

WAREHOUSE DEVELOPMENT

NO.32 PLATINUM COURT

THURGOONA, NSW 2640

CIVIL WORKS

CIVIL GENERAL NOTES

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL & OTHER CONSULTANTS' DRAWINGS & SPECIFICATIONS & SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- MATERIALS & WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS.
- BUILDER TO CONFIRM THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCING ANY WORK ON SITE AND ALLOW FOR RELOCATION IF REQUIRED, INCLUDING INVERT LEVELS AT THE LEGAL POINT OF DISCHARGE. SERVICE INFORMATION SHOWN IS BASED ON PLANS SUPPLIED BY AUTHORITIES & IS APPROXIMATE ONLY. THE BUILDER IS TO COMPLY WITH ALL OF THE REQUIREMENTS OF THOSE SERVICES AUTHORITIES.
- THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS OF AUTHORITIES HAVING JURISDICTION OVER THE WORKS.
- PRIOR TO THE COMMENCEMENT OF ANY WORKS THE CONTRACTOR MUST VERIFY THAT THE DRAWINGS HAVE BEEN APPROVED BY THE RELEVANT AUTHORITIES.
- THESE DRAWINGS MUST NOT BE SCALED AND FOR SITE SET OUT DIMENSIONS REFER TO ARCHITECT'S DRAWINGS.
- ALL DIMENSIONS & REDUCED LEVELS MUST BE VERIFIED ON SITE BEFORE THE COMMENCEMENT OF ANY WORK.
- ANY PROPRIETARY PRODUCTS THAT ARE SPECIFIED ON THESE DRAWINGS (OR APPROVED BY THIS OFFICE) ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES DETAILS AND SPECIFICATIONS.
- SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.
- ANY DEFECT OR DEVIATION FROM THE CONTRACT DOCUMENTS THAT REQUIRES ASSESSMENT AND DETERMINATION OF CORRECTIVE MEASURES BY THE ENGINEER SHALL BE UNDERTAKEN AT THE CONTRACTOR'S EXPENSE.
- A MINIMUM OF 48 HOURS NOTICE SHALL BE GIVEN FOR ALL WORKS REQUIRING ATTENDANCE ON SITE BY THE ENGINEER. CONTRACTOR TO ENSURE THAT SUBJECT WORKS ARE COMPLETE PRIOR TO INSPECTION.
- ALL LEVELS SHOWN ARE TO AUSTRALIAN HEIGHT DATUM BASED ON THE INFORMATION PROVIDED ARCHITECTURAL DRAWINGS. CONTRACTOR TO VERIFY LEVELS AND TBM PRIOR TO COMMENCEMENT OF WORKS.
- THE CONTRACTOR SHALL ARRANGE FOR THE WORKS TO BE SET OUT BY A LICENSED SURVEYOR.
- EXISTING SURFACE CONTOURS, WHERE SHOWN, ARE INTERPOLATED & MAY NOT BE ACCURATE.
- CONTRACTOR IS TO ARRANGE WITH THE RELEVANT STATUTORY AUTHORITIES FOR ALL NECESSARY INSPECTIONS AND APPROVALS. ALL WORK WITHIN ROAD RESERVES ETC. TO BE CARRIED OUT TO THE SATISFACTION OF THE RELEVANT AUTHORITIES.
- AS FAR AS REASONABLY PRACTICABLE, THE WORKS SHALL BE MAINTAINED IN A NORMALLY DRY CONDITION WHILE THEY ARE IN PROGRESS, AND PARTICULAR CARE SHALL BE TAKEN TO PREVENT DUSTING, FLOODING, PONDING, SEEPAGE AND EROSION.
- ANY STRUCTURES, PAVEMENTS OR SURFACES DAMAGED, DIRTIED OR MADE UNSERVICEABLE DUE TO CONSTRUCTION WORK SHALL BE REMEDIATED TO THE SATISFACTION OF THE ENGINEER, CLIENT AND THE RELEVANT AUTHORITY.
- THE CONTRACTOR TO PROVIDE AS BUILT DRAWINGS OF ALL THEIR WORKS IN BOTH DIGITAL AND HARDCOPES FOR REVIEW.
- ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING.
- THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL MEASURES GENERALLY IN ACCORDANCE WITH THE GUIDELINES OF THE EPA, AND AS NECESSARY TO PREVENT RUN-OFF FROM THE SITE OF SEDIMENT RESULTING FROM HIS WORKS. SUCH MEASURES SHALL ALSO COMPLY WITH REQUIREMENTS OF THE RELEVANT AUTHORITY.
- THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNTIL THE DRAWING REVISION IS NOTED AS "APPROVED FOR CONSTRUCTION".
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND AT ALL TIMES PROVIDE A SAFE WORKING ENVIRONMENT IN THE VICINITY OF WORKS IN ACCORDANCE WITH ALL OCCUPATIONAL HEALTH AND SAFETY REGULATIONS.
- PRIOR TO COMMENCEMENT OF WORKS THE CONTRACTOR MUST VERIFY THE FEASIBILITY OF THE OUTFALL DRAINAGE TO THE LEGAL POINT OF DISCHARGE AS DOCUMENTED BY:
  - VERIFICATION OF THE INVERT LEVEL OF THE DRAIN COMPRISING THE LEGAL POINT OF DISCHARGE.
  - VERIFICATION THAT THE ROUTE OF THE DRAINAGE IS CLEAR OF ALL OBSTRUCTIONS AND EXISTING SERVICES.IF EITHER OF THE ABOVE CANNOT BE ACHIEVED THE CONTRACTOR IS TO NOTIFY LAKER GROUP PRIOR TO PROCEEDING WITH WORKS.

EARTHWORKS

24. ALL EARTHWORKS ARE TO BE PERFORMED IN ACCORDANCE WITH AS 3798. REFER TO THE RELEVANT GEOTECHNICAL REPORT PRIOR TO COMMENCEMENT OF WORKS.

25. UNLESS OTHERWISE NOTED, ALL VEGETATION AND ORGANIC MATERIAL SHALL BE STRIPPED TO A MINIMUM OF 150mm OR AS SPECIFIED IN THE GEOTECHNICAL REPORT TO THE GREATER VALUE UNDER ALL PROPOSED PAVEMENTS AND BUILDING AREAS. STOCKPILE TOPSOIL IN DESIGNATED AREAS FOR REUSE IN LANDSCAPING WORKS OTHERWISE REMOVE OFFSITE.

Rev.	Revision Description	Date
P1	PRELIMINARY ISSUE	01.03.25

It is the responsibility of the Engineer to ensure that the information on this drawing is accurate and that it is used in accordance with the relevant standards and specifications. The Engineer shall not be responsible for any errors or omissions on this drawing.

- THE EXPOSED AREA IS TO BE PROOF ROLLED AS SPECIFIED IN THE GEOTECHNICAL ENGINEERS REPORT. ANY SOFT SPOTS ARE TO BE IDENTIFIED AND MEASURED WITH THE SUPERINTENDENT. THE SOFT SPOTS ARE TO BE REMOVED AND BACKFILLED WITH APPROVED FILL MATERIAL AS SPECIFIED IN THE GEOTECHNICAL ENGINEERS REPORT. PLACED AND COMPACTED IN 150mm LAYERS TO A DENSITY NO LESS THAN THAT OF THE SURROUNDING SOIL.
- PRIOR TO PLACING FILL MATERIAL THE SURFACE OF THE ENTIRE SITE IS TO BE COMPACTED TO 100% STANDARD DENSITY AND TESTED AT A RATE OF ONE TEST PER 300m<sup>2</sup> OF THE SITE.
- ALL FILL MATERIALS UNDER THE ROAD PAVEMENT, PAVING AND BUILDING ARE TO BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERS REPORT OTHERWISE CLASS 2 FOR TO VICROADS SPECIFICATION.
- ALL FILL AND PAVEMENT MATERIALS SHALL BE COMPACTED IN 150mm MAXIMUM LOOSE THICKNESS LAYERS TO THE DENSITIES SPECIFIED BELOW OR IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERS REPORT TO THE GREATER PERCENTAGE.

LANDSCAPED AREAS

90% STD.

FILL UNDER FOOTINGS & FLOOR SLABS FOR ANY STRUCTURE:-

98% STD.

FILL UNDER ROAD PAVEMENTS:-

98% MOD.

ROAD PAVEMENT MATERIALS:-

98% MOD.
- THE CONTRACTOR IS TO INCLUDE FOR PROJECT CONTROL. TESTING OF ALL LAYERS OF FILLING AS THE WORKS PROCEED AT A RATE SPECIFIED IN AS3789 OF SITE AREA PER LAYER OF FILLING. THESE TESTS SHALL BE CARRIED OUT TO AS3789 AND BY AN NATA REGISTERED GEOTECHNICAL ENGINEER. THE RESULTS SHALL BE MADE AVAILABLE AT THE SITE DURING THE CURRENCY OF THE WORKS. LAYER B1 LAYER UP TO THE FINISHED PLATFORM RL. THESE WORKS ARE TO BE PROTECTED FROM THE INGRESS OF WATER BOTH DURING AND AFTER CONSTRUCTION UNTIL SLAB AND PAVEMENTS ARE CONSTRUCTED.
- THE CONTRACTOR IS TO ENGAGE AN NATA REGISTERED GEOTECHNICAL ENGINEER TO PROVIDE ADVICE AND TO CARRY OUT LEVEL 2 SUPERVISION TESTING AND SUPERVISION DURING THE CONSTRUCTION STAGE IN ACCORDANCE TO AS3798 AND AS1289.
- EACH LAYER OF THE FILL IS TO BE PROOFED ROLLED UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER.
- GRADE EVENLY BETWEEN FINISHED SURFACE SPOT LEVELS. (FINISHED SURFACE CONTOURS ARE NOT SHOWN FOR CLARITY). WHERE ADJACENT SURFACES OR STRUCTURES.
- ALL SURPLUS EXCAVATED MATERIAL SHALL BE REMOVED OFF SITE.

DRAINAGE

- STORMWATER TO BE IN ACCORDANCE WITH AS3500 – NATIONAL PLUMBING AND DRAINAGE CODE (ALL PARTS).
- CONTRACTOR TO MAINTAINANCE CLEAN ALL NEW AND EXISTING STORMWATER DRAINAGE PRIOR TO LEAVING THE SITE.
- 10 CAPS MUST HAVE A LOAD CAPACITY FOR AREA OF USE, I.E. SOREWED PLASTIC IN LANDSCAPED AREAS & CAST IRON IN PAVEMENT.
- UNLESS OTHERWISE NOTED, ALL DOWNPIPES SHALL BE CONNECTED TO PITS OR MAN STORMWATER DRAINS WITH 100% UPVC PIPES UNLESS NOTED OTHERWISE AND Laid AT A MINIMUM GRADE OF 1 IN 100.
- ALL IN-GROUND DRAINS ARE TO BE 100% MINIMUM UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL MAN STORMWATER DRAINS SHALL BE CONSTRUCTED USING ONE OF THE FOLLOWING TYPES OF PIPES WITH RUBBER RING JOINTS:
  - RCP IN ACCORDANCE WITH A.S.4058.
  - UPVC IS TO BE SEWER GRADE AND IN ACCORDANCE WITH A.S.1260
  - RFC IN ACCORDANCE WITH A.S.4139.
  - HDPE IN ACCORDANCE WITH A.S.5065.
  - ANY OTHER TYPES OF PIPE MUST BE REFERRED TO ENGINEER FOR APPROVAL PRIOR TO WORK.
- INSPECTION OPENINGS FOR THE MAINTENANCE OF SITE STORMWATER DRAINS SHALL BE EXTENDED TO & CAPPED AT THE FINISHED SURFACE LEVEL & BE INSTALLED AT:
  - EACH POINT OF CONNECTION
  - SPACINGS NOT MORE THAN 30m
  - ANY CHANGE OF DIRECTION GREATER THAN 45°
  - AS ADDITIONALLY INDICATED ON THE DRAWINGS
- GENERALLY FOR TRENCHING WORKS THE CONTRACTOR MUST:
  - COMPLY WITH THE GENERAL PROVISIONS OF SECTION 21 OF THE "OCCUPATIONAL HEALTH & SAFETY ACT".
  - COMPLY WITH THE "OCCUPATIONAL HEALTH & SAFETY CODE OF PRACTICE FOR SAFETY PRECAUTIONS IN TRENCHING OPERATIONS".

DRAWING INDEX			
C01	COVER SHEET, GENERAL NOTES AND DRAWING REGISTER		
C02	GROUND FLOOR DRAINAGE PLAN		
C03	CIVIL DETAILS SHEET 1 OF 2		
C04	CIVIL DETAILS SHEET 2 OF 2		



**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT SIZE, DEPTH AND LOCATION MUST BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

WAREHOUSE DEVELOPMENT  
32 PLATINUM COURT  
THURGOONA, NSW 2640

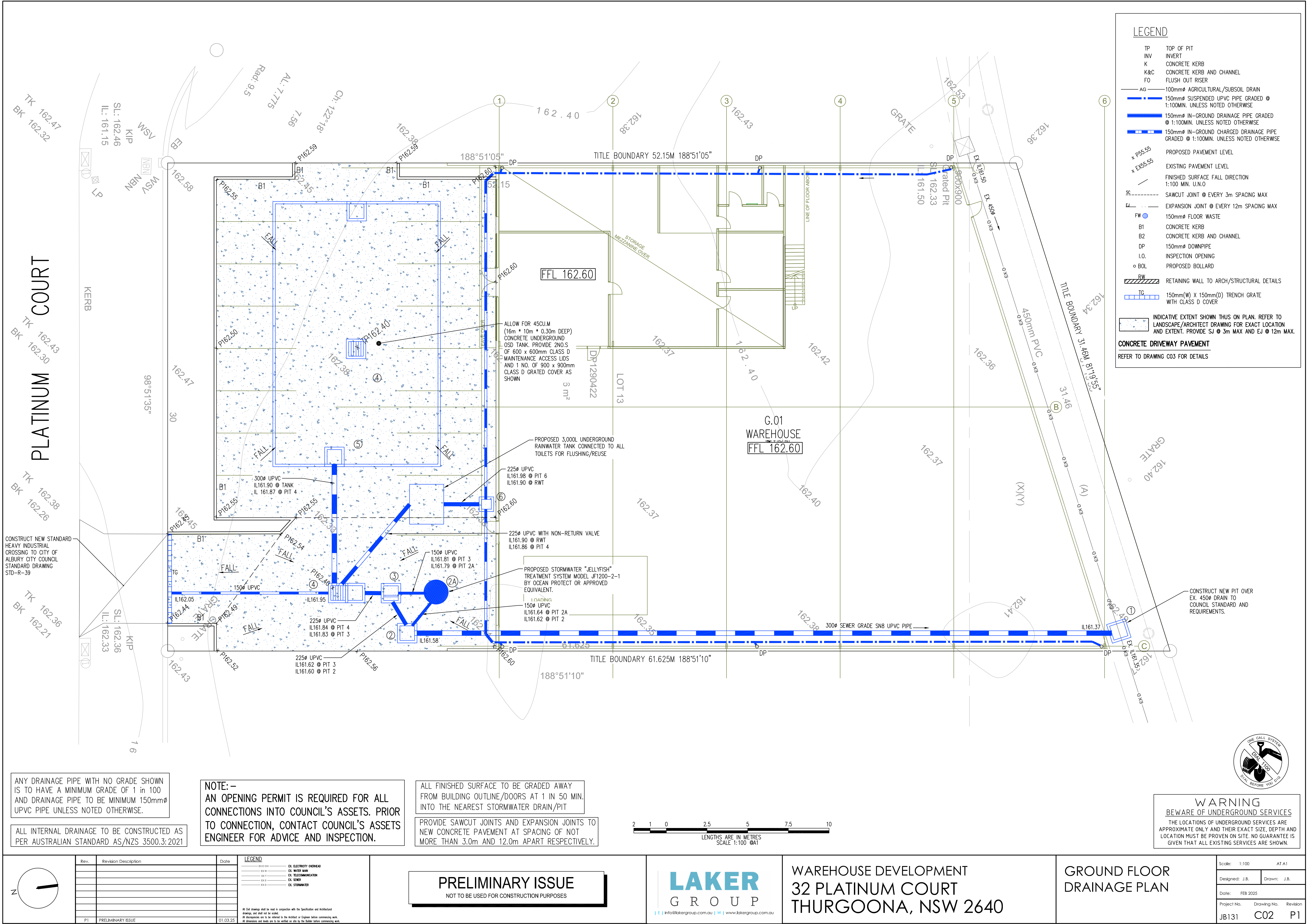
PRELIMINARY ISSUE  
NOT TO BE USED FOR CONSTRUCTION PURPOSES



COVER SHEET,  
GENERAL NOTES AND  
DRAWING REGISTER

Scale:	AS SHOWN		AT A1
Designed:	J.B.	Drawn:	J.B.
Date:	FEB 2025		
Project No.		Drawing No.	C01
	JB131	Revision	P1





**LEGEND**

- TP TOP OF PIT
- INV INVERT
- K CONCRETE KERB
- K&C CONCRETE KERB AND CHANNEL
- FO FLUSH OUT RISER
- AG 100mm# AGRICULTURAL/SUBSOIL DRAIN
- 150mm# SUSPENDED UPVC PIPE GRADED @ 1:100MIN. UNLESS NOTED OTHERWISE
- 150mm# IN-GROUND DRAINAGE PIPE GRADED @ 1:100MIN. UNLESS NOTED OTHERWISE
- 150mm# IN-GROUND CHARGED DRAINAGE PIPE GRADED @ 1:100MIN. UNLESS NOTED OTHERWISE
- x P55.55 PROPOSED PAVEMENT LEVEL
- x EX55.55 EXISTING PAVEMENT LEVEL
- FINISHED SURFACE FALL DIRECTION 1:100 MIN. U.N.O
- SAWCUT JOINT @ EVERY 3m SPACING MAX
- EXPANSION JOINT @ EVERY 12m SPACING MAX
- FW 150mm# FLOOR WASTE
- B1 CONCRETE KERB
- B2 CONCRETE KERB AND CHANNEL
- DP 150mm# DOWNPIPE
- I.O. INSPECTION OPENING
- BOL PROPOSED BOLLARD
- RW RETAINING WALL TO ARCH/STRUCTURAL DETAILS
- TG 150mm(W) X 150mm(D) TRENCH GRATE WITH CLASS D COVER
- INDICATIVE EXTENT SHOWN THUS ON PLAN. REFER TO LANDSCAPE/ARCHITECT DRAWING FOR EXACT LOCATION AND EXTENT. PROVIDE SJ @ 3m MAX AND EJ @ 12m MAX.

**CONCRETE DRIVEWAY PAVEMENT**  
REFER TO DRAWING C03 FOR DETAILS

ANY DRAINAGE PIPE WITH NO GRADE SHOWN IS TO HAVE A MINIMUM GRADE OF 1 IN 100 AND DRAINAGE PIPE TO BE MINIMUM 150mm# UPVC PIPE UNLESS NOTED OTHERWISE.

ALL INTERNAL DRAINAGE TO BE CONSTRUCTED AS PER AUSTRALIAN STANDARD AS/NZS 3500.3:2021

**NOTE:-**  
AN OPENING PERMIT IS REQUIRED FOR ALL CONNECTIONS INTO COUNCIL'S ASSETS. PRIOR TO CONNECTION, CONTACT COUNCIL'S ASSETS ENGINEER FOR ADVICE AND INSPECTION.

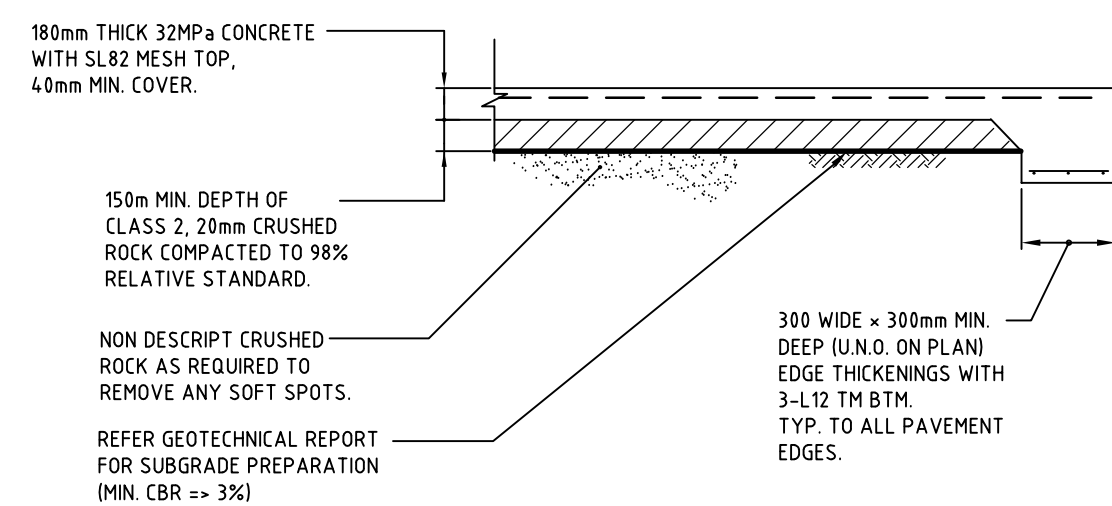
ALL FINISHED SURFACE TO BE GRADED AWAY FROM BUILDING OUTLINE/DOORS AT 1 IN 50 MIN. INTO THE NEAREST STORMWATER DRAIN/PIT

PROVIDE SAWCUT JOINTS AND EXPANSION JOINTS TO NEW CONCRETE PAVEMENT AT SPACING OF NOT MORE THAN 3.0m AND 12.0m APART RESPECTIVELY.

**WARNING**  
BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT SIZE, DEPTH AND LOCATION MUST BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.





1. AT CONNECTION TO BUILDING SLAB AND NEW PAVEMENT, PROVIDE 200 DOWELS  $\times$  450mm LONG AT 300 CTS. DRILLED AND EPOXY GROUT 150mm MIN. INTO EXISTING WITH 10mm ABEFLAX JOINT WITH 10  $\times$  10mm BEAD OF POLYURETHANE SEALANT.
2. ALLOW TO PROVIDE SAWCUT JOINTS AT 3.0m MAX. CTS. AND EXPANSION JOINTS AT NO MORE THAN 12m MAX. CTS.
3. PROVIDE 300 wide  $\times$  300mm DEEP EDGE THICKENING WITH 3-L12M BTM. TO ALL CONCRETE PAVEMENT EDGES.
4. PROVIDE 3-N12 BARS  $\times$  1200mm LONG TOP TO ALL RE-ENTRANT CORNERS AND PUT LOCATIONS.
5. CONFIRM ALL PAVEMENT EXTENTS AND FINISHES WITH THE ARCHITECT/LANDSCAPE.

1. DEPTH OF SEALANT RESERVOIR "D" TO BE 30mm EXCEPT FOR CONTRACTION JOINTS WHICH SHALL BE ONE QUARTER OF THE SLAB DEPTH.
2. SAWCUT ALONG CENTRE OF EXISTING JOINT WHEN FORMING SEALANT RESERVOIR FOR CONSTRUCTION JOINTS OR WHERE ABUTTING EXISTING SLABS

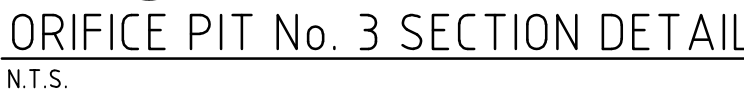
1. PITS DEEPER THAN 1000 SHALL BE FITTED WITH STEP IRON.
2. STEP IRONS SHALL BE LOCATED:
  - DIRECTLY BELOW THE OPENING IN THE COVER
  - DESIRABLY ON A WALL WITHOUT PIPE OPENINGS.
  - DESIRABLY ON ONE OF THE LONG SIDES OF THE PIT.
3. STEEL FOR STEP IRONS SHALL BE STRUCTURAL GRADE 250 TO A536/79/1990 PART 1.
4. STEP IRONS SHALL HAVE SHARP EDGES ROUNDED AND HOT DIP GALVANIZED AFTER FABRICATION TO A51650/1989.
5. PROPRIETARY STEPS SUCH AS THE GATIC PS2-PF POLYPROPYLENE STEPS (OR APPROVED ALTERNATIVES) MAY BE USED. THESE SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS.
6. FOR PRECAST PITS, STEP IRONS SHALL BE LOAD TESTED TO A5198/1994.

- DOWEL BARS TO BE INSTALLED AT 300 CENTRES COMMENCING AT A MINIMUM OF 100mm AND A MAXIMUM OF 200mm FROM THE EDGE OF PATH. DOWEL BARS TO BE SECURELY TIED TO LONGITUDINAL REINFORCING MESH.
- EXPANSION JOINT (EJ) TO BE INSTALLED AT A MAXIMUM OF 12m CENTRES.

1. TIE BAR SHALL NOT BE PLACED WITHIN 500mm OF A TRANSVERSE CONTRACTION JOINT.
2. REINFORCEMENT FOR JOINTED AND CONTINUOUSLY REINFORCED PAVEMENTS IS NOT SHOWN. REFER TO SCHEDULE FOR DETAILS.
3. SUBBASE AND BASE LONGITUDINAL JOINTS SHALL BE OFFSET BY NOT LESS THAN 250mm BUT NOT MORE THAN 300mm.

INSPECTION OPENING DETAIL

Project No.	Drawing No.	Revision
JB131	C03	P1



**PIT NOTES**  
THE FOLLOWING APPLIES UNLESS NOTED OTHERWISE;

1. PIT COVER LEVELS ARE TO BE TAKEN FROM THE CENTRE OF THE PIT.
2. ALL PIT COVERS ARE TO SLOPE TO MATCH THE SURROUNDING FINISHED SURFACE LEVELS/SLOPES.
3. ALL PIT COVERS LARGER THAN 900x600 ARE TO BE MULTI PART COVERS.
4. ALL COVERS ARE TO MATCH THE PIT OPENING DIMENSIONS.
5. INSTALL STEP IRONS @ 300mm CENTRES FOR PITS 1.0M OR DEEPER.

Rev.	Revision Description	Date
P1	PRELIMINARY ISSUE	01.03.25

All Civil drawings shall be read in conjunction with the Specification and Architectural drawings, and shall not be scaled.  
All discrepancies are to be referred to the Architect or Engineer before commencing work.  
All dimensions and levels are to be verified on site by the Builder before commencing work.

NOT TO BE USED FOR CONSTRUCTION PURPOSES

| E | [info@lakergroup.com.au](mailto:info@lakergroup.com.au) | W | [www.lakergroup.com.au](http://www.lakergroup.com.au)

WAREHOUSE DEVELOPMENT  
32 PLATINUM COURT  
THURGOONA, NSW 2640

CIVIL DETAILS  
SHEET 2 OF 2

Scale: AS SHOWN		AT A1
Designed: J.B.	Drawn: J.B.	
Date: FEB 2025		
Project No.	Drawing No.	Revision
JB131	C04	P1