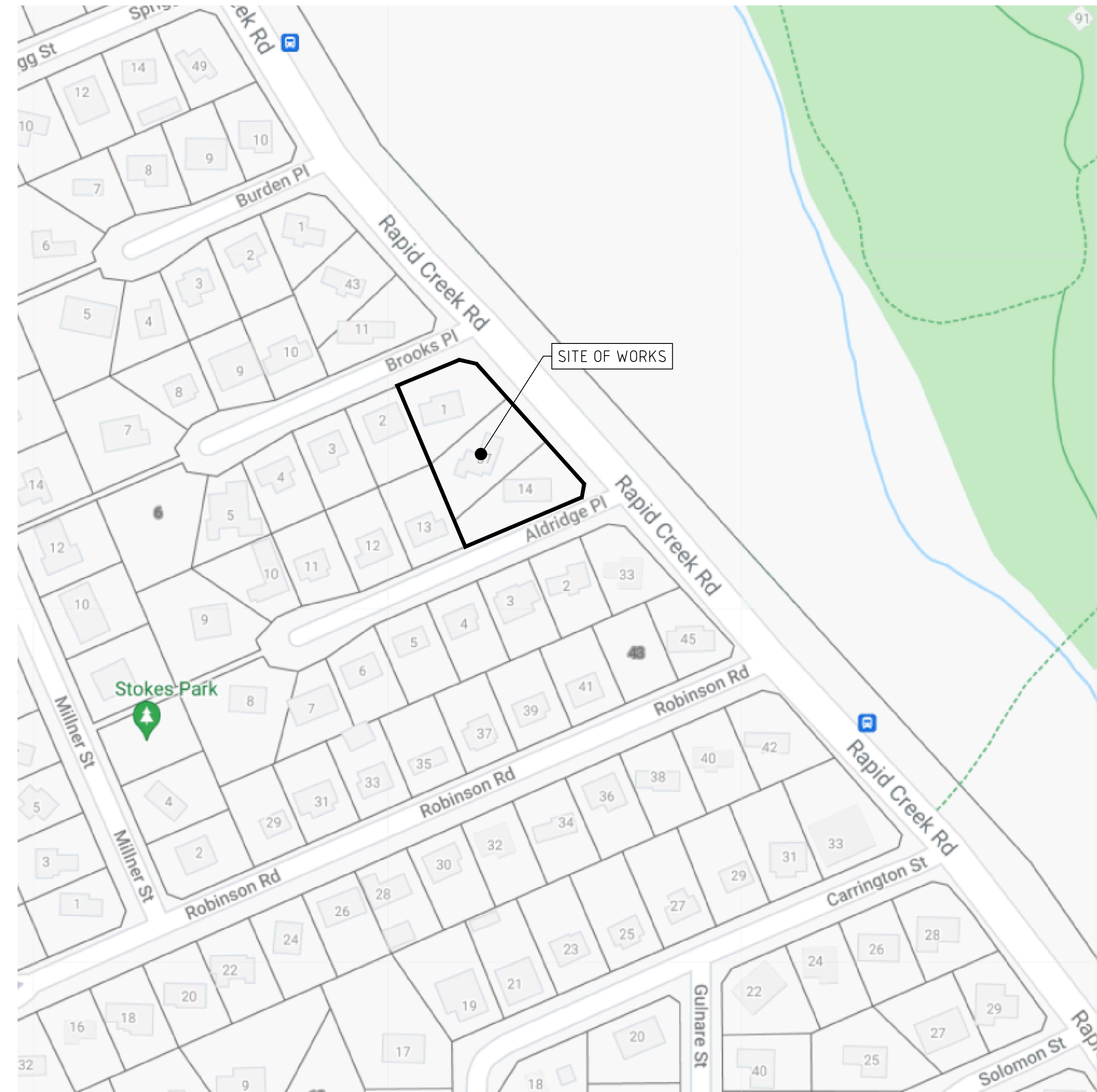


# PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN

## LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NORTHERN TERRITORY

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CLIENT	LOUW GROUP
PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN
PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
LOCALITY PLAN & DRAWING INDEX			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C01	A
DESIGNED	DESIGN CHECK		
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REF. 21085



**NOTES**

**1. GENERAL**

- 1.1. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT STANDARD DRAWINGS AND SPECIFICATIONS OF DARWIN CITY COUNCIL.
- 1.2. DO NOT SCALE DRAWINGS - USE ONLY DIMENSIONS PROVIDED ON PLANS.
- 1.3. ALL DIMENSIONS ARE IN METRES (m) UNLESS OTHERWISE STATED.
- 1.4. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (A.H.D.) IN METRES (m) UNLESS OTHERWISE STATED.
- 1.5. EXISTING DRAINAGE AND UNDERGROUND SERVICES ARE TO BE LOCATED PRIOR TO THE COMMENCEMENT OF WORKS AND RELEVANT AUTHORITIES NOTIFIED. FOR SERVICE INFORMATION CONTACT "DIAL BEFORE YOU DIG". ANY DAMAGE AND SUBSEQUENT REPAIRS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 1.6. THE CONTRACTOR IS TO ARRANGE FOR THE RELOCATION OF UNDERGROUND SERVICES IF REQUIRED, PRIOR TO THE COMMENCEMENT OF WORKS.
- 1.7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADVISING THE WORKS SUPERINTENDENT AND THE C.F.A. OPERATIONS CENTRE OF THE RELOCATION OR ALTERATION OF ANY FIRE HYDRANTS WITHIN ONE WORKING DAY.
- 1.8. WHERE THE MANAGEMENT OF TRAFFIC DURING CONSTRUCTION REQUIRES REDUCED SPEED LIMITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A TRAFFIC MANAGEMENT PLAN TO VICROADS, AND THE SUPERINTENDENT AND OBTAIN A MEMORANDUM OF CONSENT. THE APPLICATION MUST BE SUBMITTED 14 DAYS PRIOR TO THE INTENDED PLACEMENT OF THE SPEED LIMIT.
- 1.9. THE CONTRACTOR SHALL GIVE TWO (2) DAYS CLEAR NOTICE OF INTENTION TO COMMENCE WORKS TO THE AFFECTED RESIDENTS AND TO COUNCIL. THE CONTRACTOR IS TO ARRANGE FOR INSPECTION OF EXISTING PRIVATE PROPERTY AND THE ROADWAY, WHERE NECESSARY, TO ASSESS EXISTING DAMAGE. THE CONTRACTOR WILL BE LIABLE FOR THE REPAIR OF ANY NEW DAMAGE AS A RESULT OF THESE CONSTRUCTION WORKS.
- 1.10. ANY DIFFERENCES BETWEEN THE PLANS AND EXISTING CONDITIONS ARE TO BE REPORTED IMMEDIATELY TO THE WORKS SUPERINTENDENT.
- 1.11. ALL SURPLUS MATERIAL IS THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR TO THE SATISFACTION OF THE WORKS SUPERINTENDENT. NO TREES ARE TO BE REMOVED OTHER THAN THOSE AS INDICATED ON THE PLANS.
- 1.12. THE CONTRACTOR IS TO TAKE EXTREME CARE WHEN EXCAVATING NEAR TREES TO AVOID ROOT DAMAGE. ANY REMOVAL (IF NOT INDICATED ON PLANS), TRIMMING OR ALTERATIONS TO EXISTING TREES MUST HAVE THE APPROVAL OF THE WORKS SUPERINTENDENT.
- 1.13. THE CONTRACTOR IS TO CAREFULLY REMOVE AND REINSTATE ANY STREET FURNITURE, SIGNS ETC., AS REQUIRED TO CARRY OUT THE WORKS.
- 1.14. THE CONTRACTOR IS TO REINSTATE THE EXISTING ROADWAY, DRIVEWAYS, FOOTPATHS, KERBS, FENCES ETC., TO COUNCIL STANDARDS AND DETAILS PROVIDED AND TO THE SATISFACTION OF THE WORKS SUPERINTENDENT.
- 1.15. ON THE COMPLETION OF WORKS, THE SITE IS TO BE CLEANED UP TO THE SATISFACTION OF THE WORKS SUPERINTENDENT.
- 1.16. ALL NATURE STRIPS ARE TO BE REINSTATED WITH 100mm MIN. DEPTH LOAM AND SEEDED TO THE SATISFACTION OF THE WORKS SUPERINTENDENT.
- 1.17. THE CONTRACTOR MUST COMPLY WITH THE OCCUPATIONAL HEALTH & SAFETY CODE OF PRACTICE 1997 ON CONFINED SPACED AND THE OCCUPATIONAL HEALTH AND SAFETY (CONFINED SPACES) REGULATIONS 1996.

**2. DRAINAGE**

- 2.1. CONSTRUCT NEW DRAINAGE SYSTEMS AS SHOWN. REFER TO PIT SCHEDULE AND DRAINAGE LONG SECTIONS FOR ALL DRAINAGE DETAILS.
- 2.2. LOCATION, INVERT LEVELS AND ALIGNMENT OF EXISTING PITS AND PIPES AND SURFACE LEVELS ARE TO BE CONFIRMED BY THE CONTRACTOR AND PRIOR TO CONSTRUCTION.
- 2.3. PRECAST PITS TO HAVE 100MM MIN. THICK WALLS AND CAST INSITU PITS TO HAVE 150MM THICK WALL UNLESS OTHERWISE STATED.
- 2.4. ALL PIPES TO BE CLASS 2 REINFORCED CONCRETE RUBBER RING JOINTED, UNLESS OTHERWISE STATED, LAID IN ACCORDANCE WITH COUNCIL SPECIFICATIONS. PIPE TRENCHES TO BE BACKFILLED TO DETAILS PROVIDED AND TO THE SATISFACTION OF THE WORKS SUPERINTENDENT.
- 2.5. ALL EXISTING PROPERTY STORMWATER OUTLETS WITHIN 3.0 m OF THE NEW DRAIN ARE TO BE CONNECTED TO THE UNDERGROUND DRAINAGE PIPES WHERE AVAILABLE.
- 2.6. NEW DRAINAGE PITS ARE TO BE PLACED USING THE SET OUT CO-ORDINATES PROVIDED AND PROPERLY ALIGNED TO ENSURE THE FLOW IS GUIDED DIRECTLY TO THE OUTLET. IF THIS CANNOT BE ACHIEVED VERTICAL DEFLECTORS MUST BE PROVIDED.
- 2.7. THE CONTRACTOR IS TO COMPLY WITH THE REQUIREMENTS OF THE MINES (TRENCHES) REGULATIONS 1982 WHICH INCLUDES NOTIFICATION TO THE SECRETARY OF MINERALS AND ENERGY OF INTENTION TO WORK IN TRENCHES IN EXCESS OF 1.5 m DEEP. A COPY OF THE NOTIFICATION, ON THE APPROVED FORM, IS TO BE RECEIVED BY COUNCIL'S WORKS SUPERINTENDENT THREE (3) DAYS PRIOR TO THE COMMENCEMENT OF SUCH WORKS. A FOREMAN QUALIFIED AS A NOMINATED MINES MANAGER MUST BE IN ATTENDANCE AT ALL TIMES DURING THESE EXCAVATIONS.
- 2.8. ANCHOR BLOCKS TO COUNCIL STANDARD ARE TO BE PROVIDED ON ALL PIPELINES IN EXCESS OF 1 IN 10 (10%) GRADE AT A MIN. OF 9M INTERVALS.

**3. CONCRETE**

- 3.1. ALL CONCRETE WORKS SHALL BE IN ACCORDANCE WITH DARWIN CITY COUNCIL STANDARDS UNLESS OTHERWISE STATED.
- 3.2. REINFORCEMENT FABRIC SHALL COMPLY WITH AS 1304 AND SHALL BE CONTINUOUS BETWEEN WALLS, SLABS AND COPING BEAMS. CORNER RETURNS REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS. LAPS TO BE 300 mm MIN. FOR FABRIC AND BARS. CLEAR COVER TO BE 50 mm MIN.
- 3.3. REINFORCEMENT BARS SHALL COMPLY WITH AS 1302, GRADE 400Y. CLEAR COVER TO BE 50 mm MIN. LAPS TO BE 25 TIMES BAR DIAMETER.
- 3.4. EXPOSED CONCRETE EDGES TO HAVE 20 mm CHAMFER.
- 3.5. ALL CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF 25 MPA MIN. AT 28 DAYS CEMENT CONTENT SHALL BE AT LEAST 320 kg/m<sup>3</sup> OF CONCRETE.
- 3.6. TESTING AND ASSESSMENT OF CONCRETE TO BE IN ACCORDANCE WITH AS 3600 - CONCRETE STRUCTURES.
- 3.7. ALL WALLS SHALL BE SUITABLY PROPPED DURING & AFTER PLACEMENT AND AFTER COMPACTION OF BACKFILL. PROPS SHALL ONLY BE REMOVED AFTER COPING BEAMS, SLABS AND WALLS HAVE BEEN POURED AND CURED FOR 7 DAYS MIN. BACKFILL NEXT TO WALLS TO BE LIGHTLY COMPACTED ONLY.

**4. STEELWORK**

- 4.1. ALL MATERIALS SHALL HAVE STRUCTURAL QUALITY IN ACCORDANCE WITH AS 3678 - GRADE 250.
- 4.2. ALL STEELWORK TO COMPLY WITH AS 1250 - STEEL STRUCTURES CODE.
- 4.3. REMOVE ALL BURRS AND SHARP EDGES FROM CORNERS.
- 4.4. ALL FABRICATION TOLERANCES SHALL BE WITHIN ± 1.0 mm AND ALL ANGULAR TOLERANCES SHALL BE WITHIN ± 1°, UNLESS OTHERWISE STATED.
- 4.5. ALL WELDS TO BE 6 mm CONTINUOUS FILLET WELDS IN ACCORDANCE WITH AS 1554 - PART 1 UNLESS OTHERWISE STATED.
- 4.6. ALL FABRICATED STEEL WORK TO BE HOT DIP GALVANISED AFTER FABRICATION.
- 4.7. PROVIDED SUITABLE HOLES AS REQUIRED FOR GALVANISING.
- 4.8. ALL FIXTURES AND FITTINGS TO BE HOT DIP GALVANISED.

**5. EXTERNAL MEDIUM DUTY CONCRETE PAVEMENTS**

- 5.1. ALL EXTERNAL TRAFFICABLE CONCRETE PAVEMENTS TO HAVE MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 32 MPA.
- 5.2. PAVEMENT COMPOSITION AS SHOWN ON DETAILS.
- 5.3. SUBGRADE TO BE PREPARED IN ACCORDANCE WITH RELEVANT GEOTECHNICAL REPORT. AS A MINIMUM SUBGRADE IS TO BE PROOF ROLLED AND SOFT SPOTS REMOVED AND FILLED USING CRUSHED ROCK COMPACTED AS REQUIRED.
- 5.4. PLACE CONCRETE USING AN ACCEPTED VIBRATION METHOD. ALL REINFORCEMENT IS TO BE PLACED ON SUPPORT CHAIRS SPACED TO MINIMISE SAG.
- 5.5. UNLESS SPECIFIED OTHERWISE ALL SURFACE FINISHES TO BE NON-SLIP STIPPLE FINISH.
- 5.6. ALL PAVEMENTS TO BE CURED IN ACCORDANCE WITH CURRENT INDUSTRY PRACTICE AND AS SPECIFIED IN AS3600.
- 5.7. ALL JOINTS TO BE SEALED WITH FLEXIBLE WATERPROOF SEALANT OVER.
- 5.8. ALL SLAB EDGES TO BE THICKENED IN ACCORDANCE WITH ATTACHED DETAIL.
- 5.9. WHEN CONCRETE FINISHES AGAIN EXISTING STRUCTURES, PROVIDE 10 mm ABELFLEX SEPARATOR AND FLEXIBLE SEALANT OVER.

**6. AG-DRAINS**

- 6.1. AG-DRAINS (SUBSOIL DRAINS) ARE TO BE INSTALLED IN ACCORDANCE WITH AS 3500.
- 6.2. MINIMUM GRADE OF AG-DRAINS IS TO BE 1:200.
- 6.3. AG-DRAINS ARE TO BE FITTED WITH Ø150 INSPECTION OPENINGS (I.O.) AT THEIR TOPMOST ENDS, AT CHANGES OF FLOW DIRECTIONS AND AT A MAXIMUM HORIZONTAL DISTANCE OF 45 m.
- 6.4. INSPECTION OPENINGS ARE TO EXTEND VERTICALLY TO THE TOP OF A PAVED AREA OR WITHIN 300 mm FROM THE SURFACE IN UNPAVED AREAS AND TERMINATED WITH A SCREW CAP LEGIBLY MARKED 'SW'. ADEQUATE CAST IRON PROTECTION COVERS ARE TO BE USED WHEN POSITIONED WITHIN TRAFFIC LANES OR PAVEMENT WITH VEHICLE ACCESS.
- 6.5. THE CONTRACTOR IS TO ALLOW FOR ALL AG-DRAINS AS REQUIRED AT THE BACK OF PROPOSED KERB.
- 6.6. ALL AG-DRAINS ARE TO BE WRAPPED IN GEOTEXTILE MATERIAL OR THE ENTIRE BEDDING MATERIAL IS TO BE WRAPPED WITH GEOTEXTILE FABRIC OVERLAPPING NOT LESS THAN 300 mm.
- 6.7. UNLESS NOTED OTHERWISE, THE EMBEDMENT MATERIAL IS TO BE Ø10 mm NOM. CLEAN SCREENINGS FOR THE FULL DEPTH OF THE EMBEDMENT TRENCH.
- 6.8. AG DRAINS TO BE INSTALLED 300 mm MINIMUM BELOW PERMEABLE SOIL LAYER.
- 6.9. ANY EXISTING SUB SURFACE DRAINS ARE TO BE RETAINED. ANY DAMAGE DONE TO EXISTING SUB SURFACE DRAINS ARE TO BE REPAIRED. ENSURE THAT THE EXISTING SUB SURFACE DRAINS ARE NOT BLOCKED AND FLOW TO A POINT OF DISCHARGE.

**7. JUNCTION TO EXISTING WORKS**

- 7.1. LEVELS OF EXISTING COVERS SHALL BE ADJUSTED TO SUIT DESIGN LEVELS (IF REQUIRED).
- 7.2. PRIOR TO WORKS COMMENCING, THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNERS OF INTENDED WORKS.
- 7.3. ALL NEW WORK SHALL NEATLY MATCH TO EXISTING SURROUNDS. CONTRACTOR SHALL MAKE GOOD AREAS NOT COVERED UNDER THESE SITE WORKS THAT HAVE BEEN DISTURBED.

**8. HEALTH AND SAFETY**

- 8.1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL WORKS ARE CARRIED OUT IN A SAFE MANNER. THE WORKS SHALL COMPLY WITH APPLICABLE HEALTH AND SAFETY LEGISLATION INCLUDING CODES OF PRACTICE, AUSTRALIAN STANDARDS, GUIDANCE NOTES AND WORKSAFE REQUIREMENTS.
- 8.2. THE CONTRACTOR SHALL ENSURE A RISK ASSESSMENT HAS BEEN CARRIED OUT AND DOCUMENTED FOR ALL ACTIVITIES PERFORMED ON THE SITE. SAFE WORK PROCEDURES MUST BE DOCUMENTED AS REQUIRED BY LEGISLATION AND RELEVANT AUTHORITIES. THE BUILDER MAY NEED TO ENGAGE SUITABLY EXPERIENCED CONSULTANTS TO PREPARE A SAFE WORK PROCEDURE IF THE BUILDER IS INEXPERIENCED IN THIS FIELD OR IF THEY ARE NOT SATISFIED WITH THE METHOD PROPOSED BY THE CONTRACTOR.


**9. AUXILIARY WORKS**

- 9.1. THE CONTRACTOR IS TO SEEK COUNCIL REQUIREMENTS FOR 'NOTICES OF WORKS' WITHIN A PUBLIC ROAD RESERVE.
- 9.2. NO ROAD WORKS ARE TO COMMENCE UNTIL ALL TEMPORARY SIGNS AND ASSOCIATED ITEMS ARE IN PLACE AS APPROVED.
- 9.3. ALL DISTURBED AREAS ARE TO BE REINSTATED AND SHAPED AS DIRECTED. ALL GRASSED AREAS SHALL BE TOP DRESSED WITH A MINIMUM DEPTH OF 75 mm OF APPROVED TOPSOIL, RAKED AND SEEDDED.
- 9.4. ALL ROADSIDE AREAS SHALL BE MAINTAINED FOR A MINIMUM OF THREE MONTHS OR UNTIL THEY ARE RE-ESTABLISHED TO COUNCIL SATISFACTION.
- 9.5. MAINTENANCE WORKS SHALL INCLUDE BUT NOT TO BE LIMITED TO:
  - 9.5.1. TOPPING UP WITH SOIL WHERE SUBSIDED.
  - 9.5.2. RE-SEEDING AS REQUIRED.
  - 9.5.3. MOWING AND GENERAL LANDSCAPE MAINTENANCE.
  - 9.5.4. ALL LINE MARKING TO BE IN ACCORDANCE WITH COUNCIL GUIDELINES.
- 9.6. REINSTATE ANY PATHS, KERBS, PAVEMENTS, BATTERS AND RETAINING WALLS DAMAGED DURING THE COURSE OF THE WORKS TO THE SATISFACTION OF THE CLIENT REPRESENTATIVE.

**10. EROSION CONTROL PLAN**

- 10.1. AN EROSION CONTROL PLAN IS TO BE IMPLEMENTED ON SITE DURING CONSTRUCTION TO PREVENT SEDIMENT FROM LEAVING THE SITE AND ENTERING THE DRAINAGE SYSTEM. I.E. HAY BALES WITH GEOTEXTILE MATERIAL TO THE SATISFACTION OF THE RELEVANT AUTHORITY.

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**SEDIMENT AND EROSION CONTROL NOTES**

**11. GENERAL NOTES**

- 11.1. SOIL CONTROL MEASURES MUST BE ADOPTED AT ALL TIMES TO THE SATISFACTION OF COUNCIL'S DESIGN ENGINEER AND THE FACILITIES MANAGER DURING THE DURATION OF THE CONTRACT. SITE CONTROLS AND EROSION MINIMISATION TECHNIQUES ARE TO BE IN ACCORDANCE WITH THE INSTITUTE OF ENGINEERS AUSTRALIA PUBLICATION 'SOIL EROSION AND SEDIMENT CONTROL', EPA GUIDELINES AND OTHER CONTRACT DOCUMENTATION INCLUDING THIS PLAN.
- 11.2. SITE ESTABLISHMENT AND STRIPPING TOPSOIL:
  - 11.2.1. STOCKPILE SOIL IN ALLOCATED LOCATION AND PROVIDE SILT CONTROL BARRIERS IF STOCKPILE IS LEFT OVERNIGHT.
  - 11.2.2. WASH DOWN ANY VEHICLES LEAVING SITE AFTER TREADING ON SOIL.
  - 11.2.3. PLACE CRUSHED ROCK TO A DEPTH OF 150 mm MINIMUM TO ALL VEHICLE ACCESS AREAS OVER AN APPROVED WOVEN GEOTEXTILE FABRIC (DUX W155 OR EQUIVALENT).
  - 11.2.4. GRADE ALL SOIL AREAS AWAY FROM MAIN CONSTRUCTION AREA AND TOWARDS DRAINAGE POINTS.
  - 11.2.5. PLACE FILTER MATERIAL SUCH AS HAY BALES OR SILT FENCES AROUND DRAINAGE POINTS.
  - 11.2.6. INSTALL ON-SITE WASTE RECEPTORS (I.E. MINI-SKIPS, BINS, WIND PROOF LITTER RECEPTORS).
- 11.3. CONSTRUCTION OF DRAINAGE SYSTEM:
  - 11.3.1. CARRY OUT WORKS IN DRY WEATHER.
  - 11.3.2. DO NOT LEAVE TRENCHES OPEN FOR A LONG PERIOD OF TIME.
  - 11.3.3. BUILD DRAINAGE SYSTEM COMMENCING FROM DOWN STREAM.
  - 11.3.4. PLACE FILTER MATERIAL IN EXISTING DOWNSTREAM, UNTIL ALL DRAINAGE IS IN PLACE AND THEN INSTALL SILT CONTROL DEVICES AT EACH NEW PIT.
- 11.4. CONSTRUCTION OF MAIN WORKS:
  - 11.4.1. ENSURE THAT SOIL IS KEPT MOIST TO MINIMISE AIR POLLUTION.
  - 11.4.2. DO NOT LEAVE SOIL EXPOSED FOR LONG PERIODS OF TIME.
  - 11.4.3. ENSURE FALLS OF CUT OR FILL ARE AWAY FROM MAIN WORKING AREA.
  - 11.4.4. INSTALL ROOF DOWNPIPES AS SOON AS PRACTICABLE - IF NECESSARY, USE TEMPORARY CONNECTIONS TO ENSURE STORMWATER DOES NOT DISCHARGE OVER LOOSE SOIL.
- 11.5. LANDSCAPING
  - 11.5.1. PLACE VEGETATION SUITABLE TO MINIMISE LOOSE SOIL CONDITIONS. REFER TO THE APPROVED LANDSCAPING PLAN FOR ADDITIONAL INFORMATION.

**12. TREATMENT DEVICES**

- 12.1. SEDIMENT FENCES:
  - 12.1.1. SEDIMENT FENCES ARE TO BE PLACED AS REQUIRED. THEY CONSIST OF GEOTEXTILE FILTER FABRIC STAPLED ONTO 40 mm SQUARE HARDWOOD STAKES OR WIRE TIED TO STEEL POSTS. THE FILTER FABRIC MUST BE BURIED 100 mm MIN. INTO THE GROUND AND STAND UP TO A HEIGHT OF 700 mm. POSTS ARE TO BE SPACED AT 2.0 m CENTRES AND DRIVEN 600 mm INTO THE GROUND. WHEN STOCKPILING GRANULAR MATERIAL INCLUDING TOP SOILS, A SEDIMENT FENCE SHOULD BE ERECTED AT THE PERIMETER OF THE STOCKPILE IF LEFT OVERNIGHT.
- 12.2. PROTECTION OF DRAINAGE POINTS:
  - 12.2.1. ALL DRAINAGE POINTS, WHETHER TEMPORARY OR PERMANENT, SHALL BE PROTECTED FROM POLLUTED WATERS. THE PRINCIPLE CONTRACTOR MAY USE STRAW BALES HELD IN PLACE BY AT LEAST TWO DRIVEN PICKETS OR SEDIMENT FENCES TO FULLY SURROUND THE DRAINAGE PIT.
- 12.3. GENERAL BUILDING OPERATIONS:
  - 12.3.1. BUILDING OPERATIONS SUCH AS WASHING OF TOOLS AND PAINTING EQUIPMENT, CUTTING MASONRY OR THE USE OF ANY OTHER WATER COOLED CUTTING EQUIPMENT SHOULD BE CARRIED OUT IN A CONTROLLED AREA, WHERE POSSIBLE ON A NATURAL FILTERED AREA SUCH AS A GRASSED TRENCH, OR IN THE VICINITY OF A SEDIMENT SETTLING TANK.
- 12.4. VEHICLE ENTRY/EXIT POINTS:
  - 12.4.1. ALL VEHICLE ENTRY/EXIT POINTS ARE TO BE TREATED WITH CRUSHED ROCK OVER AN APPROVED WOVEN GEOTEXTILE FABRIC (DUX W155 OR EQUIVALENT), WELL COMPACTED AND ADJACENT TO THE EXIT DRIVEWAY. THE PRINCIPLE CONTRACTOR IS TO PROVIDE SUITABLE WASHING FACILITIES FOR CLEANING OF ALL VEHICLES PRIOR TO THEM EXITING THE SITE SO AS TO PREVENT ANY GREASE, OIL, MUD, CLAY OR OTHER SUBSTANCES FALLING OR RUNNING OFF A VEHICLE ON THE ROAD PAVEMENT OR INTO ANY DRAIN. THE CONDITION OF THE SITE ACCESS/EGRESS IS TO BE CONTINUOUSLY MONITORED AND CLEANED DOWN AS NECESSARY DURING THE COURSE OF THE CONTRACT TO MAINTAIN CLEAN FOOTPATHS AND ROADWAYS.

**13. ADDITIONAL NOTES FOR SEDIMENT AND EROSION CONTROL**

- 13.1. THE CONTRACTOR IS RESPONSIBLE FOR THE ESTABLISHMENT AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES TO SUCH TIME THAT THE PROJECT IS COMPLETED AND OFFICIALLY HANDED OVER TO THE CLIENT. THIS MAY INCLUDE THE PROVISION OF TEMPORARY DRAINAGE AND WATER QUALITY MANAGEMENT DEVICES.
- 13.2. DO NOT STRIP OR EXCAVATE SITE UNTIL BUILDING WORKS ARE READY TO PROCEED.
- 13.3. OBTAIN ALL NECESSARY PERMITS, LICENSES AND APPROVALS, REFER TO COUNCIL APPROVED DRAWINGS AND DOCUMENTATION.
- 13.4. ESTABLISH ALL REQUIRED ENTRY/EXIT POINTS AND TREAT THESE AREAS AS DESCRIBED ABOVE.
- 13.5. STACK SOILS IN PRE-DEFINED EROSION CONTROL AREAS, WHEN LEFT OVER NIGHT.
- 13.6. ACCIDENTAL SPILLS OF SOIL OR OTHER MATERIAL ONTO THE ROAD OR INTO THE GUTTER OR DRAIN SHOULD BE REMOVED PRIOR TO STORMS AND AT LEAST UPON COMPLETION OF THE DAYS WORK. MATERIALS SHOULD BE SWEEPED OFF THE ROAD AND NOT WASHED DOWN THE GUTTER.
- 13.7. EROSION CONTROL DEVICES SHOULD BE INSPECTED REGULARLY AND AFTER EVERY STORM EVENT.
- 13.8. CONCRETE WASTE FROM TRUCKS AND MIXERS SHOULD BE CONTAINED ON-SITE AND NOT DISPOSED OF, DOWN A DRAIN OR IN ANY OTHER WAY WHICH MAY BE CONSIDERED HARMFUL TO THE ENVIRONMENT.

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PHONE: 03 9853 1218

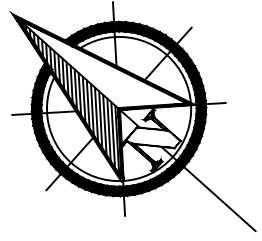
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CLIENT	LOUW GROUP
PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN
PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
GENERAL NOTES (2 OF 2)			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C03	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.	SCALE AS SHOWN AT A1	

REF. 21085





**LEGEND**

EXISTING		PROPOSED	
—	ExDW DRINKING WATER	—	S SEWER PIPELINE
—	ExS SEWER	—	DW DRINKING WATER MAIN
—	SWD STORMWATER DRAIN	—	HD HOUSE DRAINAGE
		—	T NBN
		—	E ELECTRICITY
		—	RW RETAINING WALL (RW)
		—	SD STORMWATER DRAIN
		● / + / ●	MH MAN HOLE/MAINTENANCE SHAFT/INSPECTION SHAFT/MAINTENANCE CHAMBER



NOTE:  
 Q<sub>100</sub> FLOOD LEVEL: 5.60 (LOT 1H-1J)  
 5.70 (LOT 1A-1G, LOT 2)

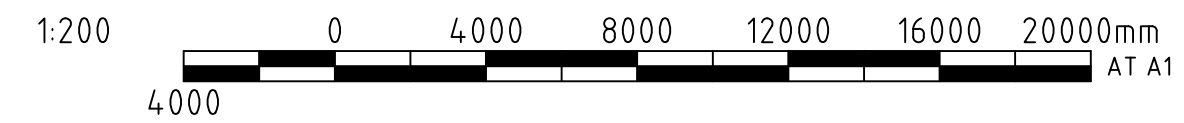


CONTRACTOR TO CONFIRM THE INVERT LEVEL OF THE CONNECTION POINT PRIOR TO INSTALLING ANY OF THE PROPOSED S.W.D. CONTACT THIS OFFICE IF SITE CONDITIONS DIFFER.

\* ALL INTERNAL DRAINAGE WORKS MUST BE IN ACCORDANCE WITH AS/NZS 3500.3: 2015 STORMWATER DRAINAGE.

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  - ELECTRICAL/WATER SERVICES
    - ORANGE MARKER TAPE COMPLYING WITH AS/NZS 2648.1 TO BE PROVIDED WHERE SERVICE CONDUITS CROSS OVER STORMWATER DRAINAGE PIPELINES.
    - SERVICE CONDUITS TO BE MECHANICALLY PROTECTED WHERE IN VICINITY OF STORMWATER DRAINAGE PIPELINES.



FILE LOCATION: Y:\21XXXX\21085\Gwin\CAD\21085 - Rapid Creek - RA.dwg

REV	DATE	DESCRIPTION	DRAWN	APP'D	No	DRAWING NUMBER	REFERENCE DRAWING TITLE
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-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
A	08/04/2021	ISSUED FOR REVIEW	J.L.	J.G.			

**G&P Consulting Engineers**

ADDRESS: SUITE 704, 1 PRINCESS STREET, KEW, VIC, 3101  
 PHONE: 03 9853 1218

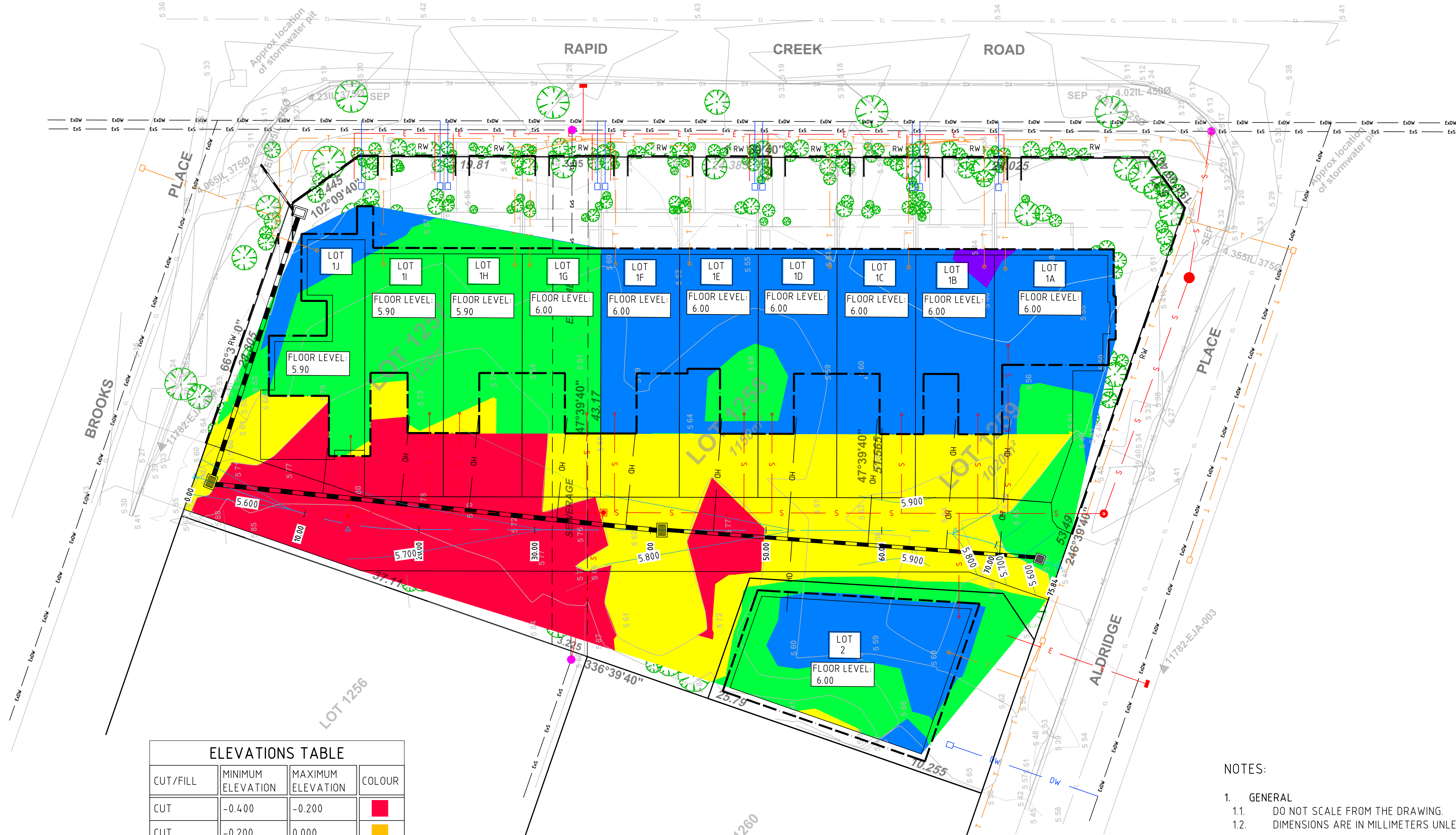
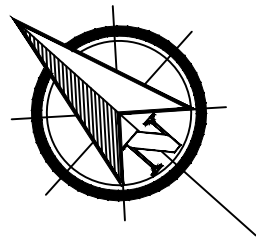
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CLIENT	LOUW GROUP
PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN
PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
<b>LAYOUT PLAN</b>			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C04	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.	SCALE AS SHOWN AT A1	

REF. 21085





CUT/FILL	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOUR
CUT	-0.400	-0.200	Red
CUT	-0.200	0.000	Yellow
FILL	0.000	0.200	Green
FILL	0.200	0.400	Blue
FILL	0.400	0.600	Purple

NOTE:  
 Q<sub>100</sub> FLOOD LEVEL: 5.60 (LOT 1H-1J)  
 5.70 (LOT 1A-1G, LOT 2)

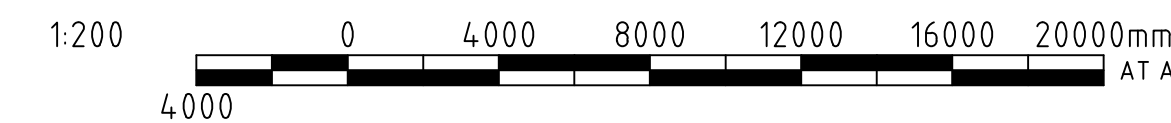


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REV	DATE	DESCRIPTION	DRAWN	APP'D	No	DRAWING NUMBER	REFERENCE DRAWING TITLE
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-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
A	08/04/2021	ISSUED FOR REVIEW	J.L.	J.G.			



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 PHONE: 03 9853 1218

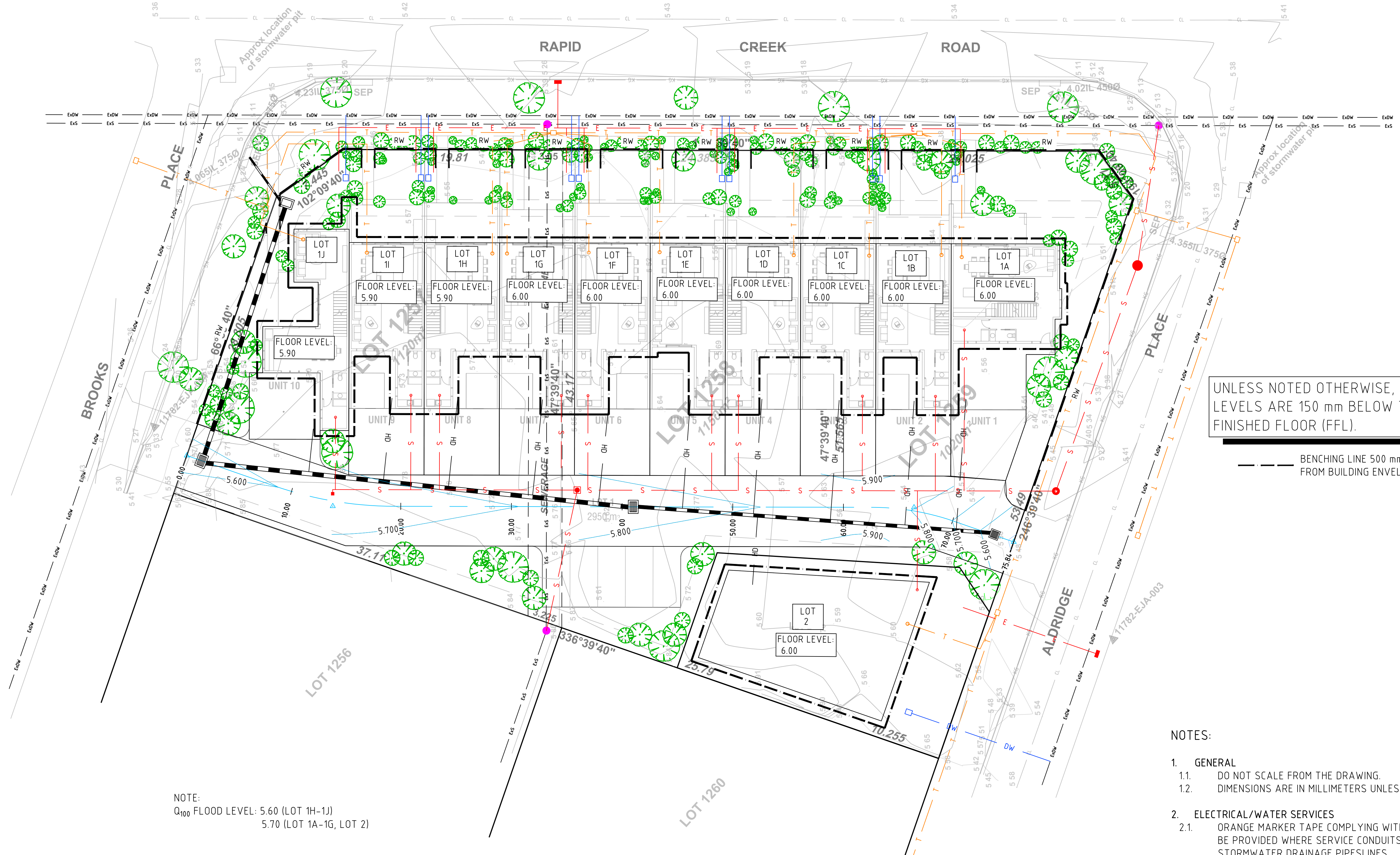
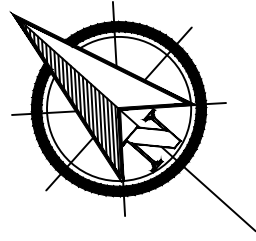
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CLIENT	LOUW GROUP
PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN
PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
EARTHWORKS (1 OF 2)			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C05	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.		
SCALE AS SHOWN AT A1			

REF. 21085





UNLESS NOTED OTHERWISE, BENCHING LEVELS ARE 150 mm BELOW THE FINISHED FLOOR (FFL).

--- BENCHING LINE 500 mm FROM BUILDING ENVELOPE

NOTE:  
 Q<sub>100</sub> FLOOD LEVEL: 5.60 (LOT 1H-1J)  
 5.70 (LOT 1A-1G, LOT 2)

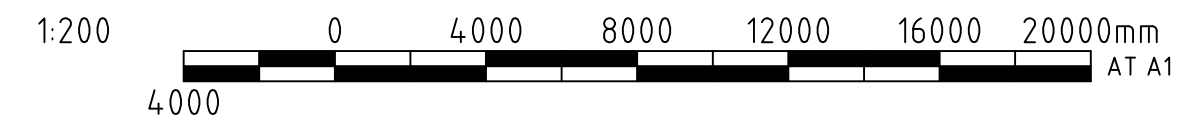


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A	08/04/2021	ISSUED FOR REVIEW	J.L.	J.G.			



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 PHONE: 03 9853 1218

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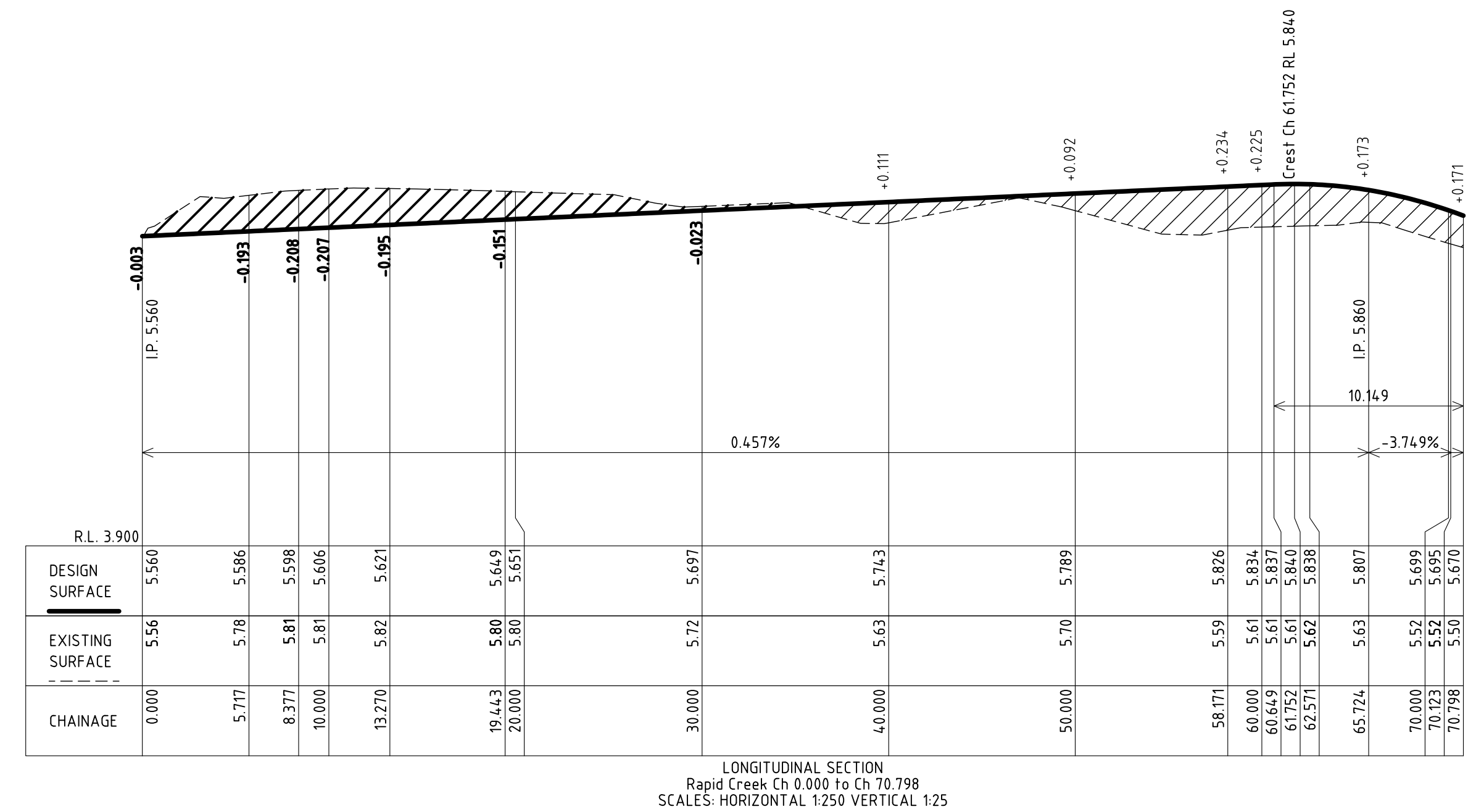
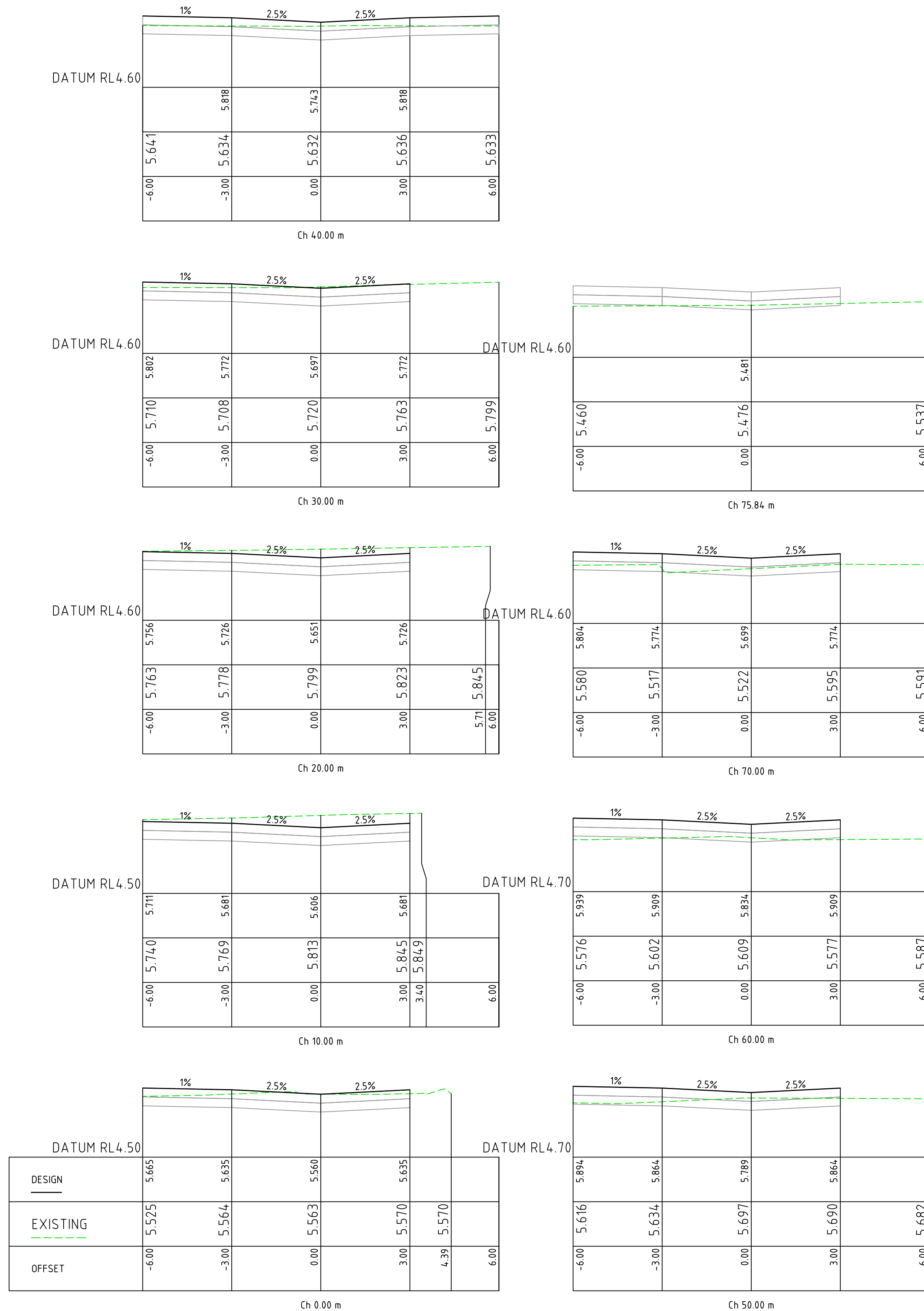
CLIENT  
 LOUW GROUP  
 PROJECT  
 PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN  
 PROJECT ADDRESS  
 LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
EARTHWORKS (2 OF 2)			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C06	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.		
SCALE AS SHOWN AT A1			

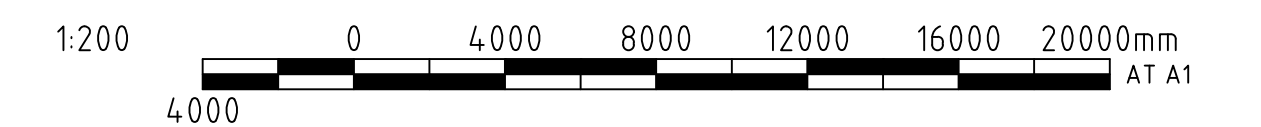
REF. 21085



FILE LOCATION: Y:\21085\21085\Civil\CAD\21085 - Rapid Creek - RA.dwg



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REV	DATE	DESCRIPTION	DRAWN	APP'D	No	DRAWING NUMBER	REFERENCE DRAWING TITLE
A	08/04/2021	ISSUED FOR REVIEW	J.L.	J.G.			



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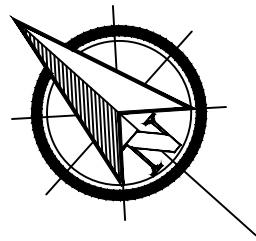
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CLIENT	LOUW GROUP
PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN
PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
ACCESS ROAD - SECTIONS			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C07	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.	SCALE AS SHOWN AT A1	

REF. 21085





**LEGEND**

EXISTING		PROPOSED	
— ExDW —	DRINKING WATER	— S —	SEWER PIPELINE
— ExS —	SEWER	— DW —	DRINKING WATER MAIN
— SWD —	STORMWATER DRAIN	— HD —	HOUSE DRAINAGE
		— T —	NBN
		— E —	ELECTRICITY
		— RW —	RETAINING WALL (RW)
		— S/D —	STORMWATER DRAIN
		●	MAN HOLE/MAINTENANCE SHAFT/INSPECTION SHAFT/MAINTENANCE CHAMBER

CONNECT TO EXISTING COUNCIL SEP. CONNECTION MUST BE TO COUNCIL REQUIREMENTS AND SATISFACTION. CONTRACTOR/BUILDER MUST VERIFY AND CONFIRM THE INVERT LEVEL AT THE DISCHARGE POINT ON SITE PRIOR TO COMMENCEMENT OF ANY DRAINAGE WORKS ON SITE. ANY DISCREPANCY IN THE PROVIDED INVERT LEVEL AT THE DISCHARGE POINT MUST BE REPORTED TO THE DESIGNER.



NOTE:  
Q<sub>100</sub> FLOOD LEVEL: 5.60 (LOT 1H-1J)  
5.70 (LOT 1A-1G, LOT 2)



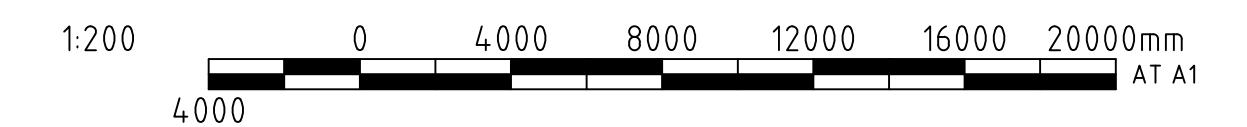
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**NOTES:**

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  - 1.2. DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ELECTRICAL/WATER SERVICES
  - 2.1. ORANGE MARKER TAPE COMPLYING WITH AS/NZS 2648.1 TO BE PROVIDED WHERE SERVICE CONDUITS CROSS OVER STORMWATER DRAINAGE PIPELINES.
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FILE LOCATION: Y:\21XXXX\21085\Civil\CAD\21085 - Rapid Creek - RA.dwg

REV	DATE	DESCRIPTION	DRAWN	APP'D	No	DRAWING NUMBER	REFERENCE DRAWING TITLE
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-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
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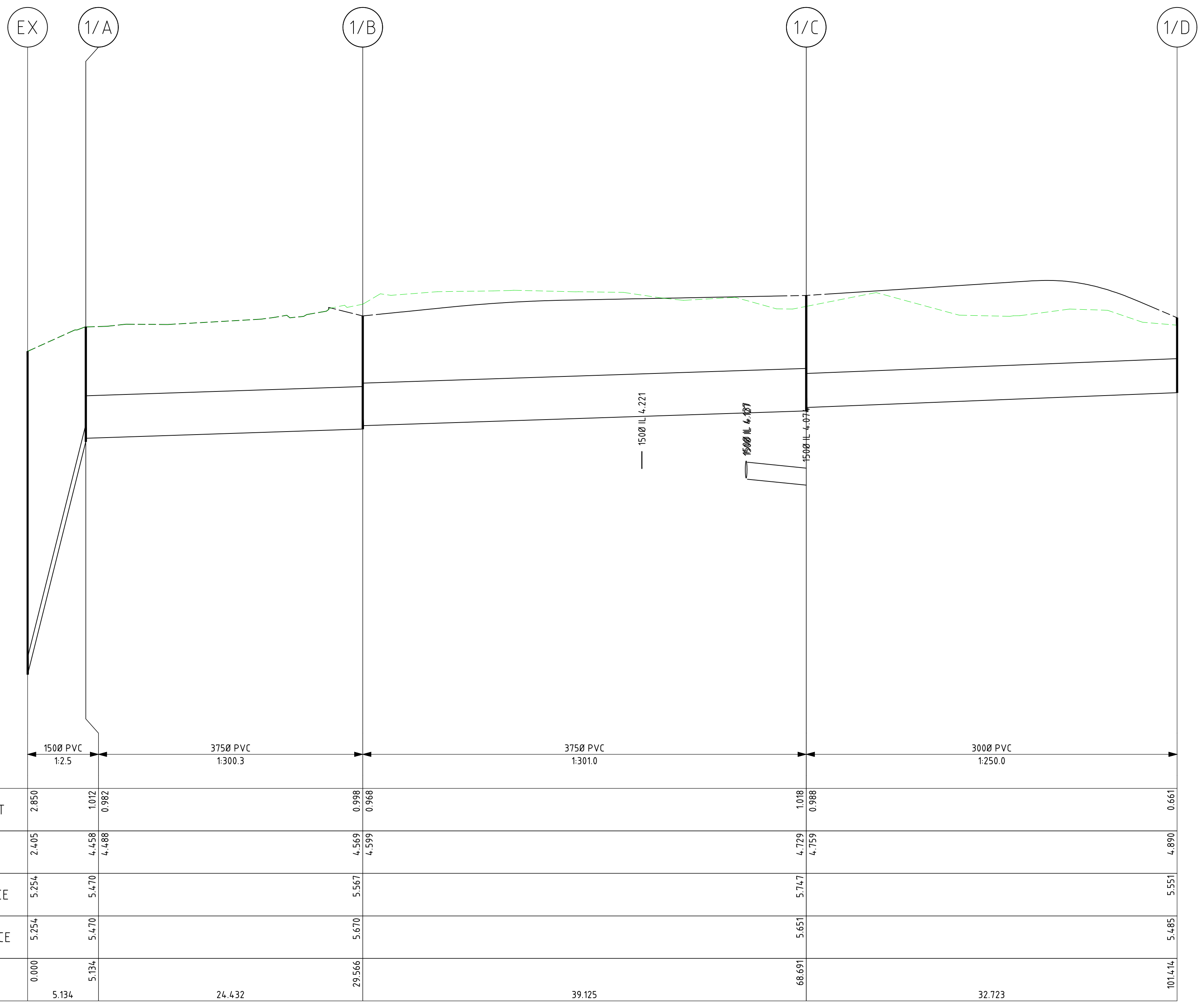
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CLIENT	LOUW GROUP
PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN
PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
<b>LAYOUT PLAN - DRAINAGE</b>			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C08	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.		
SCALE AS SHOWN AT A1			

REF. 21085





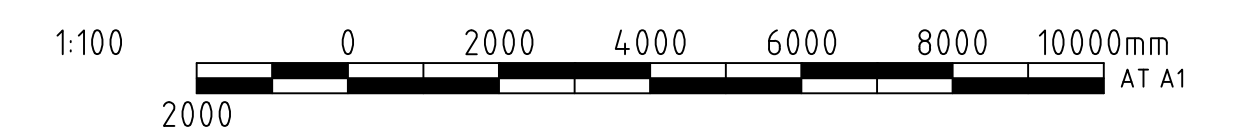
DRAINAGE LONGITUDINAL SECTION FOR LINE 1  
 SCALES: HORIZONTAL 1:250 VERTICAL 1:25

Pit Schedule - Drainage

Pit No.	Pit Type	Pit Width (mm)	Pit Length (mm)	Outlet Diameter (mm)	Outlet Invert RL (m)	Inlet Diameter (mm)	Inlet Invert RL (m)	Pit Depth (m)	Pit Lid Level (m)	Easting (m)	Northing (m)	Comment
EX	SEP	-	-	-	-	150	2.405	-	-	702797.25	8629760.109	EXISTING COUNCIL PIT
1/A	JP	600	900	150	4.458	375	4.488	1.012	5.47	702797.38	8629754.977	CLASS A COVER
1/B	GP	600	900	375	4.569	375	4.599	0.998	5.57	702775.13	8629744.869	CLASS C COVER
1/C	GP	600	900	375	4.729	300	4.759	1.018	5.75	702798.35	8629713.378	CLASS C COVER
1/D	GP	600	600	300	4.890	-	-	0.661	5.55	702818.48	8629687.576	CLASS C COVER

NOTES

1. GENERAL
  - 1.1. DO NOT SCALE FROM THE DRAWINGS.
  - 1.2. DIMENSIONS ARE IN MILLIMETERS U.N.O.
2. DRAINAGE
  - 2.1. REFER SHEET 01 FOR DRAINAGE NOTES.



FILE LOCATION: Y:\21085\Civil\CAD\21085 - Rapid Creek - RA.dwg

REV	DATE	DESCRIPTION	DRAWN	APP'D	No	DRAWING NUMBER	REFERENCE DRAWING TITLE
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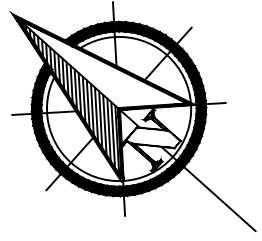
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PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN
PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
DRAINAGE - LONGSECTION			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C09	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.	SCALE AS SHOWN AT A1	

REF. 21085





**LEGEND**

EXISTING		PROPOSED	
—	ExDW DRINKING WATER	— S	SEWER PIPELINE
—	ExS SEWER	— Dw	DRINKING WATER MAIN
—	SWD STORMWATER DRAIN	— HD	HOUSE DRAINAGE
		— T	NBN
		— E	ELECTRICITY
		— RW	RETAINING WALL (RW)
		— S/D	STORMWATER DRAIN
		● / □ / ▲ / ○	MAN HOLE/MAINTENANCE SHAFT/INSPECTION SHAFT/MAINTENANCE CHAMBER



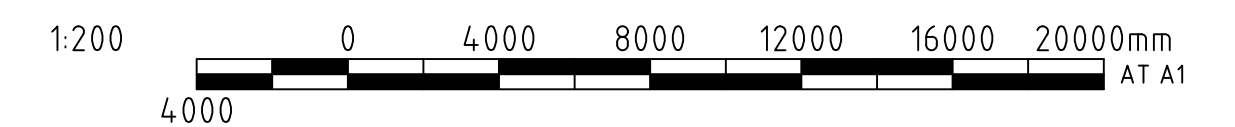
CONTRACTOR TO CONFIRM THE INVERT LEVEL OF THE CONNECTION POINT PRIOR TO INSTALLING ANY OF THE PROPOSED S.W.D. CONTACT THIS OFFICE IF SITE CONDITIONS DIFFER.

\* ALL INTERNAL DRAINAGE WORKS MUST BE IN ACCORDANCE WITH AS/NZS 3500.3: 2015 STORMWATER DRAINAGE.

**PRIOR TO WORKS**  
PRIOR TO THE COMMENCEMENT OF ANY WORKS, THE CONTRACTOR MUST VERIFY THAT ALL DRAWINGS HAVE BEEN CHECKED & APPROVED BY THE RELEVANT AUTHORITIES.


**NOTES:**

1. GENERAL
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  - 1.2. DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ELECTRICAL/WATER SERVICES
  - 2.1. ORANGE MARKER TAPE COMPLYING WITH AS/NZS 2648.1 TO BE PROVIDED WHERE SERVICE CONDUITS CROSS OVER STORMWATER DRAINAGE PIPELINES.
  - 2.2. SERVICE CONDUITS TO BE MECHANICALLY PROTECTED WHERE IN VICINITY OF STORMWATER DRAINAGE PIPELINES.



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A	08/04/2021	ISSUED FOR REVIEW	J.L.	J.G.			

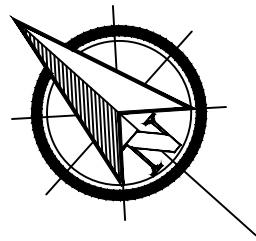
  
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 ADDRESS: SUITE 704, 1 PRINCESS STREET, KEW, VIC, 3101  
 PHONE: 03 9853 1218

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CLIENT	LOUW GROUP
PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN
PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
<b>LAYOUT PLAN - WATER RETICULATION</b>			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	<b>C10</b>	<b>A</b>
DESIGNED	DESIGN CHECK		
J.L.	J.G.	SCALE AS SHOWN AT A1	

REF. 21085





**LEGEND**

EXISTING		PROPOSED	
—	EXDW DRINKING WATER	—	S SEWER PIPELINE
—	EXS SEWER	—	DW DRINKING WATER MAIN
—	SWD STORMWATER DRAIN	—	HD HOUSE DRAINAGE
		—	T NBN
		—	E ELECTRICITY
		—	E-41 RETAINING WALL (RW)
		—	SD STORMWATER DRAIN
		●	MH MAN HOLE/MAINTENANCE SHAFT/INSPECTION SHAFT/MAINTENANCE CHAMBER



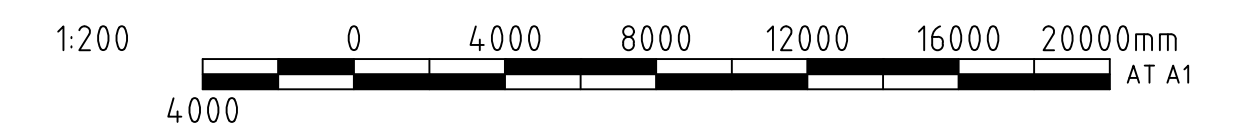
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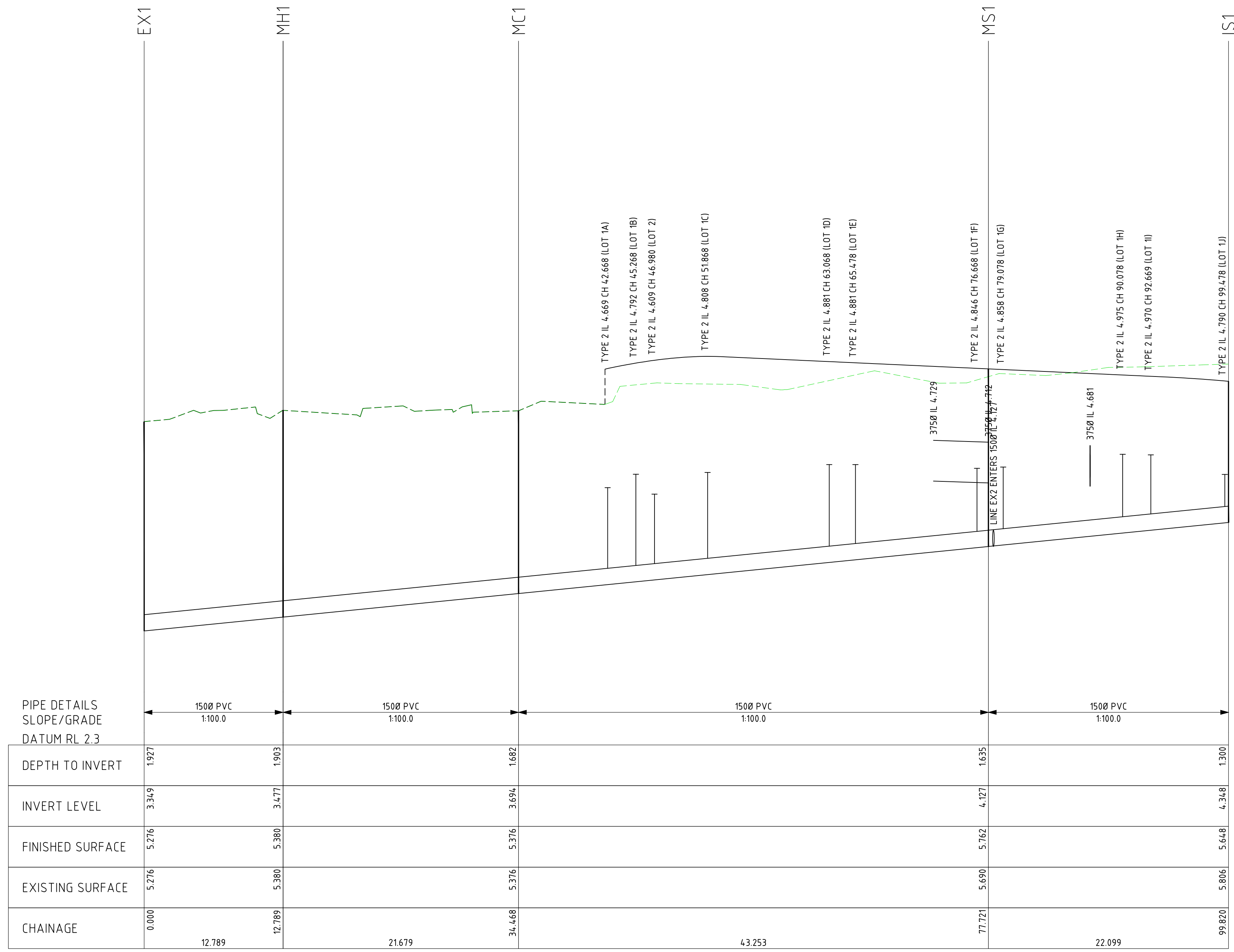
CLIENT	LOUW GROUP
PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN
PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
<b>LAYOUT PLAN - SEWER</b>			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C11	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.		
SCALE AS SHOWN AT A1			

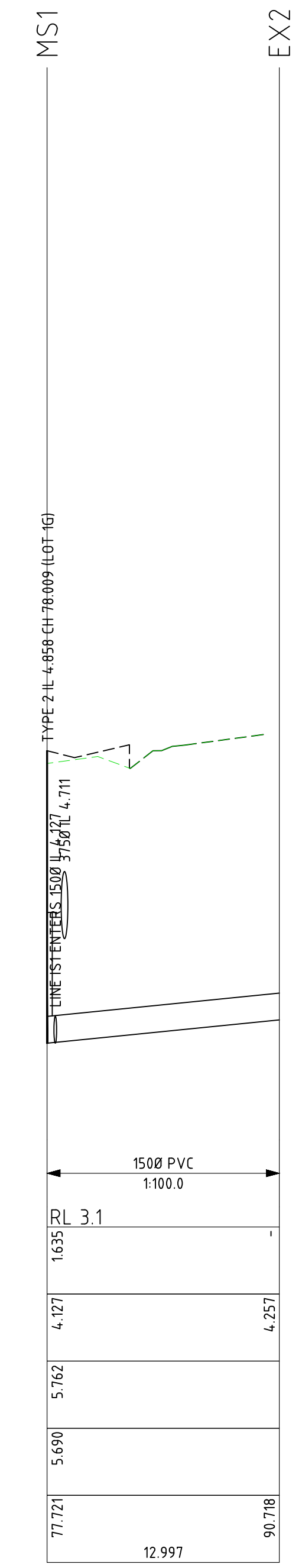
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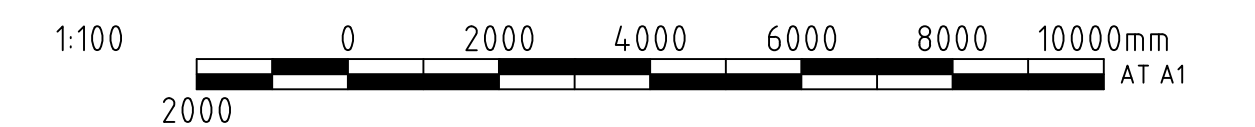
SEWER LONGITUDINAL SECTION FOR LINE 1  
SCALES: HORIZONTAL 1:250 VERTICAL 1:25



SEWER LONGITUDINAL SECTION FOR LINE 2  
SCALES: HORIZONTAL 1:250 VERTICAL 1:25

**NOTES**

1. GENERAL
  - 1.1. DO NOT SCALE FROM THE DRAWINGS.
  - 1.2. DIMENSIONS ARE IN MILLIMETERS U.N.O.
2. DRAINAGE
  - 2.1. REFER SHEET 01 FOR DRAINAGE NOTES.



REV	DATE	DESCRIPTION	DRAWN	APP'D	No	DRAWING NUMBER	REFERENCE DRAWING TITLE
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CLIENT  
LOUW GROUP

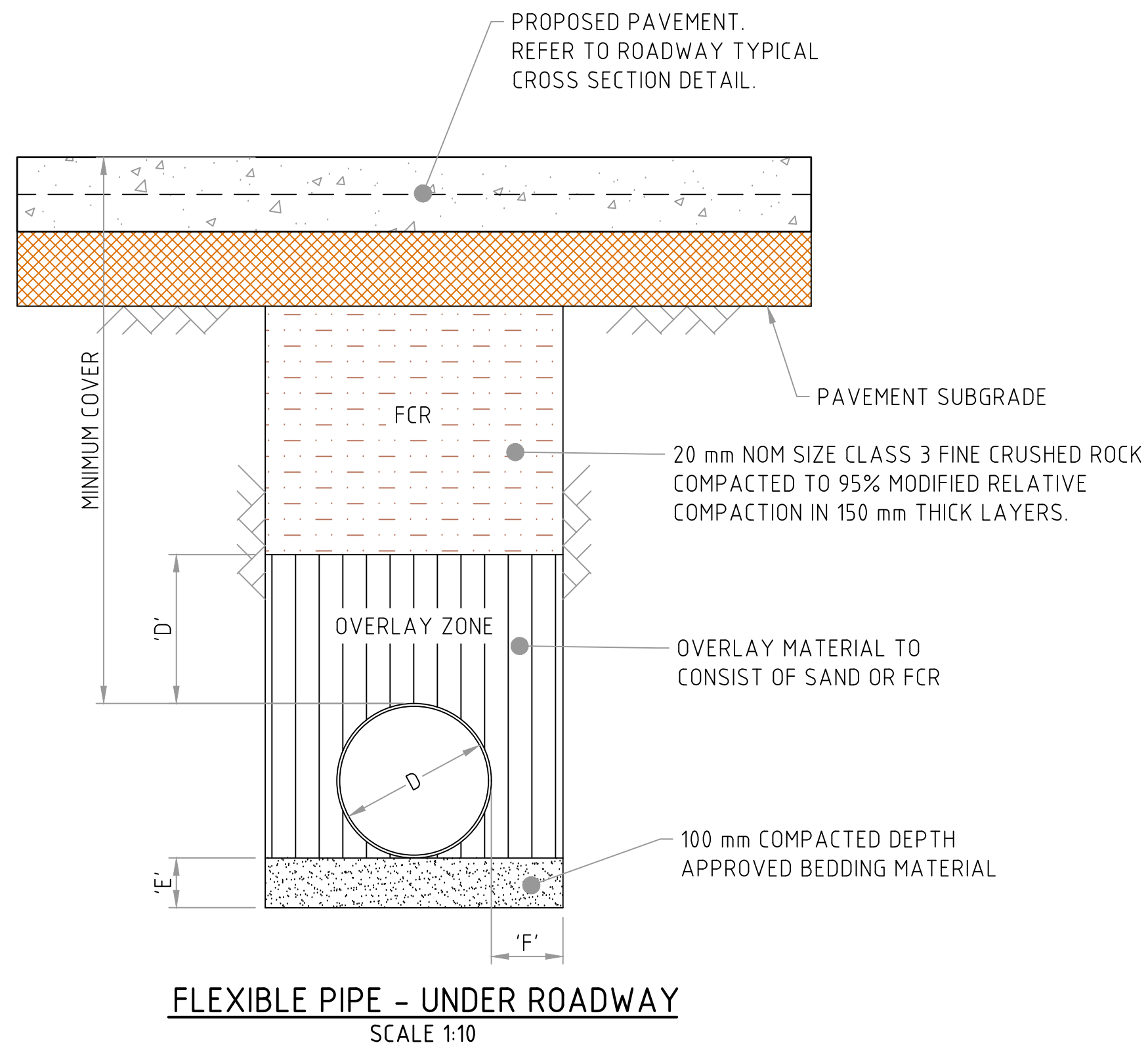
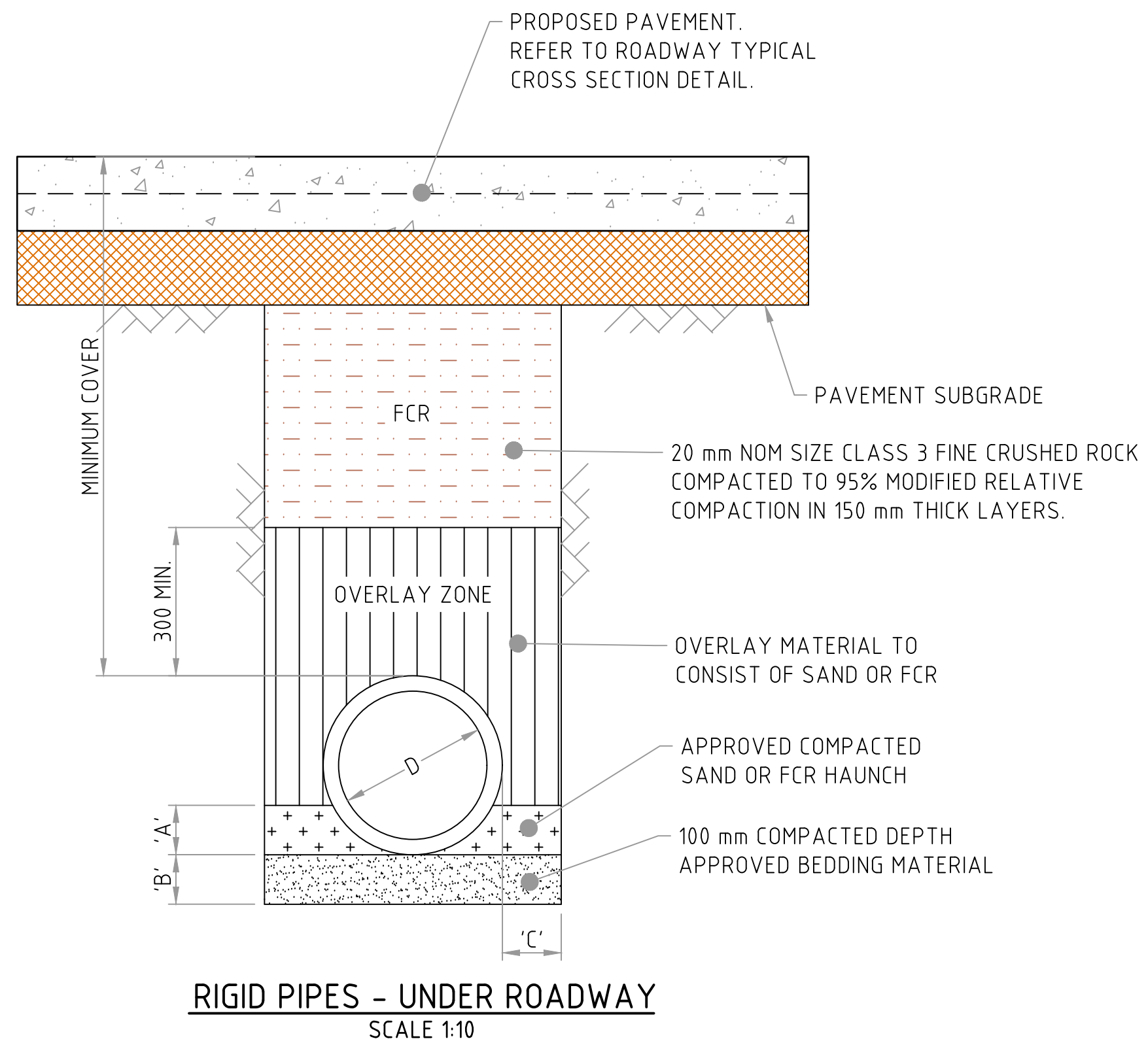
PROJECT  
PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN

PROJECT ADDRESS  
LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
<b>SEWER - LONGSECTION</b>			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C12	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.	SCALE AS SHOWN AT A1	

REF. 21085





**TABLE 1 - MINIMUM COVER**

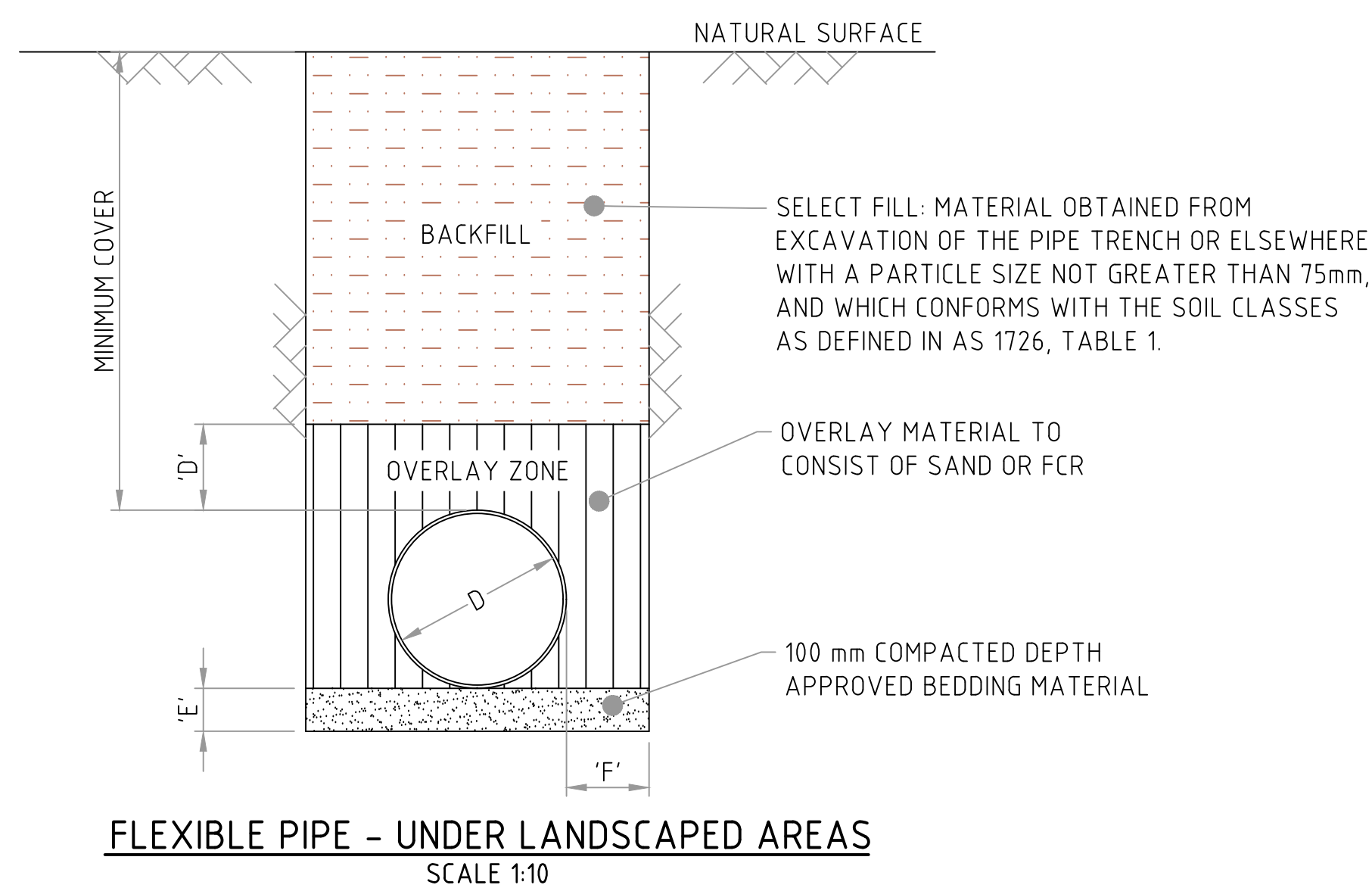
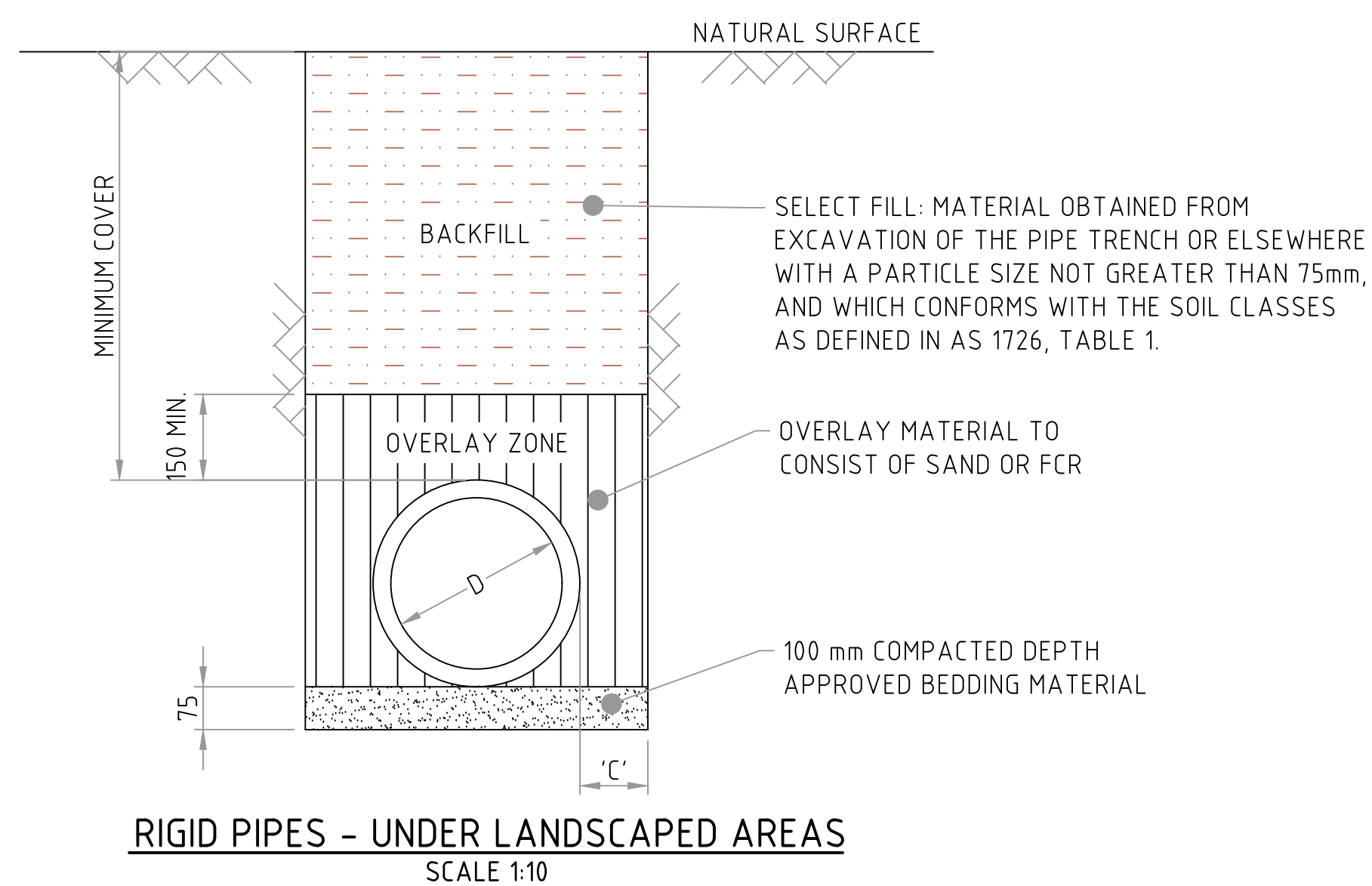
LOCATION	MINIMUM COVER (mm)
NO VEHICULAR LOADING	300
VEHICULAR LOADING - NORMAL DUTY PAVEMENT	450
VEHICULAR LOADING - SEALED/UNSEALED ROAD	500

**TABLE 2 - RIGID PIPE BEDDING VALUES**

PIPE DIAMETER (mm)	A	B	C
$D \leq 1500$	0.1 D	100	LARGER OF D/6 OR 150
$D > 1500$	0.3 D	150	LARGER OF D/6 OR 150

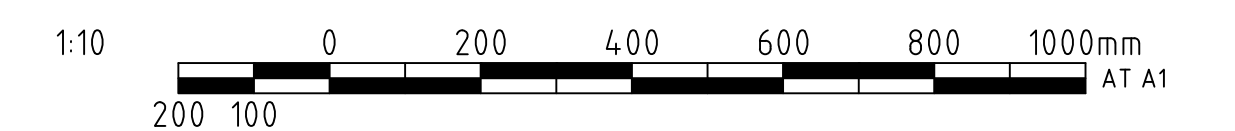
**TABLE 3 - FLEXIBLE PIPE BEDDING VALUES**

PIPE DIAMETER (mm)	D	E	F
75 - 150	100	75	100
150 - 300	150	100	150
300 - 450	150	100	200
450 - 900	150	150	300
900 - 1500	200	150	350
1500 - 4000	300	150	0.25 D



**NOTES**

1. GENERAL
  - 1.1. DO NOT SCALE FROM THE DRAWINGS.
  - 1.2. DIMENSIONS ARE IN MILLIMETERS U.N.O.
2. PIPE BEDDING
  - 2.1. ALL EMBEDMENT TO BE AS PER AS 3500.3, AS 3725 AND AS 2566.1



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CLIENT  
LOUW GROUP

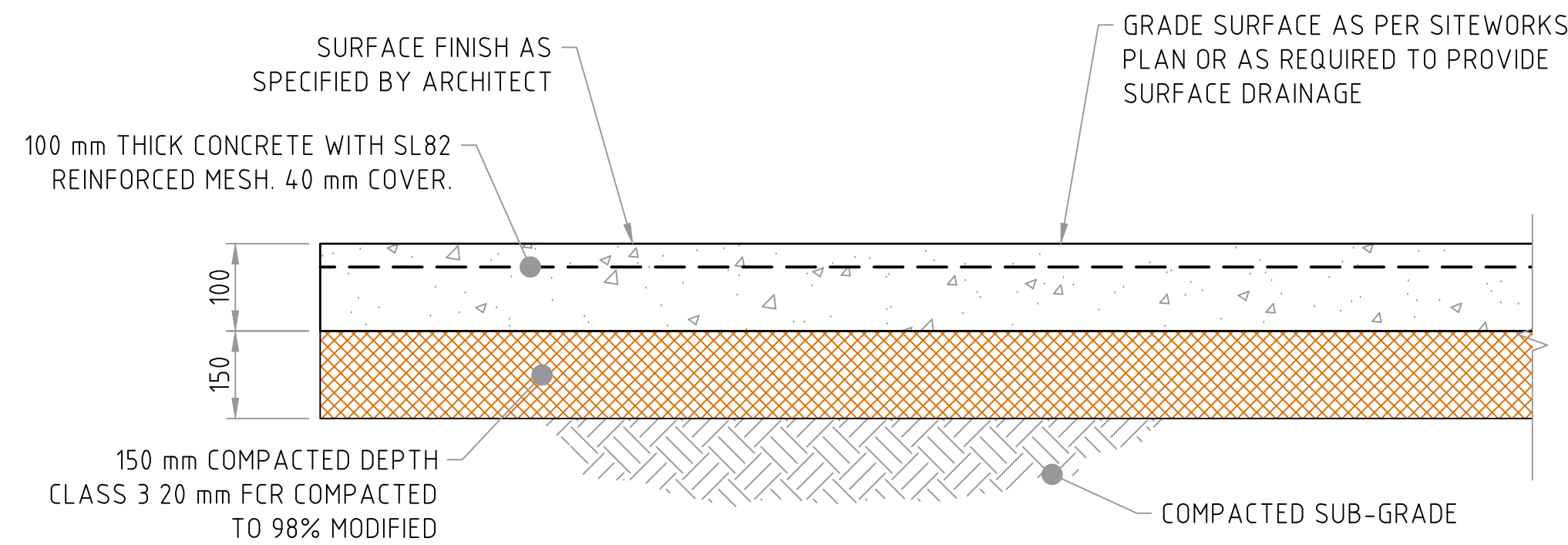
PROJECT  
PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN

PROJECT ADDRESS  
LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

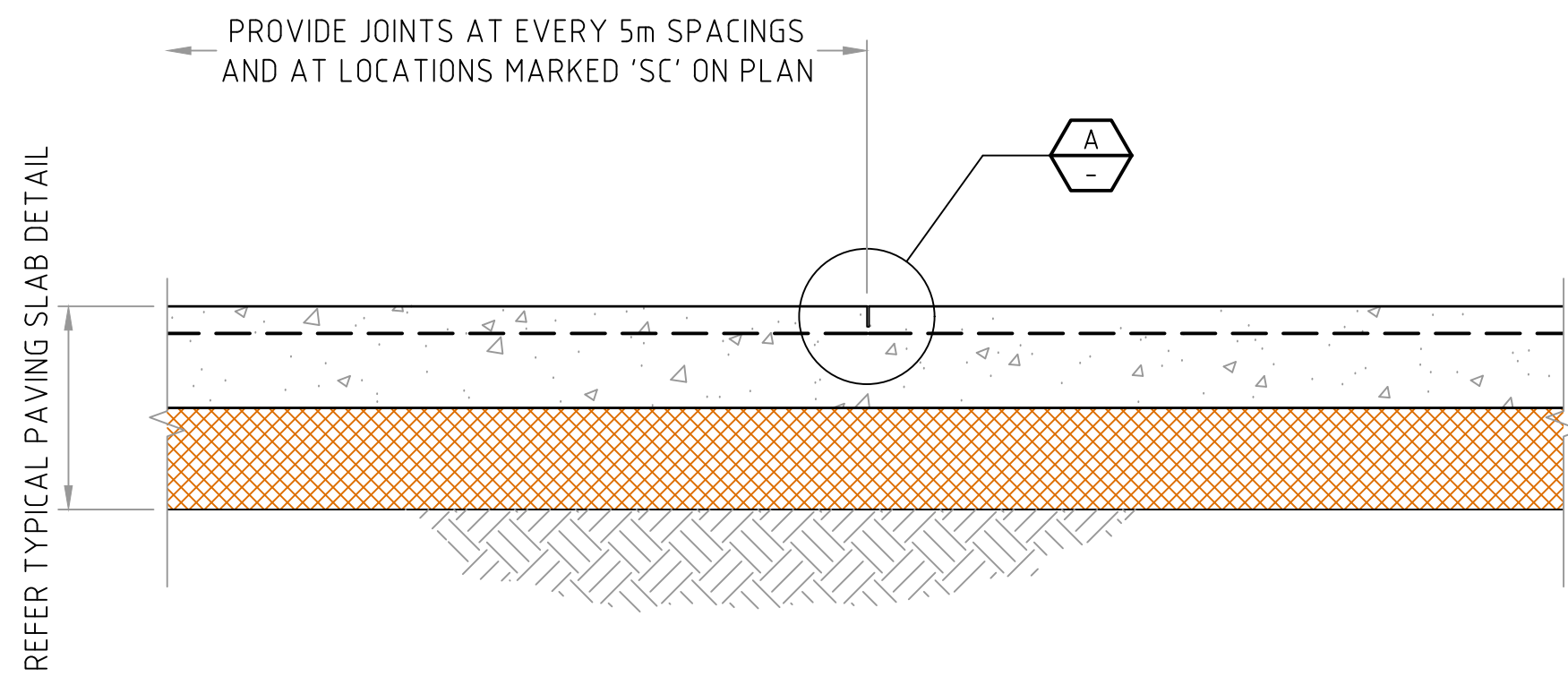
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<b>CIVIL DETAILS - PIPE BACKFILL</b>			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C13	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.	SCALE AS SHOWN AT A1	

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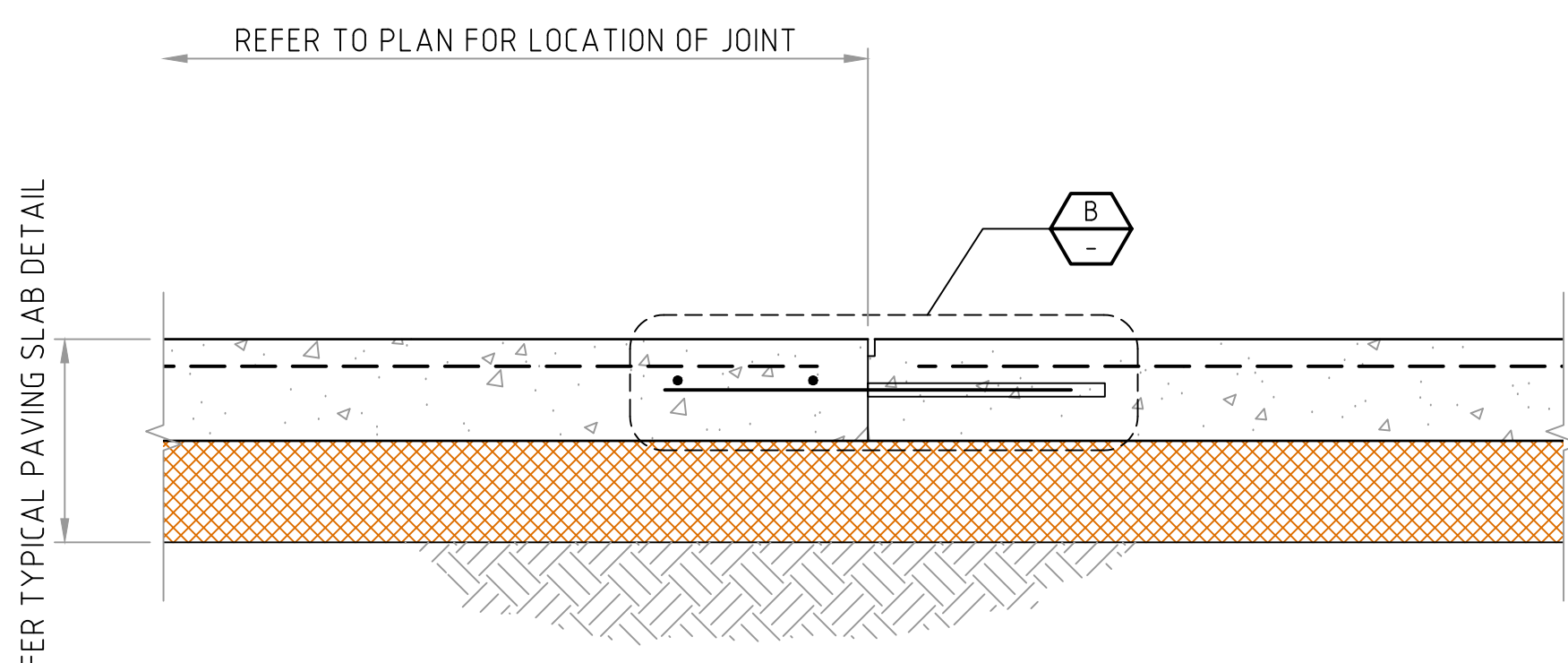




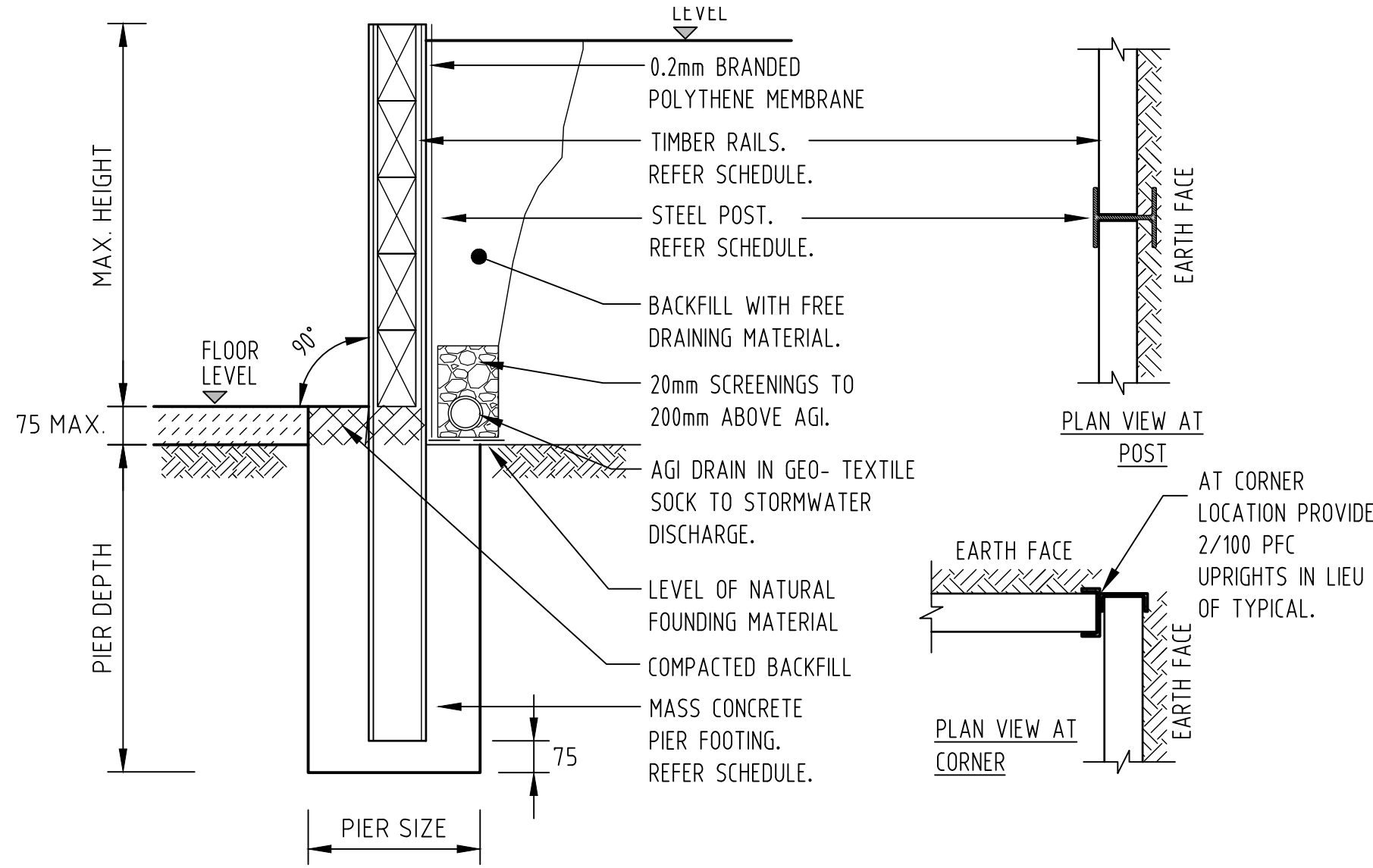
**TYPICAL PAVING SLAB ON GROUND**  
SCALE 1:10



**TYPICAL PAVING SLAB ON GROUND - SAW CUT JOINT DETAIL**  
SCALE 1:10



**TYPICAL PAVING SLAB ON GROUND - CONSTRUCTION JOINT DETAIL**  
SCALE 1:10

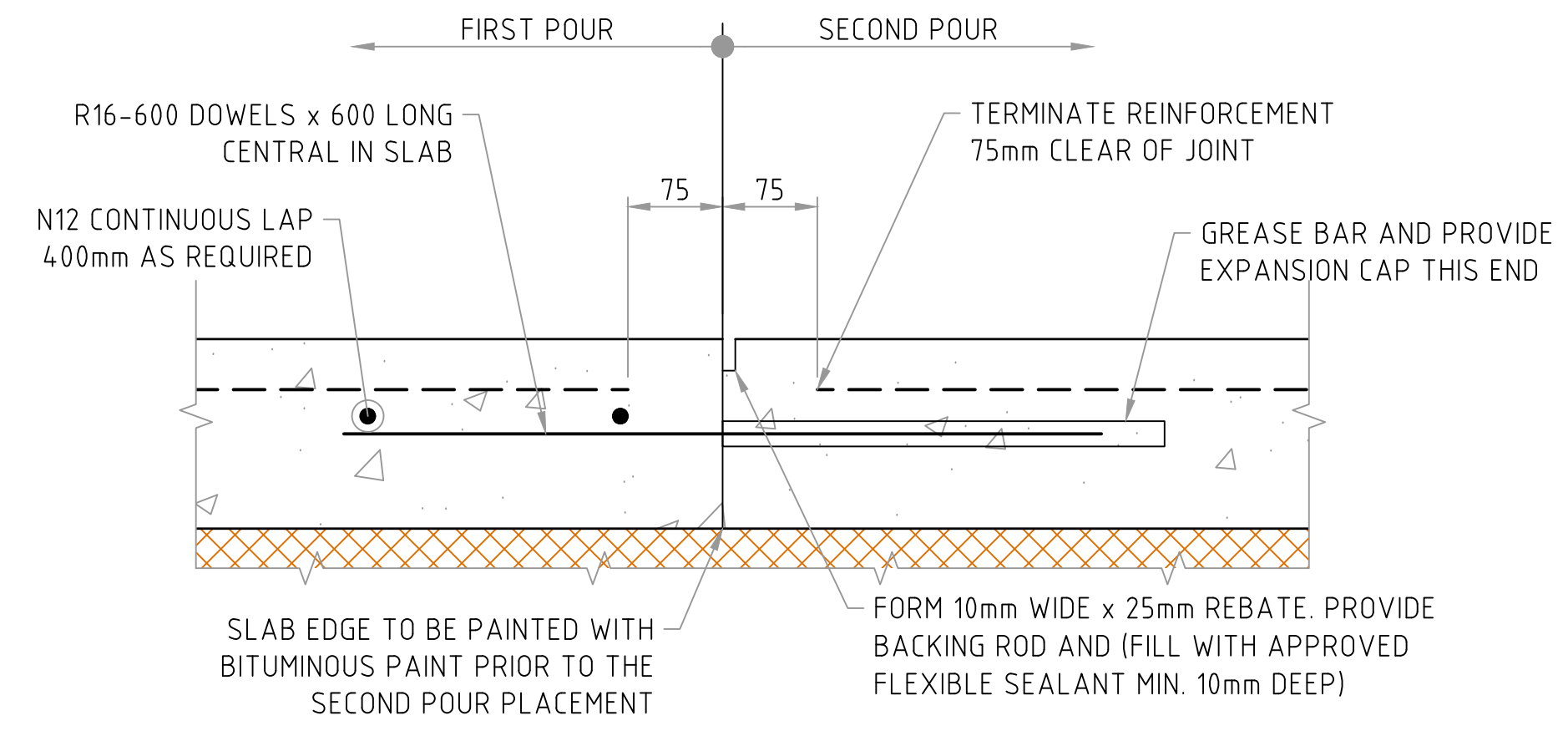


**TYPICAL RW SLEEPER RETAINING WALL (STEEL POST)**  
SCALE 1:20

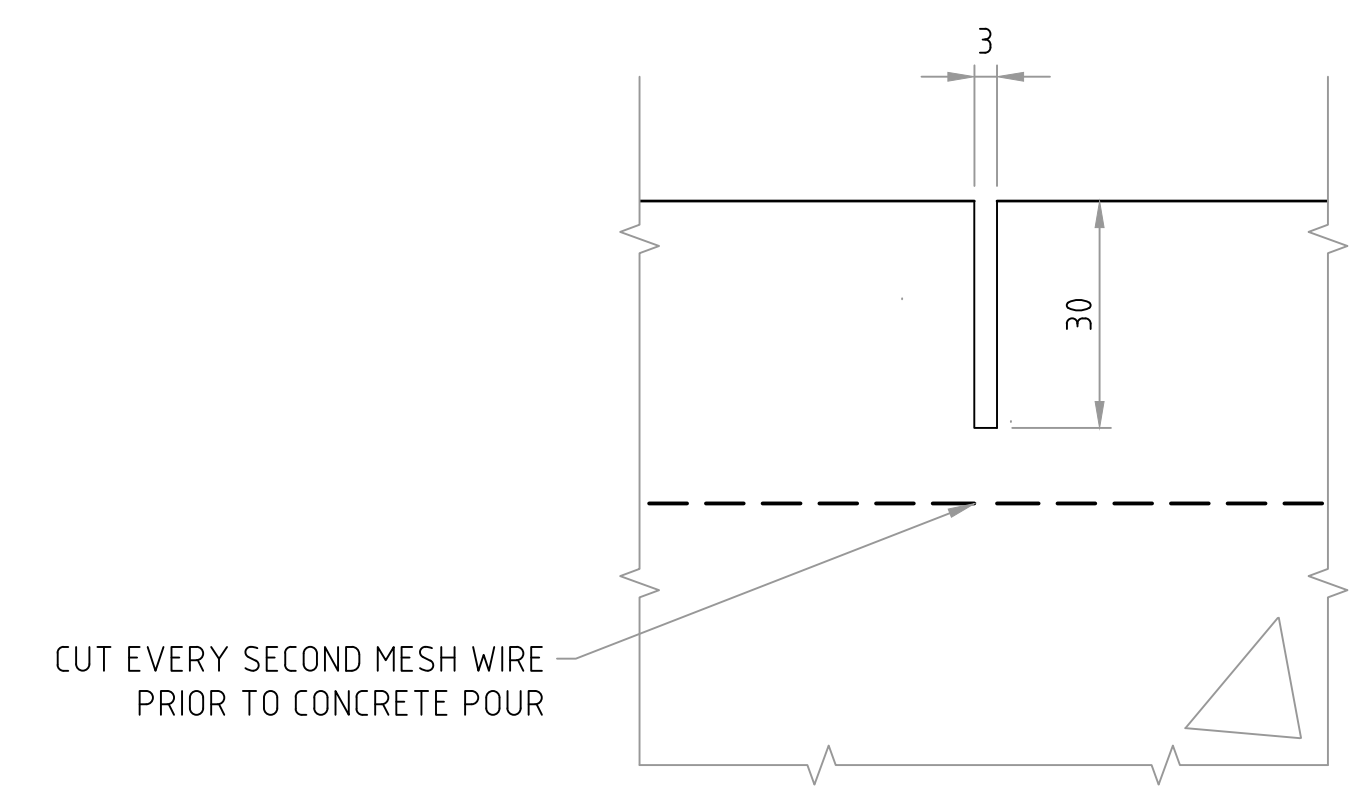
RETAINING WALL SCHEDULE (STEEL POST) - RAIL TO BE F7 TREATED PINE			
MAX. WALL HEIGHT	0 - 600mm.	600 - 1200mm	1200 - 1800mm
POST SIZE	100UC14	100UC14	150UB14
POST SPACING	2400mm	2400mm	1200mm
RAIL SIZE	200 x 75	200 x 75	200 x 75
PIER SIZE	φ450	φ450	φ450
PIER DEPTH	1000mm	1800mm	1800mm

**NOTE:**

- ALL TIMBER RAILS ARE TO BE F7 TREATED PINE (TREATED TO H4 OR BETTER) WITH LIMITED UNTREATED HEARTWOOD - LIMIT 20%.
- ALL STEEL POSTS ARE TO BE HOT DIP GALVANIZED.
- IF THE HEIGHT OF THE RETAINING WALL EXCEEDS THE HEIGHT NOTED, THIS OFFICE IS TO BE CONTACTED FOR FURTHER ADVICE.
- THIS RETAINING WALL HAS BEEN DESIGNED FOR A SURCHARGE OF 15kPa.
- THE PIER FOOTINGS HAVE BEEN DESIGNED FOR A MINIMUM BEARING PRESSURE OF 200 kPa.
- FOOTINGS MUST BE FULLY FOUNDED INTO THE FIRM NATURAL SILTSTONE AS NOTED IN THE SOIL REPORT.

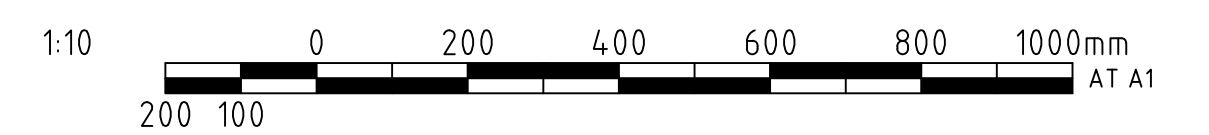


**DETAIL SCALE 1:5**



**DETAIL SCALE 1:1**

- NOTES**
- GENERAL**
    - DO NOT SCALE FROM THE DRAWINGS.
    - DIMENSIONS ARE IN MILLIMETERS U.N.O.
  - TYPICAL PAVING SLAB ON GROUND**
    - REFER TO GEOTECHNICAL REPORT FOR SITE PREPARATION AND EARTHWORKS RECOMMENDATIONS.
  - TYPICAL PAVING SLAB ON GROUND - SAW CUT JOINT DETAIL**
    - DENOTED AS 'SC' ON PLAN
    - CUT EVERY SECOND MESH WIRE PRIOR TO CONCRETE POUR
    - MARK LOCATION OF CUT MESH ON PAVEMENT SURFACE
    - SAW CUT 30 MAX. DEPTH WITHIN 24 HOURS OF CONCRETE POUR
    - SEAL JOINTS AS PER TYPICAL DETAIL
  - TYPICAL PAVING SLAB ON GROUND - CONSTRUCTION JOINT DETAIL**
    - DENOTED AS 'CJ' ON PLAN
    - DOWELS SHALL BE CORRECTLY ALIGNED AND SECURELY HELD PARALLEL TO THE SLAB SURFACE AND PERPENDICULAR TO THE LONGITUDINAL DIRECTION OF JOINT
    - DOWELS SHALL BE OMITTED WITHIN 900mm (HORIZONTALLY) OF A TRANSVERSE JOINT.



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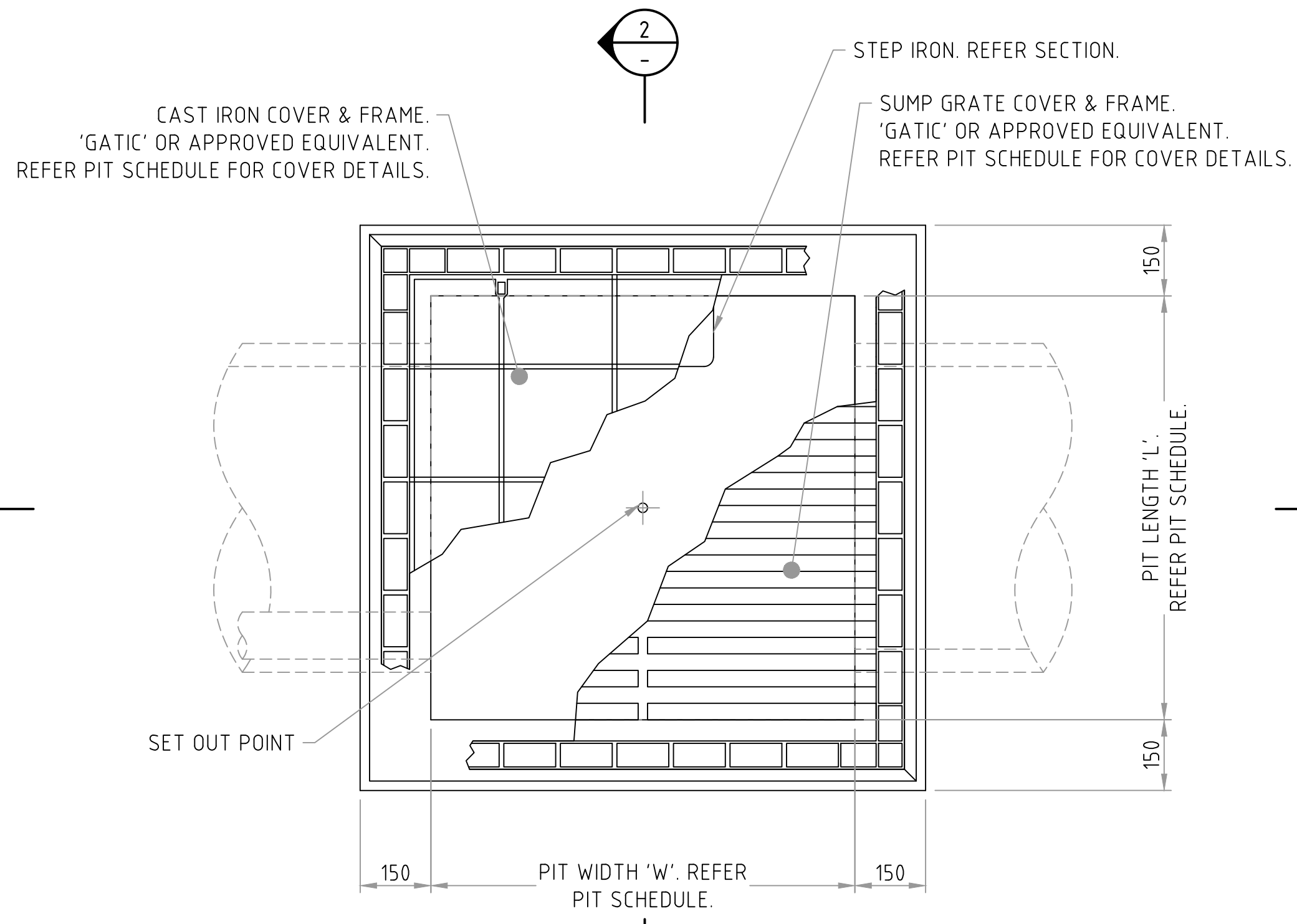
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PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT - CIVIL DESIGN
PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
CIVIL DETAILS - PAVEMENT DETAIL			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
J.L.	J.G.	C14	A
DESIGNED	DESIGN CHECK		
J.L.	J.G.	SCALE AS SHOWN AT A1	

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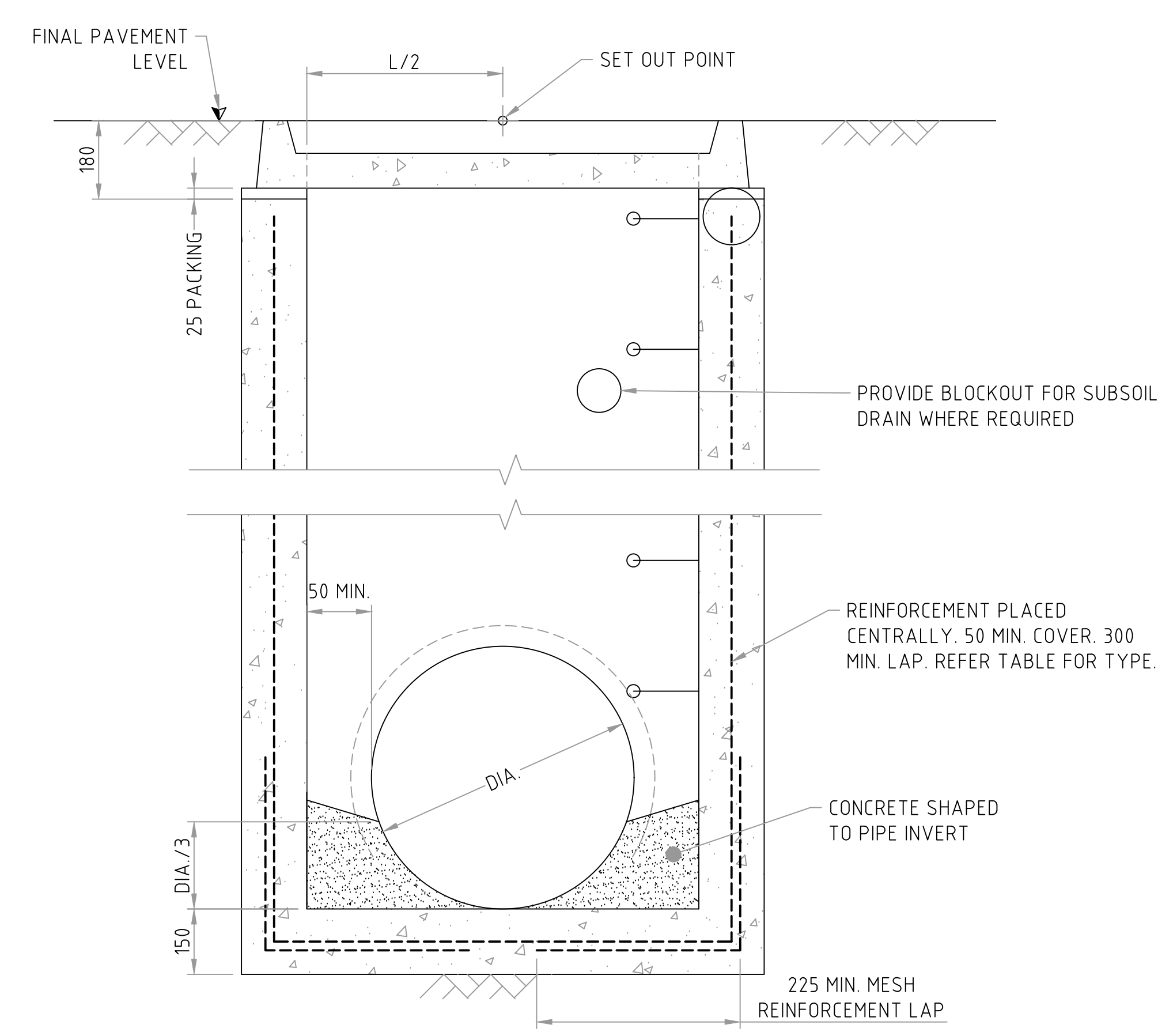
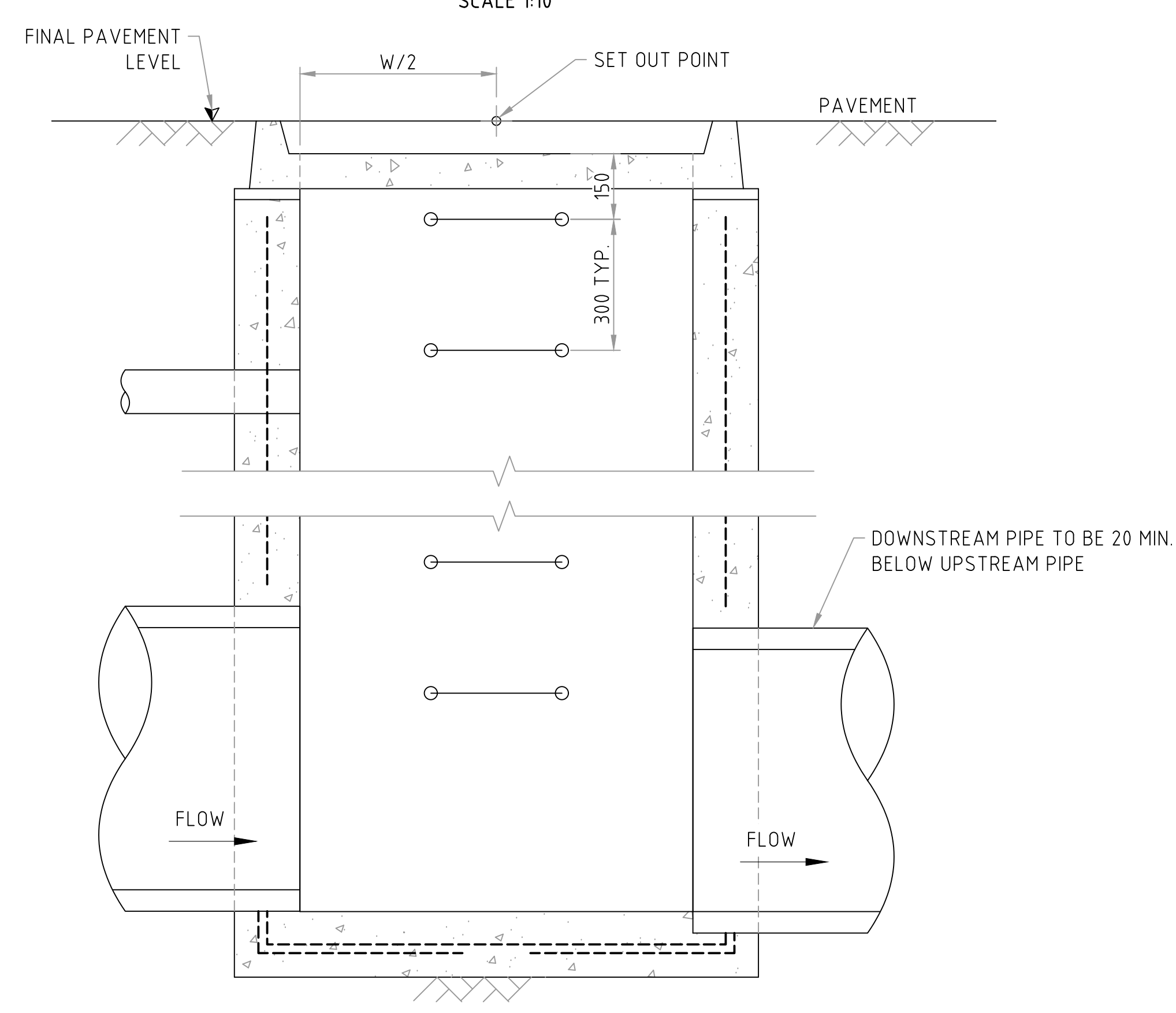


**TABLE 1 - PIT DIMENSIONS**

PIT LENGTH 'L'	REINFORCEMENT
0 - 1200	SL92
1201 - 1800	RL918
1801 - 2400	RL1218

**TABLE 2 - MINIMUM INTERNAL DIMENSIONS**

PIT DEPTH	WIDTH	LENGTH
0 - 600	450	450
601 - 900	600	600
901 - 1200	600	900
> 1200	900	900



**NOTES**

- GENERAL
  - DO NOT SCALE FROM THE DRAWINGS.
  - DIMENSIONS ARE IN MILLIMETERS U.N.O.
  - PROVIDE STEP IRONS FOR PITS GREATER THAN 0.9m IN DEPTH.

1:10

FILE LOCATION: Y:\21085\Civil\CAD\CIVIL DETAILS.dwg

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PROJECT ADDRESS	LOT 1257-1259 RAPID CREEK ROAD, RAPID CREEK, NT

DRAWING TITLE			
<b>CIVIL DETAILS - JUNCTION PIT</b>			
DRAWN	DRAWING CHECK	DRAWING REFERENCE	REVISION
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DESIGNED	DESIGN CHECK		
J.L.	J.G.	SCALE AS SHOWN AT A1	

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