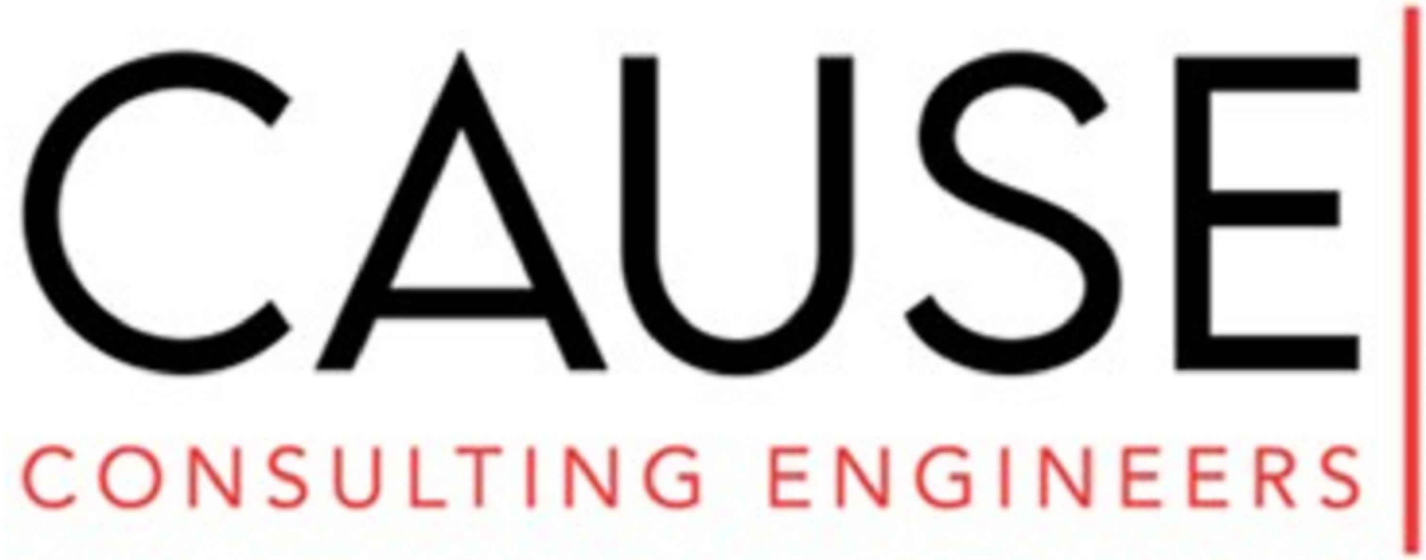


PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2024/1490
Date: 24 April 2024



CLIENT:
CHP GROUP

PROJECT:
STRONG STREET BARINGA QLD 4551

PROJECT No:
0020215



LOCATION PLAN

DRAWING SCHEDULE		
DRAWING NUMBER	DRAWING TITLE	REVISION
C000	COVER SHEET	3
C010	GENERAL NOTES SHEET 1 OF 2	3
C011	GENERAL NOTES SHEET 2 OF 2	3
C100	EXISTING SITE LAYOUT PLAN	3
C200	EARTHWORKS LAYOUT PLAN	3
C201	EARTHWORK SECTIONS	3
C250	SEDIMENT & EROSION CONTROL PLAN	3
C251	SEDIMENT & EROSION DETAILS	3
C300	ROADWORKS LAYOUT PLAN	3
C310	ROADWORKS PAVEMENT LAYOUT PLAN	3
C320	CONCRETE & JOINTING DETAILS SHEET 1 OF 2	3
C321	CONCRETE & JOINTING DETAILS SHEET 2 OF 2	3
C330	SIGN & LINEMARKING LAYOUT PLAN	3
C400	DRAINAGE CATCHMENT LAYOUT PLAN	3
C410	DRAINAGE LONGITUDINAL SECTIONS	3
C420	DRAINAGE CALCULATIONS TABLE	3
C600	SERVICES LAYOUT PLAN	3
C700	VEHICLE SWEEP PATH PLAN SHEET 1 OF 11	3
C701	VEHICLE SWEEP PATH PLAN SHEET 2 OF 11	3
C702	VEHICLE SWEEP PATH PLAN SHEET 3 OF 11	3
C703	VEHICLE SWEEP PATH PLAN SHEET 4 OF 11	3
C704	VEHICLE SWEEP PATH PLAN SHEET 5 OF 11	3
C705	VEHICLE SWEEP PATH PLAN SHEET 6 OF 11	3
C706	VEHICLE SWEEP PATH PLAN SHEET 7 OF 11	3
C707	VEHICLE SWEEP PATH PLAN SHEET 8 OF 11	3
C708	VEHICLE SWEEP PATH PLAN SHEET 9 OF 11	3
C709	VEHICLE SWEEP PATH PLAN SHEET 10 OF 11	3
C710	VEHICLE SWEEP PATH PLAN SHEET 11 OF 11	3

PROJECT

CLIENT

CONSULTANT

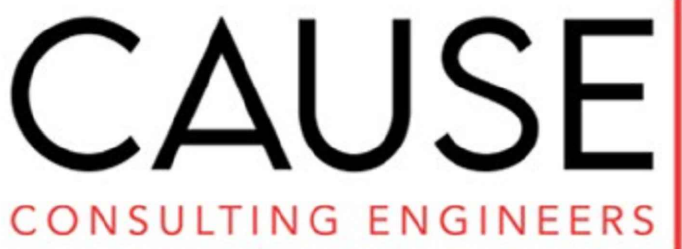
PROJECT DATA

REVISION

PROJECT NUMBER

STRONG & ABELES ST
BARINGA
QLD 4551

CHP GROUP



Cause Consulting Engineers Pty Ltd
A.B.N 78 649 859 174

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ISSUED FOR DEVELOPMENT APPROVAL



DATUM	AHD	SURVEY	MRA-304.DET.01 A	ISSUE	DATE	DESCRIPTION
				1	15.12.2023	FIRST ISSUE
				2	15.02.2024	SECOND ISSUE
				3	17.04.2024	LAYOUT UPDATE

APPROVED:

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BEng (Hons) CPEng CWEM RPEQ 21643

0020215

SHEET TITLE

LOT 1115 CNR STRONG & ABELES ST

COVER SHEET

SHEET NUMBER						
PROJ.	ORIGIN	VOL.	LOC.	TYPE	ROL.	REVISION
0020215	- CCE	- 00	- 00	- DR - A	- C000	3

GENERAL

- IF IN DOUBT - ASK
- THE CONTRACTOR SHOULD REPORT ANY DISCREPENCIES ON THE DRAWINGS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN
- THE CONTRACTOR IS NOT TO ENTER NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE PERMISSION OF THE OWNER
- ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE NOMINATED OR APPLICABLE COUNCIL SPECIFICATION
- ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING
- PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL PROVIDE A TRAFFIC MANAGEMENT PLAN PREPARED BY AN ACCREDITED PERSON IN ACCORDANCE WITH RELEVANT REQUIREMENTS FOR ANY WORK ON OR ADJACENT TO PUBLIC ROADS. PLANS ARE TO BE SUBMITTED TO COUNCIL & OTHER AUTHORITIES AS REQUIRED
- THESE PLANS SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT CONSULTANTS' PLANS, SPECIFICATIONS, CONDITIONS OF DEVELOPMENT CONSENT AND CONSTRUCTION APPROVAL REQUIREMENTS
- THE BUILDER / CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS
- ALL CLEANING EYES (OR INSPECTION EYES) FOR THE UNDERGROUND SERVICES HAVE TO BE TAKEN UP TO THE FINISHED GROUND LEVEL FOR EASY IDENTIFICATION AND MAINTENANCE PURPOSES
- THE BUILDER / CONTRACTOR IS TO VERIFY ALL LEVELS ON SITE PRIOR TO COMMENCING CONSTRUCTION
- THE SURVEY INFORMATION ON THESE DRAWINGS HAS BEEN PROVIDED BY OTHERS. THE ENGINEER IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY SURVEY INFORMATION PROVIDED ON THIS DRAWING SET
- ALL LEVELS SHOWN ARE EXPECTED TO BE TO AHD
- ALL CHAINAGES AND LEVELS ARE IN METRES, AND DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE
- THE CONTRACTOR SHALL ARRANGE FOR THE WORKS TO BE SET OUT BY A REGISTERED SURVEYOR
- WHERE THESE PLANS ARE NOTED FOR DEVELOPMENT APPLICATION PURPOSES ONLY, THEY SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE NOR USED FOR CONSTRUCTION PURPOSES WITHOUT WRITTEN APPROVAL
- ANY VARIATION TO THE WORKS AS SHOWN ON THE APPROVED DRAWINGS ARE TO BE CONFIRMED BY THE ENGINEER PRIOR TO THE COMMENCEMENT
- WHERE WORKS SHOWN ARE PROPOSED PRIOR TO ADDITIONAL BUILDING WORKS, BUILDER / CONTRACTOR IS TO SET OUT FLOOR LEVELS AND ENSURE PROPOSED COMPATIBILITY. NOTIFY THE SUPERVISING ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND
- ALL DETAILS ARE NOT PROVIDED ON THESE PLANS. REFERENCE MUST BE MADE TO PLANS BY OTHER CONSULTANTS AND ANY DISCREPANCIES REFERRED TO THE ENGINEER. CONSULTANTS INCLUDE BUT ARE NOT LIMITED TO, ARCHITECTURAL, STRUCTURAL, LANDSCAPING, HYDRAULICS, FIRE ETC

SAFETY / SAFETY IN DESIGN

- THERE ARE INHERENT RISKS WITH CONSTRUCTING, MAINTAINING, OPERATING, DEMOLISHING AND DISPOSING. WE NOTE THIS DESIGN IS TYPICAL OF SIMILAR DESIGNS. AS FAR AS IS REASONABLY PRACTICABLE, RISKS HAVE BEEN ELIMINATED OR MINIMISED THROUGH THE DESIGN PROCESS. HAZARD CONTROLS MUST STILL BE IMPLEMENTED BY THE CONTRACTOR, OWNER OR OPERATOR TO ENSURE THE SAFETY OF WORKERS. WE DID NOT IDENTIFY ANY UNIQUE RISKS ASSOCIATED WITH THE DESIGN
- THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL RELEVANT LEGISLATION

CONVENTIONAL RCP INSTALLATIONS & ROAD CROSSINGS

- SUPPLY & INSTALLATION OF DRAINAGE WORKS TO BE IN ACCORDANCE WITH THESE DRAWINGS, THE COUNCIL SPECIFICATIONS AND THE CURRENT APPLICABLE AUSTRALIAN STANDARDS
 - BACKFILL SHALL BE PLACED & COMPACTED IN ACCORDANCE WITH THE SPECIFICATION. A GRANULAR GRAVEL AGGREGATE MATERIAL (~10mm) BACKFILL IS RECOMMENDED FOR THE BEDDING, HAUNCH SUPPORT AND SIDE ZONE DUE TO IT'S SELF COMPACTING ABILITY
 - A MINIMUM OF 150mm CLEARANCE IS TO BE PROVIDED BETWEEN THE OUTSIDE OF THE PIPE BARREL AND THE TRENCH WALL FOR PIPES < 600 Ø 200mm CLEARANCE IS TO BE PROVIDED FOR PIPES BETWEEN 600 TO 1200 Ø. AND Ø/6 CLEARANCE FOR PIPES > 1200 Ø
 - BEDDING OF THE PIPELINES IS TO BE TYPE 'HS2' IN ACCORDANCE WITH AS3728 AND IS AS FOLLOWS:
 - COMPACTED GRANULAR MATERIAL IS TO COMPLY WITH THE FOLLOWING GRADINGS:
- | SIEVE SIZE (mm) | 19 | 2.36 | 0.6 | 0.3 | 0.15 | 0.075 |
|------------------|-----|--------|-------|-------|------|-------|
| MASS PASSING (%) | 100 | 50-100 | 20-90 | 10-60 | 0-25 | 0-10 |
- MATERIAL PASSING THE 0.075 SIEVE SHALL HAVE A PLASTICITY 'LOW' AS DESCRIBED IN APPENDIX D OF AS1726
 - BEDDING DEPTH UNDER THE PIPE TO BE 100mm MINIMUM
 - BEDDING MATERIAL IS TO BE EXTENDED FROM THE TOP OF THE BEDDING ZONE UP TO 0.3 TIMES THE PIPE OUTSIDE DIAMETER. THIS REPRESENTS THE 'HAUNCH ZONE.'
 - THE BEDDING & HAUNCH ZONE MATERIAL ARE TO BE COMPACTED TO A MINIMUM STANDARD COMPACTION OF 98% WITHIN ROAD RESERVES AND TRAFFICABLE AREAS AND 95% ELSEWHERE. FOR COHESIVENESS MATERIALS A MINIMUM DENSITY INDEX OF 70% SHALL BE ACHIEVED
 - COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED ORGANISATION WITH A NATA CERTIFIED LABORATORY FOR ALL DRAINAGE LINES LAID WHOLLY OR IN PART UNDER THE KERB & GUTTER OR PAVEMENT

EARTHWORKS

- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS
- ALL SITE FILL TO BE SUPERVISED, TESTED AND CERTIFIED BY A GEOTECHNICAL ENGINEER TO LEVEL 1 PER AS3798
- ALL FILL USED TO BE MIN CBR 15% UNO
- THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES AND DEBRIS ETC TO THE EXTENT OF THE PROPOSED DEVELOPED AREA
- PROVIDE PROTECTION BARRIERS TO PROTECTED / SENSITIVE AREAS PRIOR TO ANY BULK EXCAVATION
- OVER FULL AREA OF EARTHWORKS, CLEAR VEGETATION, RUBBISH, SLABS ETC. AND STRIP TOP SOIL. AVERAGE 200mm THICK UNO. REMOVE MATERIAL FROM SITE, EXCEPT TOP SOIL FOR RE-USE.
- CUT AND FILL OVER THE SITE TO LEVELS REQUIRED
- SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED OR REMOVED FROM SITE
- PRIOR TO ANY FILLING IN AREAS OF CUT OR IN EXISTING GROUND, PROOF ROLL THE EXPOSED SURFACE WITH A ROLLER OF MINIMUM WEIGHT OF 5 TONNES WITH A MINIMUM OF 10 PASSES
- EXCAVATE AND REMOVE ANY SOFT SPOTS ENCOUNTERED DURING PROOF ROLLING AND REPLACE WITH APPROVED FILL COMPACTED IN LAYERS. THE WHOLE OF THE EXPOSED SUBGRADE AND FILL SHALL BE COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2% UNO
- FOR ON SITE FILLING AREAS, THE CONTRACTOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS
- WHERE HARD ROCK IS EXPOSED IN THE EXCAVATED SUB-GRADE, THIS WILL BE INSPECTED AND A DECISION MADE ON THE LEVEL TO WHICH EXCAVATION IS TAKEN
- WHEN EXCAVATING HARD ROCK, ALL CRACKS, FISSURES, OVER-EXCAVATION AND SOFT SPOTS SHALL BE CLEANED OUT AND FILLED PER ADVICE PROVIDED BY SUPERVISING GEOTECHNICAL ENGINEER
- FILL IN 150mm MAXIMUM (LOOSE THICKNESS) LAYERS TO UNDERSIDE OF BASECOURSE USING THE EXCAVATED MATERIAL AND COMPACTED TO 98% STANDARD (AS 1289 5.1.1). MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2% SHOULD THERE BE INSUFFICIENT MATERIAL FROM SITE EXCAVATIONS, IMPORT AS NECESSARY CLEAN GRANULAR FILL TO APPROVAL
- COMPACTION TESTING SHALL BE CARRIED OUT AT A MINIMUM RATE OF 2 TESTS PER LAYER, PER 1000m² BY A REGISTERED NATA LABORATORY. A MINIMUM OF 3 TESTS SHALL BE TAKEN PER VISIT. THE COSTS OF TESTING AND RE-TESTING ARE TO BE ALLOWED FOR BY THE BUILDER
- FINISHED BATTERS TO BE AS SHOWN, OR MAXIMUM 1 VERTICAL : 4 HORIZONTAL
- TEMPORARY BATTERS TO BE AS PRESCRIBED BY GEOTECHNICAL REPORTS / ADVICE OR PER RELEVANT AUTHORITY'S OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS
- ALL CONDUITS AND MAINS SHALL BE LAID PRIOR TO LAYING FINAL PAVEMENT
- ALL BATTERS ADJACENT TO ROADS AND FOOTPATHS SHALL BE TOP SOILED WITH 150mm APPROVED LOAM AND SEEDED/TURED UNLESS OTHERWISE SPECIFIED
- ALL EXCAVATIONS SHALL BE MADE WITH ALLOWANCE FOR FILL, BLINDING AND FORMWORK AS REQUIRED
- THE BOTTOM EXCAVATION LEVELS SHALL BE KEPT EVEN AND PER REQUIRED GRADES, FREE OF ANY LOOSE MATERIALS, WATER AND DEBRIS
- ANY DRAINAGE CHANNELS, CHUTES OR SWALES SHOULD BE EXCAVATED SUCH THAT FINISHED SURFACE LEVELS AND GRADES CONFORM WITH THE DESIGN SPECIFIED
- ALL EXCAVATIONS FOR DRAINAGE CULVERTS OR PIPES SHALL BE KEPT TO A MINIMUM WIDTH AND GRADED TO ALLOW STRAIGHT GRADES IN ACCORDANCE WITH DESIGN LEVELS AND ALIGNMENTS SPECIFIED

SOIL & REHABILITATION

- TOPSOIL AND SUBSOIL SHALL BE STOCKPILED SEPARATELY
- CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES
- PREDISTURBANCE SOIL PROFILES AND COMPACTION LEVELS SHALL BE REINSTATED
- PREDISTURBANCE VEGETATION PATTERNS SHALL BE RESTORED

VEGETATION PROTECTION

- TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED
- WHEN WORKING WITHIN 4 m OF TREES, RUBBER OR HARDWOOD GIRDLES SHALL BE CONSTRUCTED WITH 18 m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION
- TREE ROOTS SHALL BE TUNNELLED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL ARBORIST FOR FURTHER ADVICE
- ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN APPROVED ARBORIST
- PAVEMENT DESIGN WITHIN VICINITY OF TREES MUST BE SUPERVISED BY A REGISTERED ARBORIST. TREE ROOTS MAY IMPACT THE DESIGN SHOWN ON THESE SHEETS AND THE DESIGN MAY NEED TO BE CHANGED (EG. NO FINES CONCRETE, ELEVATED FOOTPATH ETC.). IT IS THE DEVELOPER AND CONTRACTORS RESPONSIBILITY TO ADVISE CAUSE CONSULTING ENGINEERS IF THIS IS THE CASE

STORMWATER DRAINAGE

- STORMWATER DRAINAGE SHALL BE GENERALLY IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS INCLUDING AS3500.3, NCC AND COUNCIL'S SPECIFICATIONS
- ALL DRAINAGE LINES THOUGH ADJACENT LOTS SHALL BE CONTAINED WITHIN EASEMENTS CONFORMING TO COUNCIL'S STANDARDS
- PIPES OF 225mm Ø AND UNDER SHALL BE UPVC UNO
- PIPES OF 300mm Ø AND LARGER SHALL BE FRC OR CONCRETE CLASS 2 RRJ RCP UNO
- ALL FRC OR RCP STORMWATER PIPES WITHIN ROAD RESERVE AREAS TO BE CLASS 4 UNO BY COUNCIL'S SPECIFICATIONS
- PIPES SHALL GENERALLY BE LAID AT THE GRADES INDICATED ON THE DRAWINGS
- COVER TO PIPES FROM FINISHED SURFACE SHALL BE PROVIDED PER RELEVANT AUSTRALIAN STANDARDS AS2032, AS3500.3, AS2566 OR AS3725, AS SUMMARISED BY THE TABLE BELOW:

LOCATION	PIPE TYPE	MINIMUM COVER (mm)
LANDSCAPING	PVC	300
LANDSCAPING (SINGLE DWELLING)	RCP	100
UNDER TRAFFICABLE CONCRETE	RCP	450
UNDER TRAFFICABLE CONCRETE	STEEL	NIL FROM UNDERSIDE
UNDER ROADS	RCP	500

- CLASS OF PIPES UNDER ROADS AND TRAFFICABLE AREAS TO BE CONFIRMED PRIOR TO CONSTRUCTION. COVER MAY VARY DEPENDANT ON PIPE CLASS
- WHERE COVER IS NOT POSSIBLE UNDER LANDSCAPED AREAS AND IS BETWEEN 150mm AND 300mm USE SEWER GRADE PIPES
- PIPES 225mm Ø AND OVER SHALL BE LAID AT 0.5% MINIMUM GRADE UNO
- PIPES UP TO 150mm Ø SHALL BE LAID AT 1.0% MINIMUM GRADE UNO
- BACKFILL TRENCHES WITH APPROVED FILL COMPACTED IN MAXIMUM 200mm LAYERS TO 98% STANDARD DENSITY
- ANY PIPES OVER 16% GRADE SHALL HAVE CONCRETE BULKHEADS AT ALL JOINTS
- THE MINIMUM SIZES OF THE STORMWATER DRAINAGE PIPES SHALL NOT BE LESS THAN 90mm Ø FOR CLASS 1 BUILDINGS AND 100mm Ø FOR OTHER CLASSES OF BUILDING OR AS REQUIRED BY THE REGULATORY AUTHORITY
- ANY DOWNPIPES SHOWN ARE INDICATIVE ONLY. REFER ARCHITECTURAL DRAWINGS FOR FINAL LOCATIONS. ALL ROOF GUTTERING AND DOWNPIPES SHALL BE INSTALLED TO THE CURRENT AUSTRALIAN STANDARDS
- ALL DOWNPIPES / EXPOSED PIPES ARE TO BE CONSTRUCTED OF ONE MATERIAL FOR AESTHETICS REASONS AND PAINTED TO PROTECT THEM AGAINST ULTRA-VIOLET LIGHT DAMAGE UNLESS APPROVED OTHERWISE BY THE PROJECT ARCHITECT
- PROVIDE MINIMUM 3.0m LONG SUBSOIL DRAINAGE LINES PARALLEL TO EACH INLET PIPE FOR ALL PITS WITHIN CARPARK AND ROAD AREAS UNO
- ALL COURTYARD & LANDSCAPED PITS TO BE MINIMUM 450X450 PITS UNO
- ALL DRIVEWAY & OSD PITS TO BE MINIMUM 600x600 PITS UNO
- ALL PLANTER BOXES AND BALCONIES TO BE CONNECTED TO THE PROPOSED STORMWATER DRAINAGE LINE
- ALL STORMWATER DRAINAGE WORK TO AVOID TREE ROOTS WHERE NOT POSSIBLE, ALL EXCAVATIONS IN VICINITY OF TREE ROOTS ARE TO BE HAND DUG
- ALL STORMWATER DRAINAGE WORK TO AVOID TREE ROOTS WHERE NOT POSSIBLE, ALL EXCAVATIONS IN VICINITY OF TREE ROOTS ARE TO BE HAND DUG
- GEOTEXTILE FABRIC TO BE PLACED UNDER ROCK PAD SCOUR PROTECTION WHERE APPLICABLE
- ALL BASES OF PITS TO BE BENCHED (UP TO HALF PIPE DEPTH) TO DIRECT FLOWS TOWARDS THE INVERT OF THE OUTLET PIPE. PROVIDE GALVANISED ANGLE SURROUNDINGS TO ALL GRATES
- ALL PITS HAVING AN INTERNAL DEPTH THAT EXCEEDS 1.0m SHALL BE PROVIDED WITH GALVANIZED STEP IRON'S AT 300 mm CENTRES PLACED IN A STAGGERED PATTERN AND SHALL BE IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS AS4198-1994 UNO
- ANY VARIATION TO THE DRAINAGE WORKS AS SHOWN ON THE APPROVED DRAWINGS ARE TO BE CONFIRMED BY THE ENGINEER PRIOR TO THE COMMENCEMENT
- ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS
- ALL TERRACE FLOOR AND PLANTER GRATES TO HAVE FIRE COLLARS FITTED
- ALL GRATES TO HAVE CHILDPROOF LOCKS
- ALL DOWNPIPES TO HAVE LEAF GUARDS
- ALL WORK WITHIN COUNCIL RESERVE AREAS TO BE INSPECTED BY COUNCIL PRIOR TO BACKFILLING
- WHERE APPLICABLE, COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL
- WATER PROOF ALL CONCRETE BALCONIES & ROOFS TO ARCHITECTS DETAILS
- ALL BALCONIES TO HAVE FLOOR WASTE AND 1% FALL WITH SAFETY OVERFLOW
- ALL SUBSOIL DRAINAGE SHALL BE A MINIMUM OF Ø65mm AND SHALL BE PROVIDED WITH A FILTER SOCK UNO. PLANTER/LANDSCAPED SUBSOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS PROVIDED BY THE LANDSCAPING CONSULTANT
- SUBSOIL DRAINAGE PIPES AND FITTINGS SHALL BE SLOTTED PVC TO CURRENT AUSTRALIAN STANDARDS. LAY PIPES ON FLOOR OF TRENCH GRADED AT 1% MIN. AND OVERLAY WITH FILTER MATERIAL EXTENDING TO WITHIN 200mm OF SURFACE. PROVIDE FILTER FABRIC OF PERMEABLE POLYPROPYLENE BETWEEN FILTER MATERIAL AND TOPSOIL
- PROVIDE SUBSOIL FLUSHING POINTS PER COUNCIL'S REQUIREMENTS, OR AT HIGH POINTS WHERE UNSPECIFIED
- GRATES TO BE PROVIDED IN ACCORDANCE WITH AS3996-2019, AS SUMMARISED IN THE TABLE BELOW:

GRATE TYPE	TRAFFIC LOAD CONDITIONS
A - EXTRA LIGHT DUTY	FOOTWAYS AND AREAS ACCESSIBLE ONLY TO PEDESTRIANS AND CYCLISTS
B - LIGHT DUTY	FOOTWAYS THAT CAN BE MOUNTED BY VEHICLES
C - MEDIUM DUTY	MALLS AND PEDESTRIAN AREAS OPEN TO SLOW MOVING COMMERCIAL VEHICLES
D - HEAVY DUTY	CARRIAGEWAYS OF ROADS AND AREAS OPEN TO COMMERCIAL VEHICLES

- SUPERVISING ENGINEER TO BE NOTIFIED IF GRATE LOAD CONDITIONS LISTED ABOVE ARE EXCEEDED
- WHERE APPLICABLE, ALL MULCHING TO BE USED WITHIN THE AREA DESIGNATED AS ON SITE DETENTION STORAGE SHALL BE OF A NON-FLOATABLE MATERIAL SUCH AS DECORATIVE RIVER GRAVEL. BARK MULCHING SHALL NOT BE USED WITHIN THE DETENTION STORAGE AREA
- THE STORMWATER SYSTEM SHOWN ON THESE PLANS HAS BEEN DESIGNED TO CAPTURE SURFACE RUNOFF FROM THE SITE ITSELF BUT DOES NOT INCORPORATE GROUNDWATER-SPECIFIC CAPTURE MECHANISMS FOR THE WHOLE SITE. IN SOME CASES, GROUNDWATER CAN BE A SIGNIFICANT SOURCE OF WATER DURING A STORM EVENT. IT IS RECOMMENDED THAT ALL RETAINING WALLS CLOSE TO HABITABLE AREAS BE FITTED WITH AN IMPERMEABLE MEMBRANE AND APPROPRIATE SUBSOIL DRAINAGE TO PREVENT GROUNDWATER INGRESS
- WORKS AS EXECUTED / AS CONSTRUCTED DRAWINGS BY A REGISTERED SURVEYOR ARE REQUIRED BEFORE CERTIFICATION OF DRAINAGE UNO
- WATER TREATMENT DEVICES ARE TO STRICTLY COMPLY WITH MANUFACTURING SPECIFICATIONS

EXISTING SERVICES SIGN

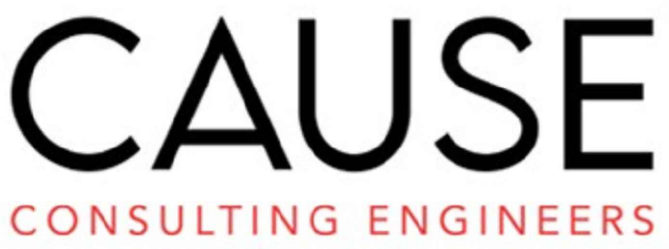


CONFINED SPACE DANGER SIGN



- A CONFINED SPACE DANGER SIGN SHALL BE POSITIONED IN A LOCATION AT ALL ACCESS POINTS, SUCH THAT IT IS CLEARLY VISIBLE TO PERSONS PROPOSING TO ENTER THE BELOW GROUND TANKS CONFINED SPACE.
 - MINIMUM DIMENSIONS OF THE SIGN
 - 300mm x 450mm (LARGE ENTRIES, SUCH AS DOORS)
 - 250mm x 180mm (SMALL ENTRIES SUCH AS GRATES & MANHOLES)
- THE SIGN SHALL BE MANUFACTURED FROM COLOUR BONDED ALUMINUM OR POLYPROPYLENE
- THE SIGN SHALL BE AFFIXED USING SCREWS AT EACH CORNER OF THE SIGN

STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551



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A.B.N 78 649 859 174

NOT FOR CONSTRUCTION

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PROJECT DATA

DATUM	AHD	SURVEY	MRA-304.DET.01 A
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APPROVED:

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1	15.12.2023	FIRST ISSUE
2	15.02.2024	SECOND ISSUE
3	17.04.2024	LAYOUT UPDATE

PROJECT NUMBER

0020215

SHEET TITLE

LOT 1115 CNR STRONG & ABELES ST

GENERAL NOTES SHEET 1 OF 2

SHEET NUMBER

PROJ: 0020215 - CCE - 00 - 00 - DR - A - C010
VOL: 1
LOC: 1
TYPE: 1
ROL: 1
NUMBER: 1
REVISION: 1

MATERIALS

1. CONCRETE
- 1.1.

ALL CONCRETE SHALL BE 'N32' AND HAVE A MINIMUM 32MPA COMPRESSIVE STRENGTH AT 28 DAYS UNO
2. ADMIXTURES
- 2.1.

WHERE USED, ALL ADMIXTURES SHALL COMPLY WITH AS1478 AND AS1379 RESPECTIVELY
- 2.2.

ALL ADMIXTURES TO BE USED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS
3. EXCAVATED MATERIAL DEEMED SUITABLE FOR RE-USE
- 3.1.

RECLAIMED SOIL FROM SITE SHOULD BE RE-USED AS STRUCTURAL FILL WHERE POSSIBLE, PROVIDED IT IS DETERMINED SUITABLE FOR USE
- 3.2.

RECLAIMED SOIL SHALL BE CONSIDERED SUITABLE FOR USE AS STRUCTURAL FILL WHEN
- 3.2.1.

THE MATERIALS PROPERTIES HAVE BEEN TESTED AND REVIEWED BY THE SUPERVISING GEOTECHNICAL ENGINEER
- 3.2.2.

THE MATERIAL MEETS THE REQUIREMENTS OF AS3798 WITH REGARDS TO "SUITABLE MATERIALS"
- 3.2.3.

CONFIRMATION IS PROVIDED BY THE SUPERVISING GEOTECHNICAL ENGINEER FOR USE UNDER THE RELEVANT PAVEMENT OR STRUCTURAL DESIGN, AND
- 3.2.4.

THE MATERIAL MEETS ANY ADDITIONAL COUNCIL, STATE OR PROJECT SPECIFIC REQUIREMENTS FOR EXCAVATED MATERIALS
- 3.3.

MATERIAL INTENDED FOR RE-USE SHALL BE STOCKPILED IN DESIGNATED LOCATIONS UNTIL RE-USED. THE MOVEMENT OF EXCAVATED MATERIAL INCLUDING EXCAVATION, STOCKPILING, AND FINAL PLACEMENT SHOULD BE RECORDED AND DOCUMENTED
4. EXCAVATED MATERIAL DEEMED UNSUITABLE FOR RE-USE
- 4.1.

ALL EXCAVATED MATERIAL SHALL BE CONSIDERED UNSUITABLE FOR RE-USE AS STRUCTURAL FILL, UNLESS IT HAS BEEN TESTED AND CONFIRMED SUITABLE BY A GEOTECHNICAL ENGINEER
- 4.2.

WHERE DEEMED AS "UNSUITABLE MATERIAL" IN ACCORDANCE WITH AS3798, EXCAVATED MATERIAL SHALL NOT BE USED FOR STRUCTURAL FILL OR UNDER PAVEMENTS UNLESS EXPLICITLY APPROVED BY THE SUPERVISING GEOTECHNICAL ENGINEER
- 4.3.

EXCESS MATERIAL DEEMED UNSUITABLE FOR BACKFILLING /FILLING SHALL BE CLASSIFIED, THEN REMOVED FROM SITE
- 4.4.

DISPOSAL OF EXCESS MATERIAL SHALL BE TAKEN TO AN APPROPRIATELY LICENSED FACILITY AND ANY WASTE TRACKING OR REGULATORY REQUIREMENTS SHALL BE ADHERED TO
5. IMPORTED MATERIAL
- 5.1.

ANY IMPORTED MATERIAL INTENDED FOR STRUCTURAL FILLING SHALL BE REVIEWED AND APPROVED BY THE SUPERVISING GEOTECHNICAL ENGINEER.
- 5.2.

APPROPRIATE TESTING AND ANALYSIS OF THE MATERIALS SHALL BE UNDERTAKEN BY THE GEOTECHNICAL ENGINEER, AND AS A MINIMUM SHOULD INCLUDE:
- 5.2.1.

PLASTICITY INDEX
- 5.2.2.

LINEAR SHRINKAGE
- 5.2.3.

SHRINK-SWELL INDEX
- 5.2.4.

PARTICLE DISTRIBUTION
- 5.2.5.

CBR VALUES
- 5.2.6.

LIQUID LIMITS
- 5.2.

ALL IMPORTED FILL SHALL BE FREE OF ORGANIC MATTER AND OTHER SUCH PERISHABLE MATTER
- 5.3.

THE SOURCE OF ANY IMPORTED FILL SHALL BE PROVIDED, WITH ANY ASSOCIATED CERTIFICATIONS / DOCUMENTATION
6. PAVEMENT MATERIALS
- 6.1.

MATERIALS INTENDED FOR USE WITHIN STRUCTURAL PAVEMENT LAYERS SHALL BE TESTED AND CERTIFIED IN ACCORDANCE WITH THE RELEVANT SPECIFICATION NOTED ON THE PLANS BY
- 6.2.

UNO MATERIALS WITHIN QLD SHALL COMPLY WITH RELEVANT DTMR SPECIFICATIONS (DENOTED TYPE 2.1, 2.3 ETC.)
- 6.3.

UNO MATERIALS WITHIN NSW SHALL COMPLY WITH RELEVANT TRANSPORT NSW (RMS) SPECIFICATIONS (DENOTED DGB20, DGS40 ETC.

PAVEMENT & CONCRETE CONSTRUCTION

1. PREPARATION OF SUBGRADE
- 1.1.

WHERE SUBGRADE MATERIAL IS DEEMED UNSATISFACTORY, ADDITIONAL SUBGRADE IMPROVEMENT MEASURES MAY BE REQUIRED (E.G. LIME OR CEMENT STABILISATION, REPLACEMENT ETC.)
- 1.2.

ALL SUBGRADE LEVELS (EXCLUDING LOCALISED EXCAVATIONS SUCH AS TANK FARMS) SHALL BE PROOF-ROLLED TO CONFIRM NO SOFT SPOTS EXIST
- 1.3.

ALL SUBGRADE FILL SHALL BE PLACED AND COMPACTED IN UNIFORM LAYERS NO MORE THAN 150MM THICKNESS
- 1.4.

DURING FILLING OPERATIONS THE MOISTURE CONTENT SHALL BE CONTROLLED TO WITHIN -2% / +1% OF THE OPTIMUM MOISTURE CONTENT PER AS1289.2.1
- 1.5.

EACH FILL LAYER SHOULD BE COMPACTED TO 98% SMDD (PER AS1289.5.11) BEFORE THE FOLLOWING LAYER IS PLACED
2. PREPARATION OF SUBBASE AND BASE
- 2.1.

COMPACTION / DENSITY TESTS SHALL BE UNDERTAKEN BY A GEOTECHNICAL ENGINEER PER AS1289.5.1 TO VERIFY COMPACTION STANDARDS SPECIFIED ARE ATTAINED. CERTIFICATION OF ATTAINMENT IS TO BE PROVIDED
- 2.2.

WHERE USING PLATE TYPE COMPACTORS, PLATE TYPE VIBRATORS, MANUALLY OPERATED VIBRATING ROLLERS OR SMALL TANDEM ROLLERS, BASE MATERIALS SHALL BE COMPACTED IN MAXIMUM 100MM THICK LAYERS
- 2.3.

WHERE USING HEAVIER EQUIPMENT THAN LISTED ABOVE, BASE MATERIAL MAY BE COMPACTED IN MAXIMUM 150MM LAYERS
- 2.4.

WHERE THE SUBBASE MATERIAL IS NOMINATED AS A 'SELF COMPACTING' MATERIAL, COMPACTION TESTING SHALL NOT BE REQUIRED. VIBRATION SHALL STILL BE APPLIED TO ENSURE THE MATERIAL COMPACTS APPROPRIATELY
- 2.5.

THE FINAL BASE LEVELS SHALL BE WITHIN -0 / +10MM OF DESIGN LEVELS UNO BY SUPERVISING ENGINEER
- 2.6.

THE PREPARED BASE LEVELS SHALL NOT DEVIATED BY MORE THAN 10MM OVER A 3M LENGTH OF THE DESIGN PROFILE

3. FORMWORK
- 3.1.

FORMWORK PLACEMENT AND CONSTRUCTION IS TO MEET THE REQUIREMENTS OF AS3600 AND AS3610
- 3.2.

FORMWORK SHALL NOT BE DESIGNED OR PLACED TO RELY ON RESTRAINT OR SUPPORT BY ANY PERMENANT STRUCTURES WITHOUT PRIOR WRITTEN APPROVAL FROM THE SUPERVISING ENGINEER
- 3.3.

BEFORE POURING CONCRETE, ALL DEBRIS, WATER, DUST AND DEBRIS SHALL BE REMOVED FROM THE POUR AREA
- 3.4.

APPLY A RELEASE AGENT TO ALL FORMWORK PER REQUIREMENTS OF SURFACE FINISH BEFORE PLACING REINFORCEMENT
- 3.5.

CHAMFER AND FILLET ALL RE-ENTRANT CORNERS BY 25MM UNO
- 3.6.

NO PERMANENT LOADS ARE PERMITTED ON CONCRETE STRUCTURES UNTIL ALL FORMWORK AND PROPPRING HAS BEEN REMOVED UNO
- 3.7.

TEMPORARY PROPPING SHALL BE PROVIDED TO SUPPORT ANY LOADS TO CONCRETE POUR AREAS UNTIL THE REQUIRED COMPRESSIVE STRENGTH IS ACHIEVED AT 28 DAYS
- 3.8.

MORTAR MATCHING THE COLOUR OF THE FINISHED SURFACE SHALL BE USED TO FILL ALL HOLES LEFT BY TIE BOLTS OR OTHERWISE
4. STEEL REINFORCEMENT
- 4.1.

ALL REINFORCEMENT USED IS TO BE IN ACCORDANCE WITH AS3600 AND AS4671
- 4.2.

ALL REINFORCEMENT SHALL BE SUPPORTED ON CHAIRS AT MAXIMUM 10M CENTRES UNO, WHERE THE EXPOSURE CONDITIONS ARE GREATER THAN B1, PLASTIC-ONLY CHAIRS ARE TO BE USED
5. CONCRETE-JOINTS
- 5.1.

ALL CONCRETE JOINTS ARE TO COMPLY WITH REQUIREMENTS OF AS3600
- 5.2.

REFER DETAILS PROVIDED FOR JOINT REQUIREMENTS
6. WATER-PROOF MEMBRANES
- 6.1.

WHERE USED, WATER-PROOF MEMBRANES SHALL BE LAPPED BY MINIMUM 300MM
- 6.2.

LAPS IN MEMBRANES SHALL BE ORIENTATED TO FACE AWAY FROM THE DIRECTION OF THE CONCRETE POUR
- 6.3.

TO AVOID PULLING OF TAPED JOINTS, LAPS SHOULD RUN VERTICALLY

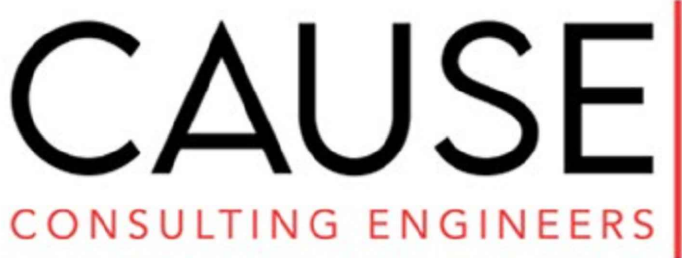
MAINTENANCE SCHEDULE: STORMWATER PITS

CHECK ALL PRIMARY STORMWATER PITS SHOWN FOR DAMAGE AS INDICATED WITHIN THE TABLE BELOW

GENERAL MAINTENANCE - STORMWATER PITS			
ELEMENT	TASK	DESCRIPTION / ACTION	FREQUENCY
TRASH SCREEN	CHECK / CLEAN	CHECK AND CLEAN TRASH SCREENS	6-MONTHLY, AFTER ANY SIGNIFICANT STORM EVENTS
	CHECK ATTACHMENT	CHECK SCREEN MOUNTED SECURELY, TIGHTEN AND SEAL GAPS AS NEEDED	ANNUALLY, AFTER ANY SIGNIFICANT STORM EVENTS
	CHECK FOR CORROSION	CHECK TRASH SCREEN FOR CORROSION, ESPECIALLY AT CORNERS NEAR WELDS AND REPAIR / REPLACE AS NEEDED	ANNUALLY, AFTER ANY SIGNIFICANT STORM EVENTS
GRATED LIDS	CHECK FOR DAMAGE	CHECK FOR CORROSION AND OTHER DAMAGE, REPAIR OR REPLACE AS NEEDED	6-MONTHLY, AFTER ANY SIGNIFICANT STORM EVENTS
	CLEAR BLOCKAGES	CLEAR GRATE BLOCKAGES (SUCH AS LEAF LITTER)	6-MONTHLY, AFTER ANY SIGNIFICANT STORM EVENTS
OUTLET PIPES	CHECK FOR BLOCKAGES	CHECK, CLEAN AND FLUSH OUTLET PIPES, REMOVE ANY BLOCKAGES FOUND	6-MONTHLY, AFTER ANY SIGNIFICANT STORM EVENTS
STEP IRONS	CHECK FOR CORROSION	EXAMINE STEP IRONS AND REPAIR OR REPLACE AS NEEDED	ANNUALLY
	CHECK FIXINGS	CHECK STEP IRON FIXINGS AND REPAIR OR REPLACE AS NEEDED	6-MONTHLY, AFTER ANY SIGNIFICANT STORM EVENTS
PT SURROUNDS	CHECK FOR SILT / SEDIMENT BUILD UP	REMOVE ANY SILT, SEDIMENT OR DEBRIS FOUND	3-MONTHLY, AFTER ANY SIGNIFICANT STORM EVENTS

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STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551

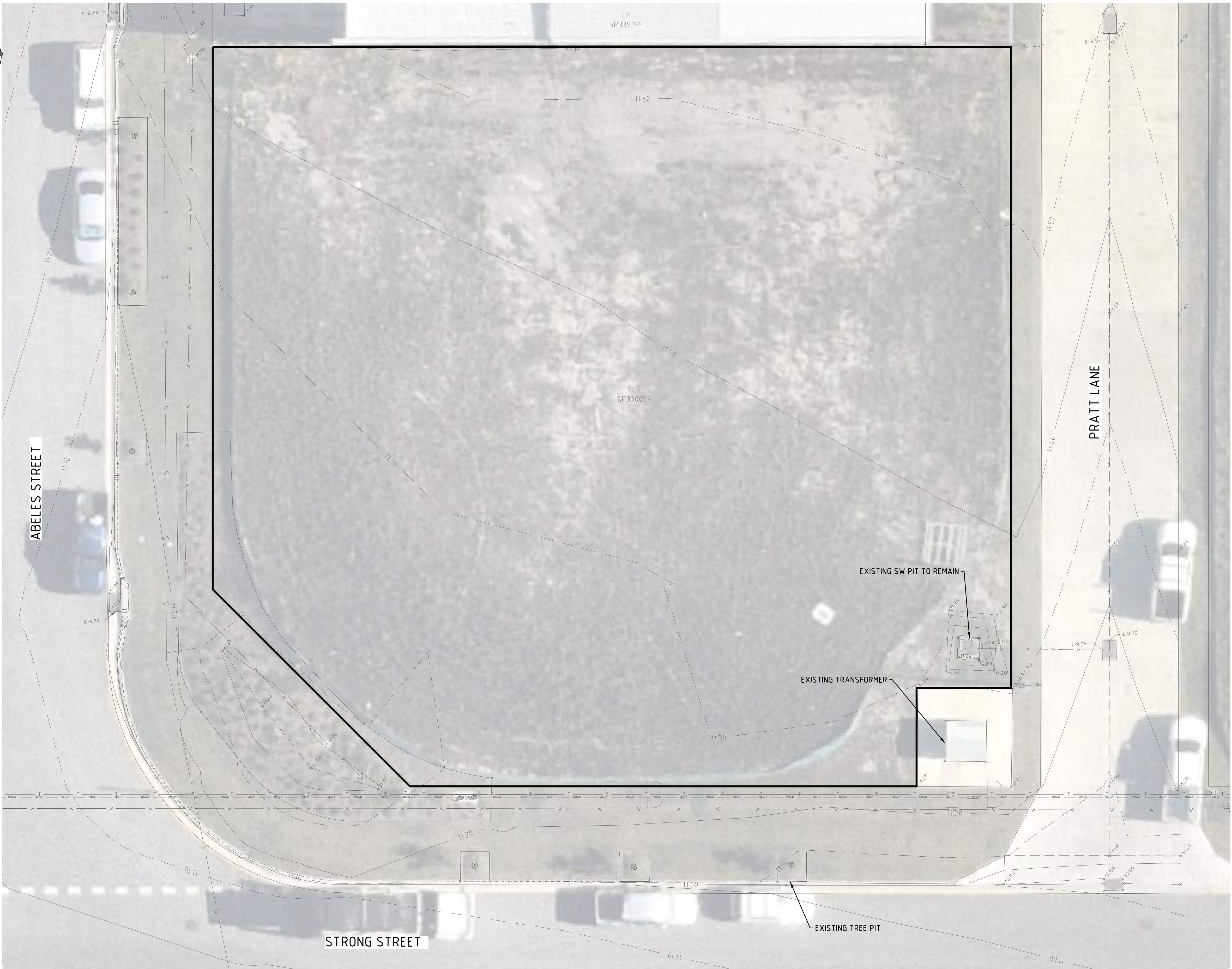
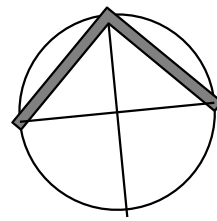


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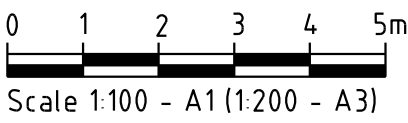


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				1	15.12.2023	FIRST ISSUE	
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				3	17.04.2024	LAYOUT UPDATE	
APPROVED:							
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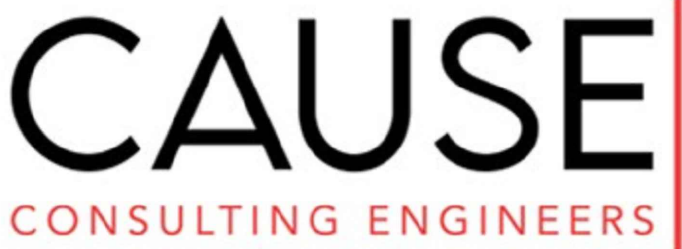


LEGEND

- PROPERTY BOUNDARY
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- EXISTING STORMWATER
- EXISTING WATER
- EXISTING TELSTRA
- EXISTING ELECTRICAL
- EXISTING FENCE
- EXISTING VEGETATION EDGE



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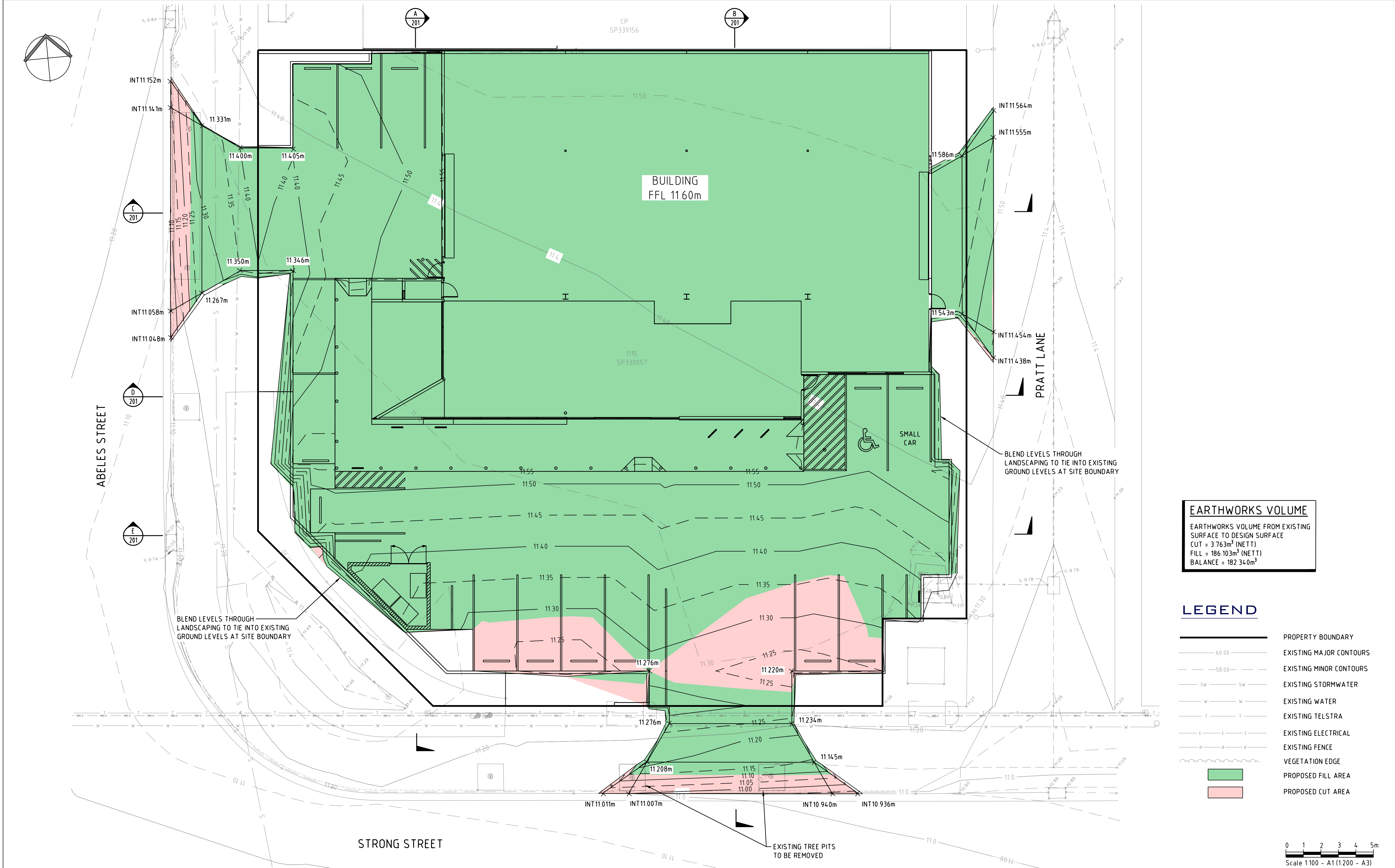
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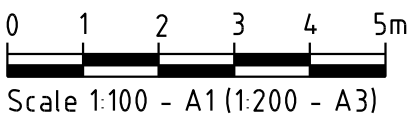
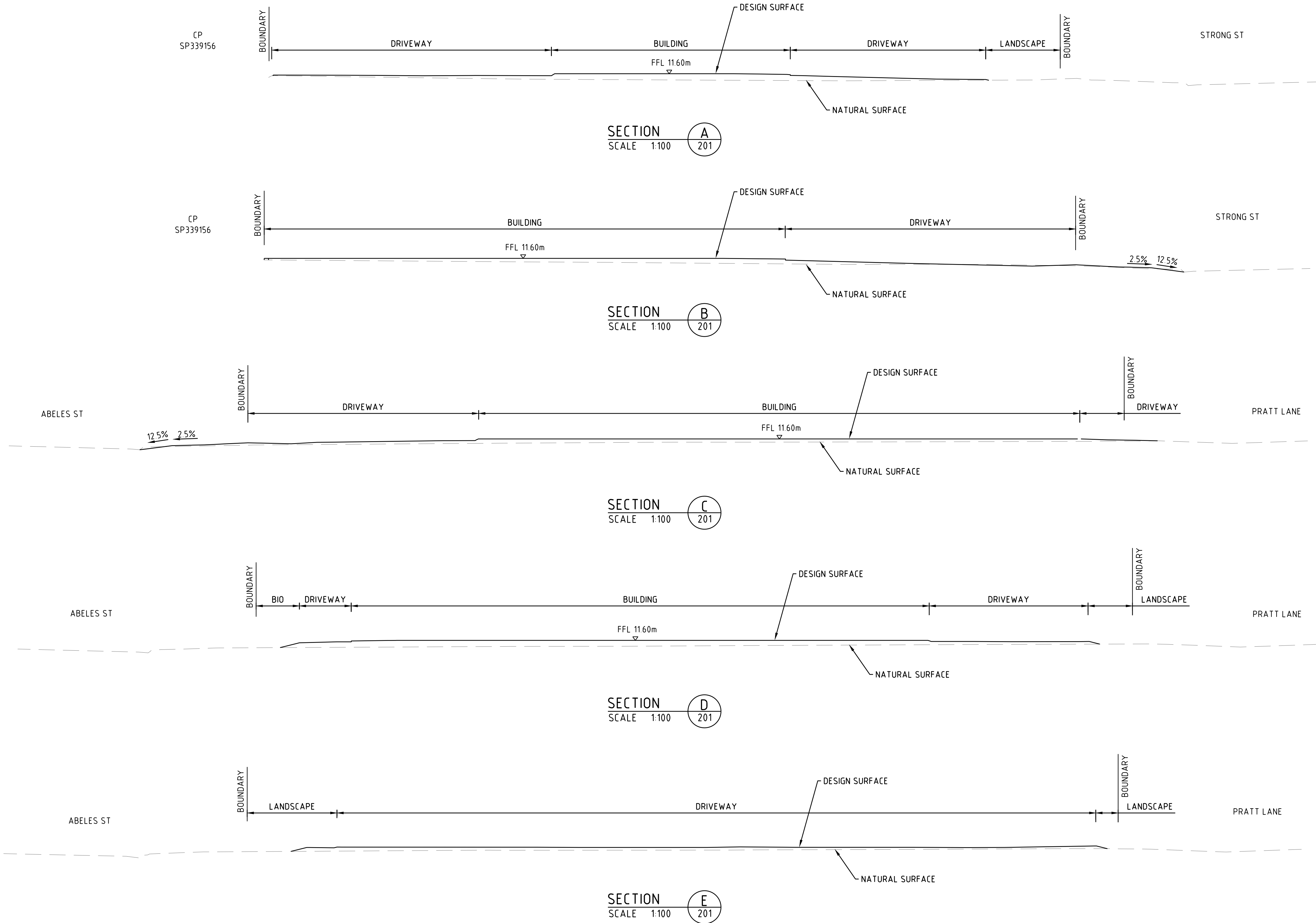
LOT 1115 CNR STRONG & ABELES ST
EXISTING SITE LAYOUT PLAN

SHEET NUMBER

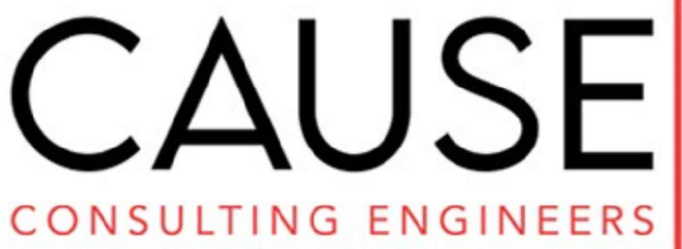
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STRONG & ABELES ST		CHP GROUP		CAUSE CONSULTING ENGINEERS Cause Consulting Engineers Pty Ltd A.B.N 78 649 859 174		NOT FOR CONSTRUCTION ISSUED FOR DEVELOPMENT APPROVAL DIAL BEFORE YOU DIG www.1100.com.au		DATUM AHD SURVEY MRA-304.DET.01 A APPROVED: RYAN HOFMAN BEng (Hons) CPEng CWEM RPEQ 21643		ISSUE DATE DESCRIPTION 1 15.12.2023 FIRST ISSUE 2 15.02.2024 SECOND ISSUE 3 17.04.2024 LAYOUT UPDATE		0020215 SHEET TITLE LOT 1115 CNR STRONG & ABELES ST EARTHWORKS LAYOUT PLAN SHEET NUMBER PROJ. ORIGIN VOL. LOC. TYPE ROL. NUMBER REV. 0020215 - CCE - 00 - 00 - DR - A - C200 3	



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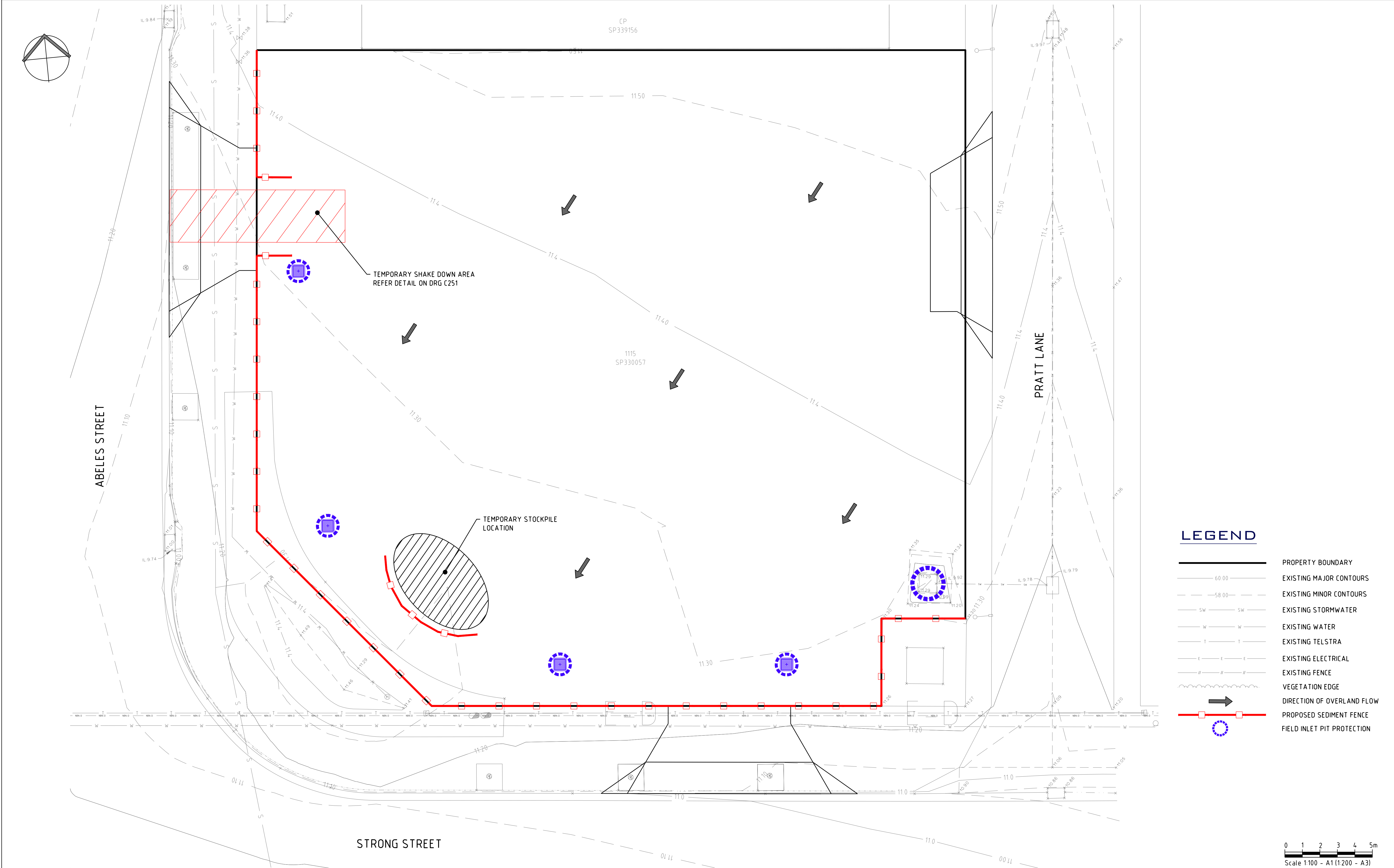
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LOT 1115 CNR STRONG & ABELES ST
EARTHWORK SECTIONS

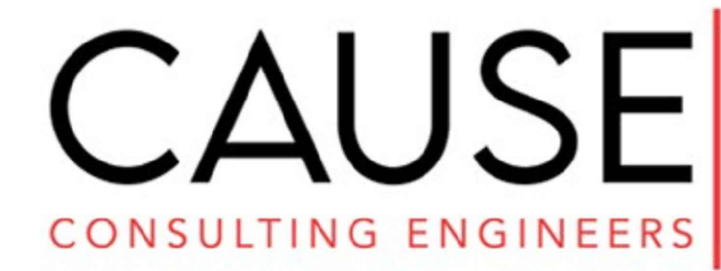
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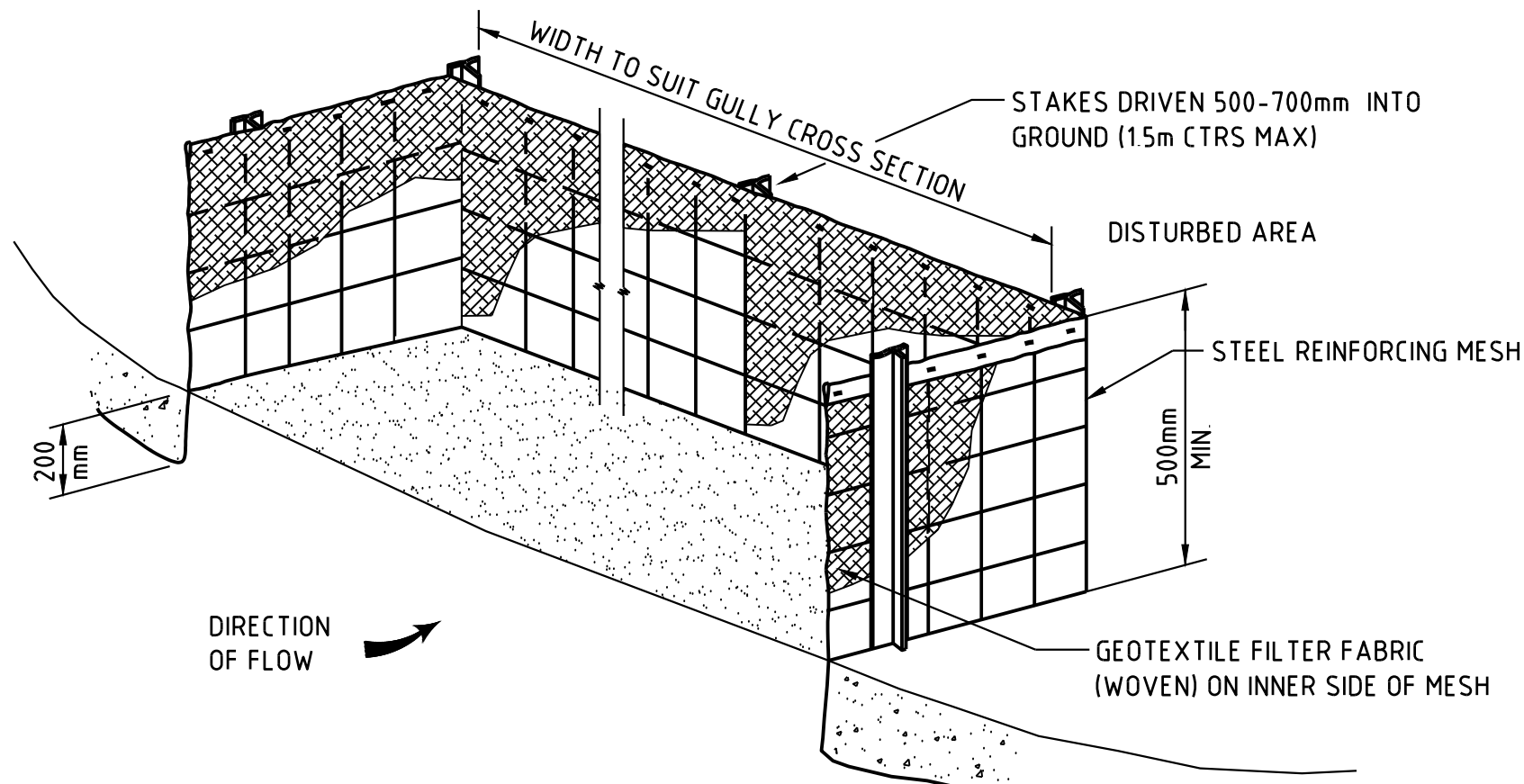
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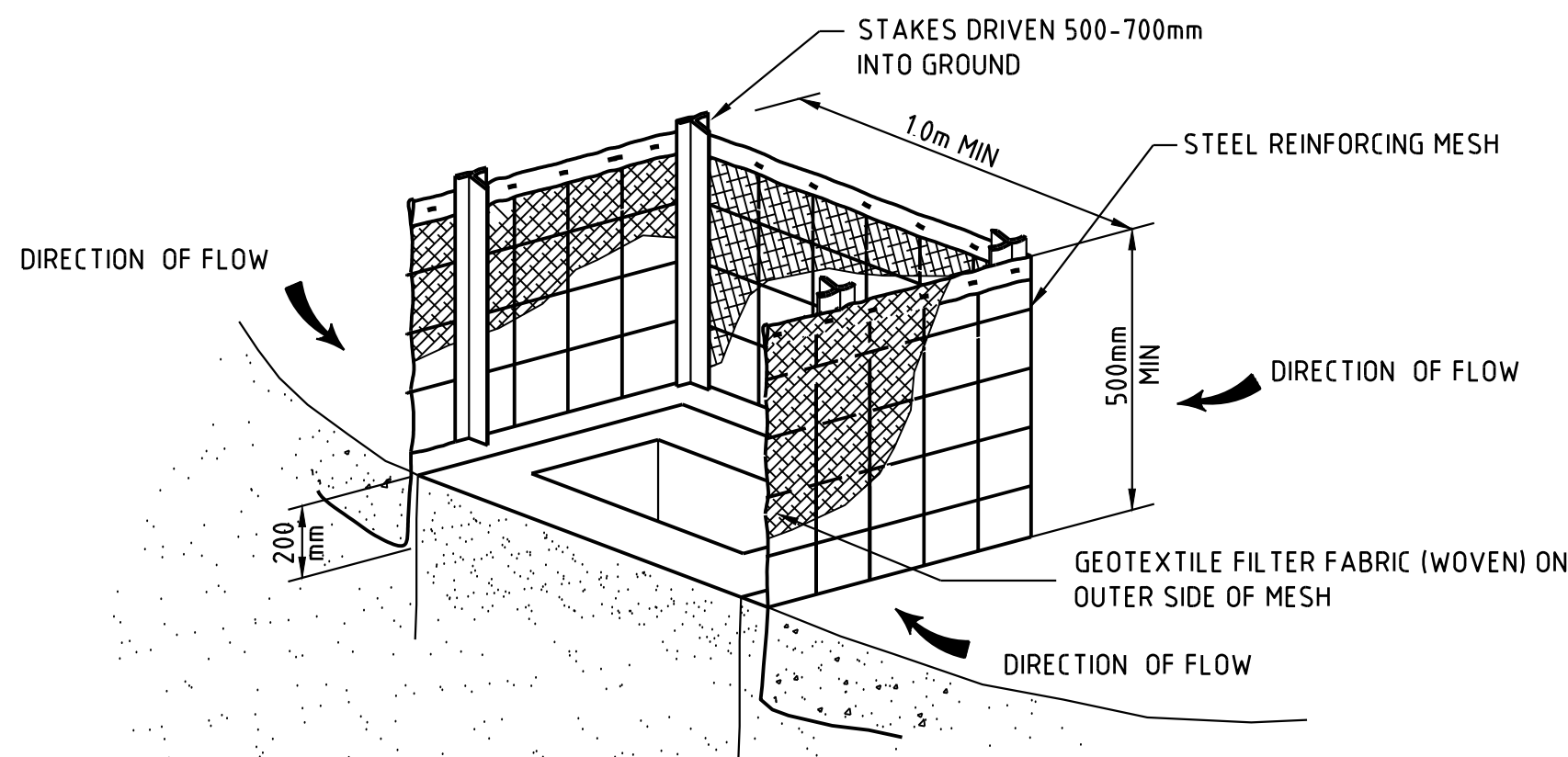
LOT 1115 CNR STRONG & ABELES ST
SEDIMENT & EROSION
CONTROL PLAN

SHEET NUMBER

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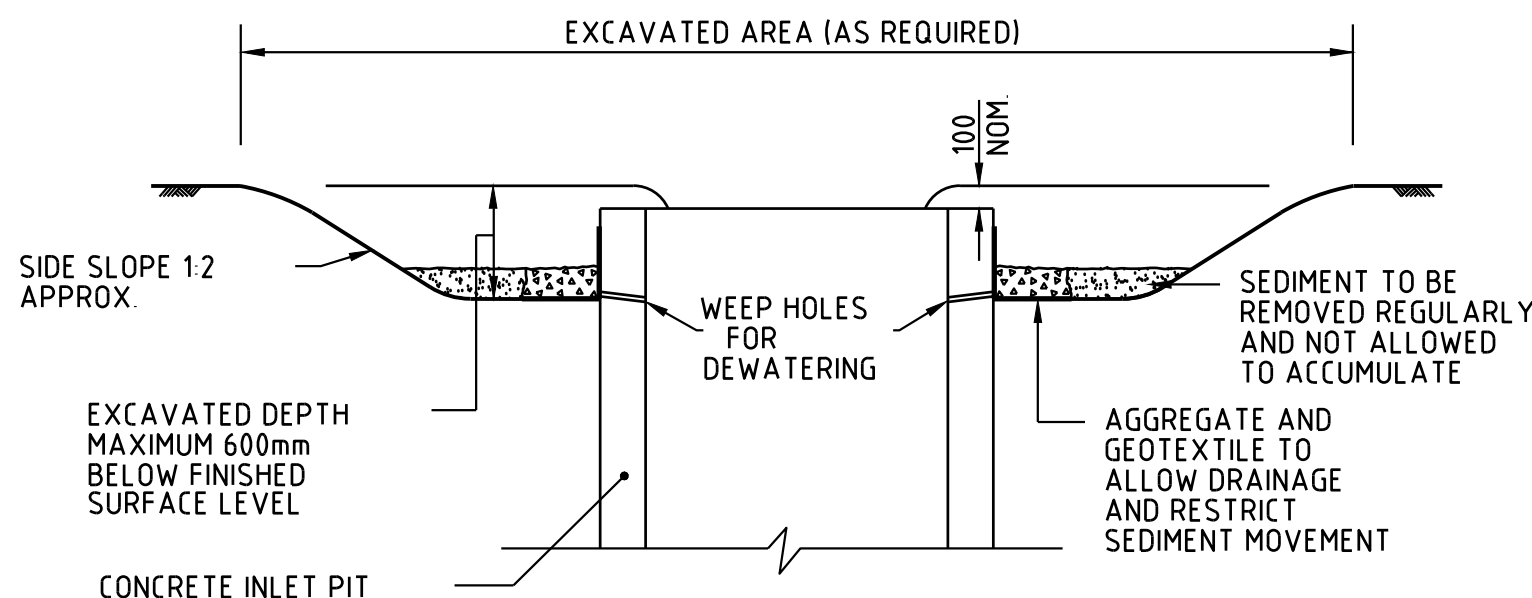


**DRAINAGE GULLY
SEDIMENT TRAP**
N.T.S.

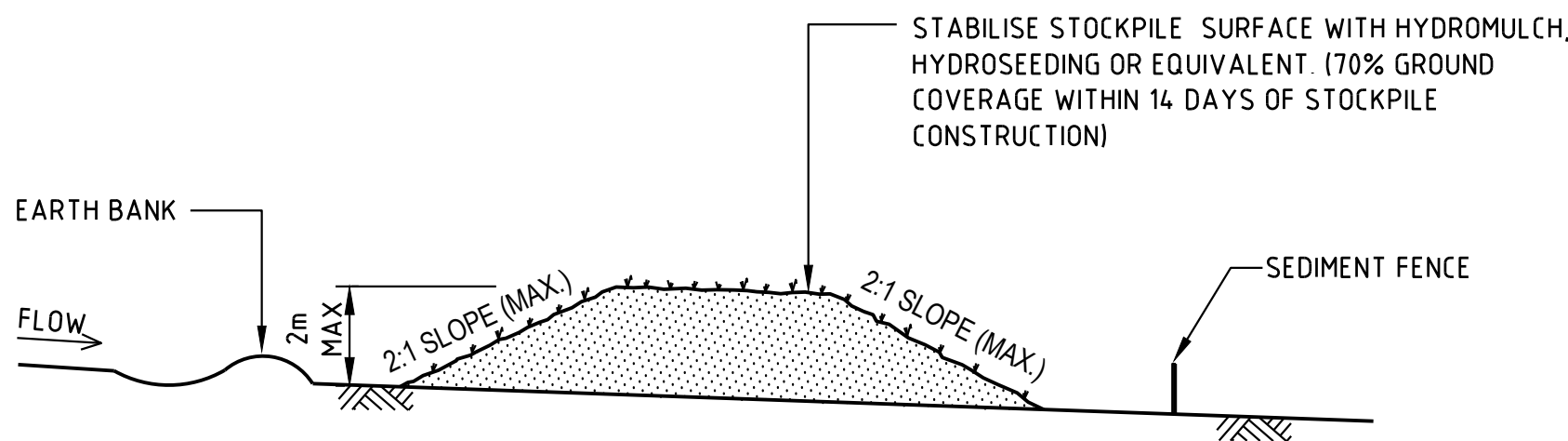


NOTE
FOURTH SIDE OF TRAP
NOT SHOWN FOR CLARITY

**STORMWATER INLET
SEDIMENT TRAP**
N.T.S.



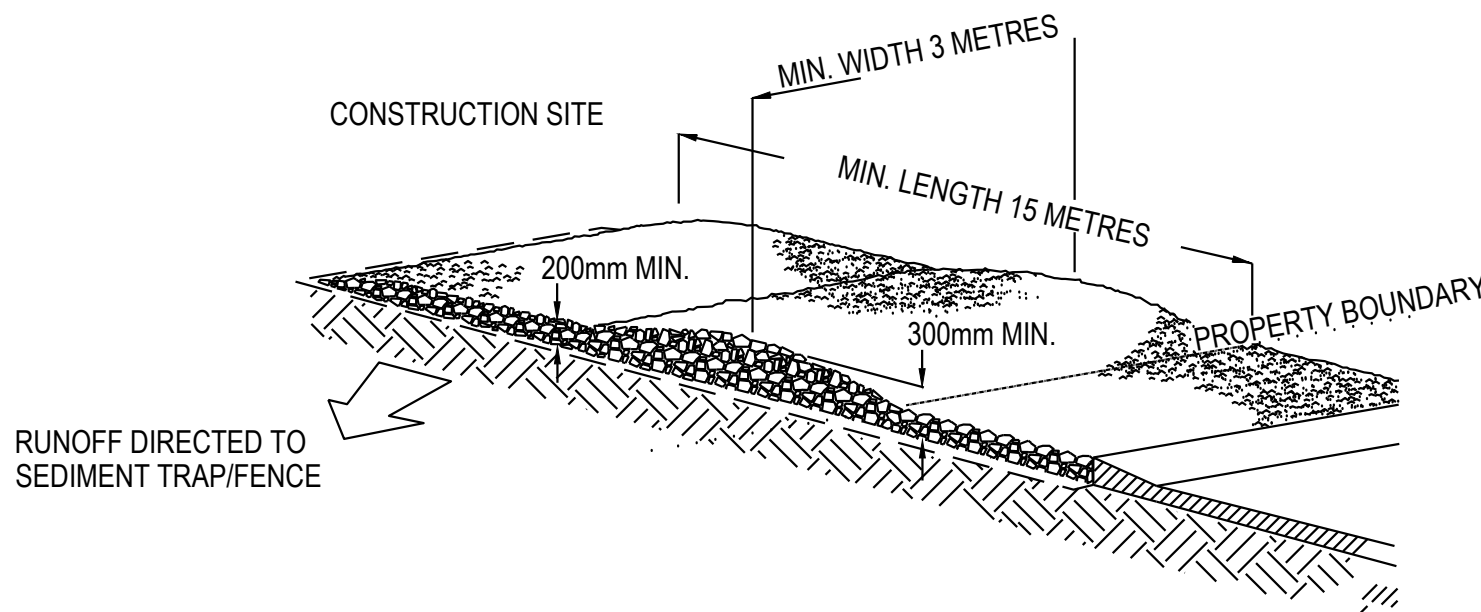
EXCAVATED INLET ARRANGEMENT
N.T.S.



TYPICAL STOCKPILE CONFIGURATION
N.T.S.

NOTES:

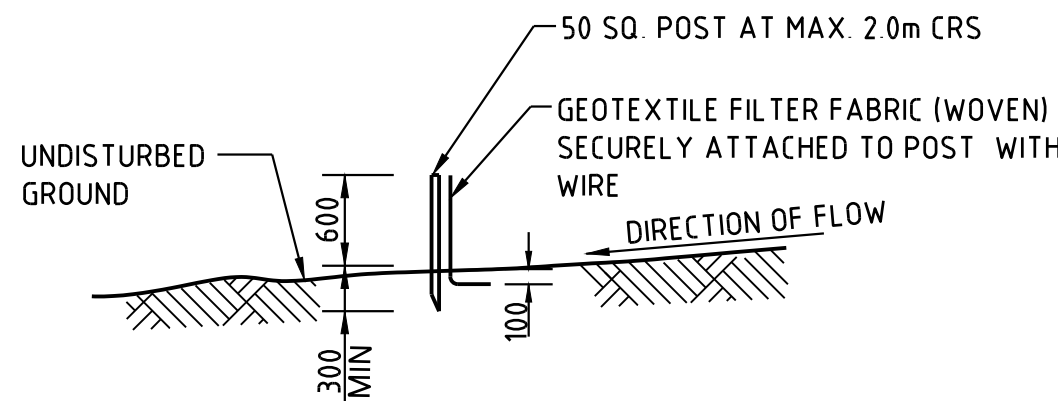
1. LOCATE STOCKPILES AT TOP OF CATCHMENT ON FLAT GROUND AND NOT WITHIN 5m OF CONCENTRATED FLOW PATHS.
2. STOCKPILES SHOULD HAVE EARTH BANKS UPSLOPE FOR DIVERSION OF UPSTREAM WATER AROUND STOCKPILE AND SEDIMENT FENCES PLACED 1-2m DOWNSLOPE.



STABILISED SITE ACCESS
N.T.S.

SITE ACCESS CONSTRUCTION NOTES

1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
4. ENSURE THE STRUCTURE IS AT LEAST 15m LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3m WIDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE



NOTE: SILT FENCE TO HAVE TURNOUTS
AT 50m MAX INTERVALS.

NOTE: REFER TO IPWEAQ STANDARD DRAWINGS
D-0040 AND D-0041 FOR ALL ADDITIONAL SEDIMENT
CONTROL DETAILS.

SEDIMENT AND EROSION CONTROL NOTES

1. THIS DRAWING HAS BEEN PREPARED AS A GUIDE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MANAGE SITE SEDIMENT AND EROSION CONTROL MEASURES AND DURING THE CONSTRUCTION PERIOD INSTALL ADDITIONAL MEASURES WHERE SCOUR OR SEDIMENT TRANSPORT IS LIKELY TO OCCUR.
2. DELAY CLEARING, GRUBBING AND TOPSOIL STRIPPING UNTIL NECESSARY.
3. COMMENCE WORK ON SITE ONLY AFTER SEDIMENT AND EROSION CONTROL MEASURES ARE IN PLACE.
4. MANAGE SITE ENTRY/EXIT POINTS TO ENSURE SEDIMENT IS NOT TRACKED OFF SITE.
5. **SHAKEDOWN AREA:** PROVIDES FOR CONSTRUCTION, SERVICE AND STAFF VEHICLES ENTERING PUBLIC ROADS. CONTRACTOR SHALL LOCATE TO SUIT SITE ACTIVITIES. CONSTRUCTED AS 250mm THICK LAYER OF COARSE (150mm -200mm) RIVER GRAVEL OVER A SINGLE LAYER OF HIGH STRENGTH GEOTEXTILE (15m x 5m).
6. THE CONTRACTOR SHALL INSTALL EITHER STORMWATER INLET SEDIMENT TRAPS OR EXCAVATED INLET ARRANGEMENT AT ALL STORMWATER STRUCTURES DURING THE CONSTRUCTION.
7. FILTER ROLLS SHALL BE INSTALLED AT GULLY PITS IMMEDIATELY AFTER GULLY PIT CONSTRUCTION AND LEFT IN PLACE DURING THE MAINTENANCE PERIOD. OPERATION OF ROLLS DURING PERIODS OF HEAVY RAIN TO BE MONITORED TO PREVENT FLOODING AND EROSION DAMAGE ELSEWHERE.
8. ARRANGE FOR EROSION CONTROL MEASURES TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE SOURCE OF EROSION.
9. ENSURE STOCKPILED TOPSOIL AND EARTHWORKS ARE NOT ERODED BY WIND AND STORMWATER RUN-OFF AND ARE PROVIDED WITH A SILT FENCE AROUND THE LOW SIDE.
10. SILT FENCES HAVE BEEN ESTABLISHED UNDER BULK EARTHWORKS CONTRACT. ERECT SILT FENCES IF REQUIRED, GENERALLY ALONG THE LOW SIDE OF THE CONSTRUCTION SITE AND ALONG A LINE OF CONSTANT LEVEL. AS AN ALTERNATIVE TO BURYING THE SILT FENCE LOWER EDGE, THE CONTRACTOR MAY ELECT TO PLACE 200mm OF THE FABRIC ON THE GROUND UP-SLOPE OF THE FENCE AND COVER WITH 100mm MIN LAYER OF AGGREGATE.
11. TO PREVENT EROSION, TOPSOIL AND SEED IMMEDIATELY AFTER COMPLETION OF BULK EARTHWORKS TO FINISHED PROFILES.
12. PROVIDE TURF STRIP ADJACENT TO KERB FOR FULL LENGTH OF NEW ROAD AND TURF STRIP PLACED AT 90° TO KERB EVERY 10m FOR FULL WIDTH OF VERGE.
13. PRIOR TO COMPLETION OF CONSTRUCTION OF PAVEMENT AND SEALING, PLACE SANDBAGS AT 45° TO ARREST SCOUR AGAINST KERB AND CHANNEL AS FOLLOWS:
ROAD GRADE 0.5% - 5% - 25m MAX CRS.
5% - 10% - 10m MAX CRS.
10% - 15% - 15m MAX CRS.
15% - 20% - 5m MAX CRS.
14. SWEEP EXTERNAL ROADS WHERE SEDIMENT HAS BEEN DROPPED FROM CONSTRUCTION VEHICLES. DO NOT WASH SILT INTO THE STORMWATER SYSTEM.
15. ALL SEDIMENT AND EROSION CONTROL STRUCTURES, TRENCHES ETC. SHALL BE REGULARLY MAINTAINED AND INSPECTED FOR EFFECTIVENESS.
16. THE USE OF POTABLE WATER IS NOT PERMITTED IN SITE EARTHWORKS OPERATIONS, ROAD AND PAVEMENT CONSTRUCTION OR DUST SUPPRESSION. RECYCLED WATER IS REQUIRED TO BE USED AND IS TO BE IN ACCORDANCE WITH TRC GUIDELINES.

PROJECT
**STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551**

CLIENT

CONSULTANT

CAUSE
CONSULTING ENGINEERS

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ISSUE	DATE	DESCRIPTION
1	15.12.2023	FIRST ISSUE
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3	17.04.2024	LAYOUT UPDATE

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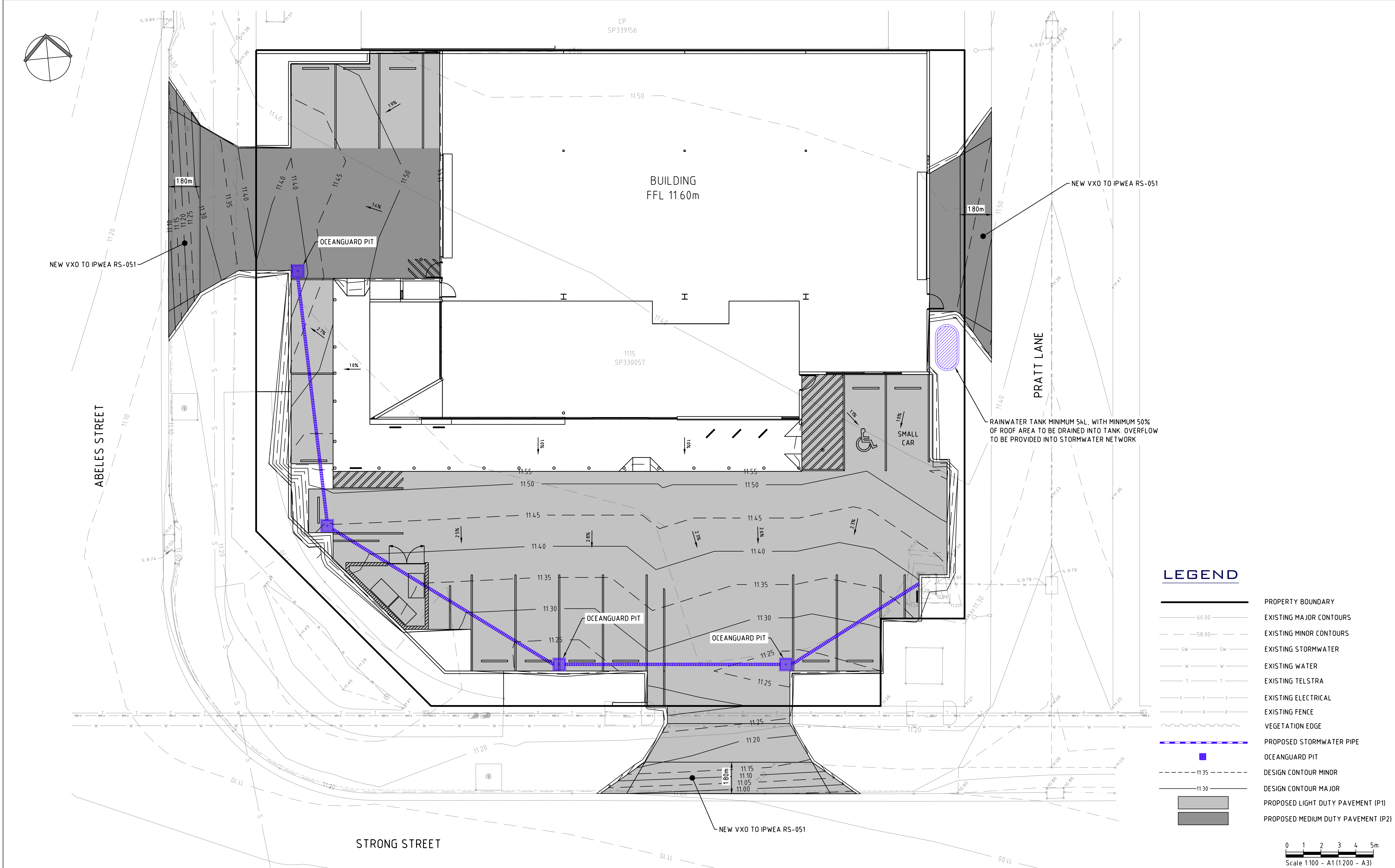
0020215

SHEET TITLE

LOT 1115 CNR STRONG & ABELES ST
SEDIMENT & EROSION DETAILS

SHEET NUMBER

PROJ: ORIGIN VOL LOC TYPE ROL NUMBER REVISION
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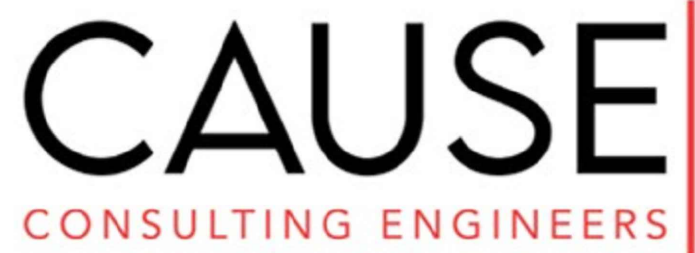
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STRONG & ABELES ST		CHP GROUP	CAUSE CONSULTING ENGINEERS Cause Consulting Engineers Pty Ltd A B N 78 649 859 174	NOT FOR CONSTRUCTION ISSUED FOR DEVELOPMENT APPROVAL  DIAL BEFORE YOU DIG www.1100.com.au				ISSUE	DATE	DESCRIPTION	0020215
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				3	17.04.2024	LAYOUT UPDATE	ROADWORKS LAYOUT PLAN				
RYAN HOFMAN BEng (Hons) CPEng CWEM RPEQ 21643							SHEET NUMBER				
				PROJ. ORIGIN VOL LOC TYPE ROL NUMBER REVISION				0020215 - CCE - 00 - 00 - DR - A - C300			

STRONG & ABELES ST

CHP GROUP

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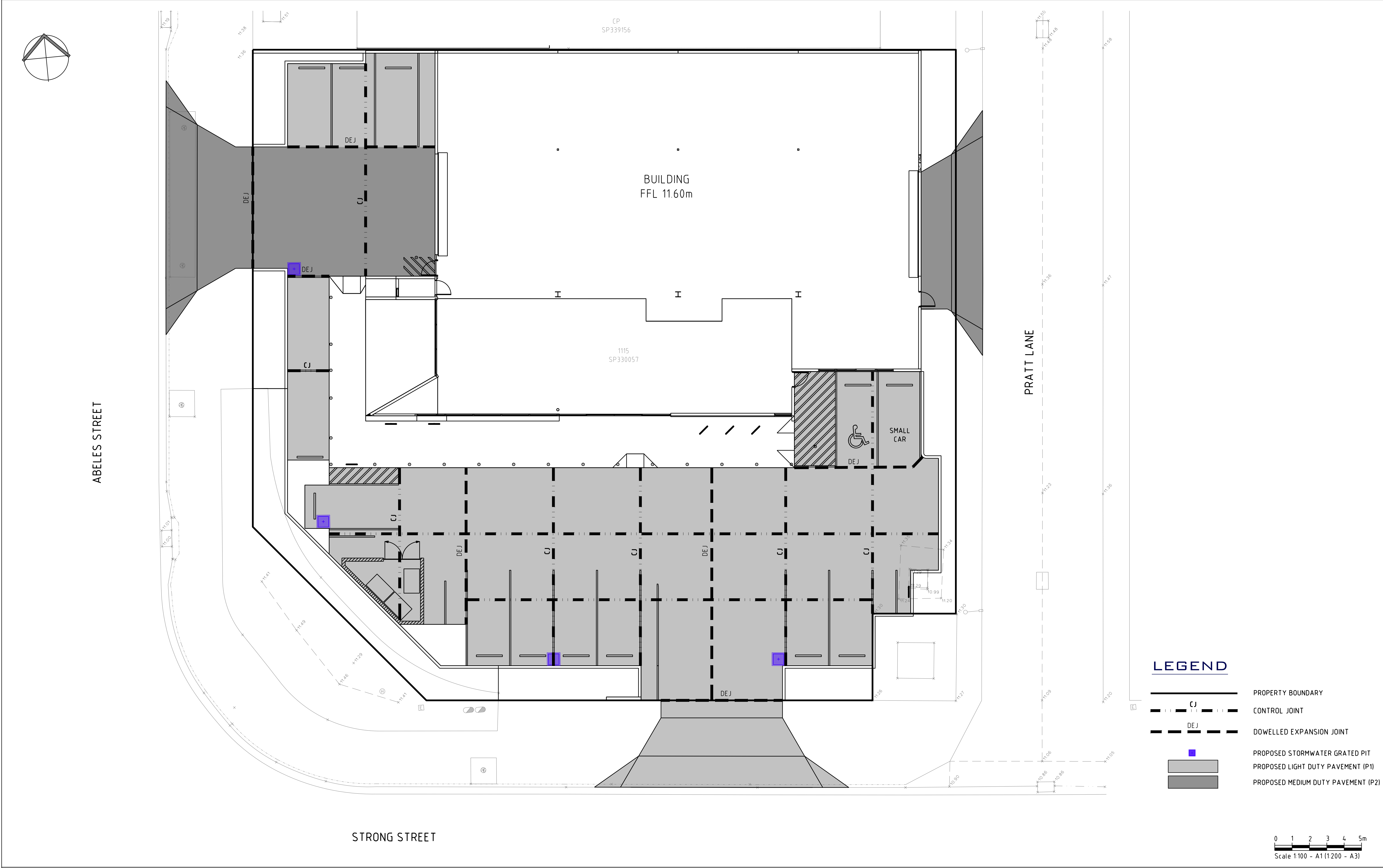
LOT 1115 CNR STRONG & ABELES ST

ROADWORKS LAYOUT PLAN

SHEET NUMBER

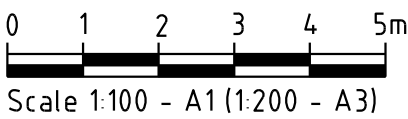
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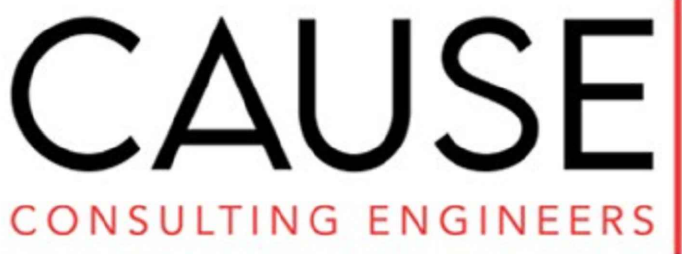
LEGEND

- PROPERTY BOUNDARY
- CONTROL JOINT
- DOWELLED EXPANSION JOINT
- PROPOSED STORMWATER GRATED PIT
- PROPOSED LIGHT DUTY PAVEMENT (P1)
- PROPOSED MEDIUM DUTY PAVEMENT (P2)



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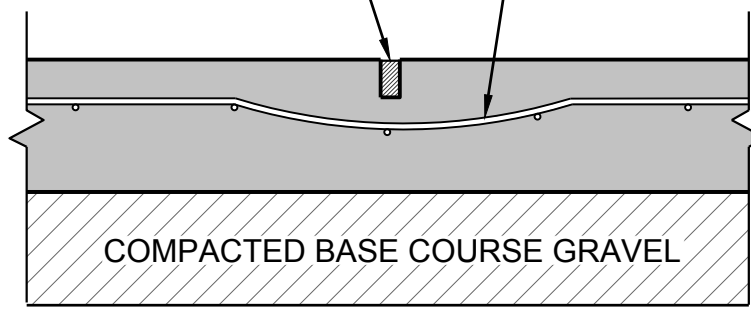
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ROADWORKS PAVEMENT
LAYOUT PLAN

SHEET NUMBER

PROJ: 0020215 - CCE - 00 - 00 - DR - A - C310
ORIGIN: VDL LOC: TYPE: ROL: NUMBER: REVISION: 3

SAW CUT AND SEALANT JOINT TO BE A MINIMUM DEPTH OF $\frac{1}{3}$ OF SLAB THICKNESS

DEPRESS FABRIC LOCALLY AND CUT EVERY SECOND BAR. FABRIC LAPS ARE NOT TO OCCUR AT JOINT LOCATIONS



CONTROL JOINT (CJ)
SCALE 1:10

ABELFLEX (OR SIMILAR APPROVED) FILLER AND FLEXIBLE SEALANT OVER

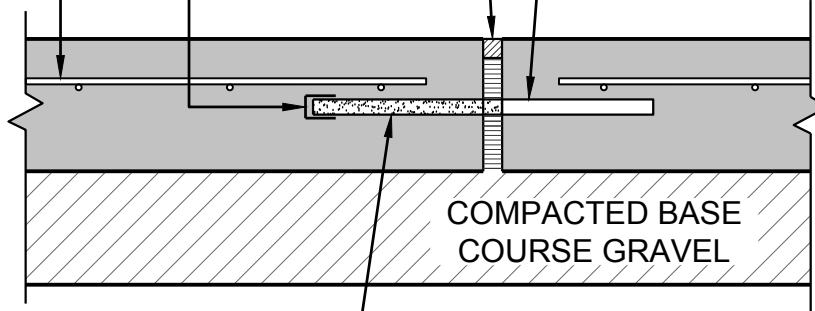
SL82 MESH 50mm MIN. TOP COVER

CAP END FOR EXPANSION JOINT

16Ø DOWELS AT 400 CRS 400mm LONG TO BE PLACED AT CENTRES. 50mm COVER MIN.

BOND-BREAKING COMPOUND

COMPACTED BASE COURSE GRAVEL



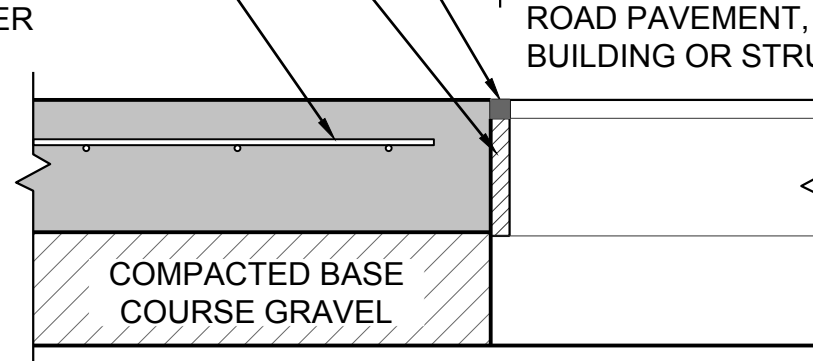
DOWELLED EXPANSION JOINT DETAIL (DEJ)
SCALE 1:10

FLEXIBLE SEALANT AT FACE TO PREVENT WATER INGRESS

'ABELFLEX' OR EQUIVALENT

SL82 MESH 50mm MIN. TOP COVER

ROAD PAVEMENT, ABUTTING BUILDING OR STRUCTURE



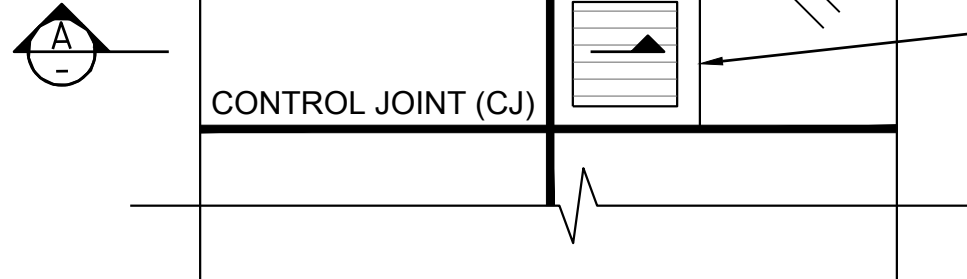
TYPICAL ISOLATION JOINT DETAIL (IJ)
SCALE 1:10

PREFERABLY JOINTS AT EDGE OF PIT WALL ON EITHER END OTHERWISE PROVIDE TRIMMER BARS AS SHOWN

2xN12 TRIMMER BARS 1600 LONG MIN. 50 COVER TOP

STORMWATER PIT OR OTHER FITTINGS

CONTROL JOINT (CJ)

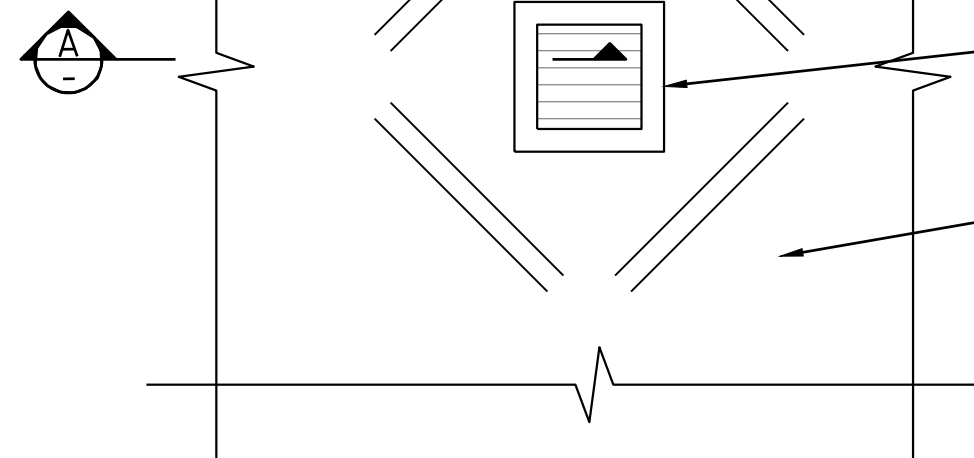


PIT LOCATED AT SLAB JOINTS
SCALE 1:50

2xN12 TRIMMER BARS 1600 LONG MIN. 50 COVER TOP

STORMWATER PIT OR OTHER FITTINGS

TYPICAL CONCRETE PAVEMENT



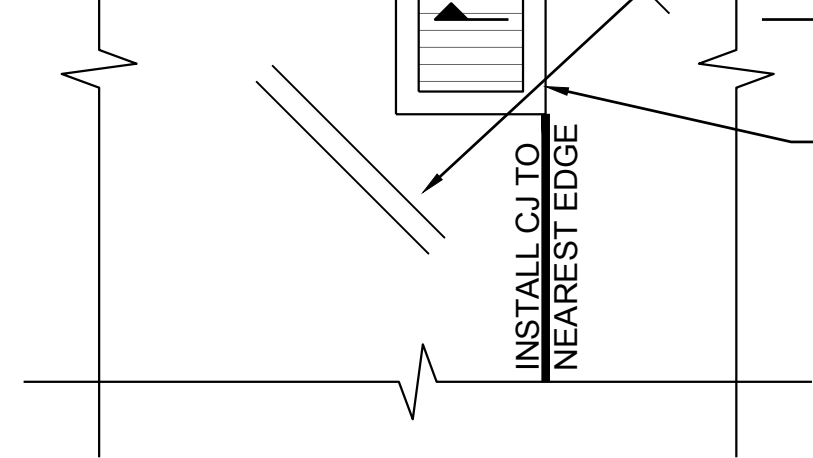
PIT LOCATED AT SLAB JOINTS
SCALE 1:50

2xN12 TRIMMER BARS 1600 LONG MIN. 50 COVER TOP

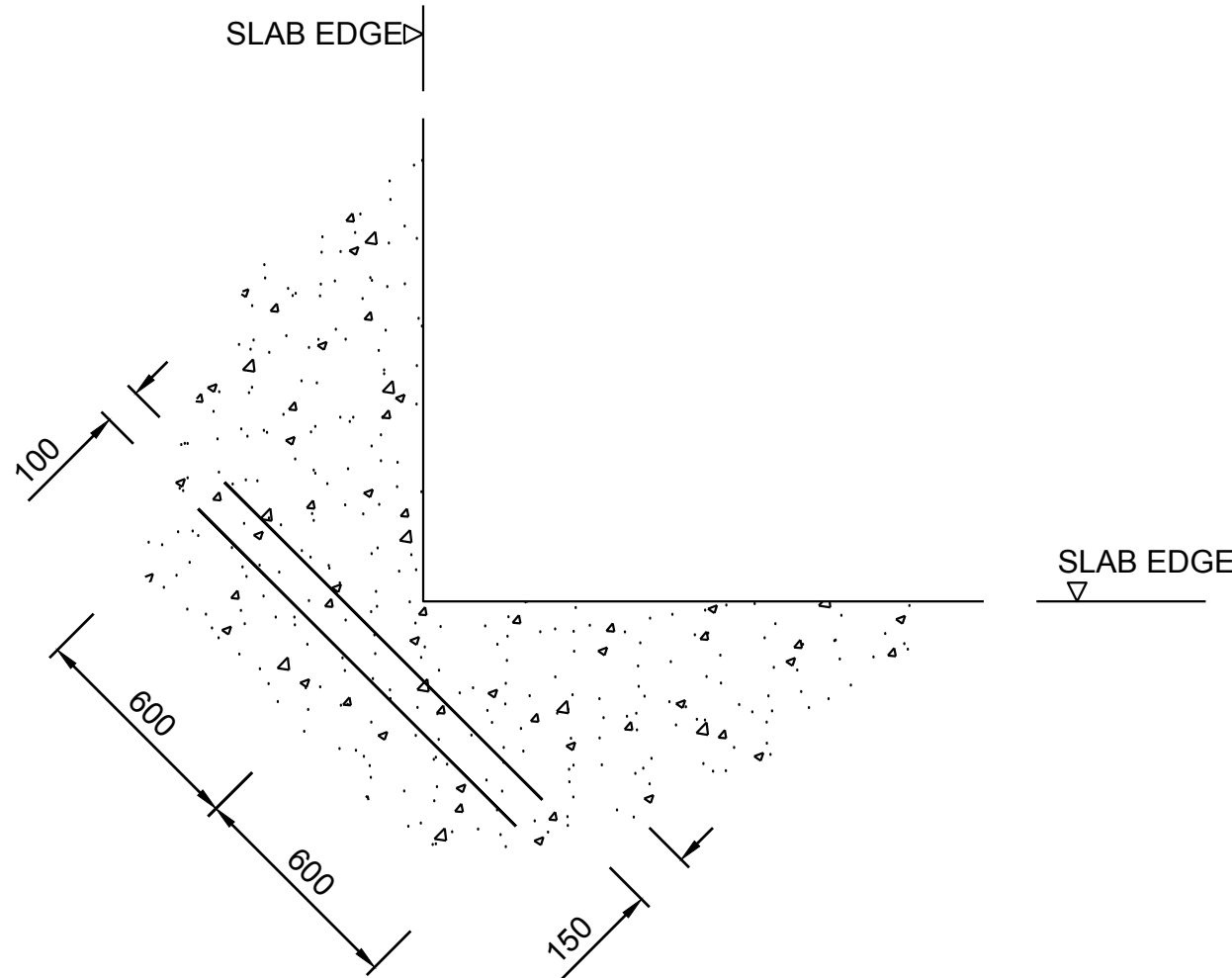
STORMWATER PIT OR OTHER FITTINGS

INSTALL CJ TO NEAREST EDGE

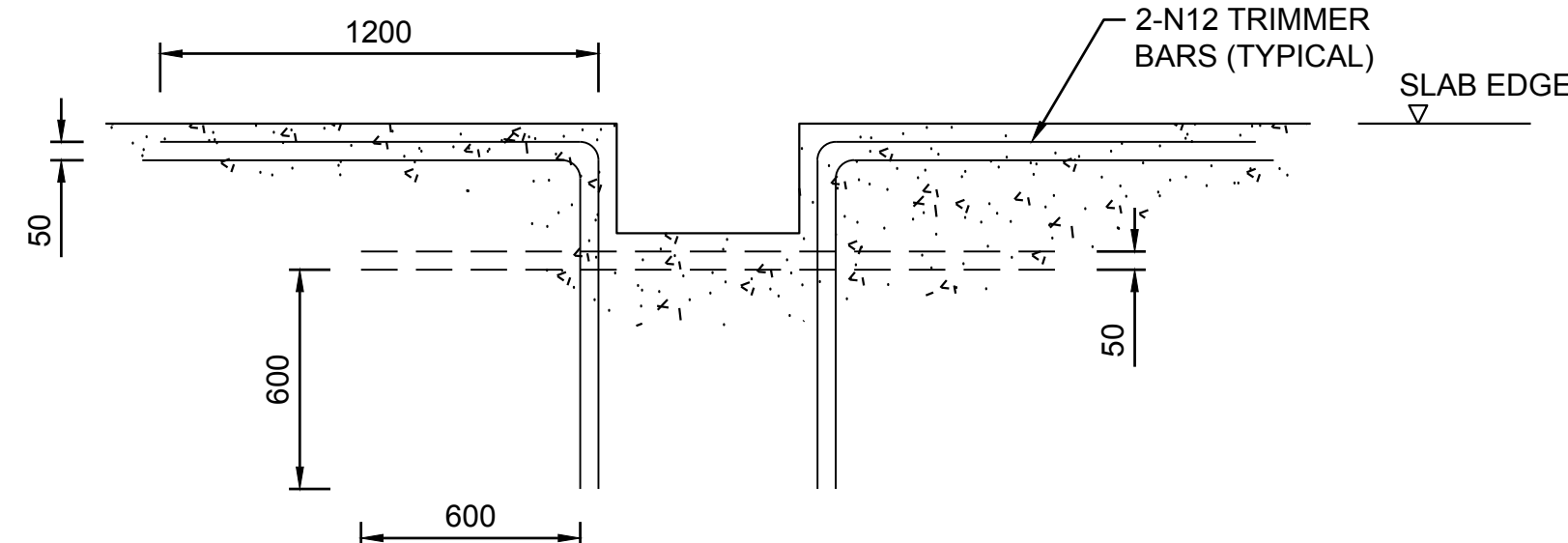
INSTALL CJ TO NEAREST EDGE



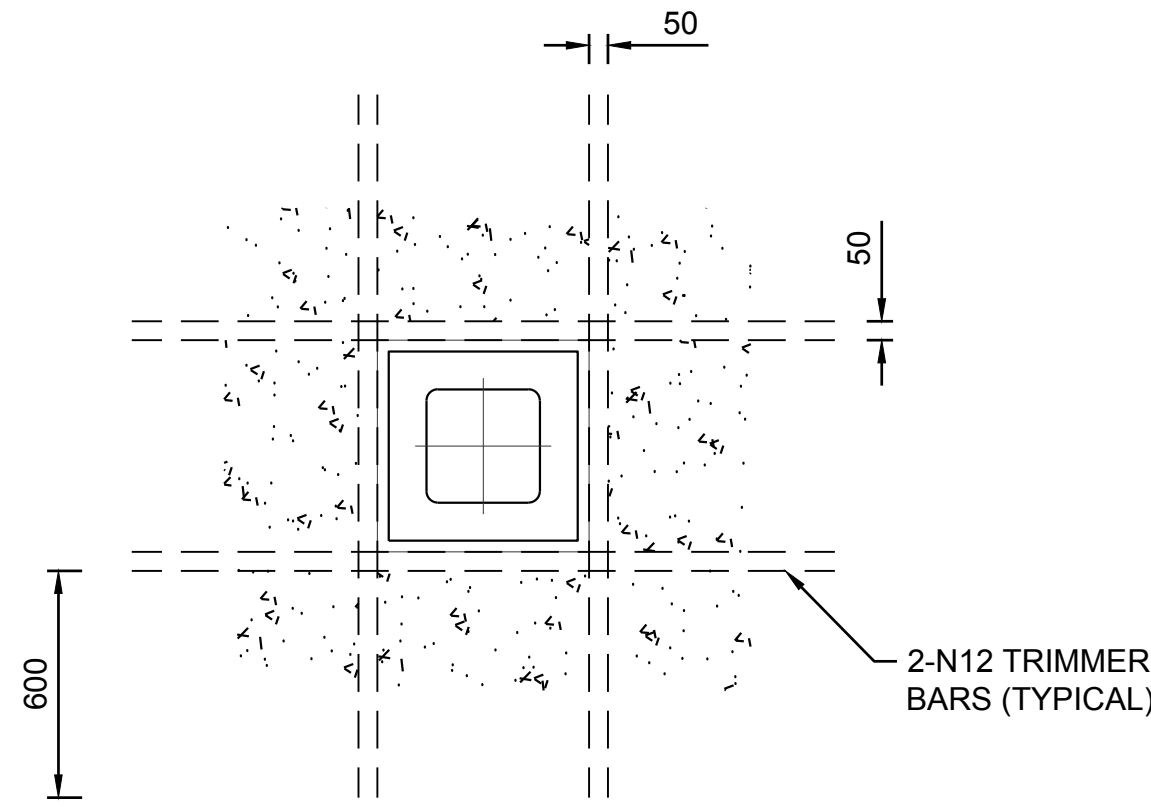
PIT LOCATED NEAR SLAB JOINTS
SCALE 1:50



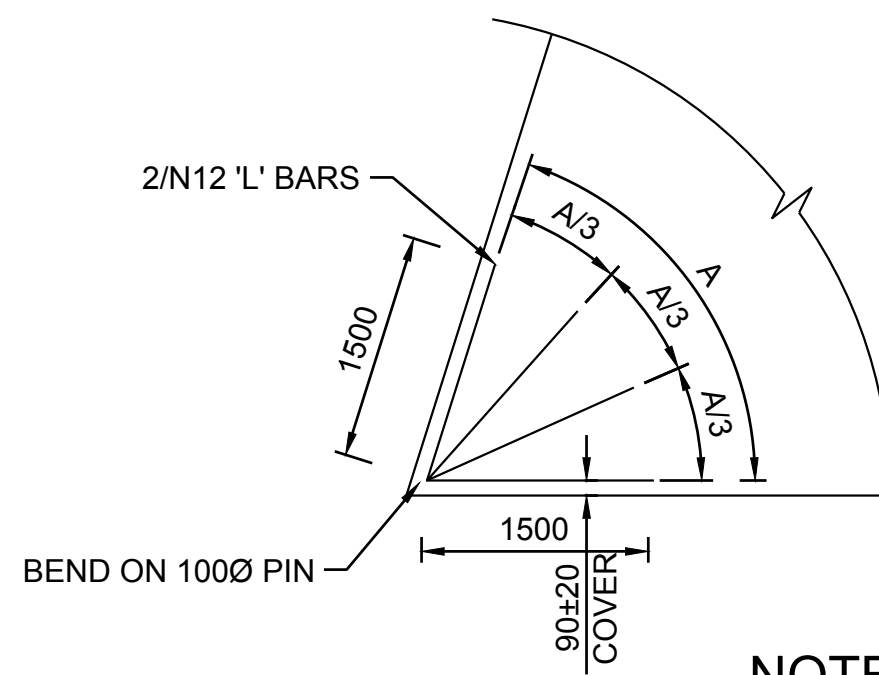
RE-ENTRANT CORNER - INTERNAL
SCALE 1:20



EDGE PENETRATION
SCALE 1:20



COLUMN
SCALE 1:20



CORNER REINFORCEMENT IN SLABS
SCALE 1:50

NOTE
BARS TO BE TIED TO UNDERSIDE OF TOP MESH

CONCRETE NOTES

1. CONCRETE MIX

THE CONCRETE SHALL HAVE A MINIMUM 28 DAY CHARACTERISTIC COMPRESSIVE STRENGTH OF 32MPa(MIN), MAXIMUM WATER/CEMENT RATIO OF 0.45 AND A MINIMUM CEMENT CONTENT OF 300kg/m³.

2. SLUMP

CONCRETE SLUMP TEST TO BE COMPLETED & SHALL NOT BE LESS THAN 75mm & NOT MORE THAN 100mm

3. AGGREGATE

MAX AGGREGATE SIZE TO BE 20mm.

4. SUBGRADE PREPARATION

THE SUBGRADE TO THE EXPOSED AGGREGATE CONCRETE PAVEMENT AREAS SHALL BE PREPARED THE SAME AS CONVENTIONAL ROADS.

5. TRAFFIC

TRAFFIC SHALL NOT BE ALLOWED ON THE FINISHED CONCRETE PAVEMENT FOR AT LEAST 14 DAYS AFTER COMPLETION OF CONSTRUCTION.

6. JOINTS

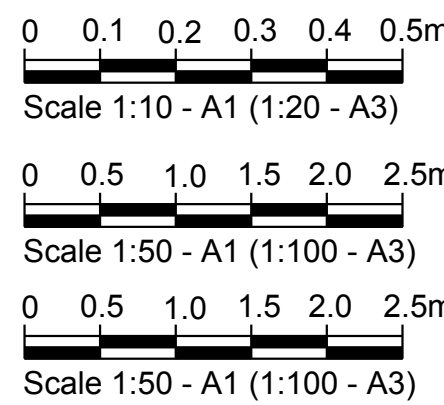
ALL CONTROL JOINTS AND KEY JOINTS SHALL BE LOCATED GENERALLY PERPENDICULAR TO CENTRELINE. ALL CONTROL JOINTS TO BE COMPLETED AS SOON AS CONCRETE HAS CURED SUFFICIENTLY SO AS NOT TO DAMAGE THE SLAB SURFACE.

7. REINFORCING

- ALL CONCRETE WORKS & REINFORCEMENT TO BE IN ACCORDANCE WITH AS3600.
- COVER TO ALL REINFORCEMENT IN ACCORDANCE WITH AS3600.
- PROVIDE BAR CHAIRS FOR ALL REINFORCING

8. GENERAL

INDUSTRIAL DRIVEWAYS TO BE CONSTRUCTED IN ACCORDANCE WITH COUNCIL STANDARD DRAWING IPWEAQ RS-051. THE GRAVEL PAVEMENT SHALL BE NEATLY PROFILED AND TRIMMED TO ENSURE CONSTANT CONCRETE DEPTHS AND PROFILES. ACTUAL CONSTRUCTION REQUIREMENTS MAY VARY FROM THE DETAILS SHOWN AND THEREFORE ALL CONSTRUCTION DETAILS SHOULD BE VERIFIED BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION COMMENCING. PROVIDE ABELFLEX BETWEEN KERB AND DRIVEWAY REINFORCEMENT TO HAVE MINIMUM COVER OF 50mm UNLESS NOTED OTHERWISE. PAVEMENT & CONCRETE DESIGN TO BE DETERMINED BY CBR VALUES AND SHALL BE IN ACCORDANCE WITH LOCAL AUTHORITY STANDARDS CONSTRUCTION JOINTS, WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER. CONCRETE TESTING TO BE IN ACCORDANCE WITH AS3600.



PROJECT	CLIENT	CONSULTANT	PROJECT DATA	REVISION	PROJECT NUMBER
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STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551

CAUSE
CONSULTING ENGINEERS

Cause Consulting Engineers Pty Ltd
A.B.N 78 649 859 174

NOT FOR CONSTRUCTION
ISSUED FOR DEVELOPMENT APPROVAL



DATUM	AHD	SURVEY	MRA-304.DET.01 A	ISSUE	DATE	DESCRIPTION
				1	15.12.2023	FIRST ISSUE
				2	15.02.2024	SECOND ISSUE
				3	17.04.2024	LAYOUT UPDATE

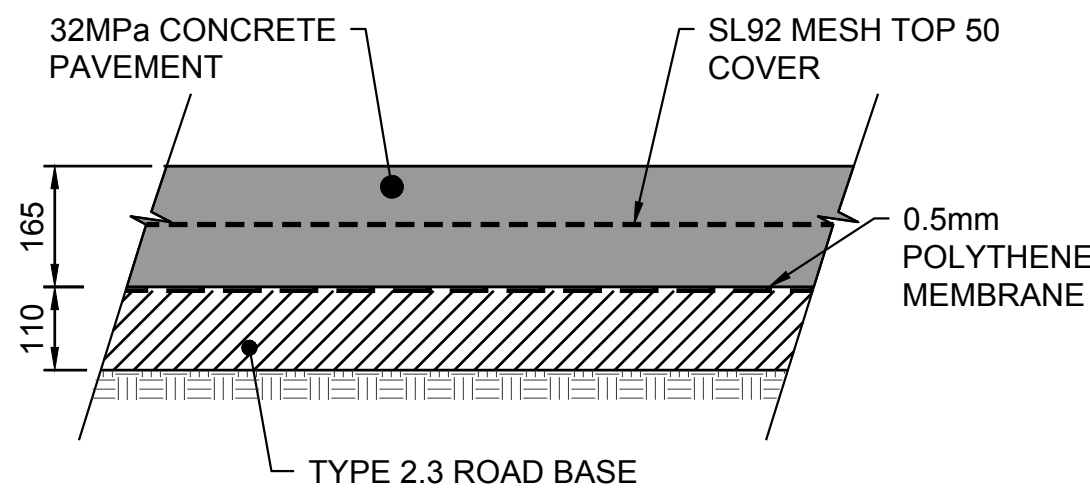
APPROVED:

[Signature]

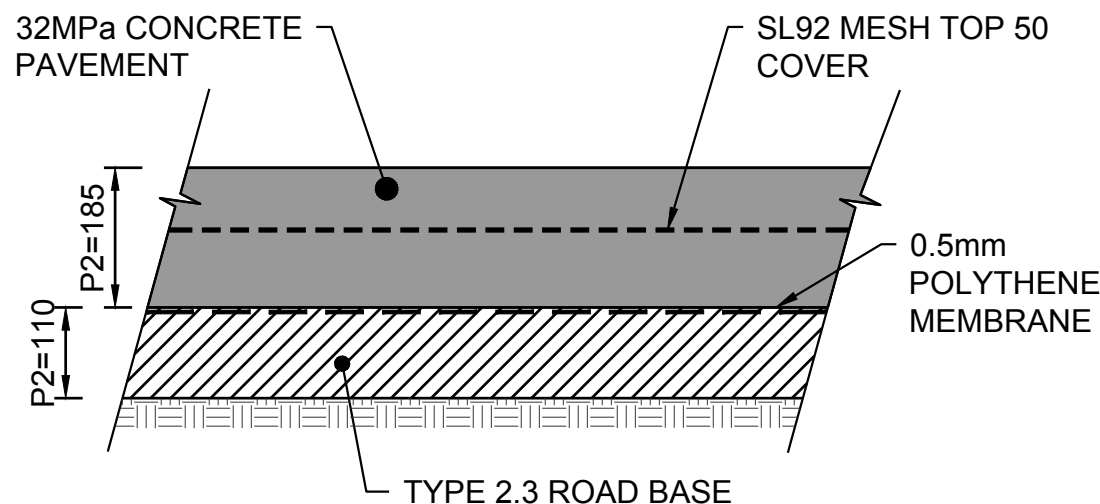
RYAN HOFMAN
BEng (Hons) CPEng CWEM RPEQ 21643

0020215
SHEET TITLE
LOT 1115 CNR STRONG & ABELES ST
CONCRETE & JOINTING DETAILS
SHEET 1 OF 2
SHEET NUMBER

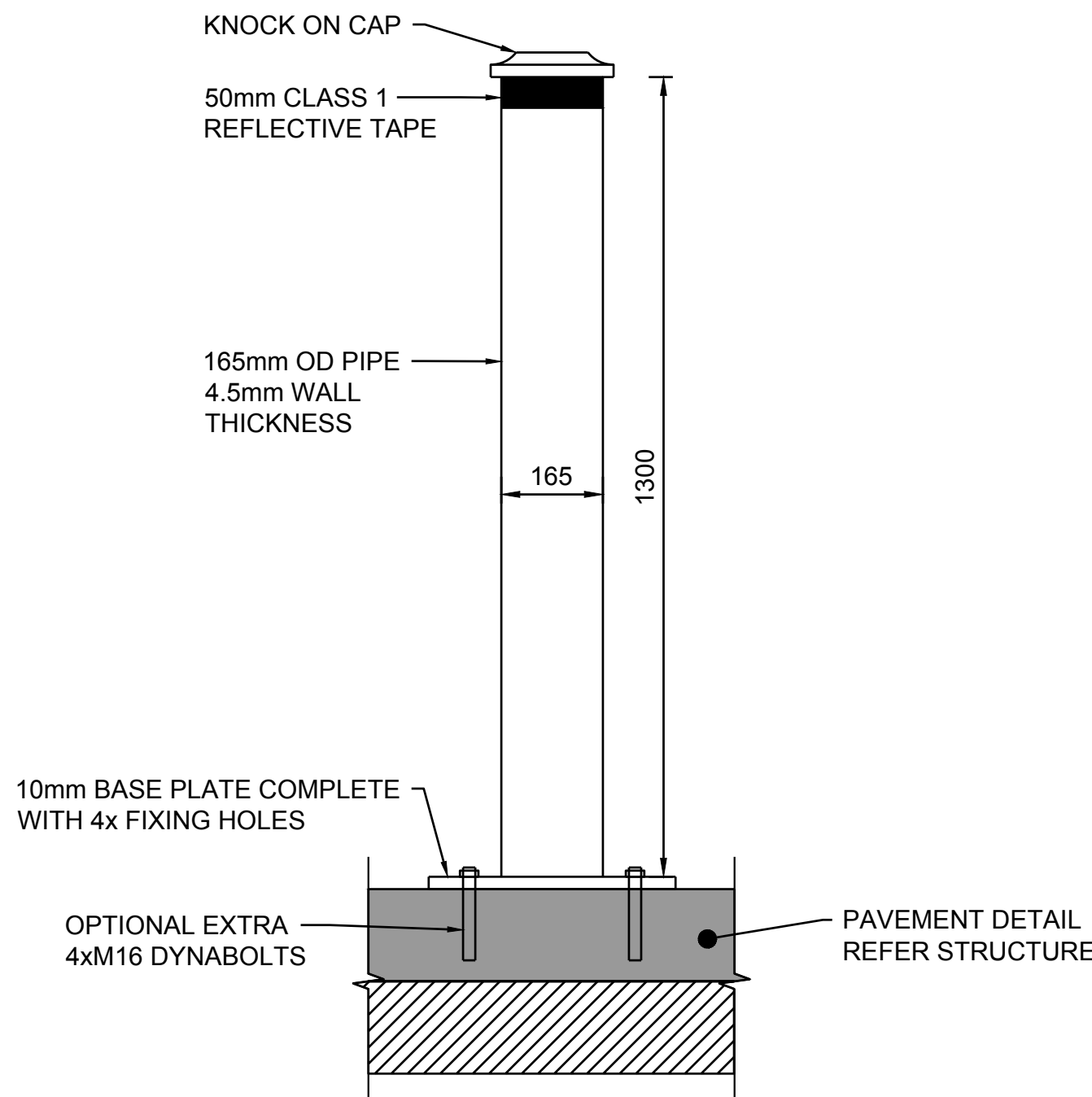
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0020215 - CCE - 00 - 00 - DR - A - C320 3



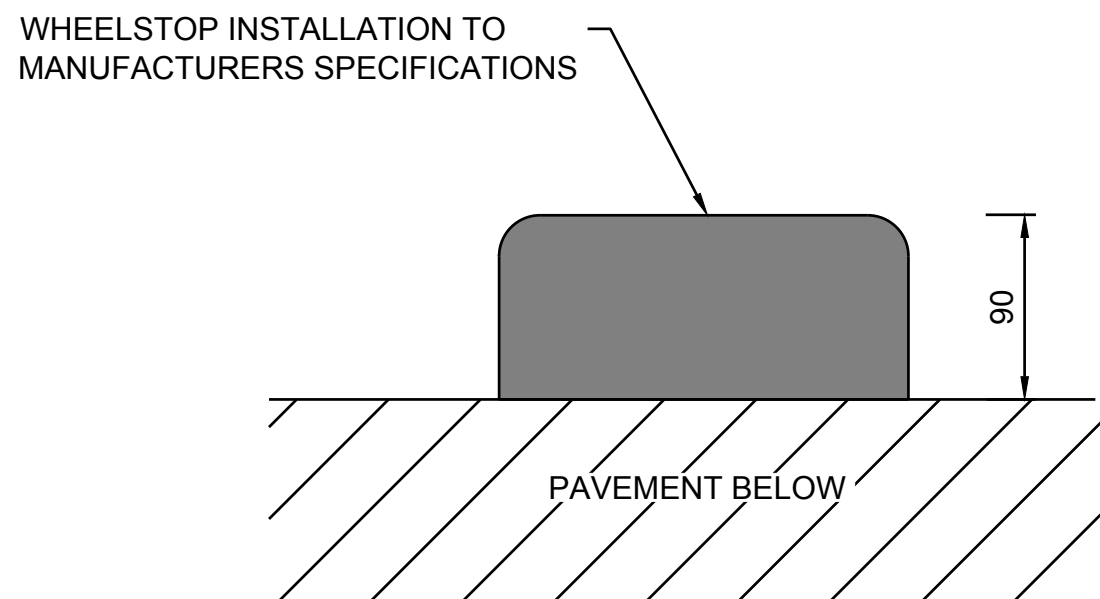
**TYPICAL LIGHT DUTY
PAVEMENT DETAIL (P1)**
(1x10⁴ ESA; DESIGN CBR 2.5%)
SCALE 1:10



**TYPICAL MEDIUM DUTY
PAVEMENT DETAIL (P2)**
P2 (5x10⁶ ESA; DESIGN CBR 2.5%)
SCALE 1:10



BOLLARD DETAIL
SCALE 1:10



90mm WHEEL STOP DETAIL
SCALE 1:10

1. WHEEL STOP TO BE A MINIMUM WIDTH 1650mm + 50mm
2. REFER TO PLANS FOR OFFSET DISTANCE
3. REFER MANUFACTURERS SPECIFICATIONS FOR CONSTRUCTION AND INSTALLATION DETAILS



PROJECT
STRONG & ABELES ST
BARINGA
QLD 4551

CLIENT
CHP GROUP

CONSULTANT

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PROJECT DATA

DATUM AHD SURVEY MRA-304.DET.01 A

APPROVED:

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REVISION

ISSUE	DATE	DESCRIPTION
1	15.12.2023	FIRST ISSUE
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3	17.04.2024	LAYOUT UPDATE

PROJECT NUMBER

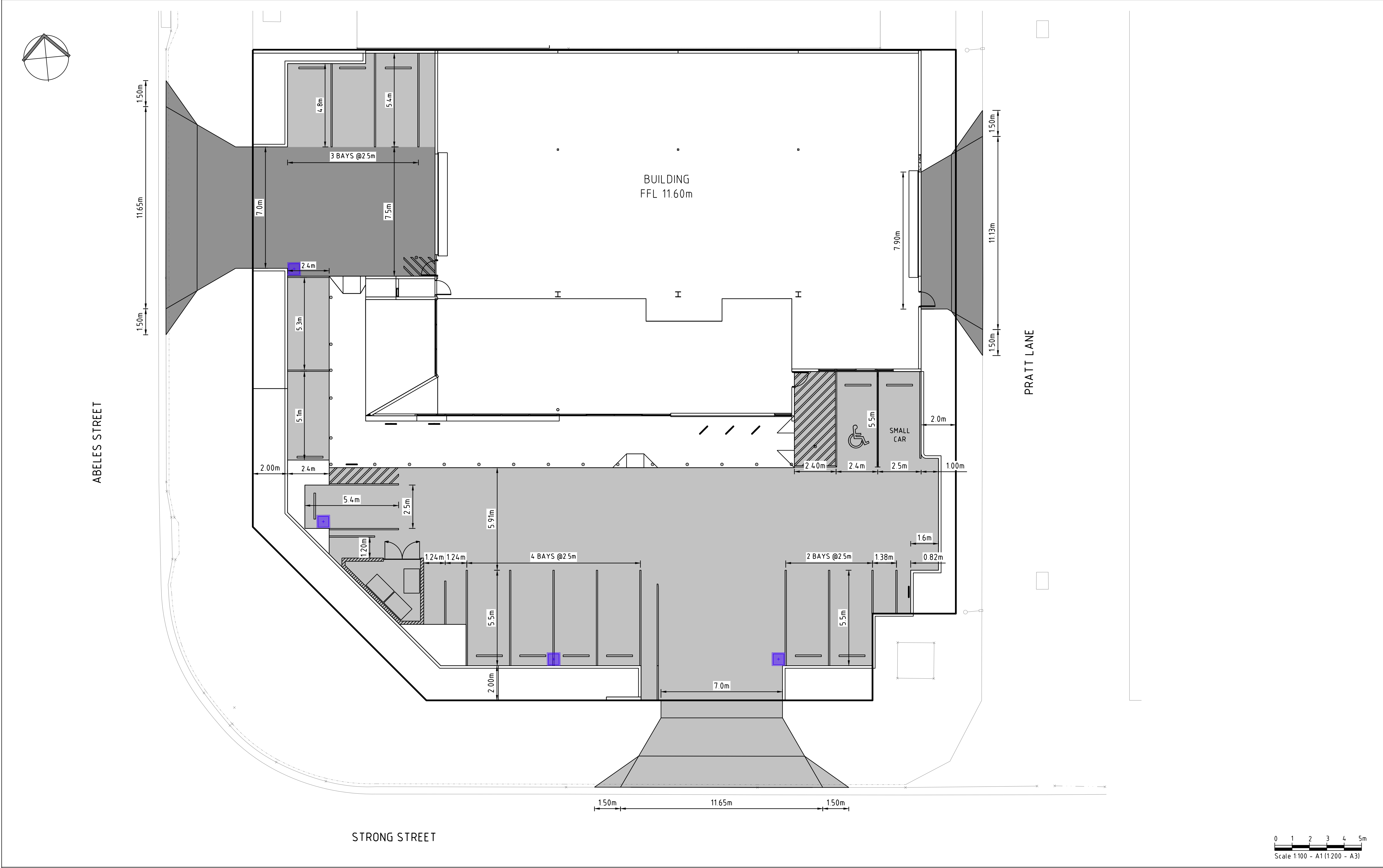
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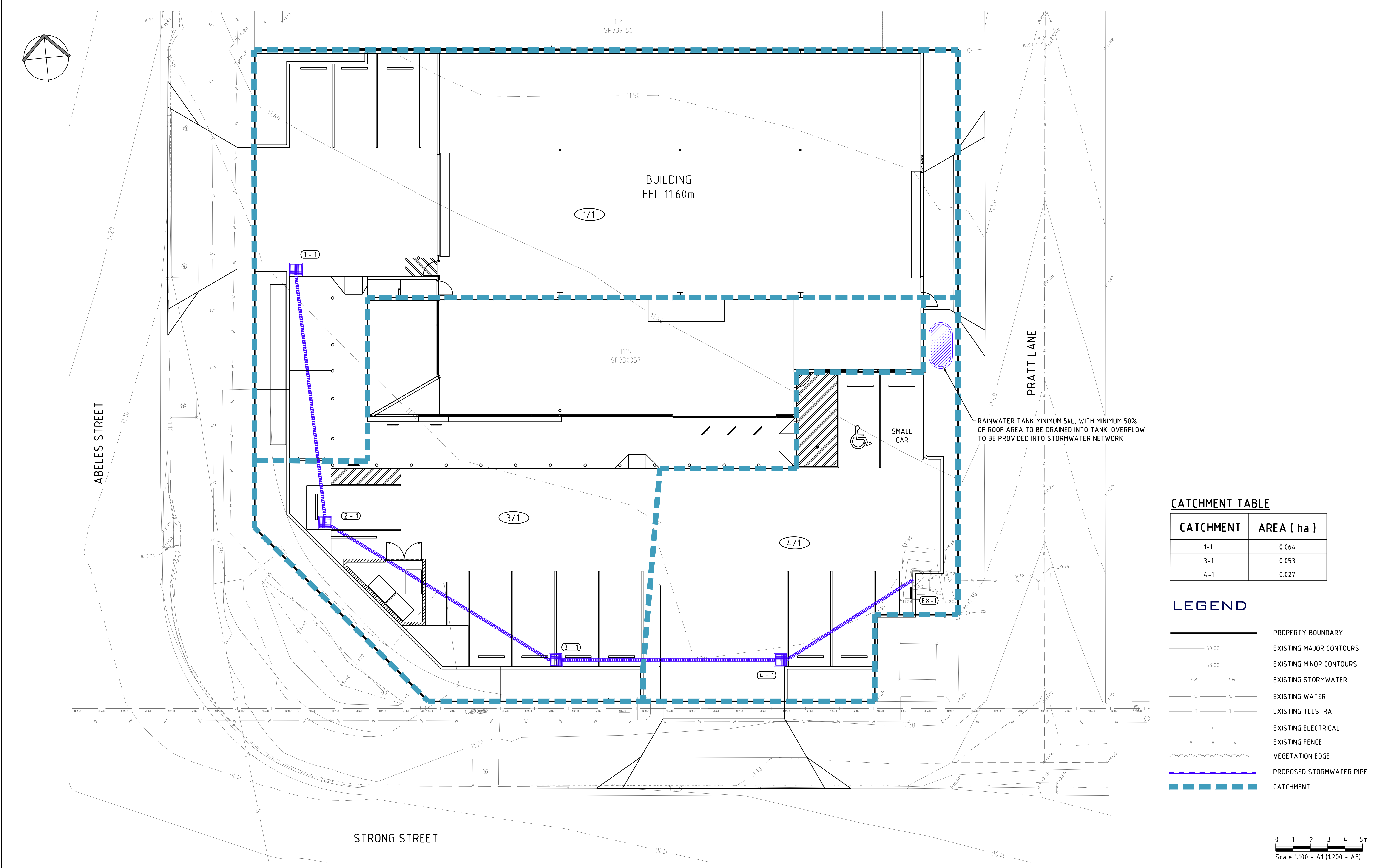
SHEET TITLE

LOT 1115 CNR STRONG & ABELES ST
CONCRETE & JOINTING DETAILS
SHEET 2 OF 2

SHEET NUMBER

PROJ. ORIGIN VOL. LOC. TYPE ROL. NUMBER REVISION
0020215 - CCE - 00 - 00 - DR - A - C321 3





CATCHMENT TABLE

CATCHMENT	AREA (ha)
1-1	0.064
3-1	0.053
4-1	0.027

LEGEND

- PROPERTY BOUNDARY
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- EXISTING STORMWATER
- EXISTING WATER
- EXISTING TELSTRA
- EXISTING ELECTRICAL
- EXISTING FENCE
- VEGETATION EDGE
- PROPOSED STORMWATER PIPE
- CATCHMENT

NOT FOR CONSTRUCTION
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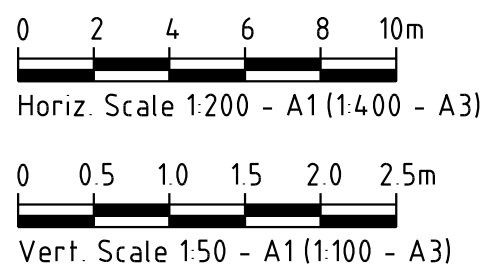
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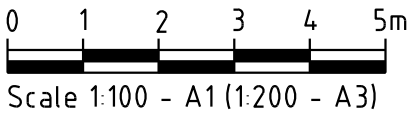
ISSUE	DATE	DESCRIPTION
1	15.12.2023	FIRST ISSUE
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3	17.04.2024	LAYOUT UPDATE

PROJ:	ORIGIN	VOL	LOC	TYPE	ROL	NUMBER	REVISION
0020215 - CCE - 00 - 00 - DR - A - C410							3

STRUCTURE NAME	1/1	2/1	3/1	4/1	EX/1
STRUCTURE DESCRIPTION	OCEANGUARD PIT 600x600 CLASS D	OCEANGUARD PIT 600x600 CLASS D	OCEANGUARD PIT 600x600 CLASS D	OCEANGUARD PIT 600x600 CLASS D	EXISTING PIT
PIPE SIZE (mm)	300	300	300	300	
PIPE CLASS	PVC	PVC	PVC	PVC	
PIPE GRADE (%)	0.50%	0.50%	0.50%	0.50%	
PIPE SLOPE (1 in X)	200.00	200.00	200.00	200.00	
FULL PIPE VELOCITY (m/s)	0.51	0.51	0.92	1.13	
PART FULL VELOCITY (m/s)	1.19	1.19	1.37	1.42	
DATUM RL 4.0					
PIPE FLOW (Cumecs)	0.036	0.036	0.065	0.080	
W.S.E. IN STRUCTURE	11.001	10.800	10.776	10.647	10.439
HYDRAULIC GRADE LEVEL	10.872	10.800 10.789	10.776 10.682	10.647 10.564	10.439 10.230
DEPTH TO INVERT	0.775	0.950 0.980	0.861 0.891	0.926 0.956	0.879 0.973
INVERT LEVEL OF DRAIN	10.572	10.496 10.466	10.389 10.359	10.294 10.264	10.218 10.218
DESIGN SURFACE LEVEL	11.347	11.446	11.250	11.220	11.098
SETOUT COORDINATES	E507006.624 N7035239.754	E507007.446 N7035224.640	E507019.835 N7035215.426	E507032.815 N7035214.151	E507041.056 N7035208.444
CHAINAGE	0.000 15.136	15.136 15.440	30.576 13.043	43.619 9.144	52.763

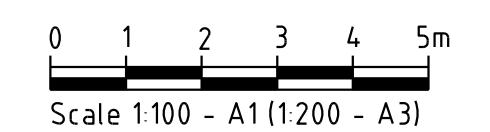


0		SUB-CATCHMENT RUNOFF									INLET DESIGN						DRAIN DESIGN										HEAD LOSSES										PART FULL		DESIGN LEVELS										
STRUCTURE No.	DRAIN SECTION	STORM EVENT	ARI EVENT	Tc	I	A	CA	Qc	Qa				Qg	Qb		Tc	I	CA	Qrat	Q	L	S			Vf=Q/A	Qcap	Vcap	Vt		Vf²/2g	Ku	hu	Kw	hw	Sf	hf	dn	Vn											
				min	mm/h		ha	ha	L/s	L/s			%			L/s	L/s		min	mm/hr	ha	L/s	L/s	m	%	mm		m/s	L/s	m/s	m/s		m		m		m	%	m	m	m/s	m	m	m	m	m	m	m	m
1/1	A	Minor	10	5	226	0.9	0.06	0.058	36	36		SF2		36	0		5	226	0.058	36	36	15.136	0.5	300	PVC	0.51	89	1.26	2	G2	0.013	9.7	0.129		0.129	0.48	0.072	0.133	1.19	10.572	10.496	10.872	10.8	11.001	11.25	1/1			
	A	Major	100	5	340	1	0.06	0.064	60	60		SF2		60	0		5	340	0.064	60	60	15.136	0.5	300	PVC	0.85	89	1.26	2	G2	0.009	5.91	0.054		0.054	0.06	0.009	0.181	1.35	10.572	10.496	11.196	11.188	11.25	11.25				
2/1	A	Minor	10	0	0		0	0	0	0		SF2		0	0		5.13	225	0.058	36	36	15.44	0.5	300	PVC	0.51	89	1.26	2	T4/T8	0.013	0.8	0.011	0.83	0.011	0.08	0.013	0.133	1.19	10.466	10.389	10.789	10.776	10.8	11.446	2/1			
	A	Major	100	0	0		0	0	0	0		SF2		0	0		5.13	337	0.064	60	60	15.44	0.5	300	PVC	0.85	89	1.26	2	T4/T8	0.037	0.75	0.028	0.77	0.028	0.23	0.035	0.18	1.35	10.466	10.389	11.16	11.125	11.188	11.446				
3/1	A	Minor	10	5	226	0.9	0.05	0.048	30	30		SF2		30	0		5.25	223	0.105	65	65	13.043	0.5	300	PVC	0.92	89	1.26	2	T2/T4	0.044	2.16	0.094		0.094	0.27	0.035	0.191	1.37	10.359	10.294	10.682	10.647	10.776	11.25	3/1			
	A	Major	100	5	340	1	0.05	0.053	50	50		SF2		50	0		5.25	335	0.117	109	109	13.043	0.5	300	PVC	1.54	89	1.26	2	T2/T4	0.121	1.63	0.198		0.198	0.75	0.098	0.3	1.54	10.359	10.294	10.927	10.829	11.125	11.25				
4/1	A	Minor	10	5	226	0.9	0.03	0.025	15	15		SF2		15	0		5.36	222	0.13	80	80	9.144	0.5	300	PVC	1.13	89	1.26	2	T2/T4	0.066	1.26	0.083		0.083	1.37	0.085	0.223	1.42	10.264	10.218	10.564	10.439	10.647	11.25	4/1			
	A	Major	100	5	340	1	0.03	0.027	26	26		SF2		26	0		5.36	333	0.145	134	134	9.144	0.5	300	PVC	1.89	89	1.26	2	T2/T4	0.182	1.14	0.208		0.208	1.13	0.103	0.3	1.89	10.264	10.218	10.621	10.518	10.829	11.25				
EX/1		Minor	10									SF2																																10.439	11.098	EX/1			
		Major	100									SF2																																	10.518	11.098			





-
- Diagram illustrating a property boundary and its associated features:
- 60.00
 - 58.00
 - SW
 - W
 - T
 - E
 - VEGETATION EDGE
 - PROPOSED STORMWATER PIPE
 - EXISTING SEWER HOUSE CONNECTION
 - PROPERTY TELECOMS CONNECTION



PROJECT	CLIENT	CONSULTANT
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STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551

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PROJECT DATA

DATUM	AHD	SURVEY	MRA-304.DET_01 A	ISSUE	DATE	DESCRIPTION
				1	15.12.2023	FIRST ISSUE
				2	15.02.2024	SECOND ISSUE
				3	17.04.2024	LAYOUT UPDATE

APPROVED:



RYAN HOFMAN
BEng (Hons) CPEng CWEM RPEQ 21643

REVISION

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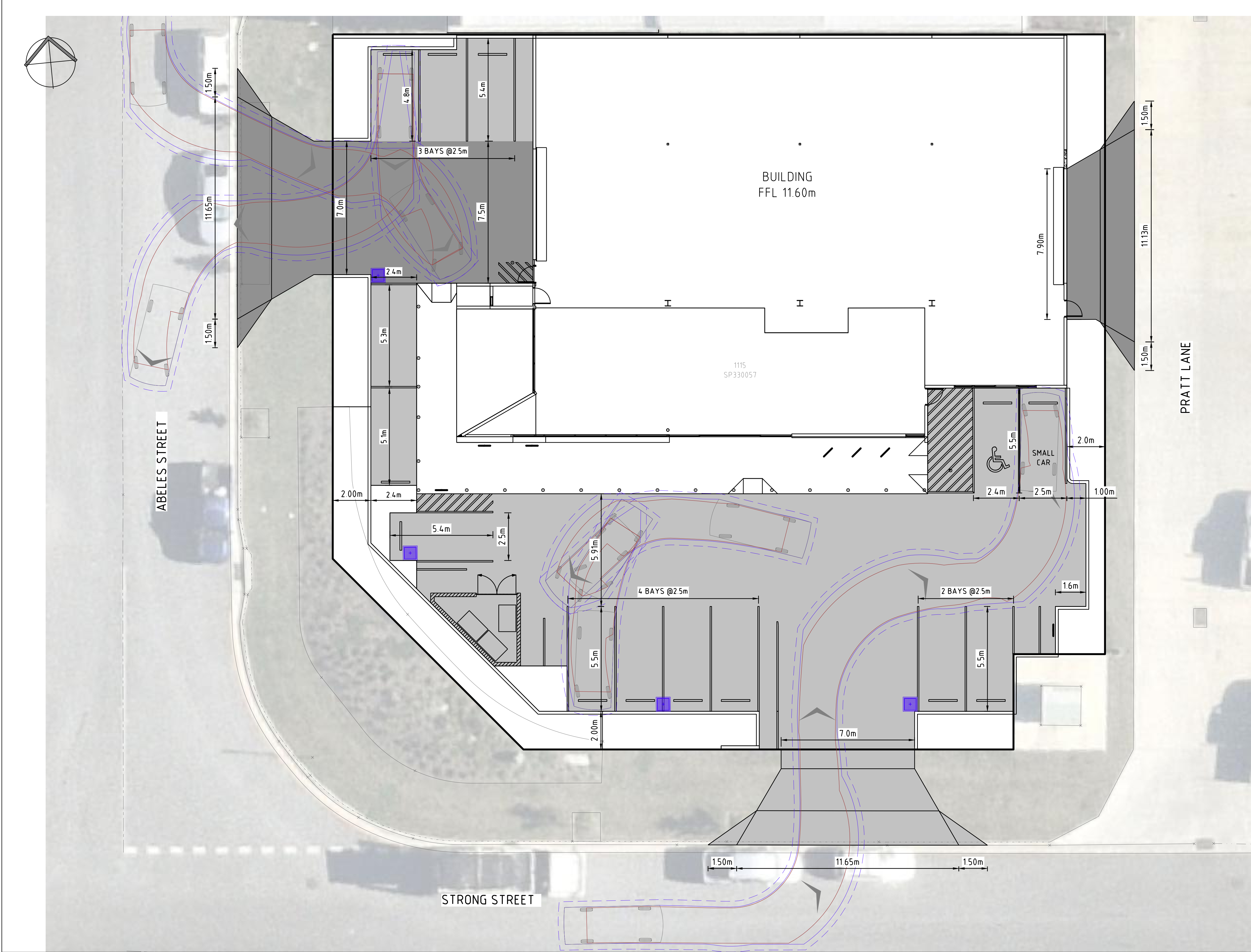
PROJECT NUMBER

SHEET TITLE

LOT 1115 CNR STRONG & ABELES ST
SERVICES LAYOUT PLAN

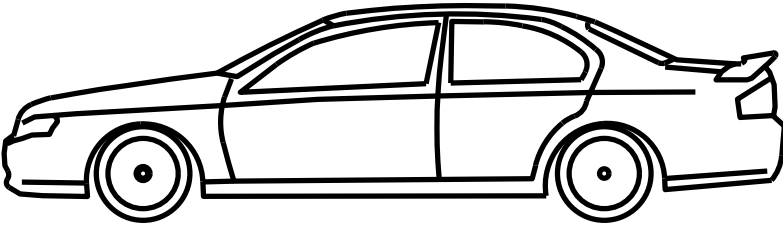
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PROJ:	ORIGIN	VOL	LOC	TYPE	ROL	NUMBER	REVISION
0020215 - CCE - 00 - 00 - DR - A - C600							3



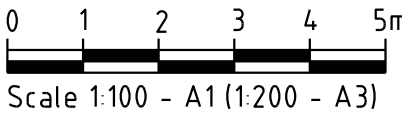
LEGEND:

- WHEEL PATH
- VEHICLE BODY ENVELOPE
- 0.3m OVERHANG



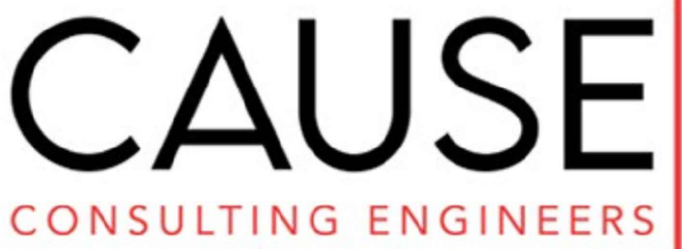
B99 VEHICLE (REALISTIC MIN RADIUS) (2004)

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m



PROJECT CLIENT CONSULTANT

STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551



Cause Consulting Engineers Pty Ltd
A.B.N 78 649 859 174

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PROJECT DATA

DATUM	AHD	SURVEY	MRA-304.DET.01 A
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REVISION

ISSUE	DATE	DESCRIPTION
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3	17.04.2024	LAYOUT UPDATE

PROJECT NUMBER

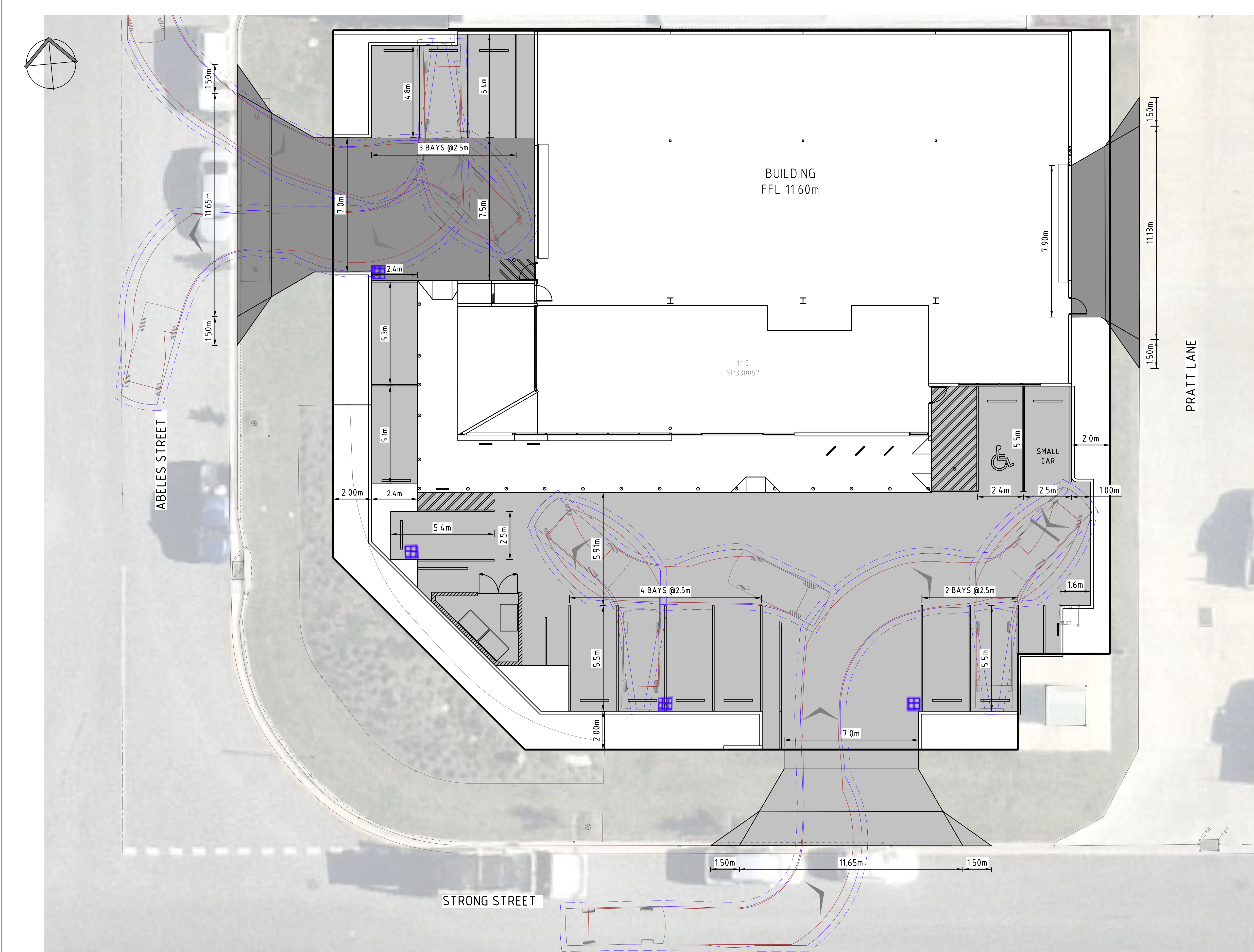
0020215

SHEET TITLE

LOT 1115 CNR STRONG & ABELES ST
VEHICLE SWEEP PATH PLAN
SHEET 1 OF 11

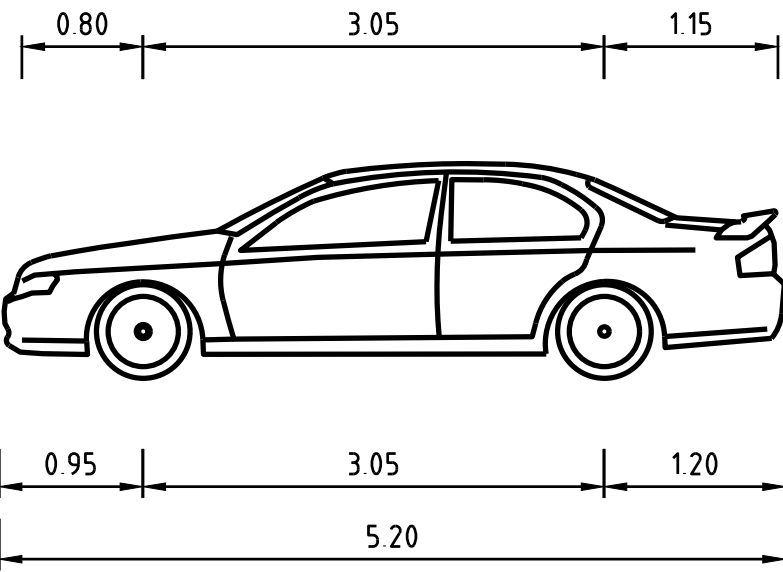
SHEET NUMBER

PROJ: 0020215 - CCE - 00 - 00 - DR - A - C700
ORIGIN VOL LOC TYPE ROL NUMBER REVISION
3



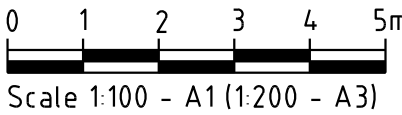
LEGEND:

- WHEEL PATH
- VEHICLE BODY ENVELOPE
- 0.3m OVERHANG



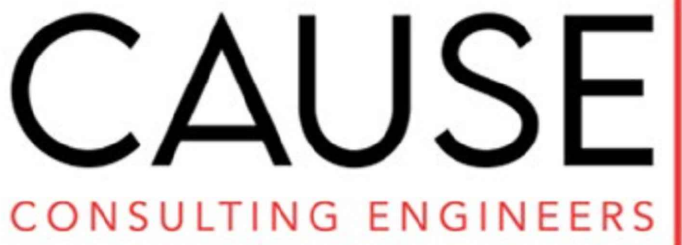
B99 VEHICLE (REALISTIC MIN RADIUS) (2004)

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m



PROJECT	CLIENT	CONSULTANT	PROJECT DATA	REVISION	PROJECT NUMBER
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STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551



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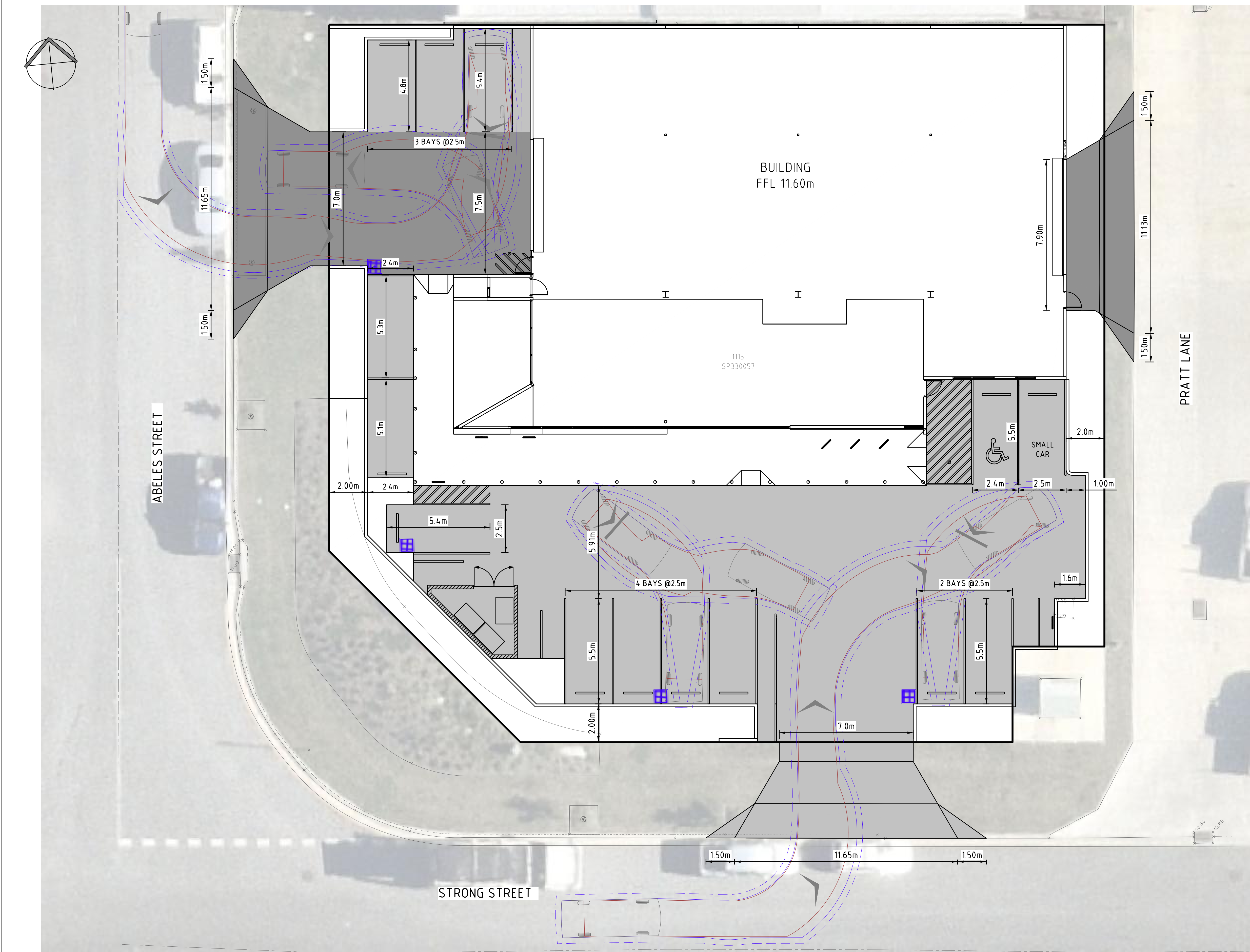


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APPROVED:

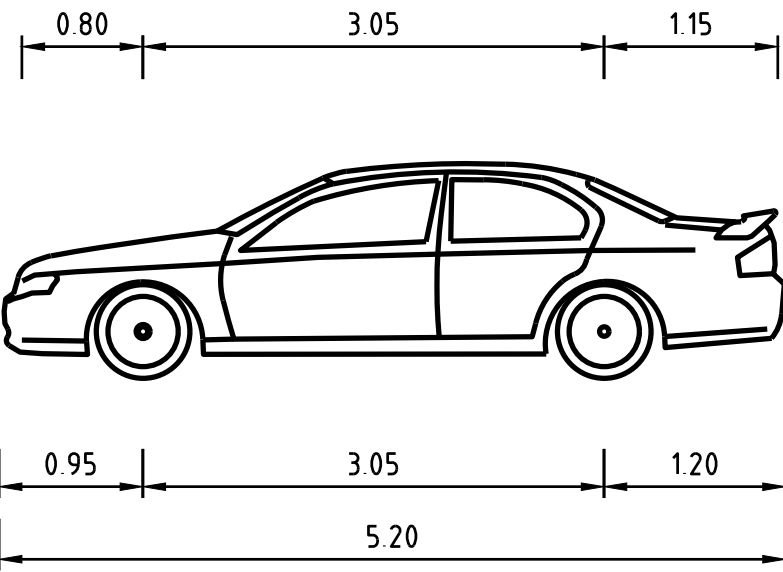
RYAN HOFMAN
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PROJECT NUMBER	0020215
SHEET TITLE	LOT 1115 CNR STRONG & ABELES ST VEHICLE SWEEP PATH PLAN SHEET 2 OF 11
SHEET NUMBER	
PROJ. ORIGIN VOL. LOC. TYPE ROL. NUMBER REVISION	
0020215 - CCE - 00 - 00 - DR - A - C701	3



LEGEND:

- WHEEL PATH
- VEHICLE BODY ENVELOPE
- 0.3m OVERHANG



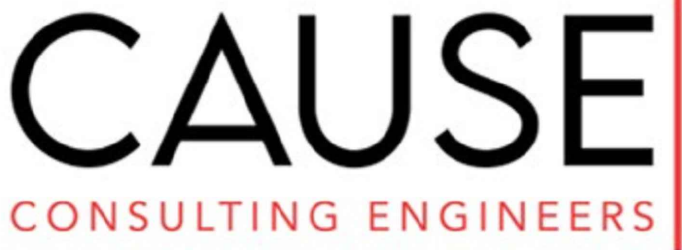
B99 VEHICLE (REALISTIC MIN RADIUS) (2004)

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m



PROJECT	CLIENT	CONSULTANT	PROJECT DATA	REVISION	PROJECT NUMBER
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STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551



Cause Consulting Engineers Pty Ltd
A.B.N 78 649 859 174

NOT FOR CONSTRUCTION
ISSUED FOR DEVELOPMENT APPROVAL

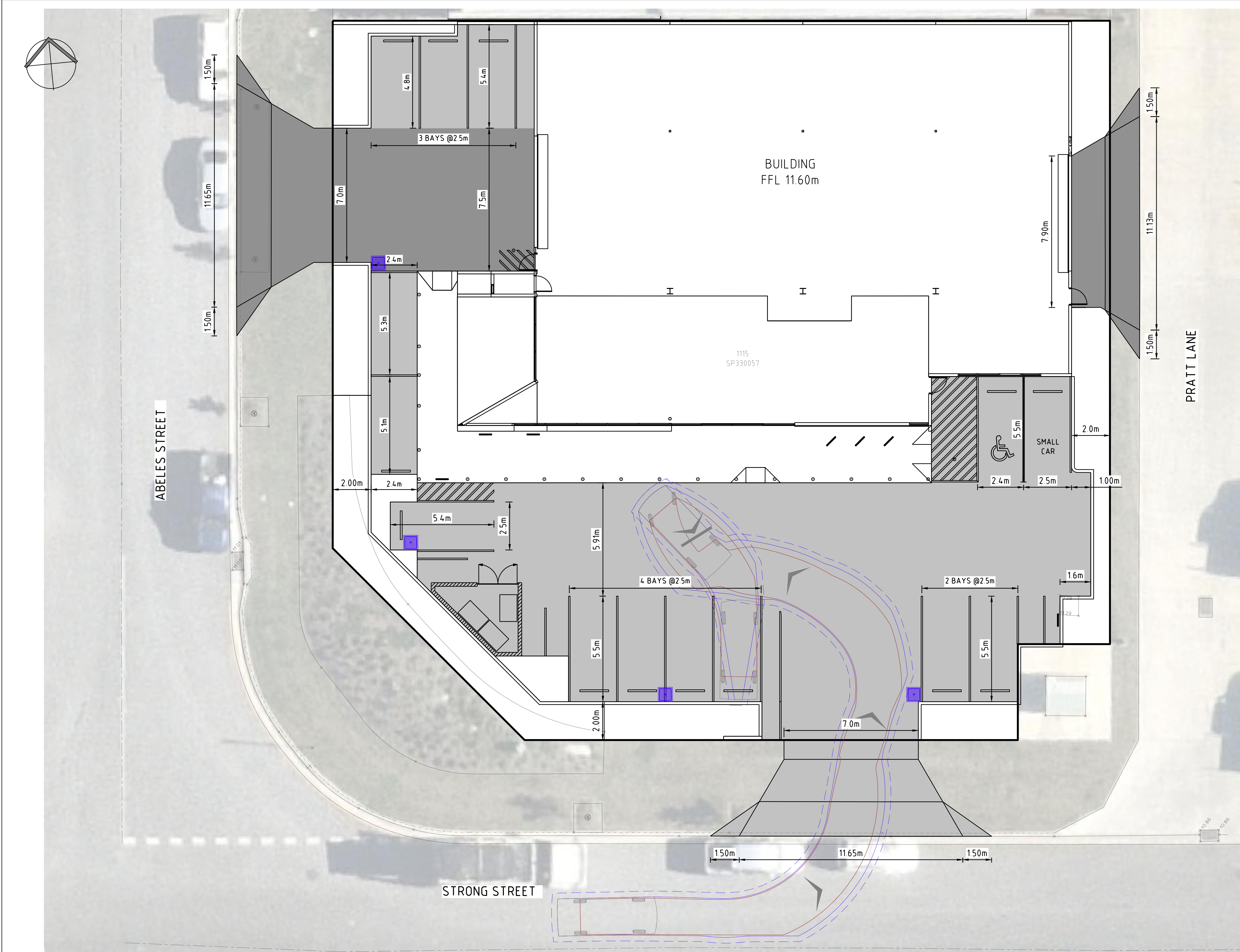


DATUM	AHD	SURVEY	MRA-304.DET.01 A	ISSUE	DATE	DESCRIPTION
				1	15.12.2023	FIRST ISSUE
				2	15.02.2024	SECOND ISSUE
				3	17.04.2024	LAYOUT UPDATE

APPROVED:

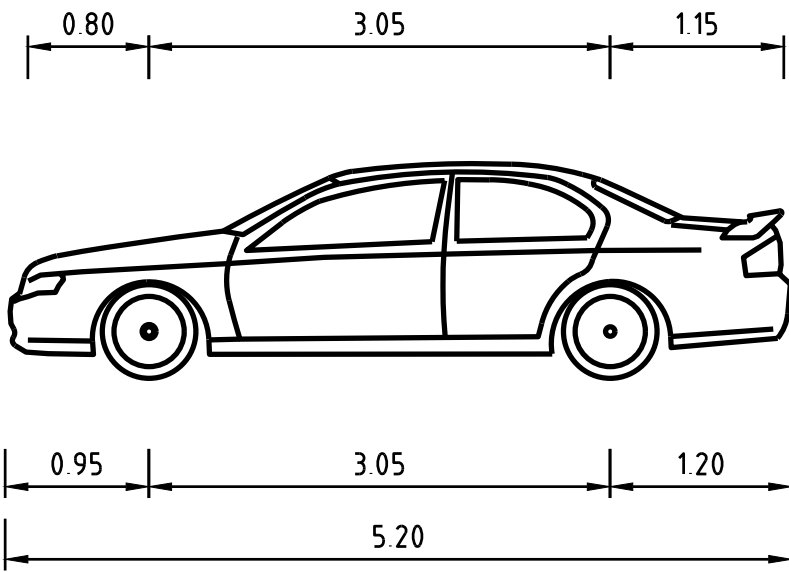
RYAN HOFMAN
BEng (Hons) CPEng CWEM RPEQ 21643

PROJECT NUMBER	0020215
SHEET TITLE	LOT 1115 CNR STRONG & ABELES ST VEHICLE SWEEP PATH PLAN SHEET 3 OF 11
SHEET NUMBER	
PROJ. ORIGIN VOL. LOC. TYPE ROL. NUMBER REVISION	
0020215 - CCE - 00 - 00 - DR - A - C702	3



LEGEND:

- WHEEL PATH
- VEHICLE BODY ENVELOPE
- 0.3m OVERHANG



B99 VEHICLE (REALISTIC MIN RADIUS) (2004)

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m



PROJECT
STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551

CLIENT

CONSULTANT

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PROJECT DATA

DATUM	AHD	SURVEY	MRA-304.DET.01 A
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REVISION

ISSUE	DATE	DESCRIPTION
1	15.12.2023	FIRST ISSUE
2	15.02.2024	SECOND ISSUE
3	17.04.2024	LAYOUT UPDATE

PROJECT NUMBER

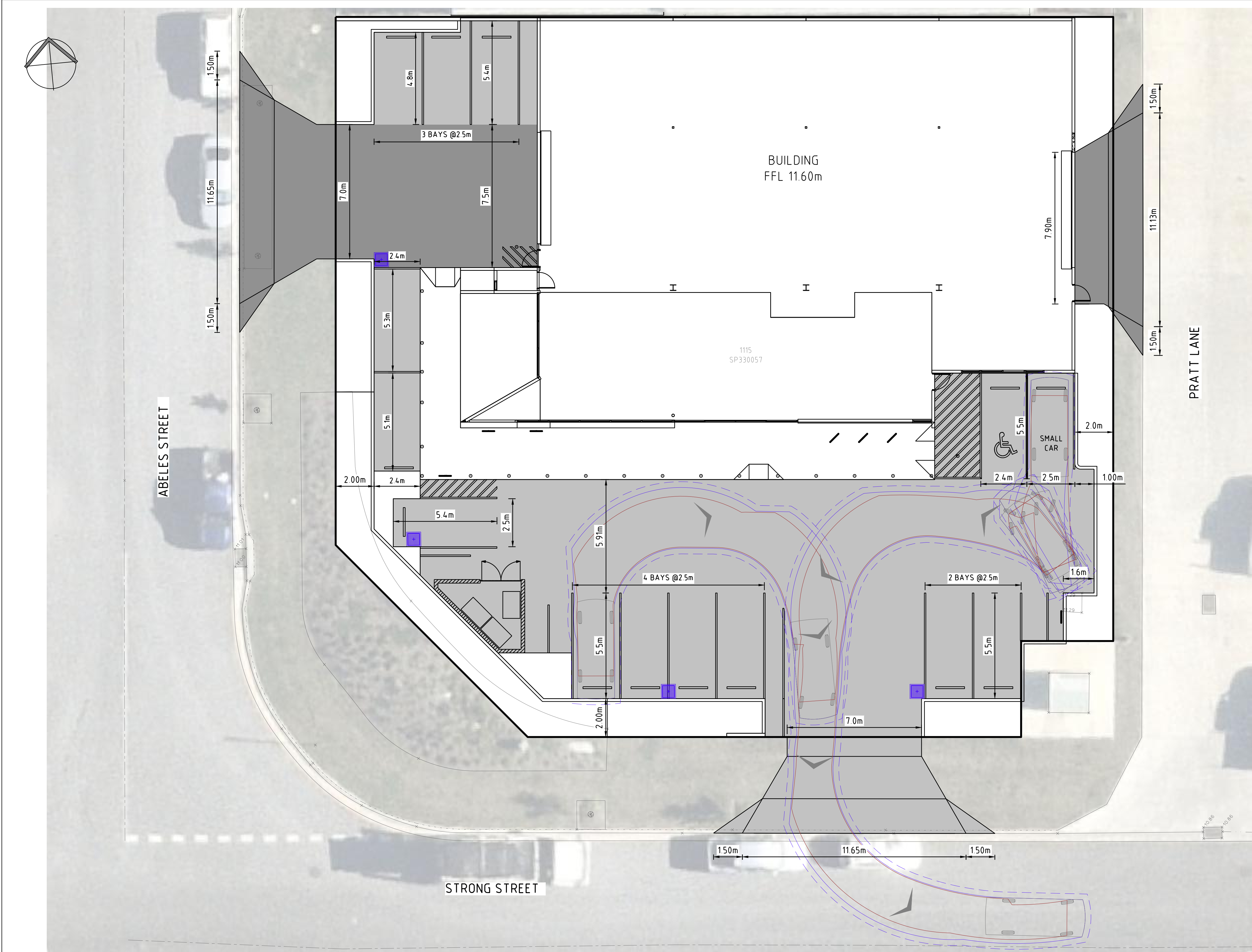
0020215

SHEET TITLE

LOT 1115 CNR STRONG & ABELES ST
VEHICLE SWEEP PATH PLAN
SHEET 4 OF 11

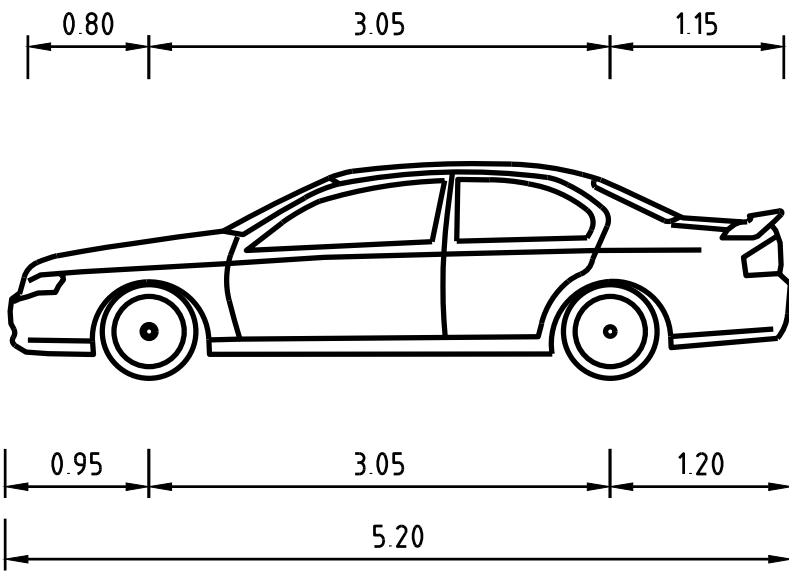
SHEET NUMBER

PROJ: 0020215 - CCE - 00 - 00 - DR - A - C703
ORIGIN: VDL LOC: 2 TYPE: RDL NUMBER: 3 REVISION: 3



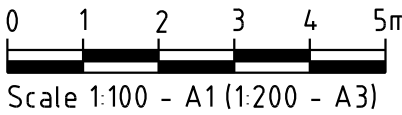
LEGEND:

- WHEEL PATH
- VEHICLE BODY ENVELOPE
- 0.3m OVERHANG



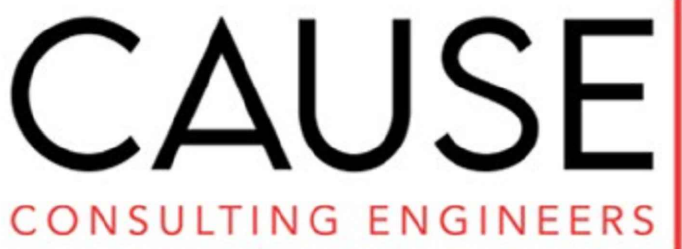
B99 VEHICLE (REALISTIC MIN RADIUS) (2004)

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m



PROJECT	CLIENT	CONSULTANT	PROJECT DATA	REVISION	PROJECT NUMBER
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STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551



Cause Consulting Engineers Pty Ltd
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DATUM	AHD	SURVEY	MRA-304.DET.01 A	ISSUE	DATE	DESCRIPTION
				1	15.12.2023	FIRST ISSUE
				2	15.02.2024	SECOND ISSUE
				3	17.04.2024	LAYOUT UPDATE

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0020215
SHEET TITLE
LOT 1115 CNR STRONG & ABELES ST
VEHICLE SWEEP PATH PLAN
SHEET 5 OF 11
SHEET NUMBER
PROJ: ORIGIN VOL LOC TYPE ROL NUMBER REVISION
0020215 - CCE - 00 - 00 - DR - A - C704 3



1115
SP330057

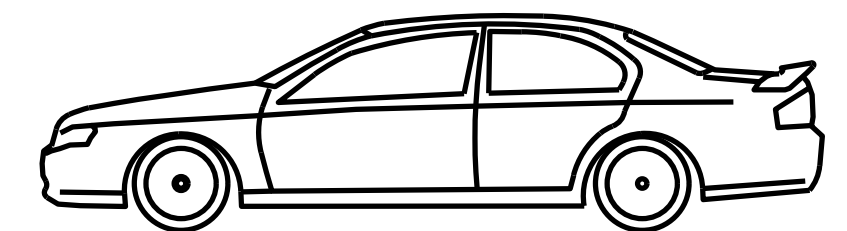
Diagram illustrating the dimensions of a rectangular area, likely a plot or field, divided into three sections. The dimensions are given in meters (m).

- The top section has a width of 150m and a height of 11.13m.
- The middle section has a width of 11.13m and a height of 11.13m.
- The bottom section has a width of 150m and a height of 11.13m.

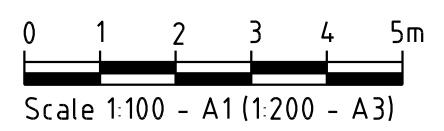
The total width of the area is 150m, and the total height is 33.39m (11.13m + 11.13m + 11.13m).

A horizontal line representing a structure of total length 13.75m. The left end is marked with a vertical line and labeled '1.50m'. The right end is also marked with a vertical line and labeled '1.50m'. The central portion of the line is labeled '11.65m'. The line is divided into three segments by two vertical tick marks, corresponding to the 1.50m, 11.65m, and 1.50m sections.

 WHEEL PATH
 VEHICLE BODY ENVELOPE
 0.3m OVERHANG



OVERALL LENGTH	5 200m
OVERALL WIDTH	1940m
OVERALL BODY HEIGHT	1878m
MIN BODY GROUND CLEARANCE	0 120m
TRACK WIDTH	1840m
LOCK-TO-LOCK TIME	4 00s
KERB TO KERB TURNING RADIUS	6 250m



PROJECT	CLIENT	CONSULTANT
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PROJECT DATA

DATUM	AHD	SURVEY	MRA-304.DET.01 A
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REVISION

A	ISSUE	DATE	DESCRIPTION
	1	15.12.2023	FIRST ISSUE
	2	15.02.2024	SECOND ISSUE
	3	17.04.2024	LAYOUT UPDATE

PROJECT NUMBER

0020215

SHEET TITLE

LOT 1115 CNR STRONG & ABELES ST
VEHICLE SWEEP PATH PLAN
SHEET 6 OF 11

SHEET NUMBER

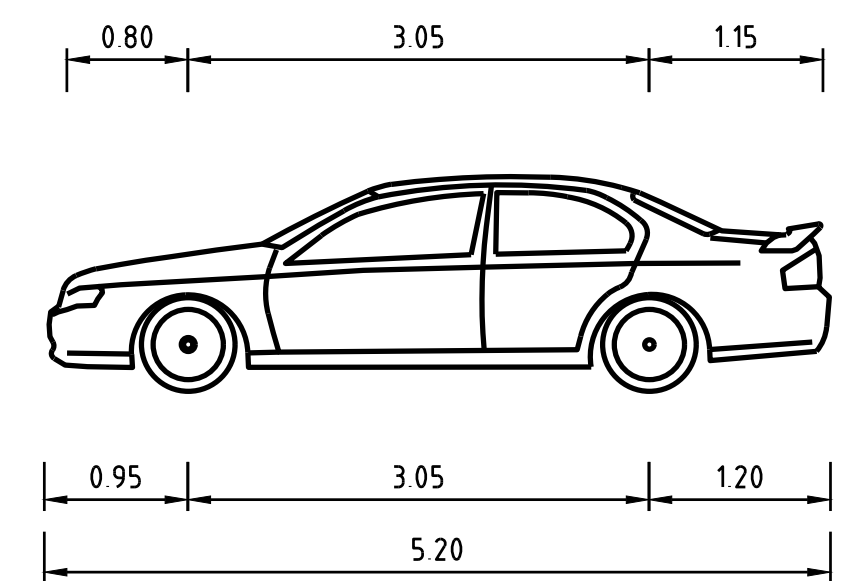
PROJ:	ORIGIN	VOL	LOC	TYPE	ROL	NUMBER	REVISION
0020215 - CCE - 00 - 00 - DR - A - C705							3



1115
SP330057

PRATT LANE

 WHEEL PATH
 VEHICLE BODY ENVELOPE
 0.3m OVERHANG



OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m

PROJECT NUMBER

SHEET NUMBER

DATUM	AHD	SURVEY	MRA-304.DET_01 A	ISSUE	DATE	DESCRIPTION
				1	15.12.2023	FIRST ISSUE
				2	15.02.2024	SECOND ISSUE
				3	17.04.2024	LAYOUT UPDATE

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PROJ:	ORIGIN	VOL	LDC	TYPE	ROL	NUMBER	REVISION
0020215 - CCE - 00 - 00 - DR - A - C706							3

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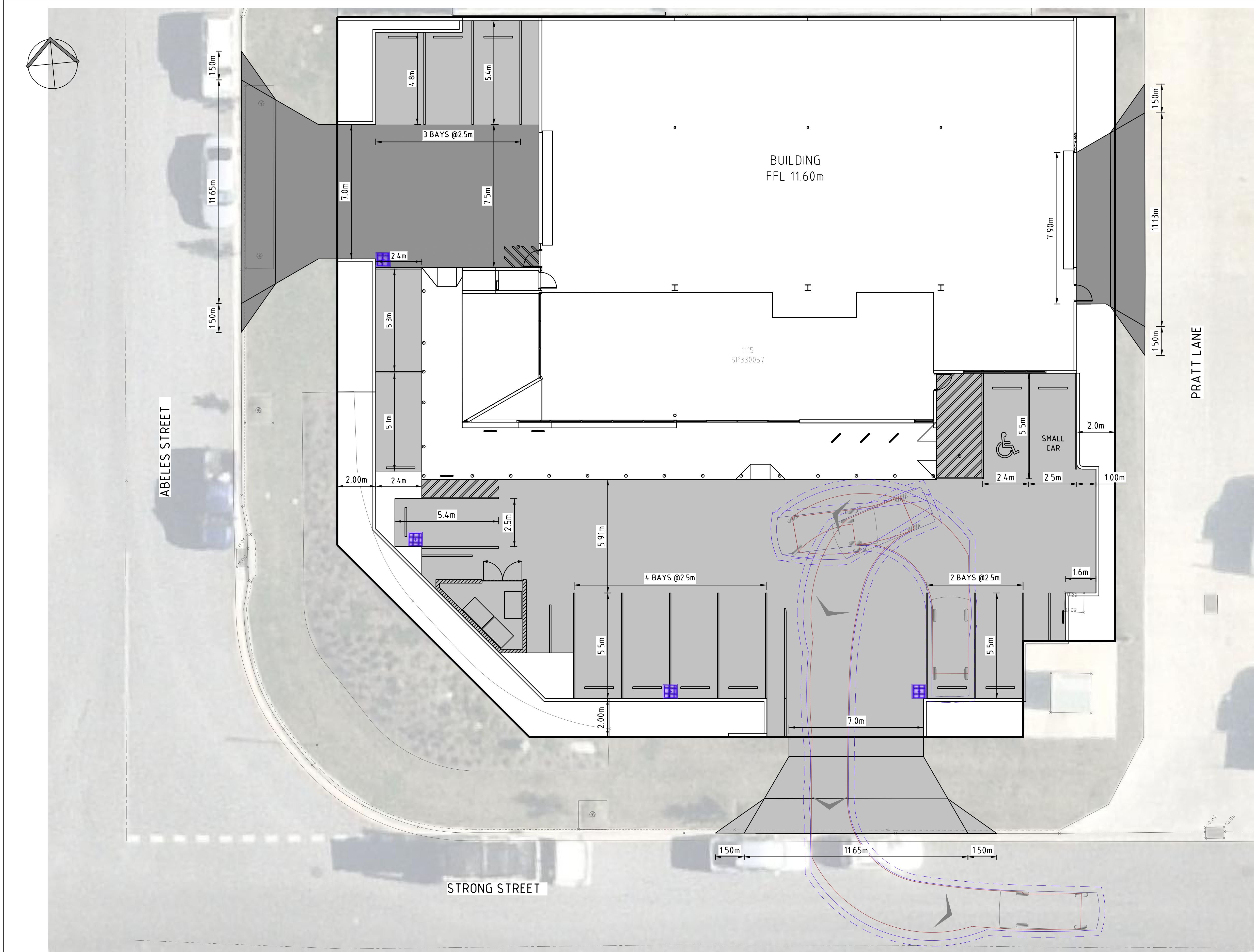


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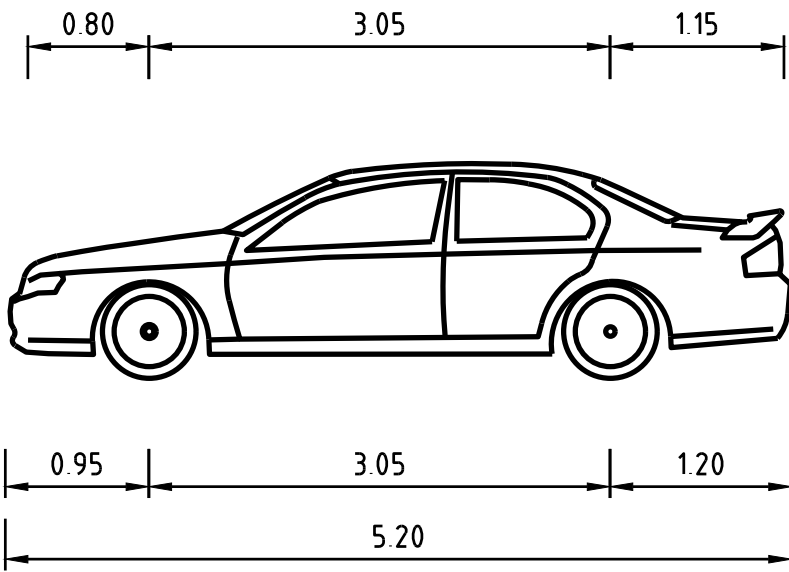


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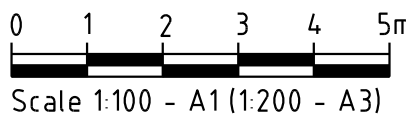
LEGEND:

- WHEEL PATH
- VEHICLE BODY ENVELOPE
- 0.3m OVERHANG



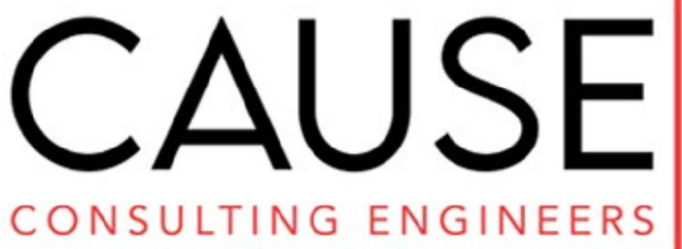
B99 VEHICLE (REALISTIC MIN RADIUS) (2004)

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m



PROJECT	CLIENT	CONSULTANT	PROJECT DATA	REVISION	PROJECT NUMBER
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STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551



Cause Consulting Engineers Pty Ltd
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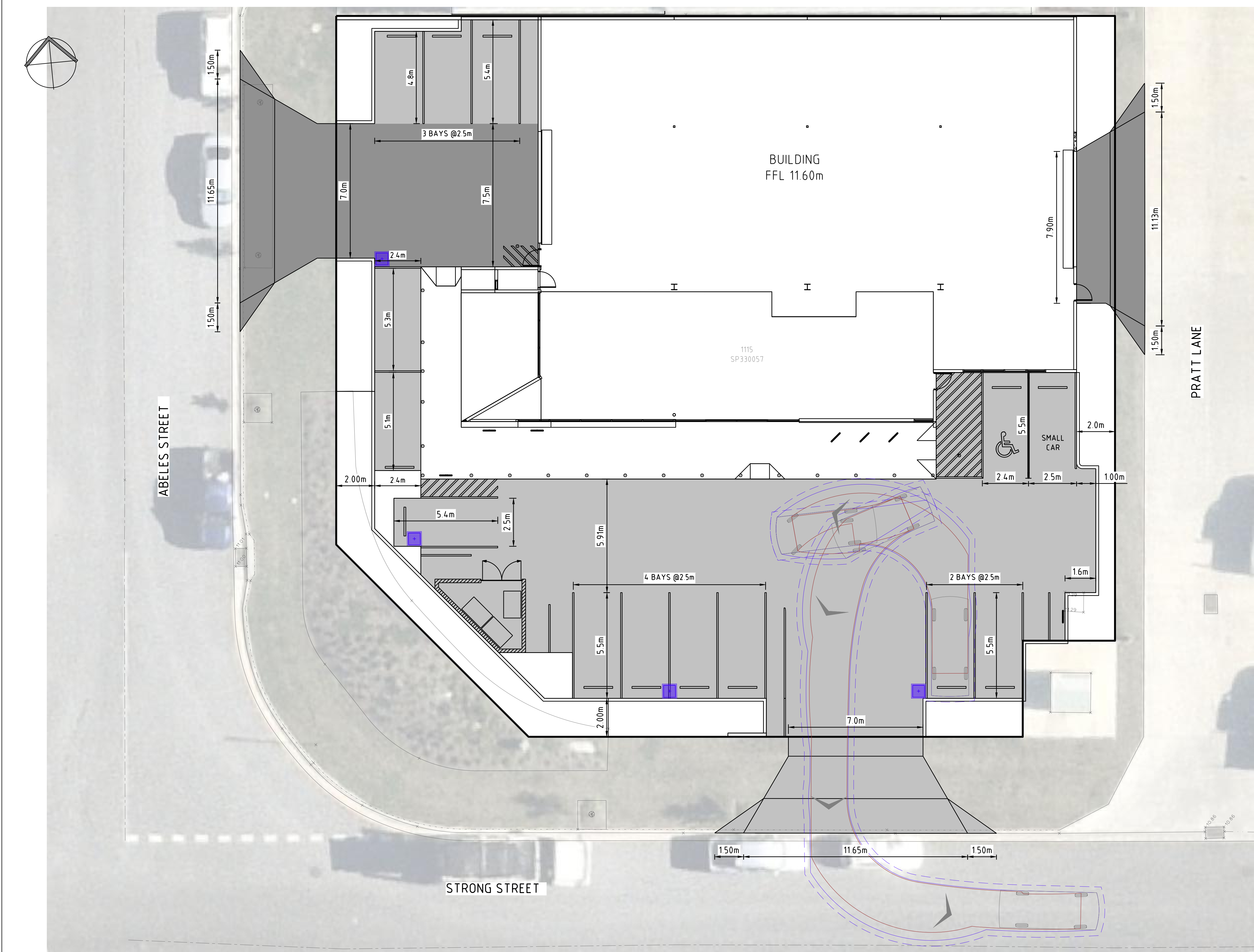


DATUM	AHD	SURVEY	MRA-304.DET.01 A	ISSUE	DATE	DESCRIPTION
				1	15.12.2023	FIRST ISSUE
				2	15.02.2024	SECOND ISSUE
				3	17.04.2024	LAYOUT UPDATE

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BEng (Hons) CPEng CWEM RPEQ 21643

0020215
SHEET TITLE
LOT 1115 CNR STRONG & ABELES ST
VEHICLE SWEEP PATH PLAN
SHEET 8 OF 11
SHEET NUMBER
PROJ: ORIGIN VOL LOC TYPE ROL NUMBER REVISION
0020215 - CCE - 00 - 00 - DR - A - C707 3



PROJECT

CLIENT

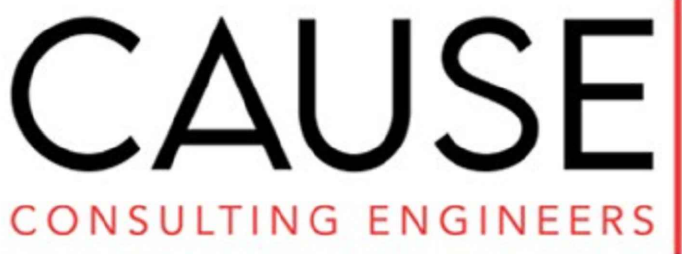
CONSULTANT

PROJECT DATA

REVISION

PROJECT NUMBER

STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551



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A.B.N 78 649 859 174

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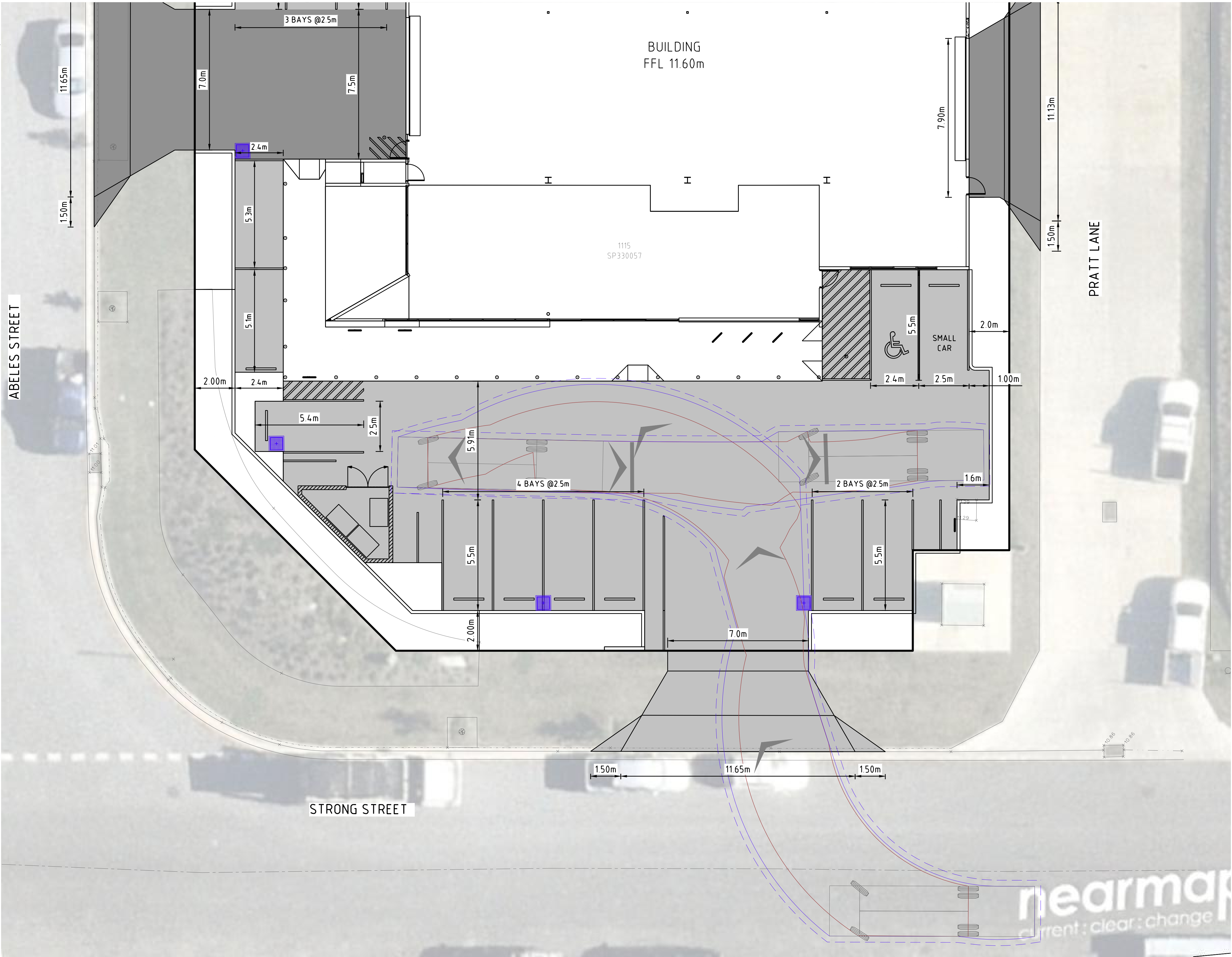
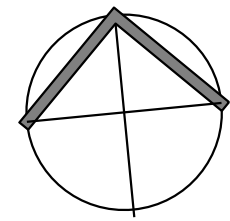
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DATUM	AHD	SURVEY	MRA-304.DET.01 A	ISSUE	DATE	DESCRIPTION
				1	15.12.2023	FIRST ISSUE
				2	15.02.2024	SECOND ISSUE
				3	17.04.2024	LAYOUT UPDATE

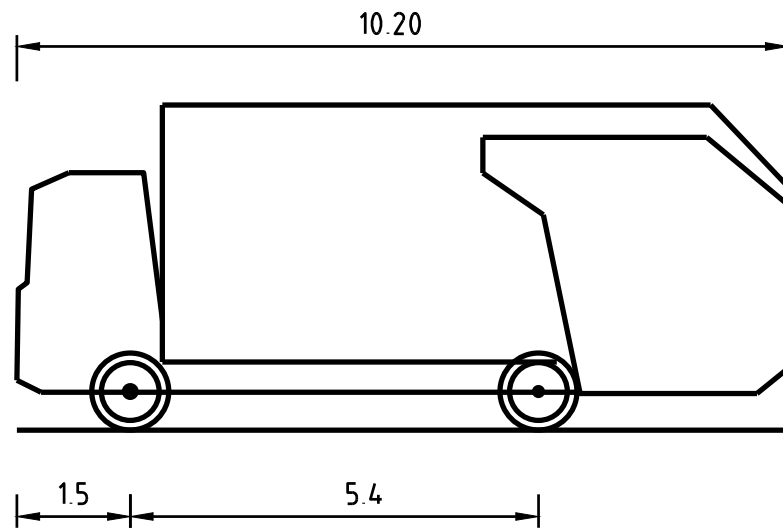
PROJ: 0020215
ORIGIN: CCE - 00 - 00 - DR - A - C708
VOL: 00
LOC: 00
TYPE: DR
RDL: A
NUMBER: 11
REVISION: 3

0020215
SHEET TITLE
LOT 1115 CNR STRONG & ABELES ST
VEHICLE SWEEP PATH PLAN
SHEET 9 OF 11
SHEET NUMBER



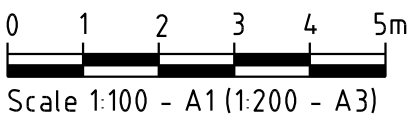
LEGEND:

- WHEEL PATH
- VEHICLE BODY ENVELOPE
- 0.3m OVERHANG



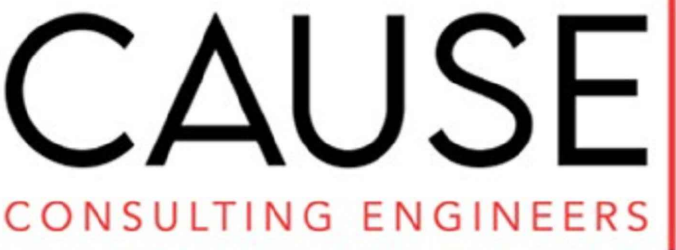
WCV (10.2 m)

OVERALL LENGTH	10.200m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.483m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
KERB TO KERB TURNING RADIUS	12.500m



PROJECT	CLIENT	CONSULTANT	PROJECT DATA	REVISION	PROJECT NUMBER
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STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551



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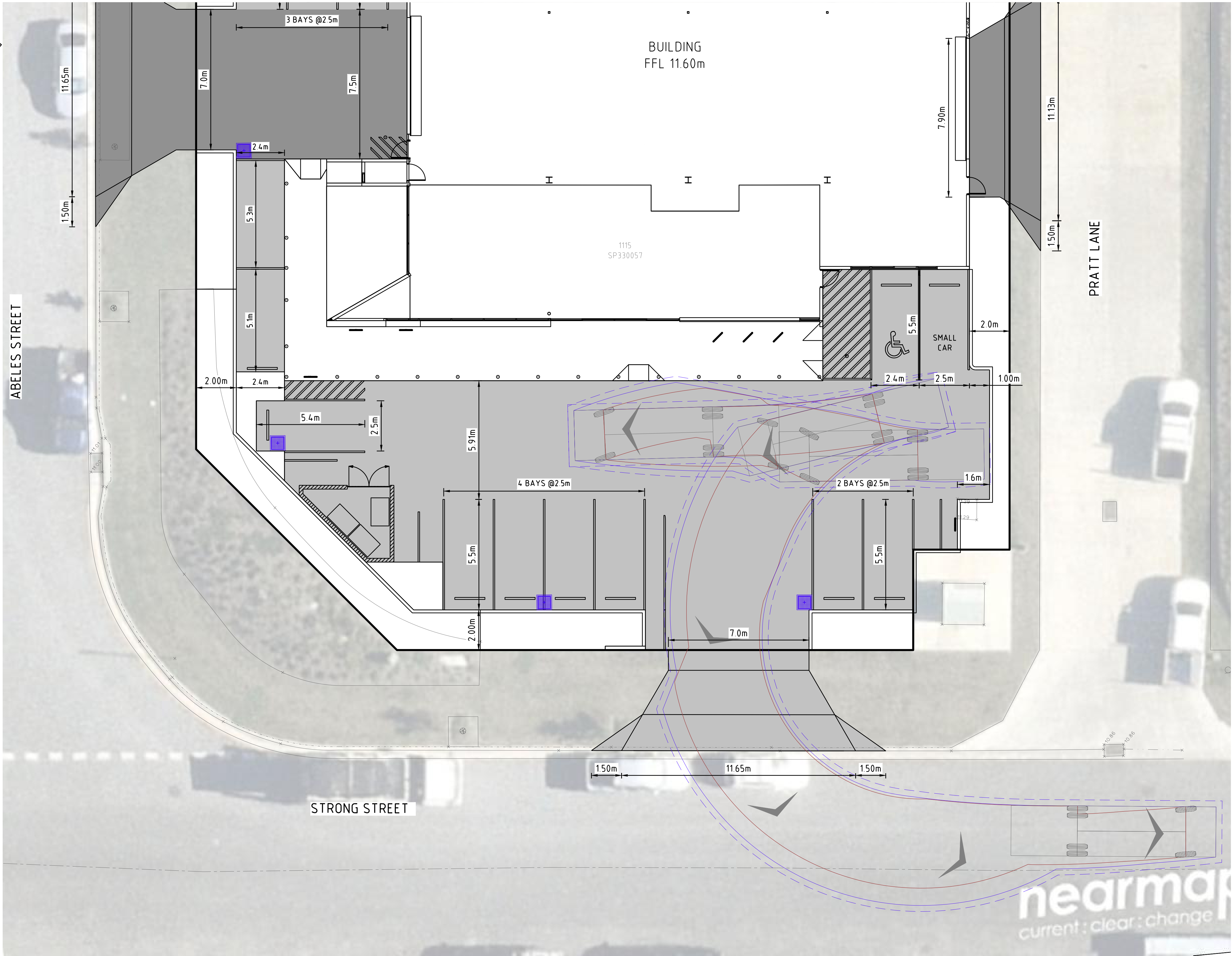
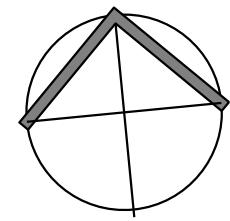


DATUM	AHD	SURVEY	MRA-304.DET.01 A	ISSUE	DATE	DESCRIPTION
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				2	15.02.2024	SECOND ISSUE
				3	17.04.2024	LAYOUT UPDATE

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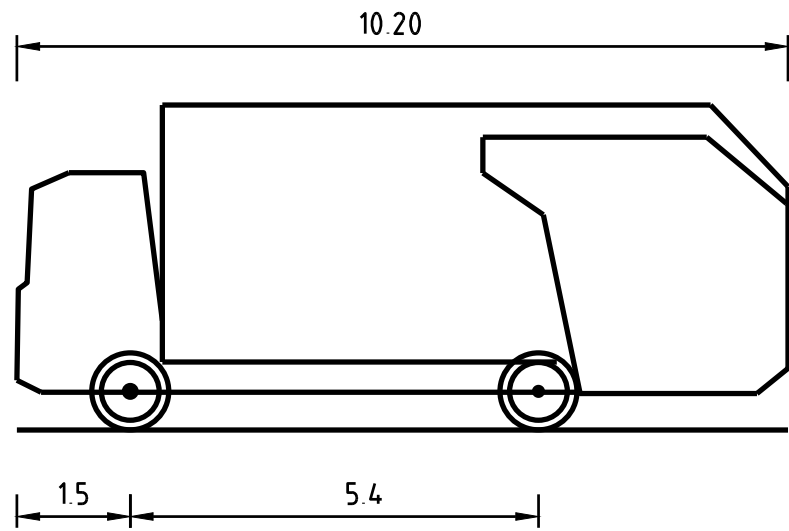
RYAN HOFMAN
BEng (Hons) CPEng CWEM RPEQ 21643

0020215
SHEET TITLE
LOT 1115 CNR STRONG & ABELES ST
VEHICLE SWEEP PATH PLAN
SHEET 10 OF 11
SHEET NUMBER
PROJ: ORIGIN VOL LOC TYPE ROL NUMBER REVISION
0020215 - CCE - 00 - 00 - DR - A - C709 3

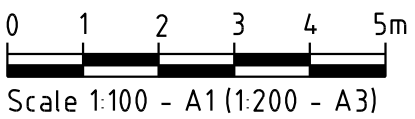


LEGEND:

- WHEEL PATH
- VEHICLE BODY ENVELOPE
- 0.3m OVERHANG



WCV (10.2 m)	
OVERALL LENGTH	10.200m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.483m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
KERB TO KERB TURNING RADIUS	12.500m



PROJECT CLIENT CONSULTANT

STRONG & ABELES ST CHP GROUP
BARINGA
QLD 4551

CONSULTANT

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PROJECT DATA

DATUM	AHD	SURVEY	MRA-304.DET.01 A
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REVISION

ISSUE	DATE	DESCRIPTION
1	15.12.2023	FIRST ISSUE
2	15.02.2024	SECOND ISSUE
3	17.04.2024	LAYOUT UPDATE

PROJECT NUMBER

0020215

SHEET TITLE

LOT 1115 CNR STRONG & ABELES ST
VEHICLE SWEEP PATH PLAN
SHEET 11 OF 11

SHEET NUMBER

PROJ: ORIGIN VOL LOC TYPE ROL NUMBER REVISION
0020215 - CCE - 00 - 00 - DR - A - C710 3