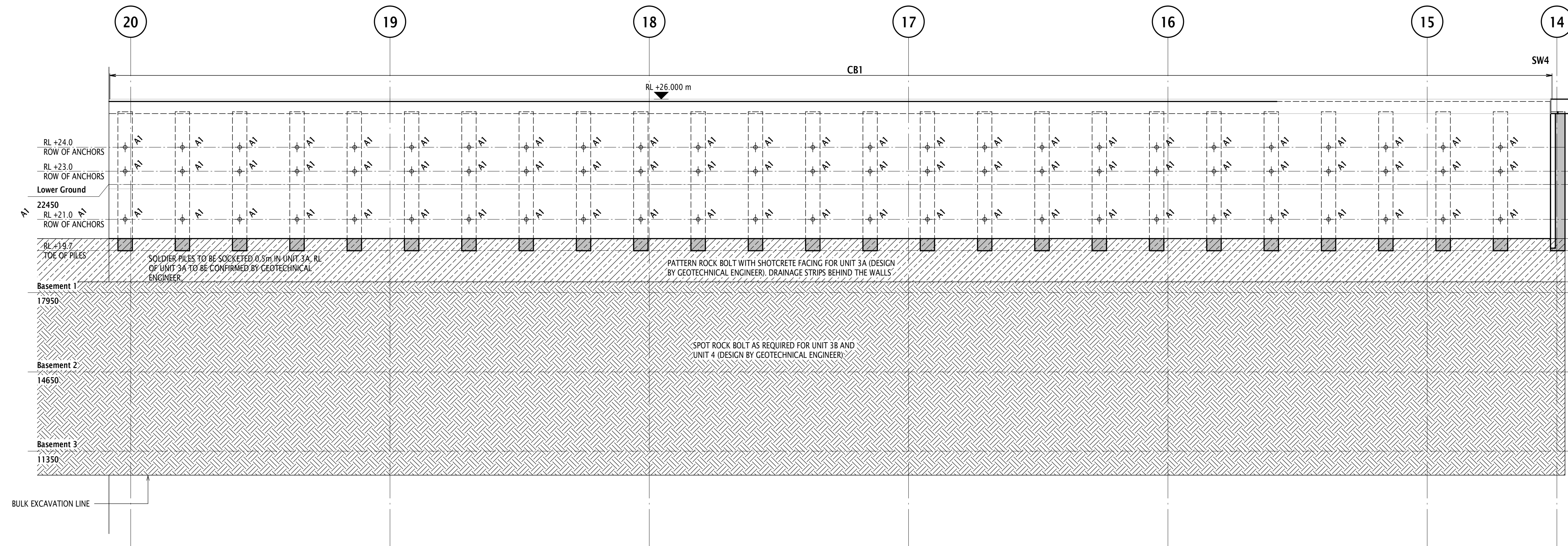
SHORING WALL ELEVATION - SW1
SCALE 1 : 100



SHORING WALL ELEVATION - SW2
SCALE 1 : 100



SHORING WALL ELEVATION - SW3
SCALE 1 : 100



SHORING WALL ELEVATION - SW4
SCALE 1 : 100

- EXCAVATION NOTES:**
- LOCAL EXCAVATION FOR COLUMNS, PILE CAPS, AND STRIP FOOTINGS NOT SHOWN.
 - EXCAVATION SEQUENCE AND REQUIREMENTS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER.
 - GEOTECHNICAL ENGINEER TO INSPECT EXCAVATION.
 - INSPECTION PLAN TO BE CONFIRMED BY GEOTECHNICAL ENGINEER.
- CONCRETE NOTES:**
REFER NOTES ON COVER SHEET
MIN CONC. STRENGTH AT 28 DAYS

LOCATION	Fc
SHOTCRETE	40MPa
BORED PIER	40MPa
CAPPING BEAM	40MPa

CONCRETE COVER	COVER
BORED PIER	65mm
CAPPING BEAM	50mm
SHOTCRETE	50mm
RETAINED SOIL SIDE	65mm
EXCAVATION SIDE	30mm

P1 EARLY WORKS (INFORMATION ONLY) ST CA 25.11.19

Rev	Revision Description	By	App	Date
0001	1	1	1	1

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Client
BUILT PTY LTD

Project
LIVERPOOL CIVIC PLACE

Title
**SHORING WALL ELEVATIONS
SHEET 1**

Date
01.11.19
Scale: as 40
1:100

Drawn
S.TRIMARCHI
Designer
M.MOGHADDASSI
Design Checker

Job Number
19280

Approved
G.ANDRIANAKOS

NOT FOR CONSTRUCTION

Drawing Number
RBG-XX-XX-DR-ST-01211

Revision
P1

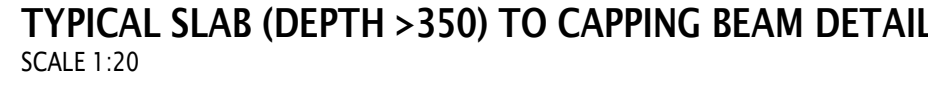
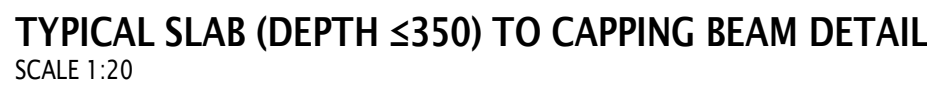
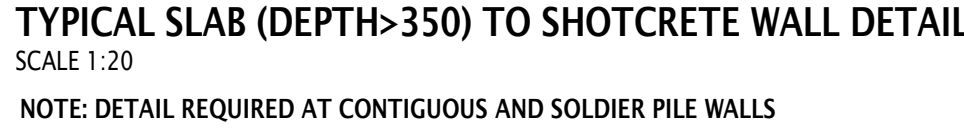
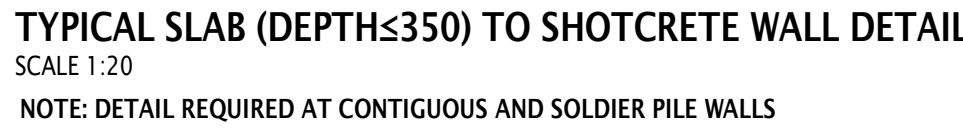
CAPPING BEAM SCHEDULE					
MARK	BREADTH	HEIGHT	TOP & BTM REINFORCEMENT	SIDE REINFORCEMENT	LIGATURES
CB1	750	600	3N20	4N24	2 LIGS N12-300
CB2	750	600	3N20	4N24	4 LIGS N12-300

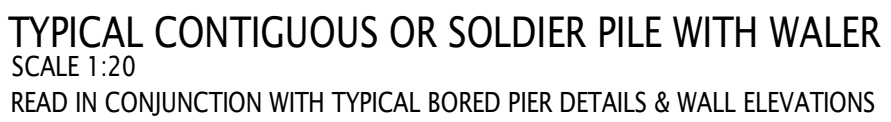
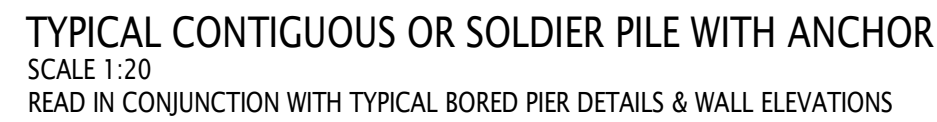
BORED PIER SCHEDULE				
MARK	DIA	VERTICAL	HELIX TIES	COMMENTS
BP1	600	12N20	N12-300	
BP2	600	12N20	N16-300	

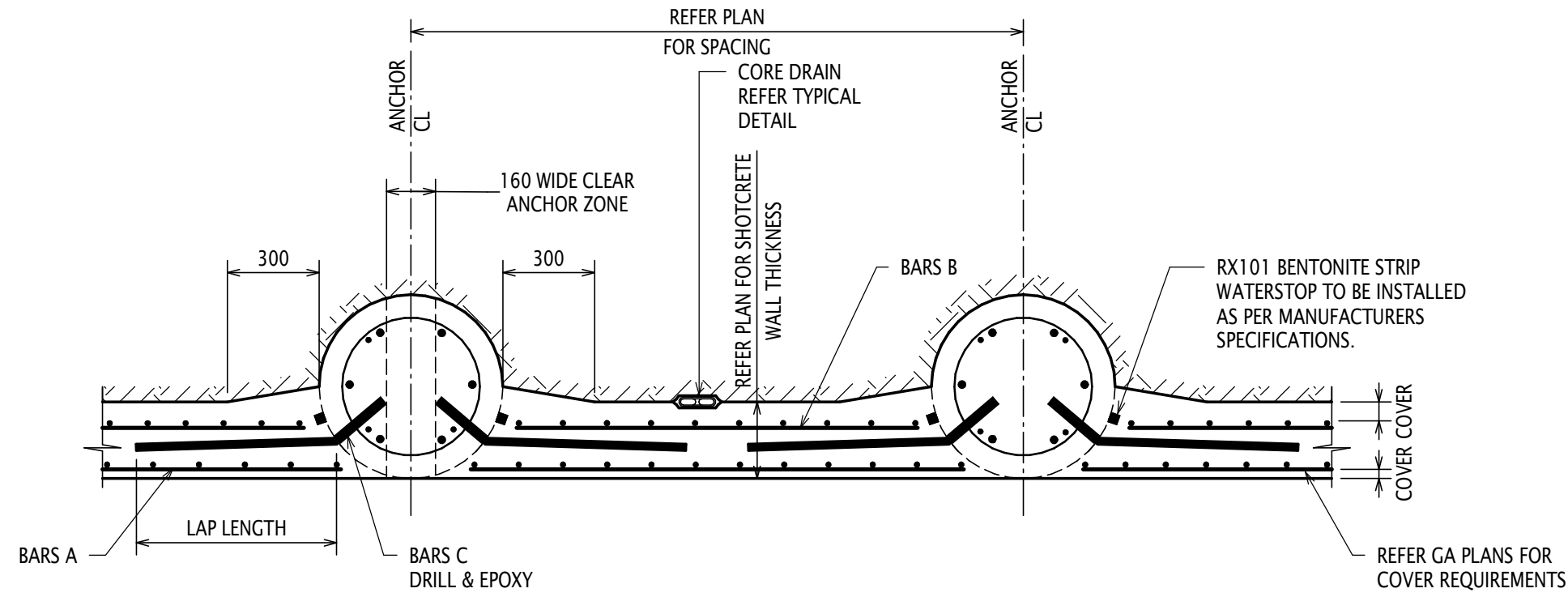
SHOTCRETE WALL SCHEDULE			
THICKNESS	HORIZONTAL	VERTICALS	Comments
200	SL102 MESH EF		

ANCHOR SCHEDULE								
MARK	SAFE WORKING LOAD (kN)	ANGLE FROM HORIZONTAL	DIAMETER (mm)	NO OF STRANDS	MIN.FREE LENGTH (mm)	INDICATIVE BOND IN SHALE/LAMINATE (m)	INDICATIVE TOTAL ANCHOR LENGTH ROCK (m)	PRE-STRESS LOAD (kN)
A1	300	15	100	2				150
A2	450	15	100	3				250

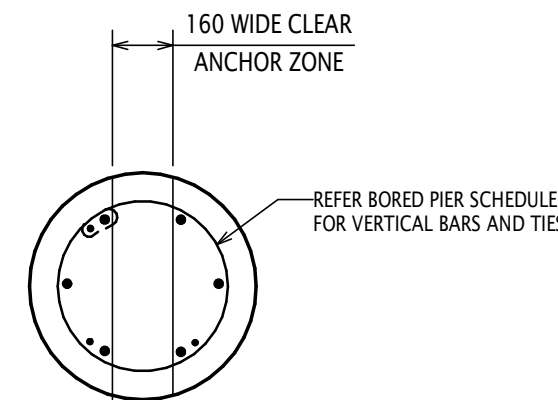
- NOTES:**
- NUMBER OF STRANDS ARE BASED ON 15.2mm SUPER-STRANDS
 - LOW PRE-STRESS LOADS ARE RECOMMENDED TO NOT INDUCE EXCESSIVE BENDING MOMENT AND SHEAR IN THE PILES
 - ANCHOR DETAILS IN ACCORDANCE WITH GOLDER ASSOCIATES SHORING WALL GEOTECHNICAL REPORT DATED NOVEMBER 2019



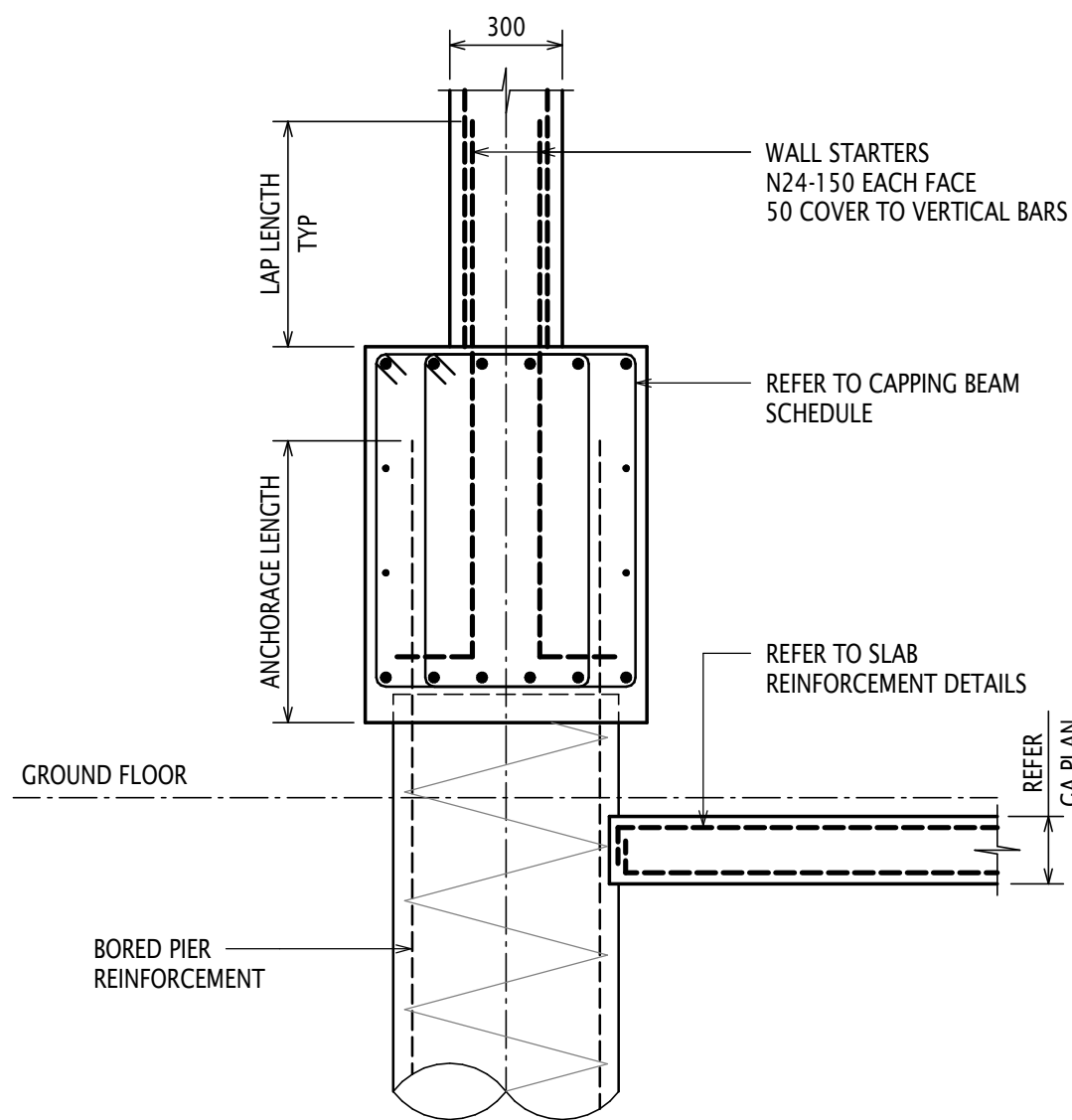




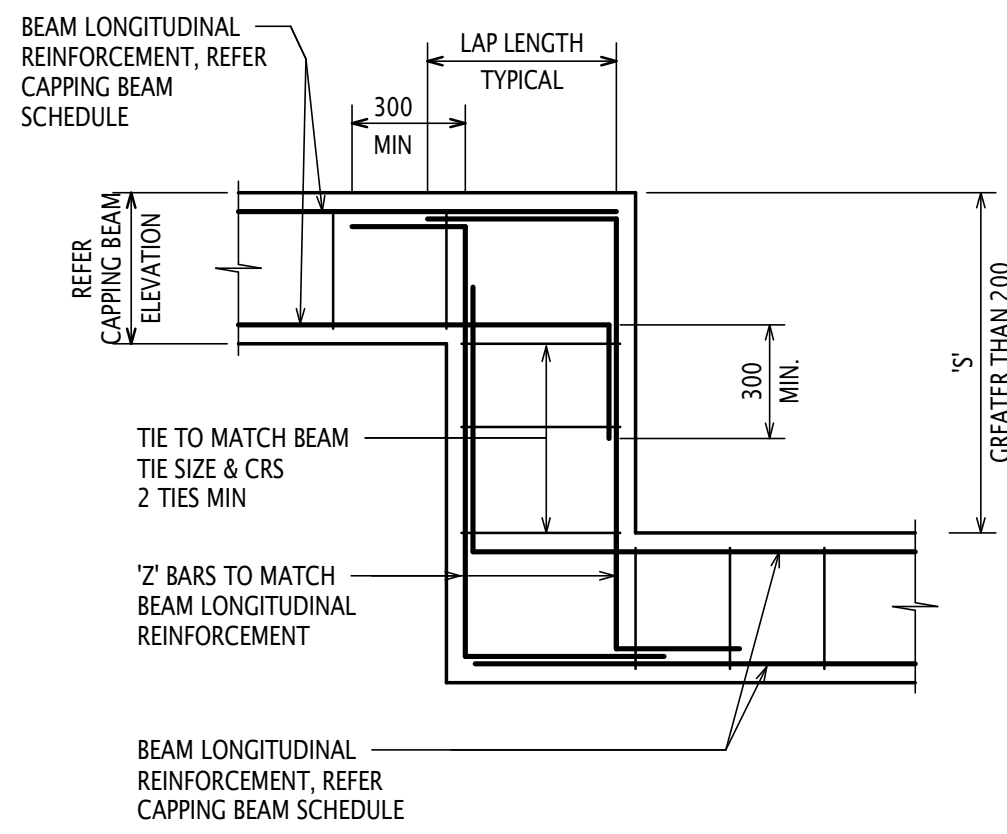
TYPICAL SOLDIER PIER WALL DETAIL
SCALE 1:20



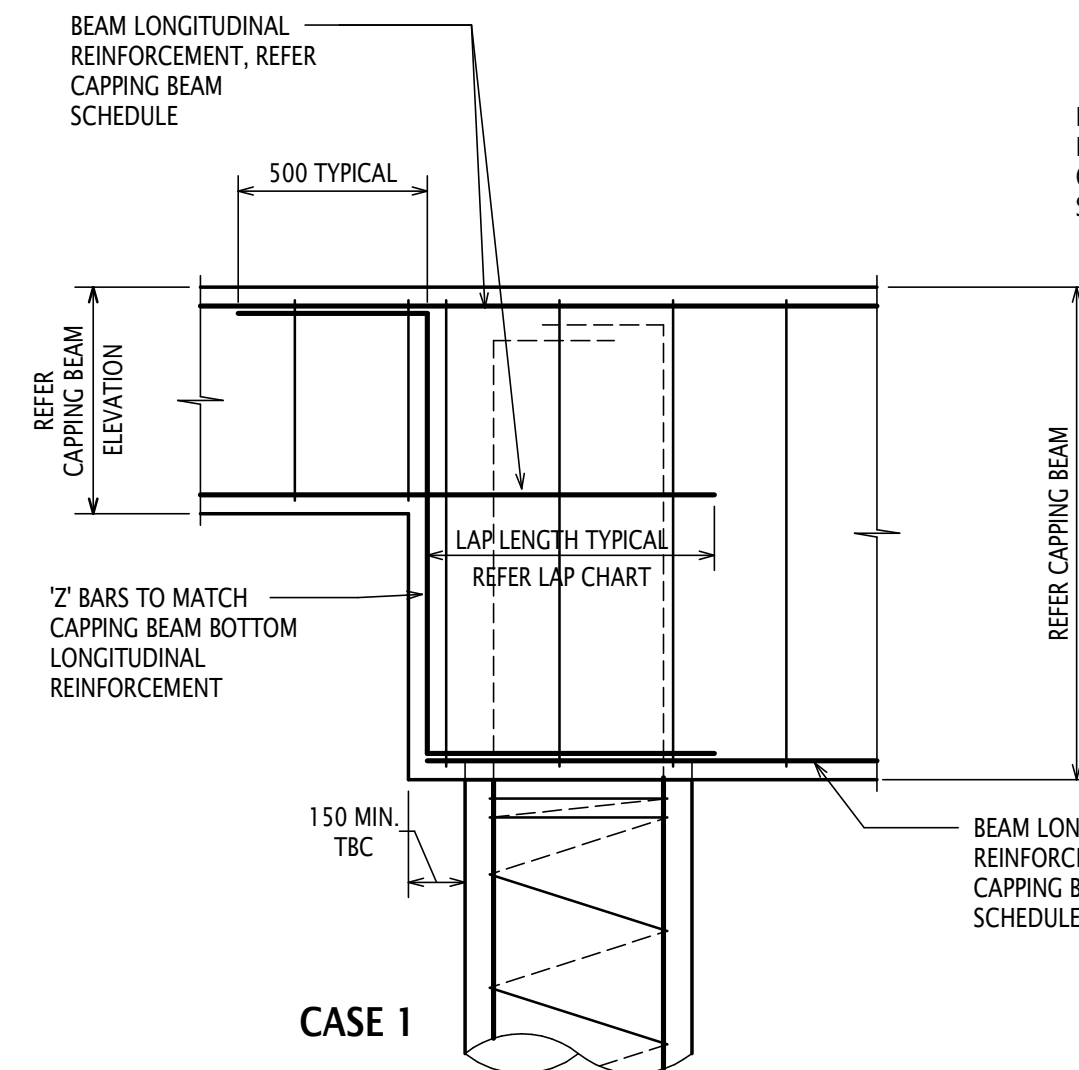
TYPICAL BORED PIER DETAIL



CAPPING BEAM CB4 DETAIL
SCALE 1:20

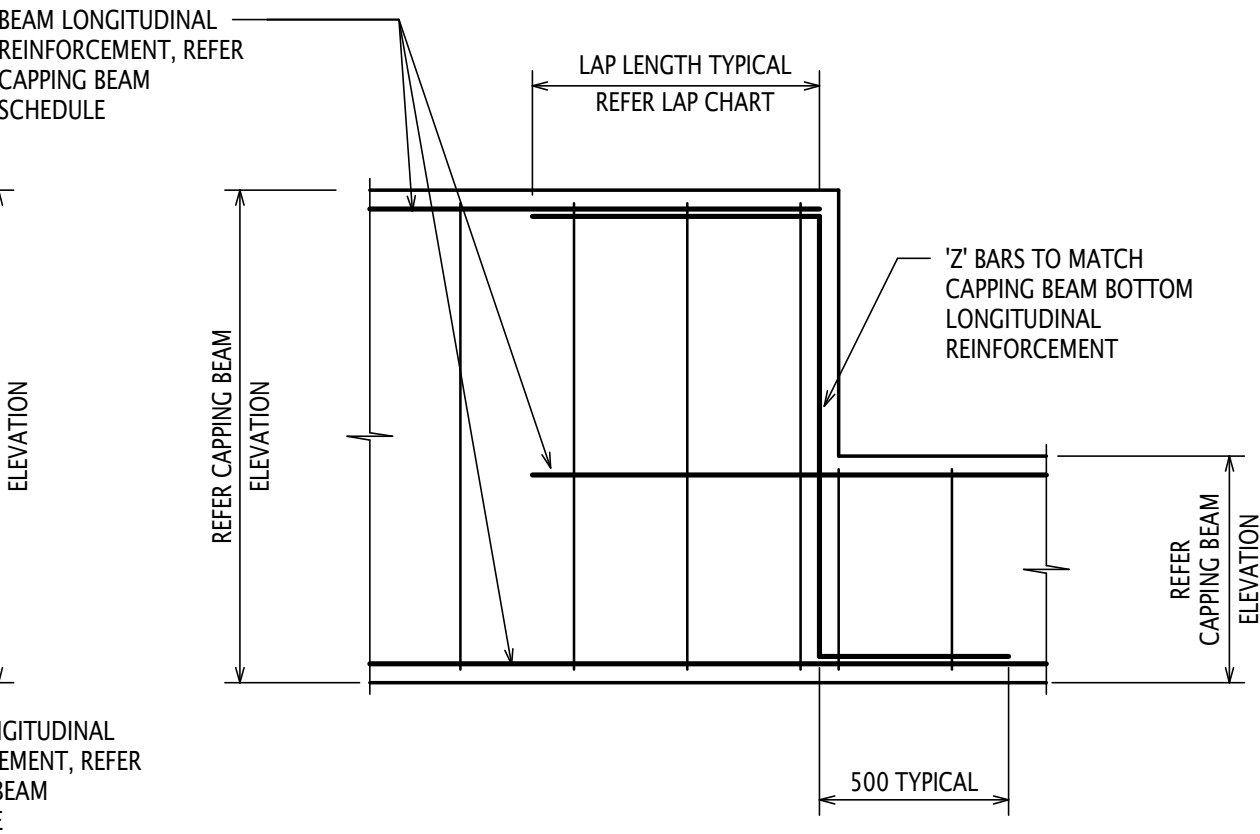


TYPICAL CAPPING BEAM FOLD SECTION
SCALE 1:20
ALL FOLDS 1200 UNO ON ELEVATIONS

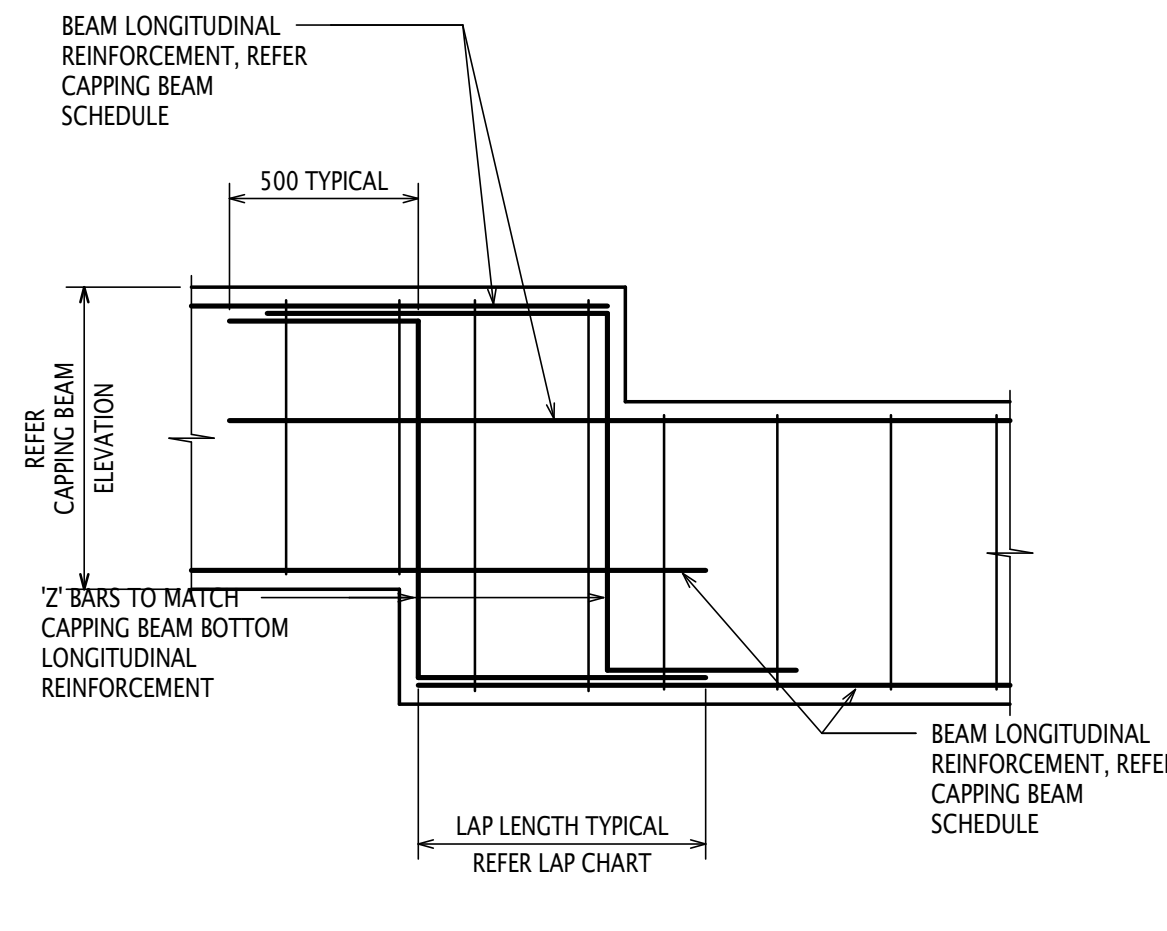


TYPICAL CHANGE IN CAPPING BEAM DEPTH
SCALE 1:20

NOTE: SIDE BARS NOT SHOWN FOR CLARITY
REFER TO CAPPING BEAM SCHEDULE



CASE 2



CASE 3

P1 EARLY WORKS (INFORMATION ONLY)				ST CA 25.11.19	
Rev	Revision Description	By	App	Date	
1	1	1	1	1	

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Client
BUILT PTY LTD

Project
LIVERPOOL CIVIC PLACE

Title
**TYPICAL SHORING DETAILS
SHEET 3**

Date 01.11.19 Scale at 40 1:20	Drawn S.TRIMARCHI Designer M.MOGHADDASI Design Checker G.ANDRIANAKOS
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Job Number 19280	Approved G.ANDRIANAKOS
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Drawing Number RBG-XX-XX-DR-ST-01313	Revision P1
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25-Nov-19 10:20:51 PM