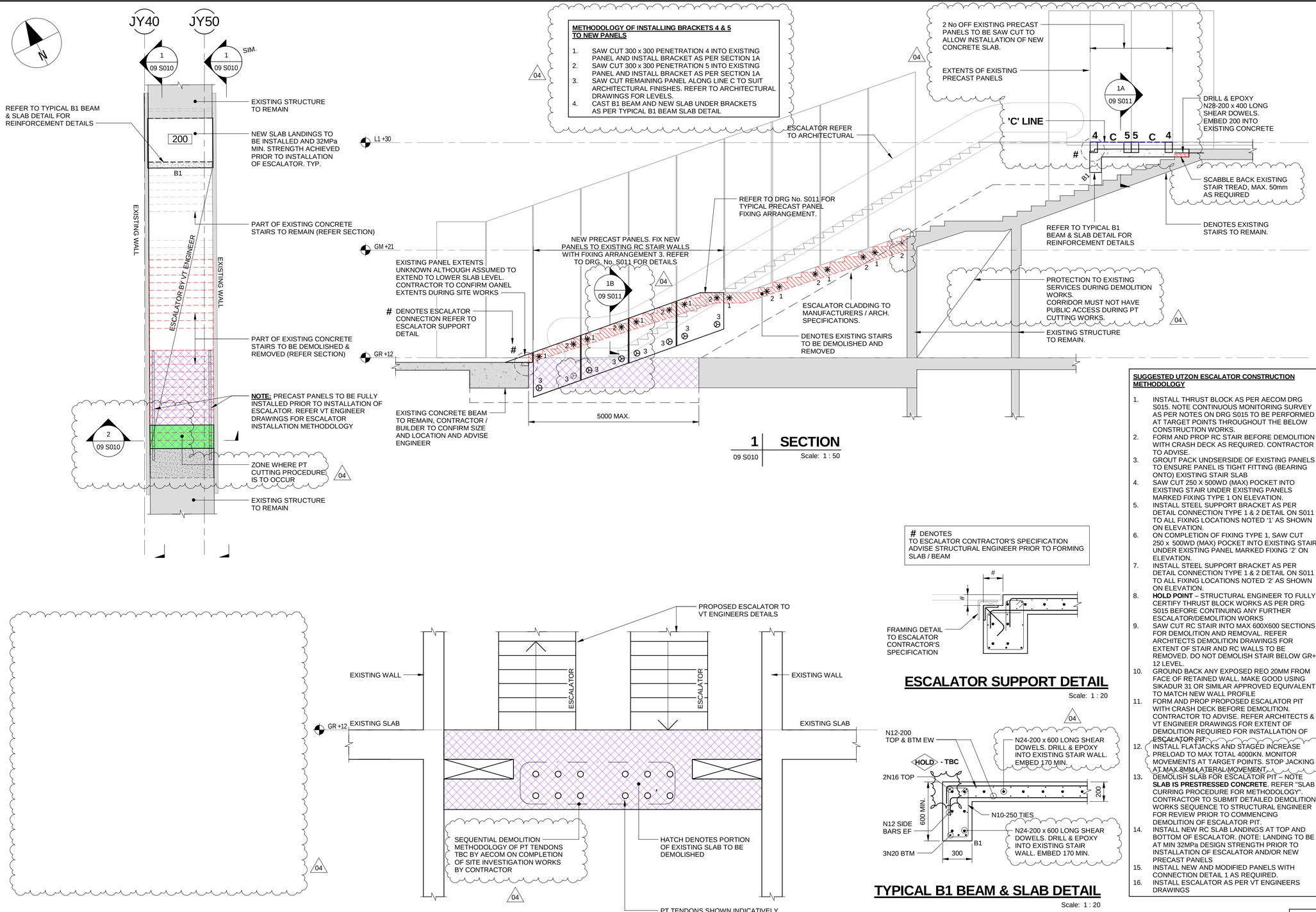
ISO A1 594mm x 841mm



1 SECTION
09 S010 — Scale: 1 : 50

NOTES:
1. REFER DRAWING No. S001 & S002 FOR STRUCTURAL GENERAL NOTES.
2. PLAN GRID AND R.L. DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE INDICATIVE ONLY AND REFLECT THE SET-OUT INFORMATION USED DURING DESIGN. REFER GENERAL NOTES AND ARCHITECT'S DRAWINGS FOR FINAL SET-OUT.

LEGEND

- ✱ 1 & 2 — DENOTES CONNECTION FIXING DETAIL TYPE 1 & 2. NEW ANGLE BRACKETS SUPPORTING EXISTING PRECAST PANEL. SAW CUT POCKETS 250(D)x500(W) TO ALLOW FOR INSTALLATION OF BRACKETS. DO NOT SAW CUT FIXING TYPE 2 UNTIL FIXING TYPE 1 IS INSTALLED. REFER TO DRG. No. S011 FOR DETAILS
- ⊗ 3 — DENOTES CONNECTION FIXING DETAIL TYPE 3. NEW PRECAST FIXINGS REFER TO DRG. No. S011 FOR DETAILS
- DENOTES EXISTING STRUCTURE
- 200 — DENOTES MINIMUM SLAB THICKNESS
- DENOTES EXISTING STRUCTURE TO BE DEMOLISHED. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT

SLAB CUTTING PROCEDURE
NOTE: SPECIALIST PT CONTRACTOR TO SUBMIT DETAILED SWMS FOR PT CUTTING PROCEDURE FOR REVIEW BY AECOM PRIOR TO COMMENCING PT WORKS

PREPARATION
1. MARK OUT OPENING IN ACCORDANCE WITH SETTING OUT ON ARCHITECTS DRAWINGS ON THE FLOOR SURFACE OF THE POST TENSIONED CONCRETE SLAB BENEATH THE STAIRCASE.
2. CONTRACTOR TO INITIALLY PERFORM INVESTIGATIVE WORKS TO EXISTING TIE BEAM UNDER STAIRS - LOCALLY SCABBLE AWAY AND EXPOSE SINGLE STRESSING CABLE/TENDON TO UNDERSTAND CONSTRUCTION OF CABLES/TENDONS. WHEN CABLE IS EXPOSED CAREFULLY PEEL BACK OUTER CASING TO EXPOSE TENDON UNDER. DO NOT DAMAGE OR CUT TENDON.
3. HOLD POINT. STRUCTURAL ENGINEER TO INSPECT EXPOSED CABLE/TENDON BEFORE FURTHER WORKS CAN PROCEED.
4. MARK OUT THE LOCATIONS OF THE TENDONS IN THE SLAB BY USE OF A COVER METER. IT IS ANTICIPATED THAT A MAXIMUM OF 12 CABLES/TENDONS RUNNING IN A NORTH TO SOUTH DIRECTION, ARE LOCATED WITHIN THE SLAB. (DEPTH OF CABLES UNKNOWN – CONTRACTOR MAY NEED TO LOCALLY SCABBLE THE TOP SURFACE OF THE SLAB TO EXPOSE LOCATION OF TENDONS)
5. CORE THE CORNERS OF THE PROPOSED OPENING, ENSURING THAT NO TENDONS ARE DAMAGED.

TENDON PREPARATION PROCEDURE AND EXTENT OF WORKS TBC BY AECOM FOLLOWING DETAILED REVIEW OF SITE INVESTIGATION WORKS
1. MARK OUT 500MM LONG BY (MINIMUM) 250MM WIDE POCKETS OVER THE TENDONS, SET BACK AT LEAST 500MM FROM THE EDGE OF THE PENETRATION.
2. USING 10KG JACKHAMMER, CAREFULLY REMOVE THE TOP SECTION OF THE SLAB WITHIN EACH POCKET SO THAT THERE IS AT LEAST 20MM CLEARANCE BENEATH THE TENDON AND 50MM ON EITHER SIDE. EXPOSED EDGES PERPENDICULAR TO SLAB ARE TO BE GREATER THAN 20MM.
3. CAREFULLY REMOVE METAL DUCT AROUND TENDONS AND CLEAN AWAY EXISTING GROUT FROM AROUND THE TENDONS.
4. SPREAD THE CABLE USING WEDGES OR NAILS.
5. MIX AND POUR SIKA GROUT 300PT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, INTO THE CREATED POCKET IN THE SLAB AND FINISH TO EXISTING SLAB SURFACE LEVELS. ENSURE THAT THE EPOXY GROUT FULLY ENCASES THE CABLE AND FILLS THE POCKETS WITH NO VOIDS.
6. LEAVE THE MIX TO CURE TO THE MANUFACTURER'S SPECIFICATIONS.

CUTTING PENETRATION
1. SAW CUT THE WASTE CONCRETE IN SECTIONS OF (MAXIMUM) 150KG BLOCKS USING AN ELECTRIC ROAD SAW. ENSURE THERE IS NO OVER CUTTING AT THE CORNERS OF THE PENETRATION. ENSURE THAT ALL TENDONS AND REINFORCEMENT ARE FULLY CUT AT PENETRATION BOUNDARY.

CORROSION PROTECTION
1. SEAL ALL EXPOSED CUT END OF TENDONS AND REINFORCEMENT AGAINST CORROSION USING SIKADUR-31 OR AN EQUAL AND APPROVED EPOXY MORTAR.

SUGGESTED UTZON ESCALATOR CONSTRUCTION METHODOLOGY
1. INSTALL THRUST BLOCK AS PER AECOM DRG S015. NOTE CONTINUOUS MONITORING SURVEY AS PER NOTES ON DRG S015 TO BE PERFORMED AT TARGET POINTS THROUGHOUT THE BELOW CONSTRUCTION WORKS.
2. FORM AND PROP RC STAIR BEFORE DEMOLITION WITH CRASH DECK AS REQUIRED. CONTRACTOR TO ADVISE.
3. GROUT PACK UNDSERSIDE OF EXISTING PANELS TO ENSURE PANEL IS TIGHT FITTING (BEARING ONTO) EXISTING STAIR SLAB
4. SAW CUT 250 X 500WD (MAX) POCKET INTO EXISTING STAIR UNDER EXISTING PANELS MARKED FIXING TYPE 1 ON ELEVATION.
5. INSTALL STEEL SUPPORT BRACKET AS PER DETAIL CONNECTION TYPE 1 & 2 DETAIL ON S011 TO ALL FIXING LOCATIONS NOTED '1' AS SHOWN ON ELEVATION.
6. ON COMPLETION OF FIXING TYPE 1, SAW CUT 250 x 500WD (MAX) POCKET INTO EXISTING STAIR UNDER EXISTING PANEL MARKED FIXING '2' ON ELEVATION.
7. INSTALL STEEL SUPPORT BRACKET AS PER DETAIL CONNECTION TYPE 1 & 2 DETAIL ON S011 TO ALL FIXING LOCATIONS NOTED '2' AS SHOWN ON ELEVATION.
8. **HOLD POINT** – STRUCTURAL ENGINEER TO FULLY CERTIFY THRUST BLOCK WORKS AS PER DRG S015 BEFORE CONTINUING ANY FURTHER ESCALATOR/DEMOLITION WORKS
9. SAW CUT RC STAIR INTO MAX 600X600 SECTIONS FOR DEMOLITION AND REMOVAL. REFER ARCHITECTS DEMOLITION DRAWINGS FOR EXTENT OF STAIR AND RC WALLS TO BE REMOVED. DO NOT DEMOLISH STAIR BELOW GR+ 12 LEVEL.
10. GROUND BACK ANY EXPOSED REO 20MM FROM FACE OF RETAINED WALL. MAKE GOOD USING SIKADUR 31 OR SIMILAR APPROVED EQUIVALENT TO MATCH NEW WALL PROFILE
11. FORM AND PROP PROPOSED ESCALATOR PIT WITH CRASH DECK BEFORE DEMOLITION. CONTRACTOR TO ADVISE. REFER ARCHITECTS & VT ENGINEER DRAWINGS FOR EXTENT OF DEMOLITION REQUIRED FOR INSTALLATION OF ESCALATOR PIT.
12. INSTALL FLATJACKS AND STAGED INCREASE PRELOAD TO MAX TOTAL 4000KN. MONITOR MOVEMENTS AT TARGET POINTS. STOP JACKING AT MAX 8MM LATERAL MOVEMENT.
13. DEMOLISH SLAB FOR ESCALATOR PIT – NOTE **SLAB IS PRESTRESSED CONCRETE**. REFER "SLAB CURRING PROCEDURE FOR METHODOLOGY". CONTRACTOR TO SUBMIT DETAILED DEMOLITION WORKS SEQUENCE TO STRUCTURAL ENGINEER FOR REVIEW PRIOR TO COMMENCING DEMOLITION OF ESCALATOR PIT.
14. INSTALL NEW RC SLAB LANDINGS AT TOP AND BOTTOM OF ESCALATOR. (NOTE: LANDING TO BE AT MIN 32MPa DESIGN STRENGTH PRIOR TO INSTALLATION OF ESCALATOR AND/OR NEW PRECAST PANELS
15. INSTALL NEW AND MODIFIED PANELS WITH CONNECTION DETAIL 1 AS REQUIRED.
16. INSTALL ESCALATOR AS PER VT ENGINEERS DRAWINGS

2 SECTION
09 S010 — Scale: 1 : 20

NOTE: FOR EXTENTS AND SETTING OUT OF DEMOLITION REFER ARCHITECTS DRAWINGS

DENOTES
TO ESCALATOR CONTRACTOR'S SPECIFICATION
ADVISE STRUCTURAL ENGINEER PRIOR TO FORMING SLAB / BEAM

ESCALATOR SUPPORT DETAIL
Scale: 1 : 20

TYPICAL B1 BEAM & SLAB DETAIL
Scale: 1 : 20

EF ESCALATOR RC BEAM SCHEDULE

MARK	SIZE (D)	SIZE (W)	REINFORCEMENT
B1	600	300	REFER TO TYPICAL B1 BEAM DETAIL

NOTE: MAX TOTAL ESCALATOR REACTION FORCE TO B1 BEAM = 75kN.

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

0 2500 5000 mm — 1:100
0 1250 2500 mm — 1:50
0 500 1000 mm — 1:20
0 250 500 mm — 1:10

NOT FOR CONSTRUCTION

Issue	Description	Drwn	Aprvd	Date
04	ISSUED FOR TENDER	HG	J.O.	22.06.2018
03	ISSUED FOR TENDER	EJC	JO	07.06.2018
02	ISSUED FOR TENDER	HG	J.O.	02.05.2018
01	ISSUED FOR TENDER	J.T.	J.O.	15.12.2017

SAFETY IN DESIGN INFORMATION
SAFETY IN DESIGN ISSUES HAVE BEEN ASSESSED AS PART OF THE DESIGN PROCESS. ALL REASONABLE STEPS HAVE BEEN TAKEN TO ENSURE HAZARDS AND RISKS NORMALLY ASSOCIATED WITH THIS TYPE OF DESIGN HAVE BEEN MITIGATED AND/OR COMMUNICATED. RESIDUAL HAZARDS AND RISKS AND/OR HAZARDS AND RISKS NOT NORMALLY ASSOCIATED WITH THIS TYPE OF WORK WHICH MAY REQUIRE SUBSEQUENT CONSIDERATION AND/OR ACTION ARE DESCRIBED IN - SOH-FOH SAFETY DESGIN REGISTER MATRIX DOCUMENT

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Location

Status: FOR TENDER
Contract: SOH-513
Dwn J.BRAGA | Date 20-06-2018
Ckd J.ONSLOW | Scale 1:10;1:20;1:50;1:100

Project: BUILDING RENEWAL PROGRAM ENTRY FOYER ESCALATORS
Title: STRUCTURAL UTZON ESCALATOR DETAILS - SHEET 1

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Location	Drawing No:	Sheet:	Rev:	
BX VA	29 BR AEC09	S010	04	A1

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