

DELEGATED REPORT

**SUBJECT:** SIBI GIRGENTI HOLDINGS PTY LTD - OPERATIONAL WORKS (ROADWORKS, BULK EARTHWORKS, WATER AND SEWER SUPPLY WORKS) FOR DEVELOPMENT PERMIT RAL/21/0024 - LOT 100 ON SP276719 - MCIVER ROAD, MAREEBA - OPW/22/0004

**DATE:** 11 August 2022

**REPORT OFFICER'S**

**TITLE:** Planning Officer

**DEPARTMENT:** Corporate and Community Services

APPLICATION DETAILS

APPLICATION		PREMISES	
<b>APPLICANT</b>	Sibi Girgenti Holdings Pty Ltd	<b>ADDRESS</b>	Mclver Road, Mareeba
<b>DATE LODGED</b>	27 June 2022	<b>RPD</b>	Lot 100 on SP276719
<b>TYPE OF APPROVAL</b>	Development Permit		
<b>PROPOSED DEVELOPMENT</b>	Operational Works (Roadworks, Bulk Earthworks, Water and Sewer Supply Works Only - <b>Excluding Stormwater Drainage Works</b> ) for Development Permit RAL/21/0024		

<b>FILE NO</b>	OPW/22/0004	<b>AREA</b>	4.32 ha
<b>LODGED BY</b>	Jim Papas Civil Engineering Designer Pty Ltd	<b>OWNER</b>	Sibi Girgenti Holdings Pty Ltd
<b>PLANNING SCHEME</b>	Mareeba Shire Council Planning Scheme 2016		
<b>ZONE</b>	Preliminary Approval for Low Density Residential		
<b>LEVEL OF ASSESSMENT</b>	Code Assessable		
<b>SUBMISSIONS</b>	n/a		

**ATTACHMENTS:** 1. Proposal Plan/s

PREVIOUS APPLICATIONS & APPROVALS

RAL/21/0024

DESCRIPTION OF PROPOSED DEVELOPMENT

The development application seeks a Development Permit for Operational Works (Roadworks, Bulk Earthworks, Water and Sewer Supply Works Only - **Excluding Stormwater Drainage Works**)

## ASSESSMENT

### State Planning Policy

Separate assessment against the State Planning Policy (SPP) is not required because the Mareeba Shire Council Planning Scheme appropriately integrates all relevant aspects of the SPP.

### Relevant Development Codes

The following Development Codes are considered to be applicable to the assessment of the application:

- 6.2.4 Low Density Residential zone code
- 9.4.4 Reconfiguring a lot code
- 9.4.5 Works, services and infrastructure code

The application did not include a planning report and assessment against the planning scheme. An officer assessment has found that the application satisfies the relevant acceptable outcomes (or performance outcome where no acceptable outcome applies) of the relevant codes set out below.

Relevant Codes	Comments
Low Density Residential zone code	The application can be conditioned to comply with the relevant acceptable outcomes contained within the code.
Reconfiguring a lot code	The application can be conditioned to comply with the relevant acceptable outcomes contained within the code.
Works, services and infrastructure code	<p>The application can be conditioned to comply with the relevant acceptable outcomes contained within the code.</p> <p>The submitted plans included the use of "black-max" stormwater drainage pipes which are not supported by Council. The sizing of the underground stormwater pipe along Tilse Street is also under investigation. In order to allow development works to commence an approval will be issued for all aspects of the proposed operational works except the Stormwater Drainage components.</p>

### Compliance with conditions of earlier related approval

RAL/21/0024 - Reconfiguring a Lot - Subdivision (1 into 24 Lots)

1. Development must be carried out generally in accordance with the approved plans and the facts and circumstances of the use as submitted with the application, and subject to any alterations:
  - found necessary by the Council's delegated officer at the time of examination of the engineering plans or during construction of the development because of particular engineering requirements; and
  - to ensure compliance with the following conditions of approval.
2. Timing of Effect
  - 2.1 The conditions of the development permit must be complied with to the satisfaction of Council's delegated officer prior to the endorsement of

the plan of survey for each stage of the development, or alternative documentation as approved by the Land Title Act, except where specified otherwise in these conditions of approval.

3. Staging of Development

- 3.1 The construction of this development may be staged in accordance with the stage numbering shown on Drawing No. 1470 - SK01 Amendment C dated 10.04.22 and as shown in **Table 1** below:

**Table 1: Staging**

Stage Number	Lots
Stage 1	Lots 17-20
Stage 2	Lots 12-16
Stage 3	Lots 21-24
Stage 4	Lots 9-12
Stage 5	Lots 1-4
Stage 6	Lots 5-8

A balance lot will be created up to the final stage.

- 3.2 Staged development may also be undertaken in any other sequence provided all infrastructure required to service the relevant stage is constructed.
- 3.3 The applicant/developer must comply with each condition of this development approval as it relates to each designated stage, unless otherwise stated in this approval.
4. General
- 4.1 The applicant/developer is responsible for the cost of necessary alterations to existing public utility mains, services or installations required by works in relation to the proposed development or any works required by condition(s) of this approval.
- 4.2 All payments or bonds required to be made to the Council pursuant to any condition of this approval or the Adopted Infrastructure Charges Notice must be made prior to the endorsement of the plan of survey, or alternative documentation as approved by the Land Title Act and at the rate applicable at the time of payment.
- 4.3 The developer must relocate (in accordance with FNQROC standards) any services such as water, sewer, drainage, telecommunications and electricity that are not wholly located within the lots that are being created/serviced where required by the relevant authority, unless approved by Council's delegated officer.
- 4.4 Where utilities (such as sewers on non-standard alignments) traverse lots to service another lot, easements must be created in favour of Council for access and maintenance purposes. The developer is to pay all costs (including Council's legal expenses) to prepare and register the easement documents.

4.5 All works must be designed, constructed and carried out in accordance with FNQROC Development Manual requirements (as amended) and to the satisfaction of Council's delegated officer.

4.6 Charges

All outstanding rates, charges, and expenses pertaining to the land are to be paid in full.

4.7 Bushfire Management

A Bushfire hazard management plan for the subject land must be prepared by suitably qualified person to the satisfaction of Council's delegated officer.

The future use of each lot must comply with the requirements of the bushfire hazard management plan at all times.

5. Infrastructure Services and Standards

5.1 Access

Access to each allotment must be constructed (from the edge of the road pavement to the property boundary of each lot) in accordance with the FNQROC Development Manual, to the satisfaction of Council's delegated officer.

The provision of roll-over kerb along the frontage of each allotment will satisfy this condition.

5.2 Stormwater Drainage

(a) The applicant/developer must take all necessary steps to ensure a non-worsening effect on surrounding land as a consequence of the development.

(b) Prior to works commencing the applicant must submit a Stormwater Management Plan and Report prepared and certified by a suitably qualified design engineer (RPEQ) that meets or exceeds the standards of design and construction set out in the Queensland Urban Drainage Manual (QUDM) and the FNQROC Development Manual to the satisfaction of Council's delegated officer.

(c) Prior to works commencing the applicant must submit a Stormwater Quality Management Plan and Report prepared and certified by a suitably qualified design engineer (RPEQ) that meets or exceeds the standards of design and construction set out in the Urban Stormwater Quality Planning Guideline and the Queensland Water Quality Guideline to the satisfaction of Council's delegated officer.

(d) The Stormwater Quality Management Plan must include an Erosion and Sediment Control Plan that meets or exceeds the Soil Erosion and Sedimentation Control Guidelines (Institute of Engineers Australia) to the satisfaction of Council's delegated officer.

(e) The applicant/developer must construct the stormwater drainage infrastructure in accordance with the approved Stormwater Management Plan and/or Stormwater Quality Management Plan and Report.

- (f) Temporary drainage is to be provided and maintained during the construction phase of the development, discharged to a lawful point and not onto the construction site.
- (g) All stormwater channels through private property must be registered, with the easement for drainage purposes in favour of Council. All documentation leading to the registration of the easement must be completed at no cost to Council.
- (h) All stormwater drainage collected from the site must be discharged to an approved legal point of discharge.
- (i) The applicant (at their cost) must video all stormwater lines and submit the video for inspection by Council's delegated officer prior to the development being taken "off maintenance" to ensure that no defects have occurred during the 12 month maintenance period.
- (j) All drainage easements must be constructed to prevent erosion. Construction may be in the form of a concrete invert, with outlet protection.
- (k) To complete the subject site's Tilse Street frontage to a reasonable standard to service the stormwater catchment, Council will credit the cost difference for the additional design and construction of the following required works against infrastructure charges associated with the proposed development:
  - (i) Fill the existing open drain with approved material, including compaction and testing, reprofiling and vegetation with suitable grass species
  - (ii) Provide underground drainage in Tilse Street connecting the existing Council infrastructure in McIver Road to an outlet in Tilse Street generally in accordance with layout shown on Drawing No. 1470 - SK03 Amendment B dated 10.04.22. The works shall include manholes, kerb inlet pits, headwall and wingwalls at outlet, outlet protection and any excavation required for any outlet drain together with revegetation of this drain.
  - (iii) The design drawings for the above must be lodged with Council for approval, and once approved, included in the tender documentation under a separate scheduled item for cost identification purposes.

### 5.3 Earthworks

All earthworks must be carried out in accordance with the requirements of the FNQROC Development Manual (as amended) to the satisfaction of Council's delegated officer.

All formed batters must be located outside the road reserves.

### 5.4 Roadworks - Internal

- (a) The new internal road is to be constructed to Access Street standard in accordance with the FNQROC Development Manual (as amended) to the satisfaction of Council's delegated officer.

- (b) A two (2) metre wide concrete footpath must be installed on at least one (1) side of the internal road. The horizontal alignment of the footpath is to be determined at operational works stage.

#### 5.5 Roadworks - External

Mclver Road and Tilse Street must be upgraded for the full frontage of Lot 100 on SP276719 to the general extent shown on Drawing No. 1470 - SK01 Amendment C dated 10.04.22.

These works should generally include the following:

- The widening of the development side of Mclver Road and Tilse Street;
- the installation of kerb and channel on the development side of Mclver Road and Tilse Street for the full frontage of Lot 100 on SP276719; and
- All required underground stormwater infrastructure.

Plans for the abovementioned works must be submitted to Council as part of a subsequent application for operational works.

#### 5.6 Water Supply

- (a) Where the existing reticulated water supply does not currently service the site or is not at an adequate capacity, the developer is required to extend or upgrade the reticulated water supply infrastructure to connect the site to Council's existing infrastructure at a point that has sufficient capacity to service the development in accordance with FNQROC Development Manual standards (as amended).

- (b) A water service connection must be provided to each proposed lot in accordance with FNQROC Development Manual standards (as amended) to the satisfaction of Council's delegated officer.

#### 5.7 Sewerage Connection

The developer must connect the proposed development to Council's reticulated sewerage system in accordance with FNQROC Development Manual standards (as amended) to the satisfaction of Council's delegated officer.

Where sewerage connections are not available to the site, or where existing connections are not satisfactory for the proposed development, the developer is required to extend or upgrade the reticulated sewerage infrastructure to connect the site to Council's existing infrastructure at a point that has sufficient capacity to service the development in accordance with FNQROC Development Manual standards (as amended).

#### 5.8 Electricity provision/supply

The applicant/developer must ensure that an appropriate level of electricity supply is provided to each allotment in accordance with FNQROC Development Manual standards (as amended) to the satisfaction of Council's delegated officer.

Written advice from an Electricity Service Provider is to be provided to Council indicating that an agreement has been made for the provision of **underground** power reticulation.

#### 5.9 Telecommunications

The applicant/developer must enter into an agreement with a telecommunication carrier to provide telecommunication services to each allotment and arrange provision of necessary conduits and enveloping pipes.

#### 5.10 Lighting

Street lighting must be provided to all roads in accordance with FNQROC Development requirements (as amended) and to the satisfaction of Council's delegated officer.

#### 5.11 Street Trees

One (1) street tree must be planted at centre of each lot's road frontage. Corner allotments must have a street tree planted on each frontage.

All street trees must be provided in accordance with the FNQROC Development Manual - Design Manual D9 Landscaping.

#### 5.12 Agricultural Buffering

5.12.1 As part of Stage 1, a 10 metre wide vegetation buffer is to be planted within the proposed residential allotments along the alignment of Mclver Road generally indicated on Drawing No. 1470 - SK01 Amendment C dated 10.04.22. The vegetation must have a minimum height at maturity of 4 metres. The plan depicting species and areas to be planted must be submitted to Council's delegated officer for approval prior to the issue of a development permit for operational works. The buffer must be planted in accordance with the approved plan.

5.12.2 As part of Stage 1, a colourbond fence of 1.8 metres in height shall be erected along the entire Mclver Road frontage on the southern side of the vegetation buffer required by Condition 5.12.1.

5.12.3 The vegetation buffer and fence must be maintained by the applicant and any subsequent owner of any part of the land affected by this condition. Statutory covenant/s must be created over vegetation buffer to ensure it is maintained by the applicant and any subsequent owner of respective allotment.

### **FNQROC Regional Development Manual**

All development works will be carried out in accordance with FNQROC Development Manual standards and in accordance with the Earthworks Notes shown on the submitted plan.

### **Stormwater Drainage Design Non-compliance**

The submitted plans included the use of "black-max" stormwater drainage pipes which are not supported by Council. The sizing of the underground stormwater pipe along Tilse Street is also under investigation. In order to allow development works to commence an approval will be issued for all aspects of the proposed operational works except the stormwater drainage component.

### **REFERRALS**

#### **Internal Consultation**

Technical Services

**OFFICER'S RECOMMENDATION**

1. That in relation to the following development application:

APPLICATION		PREMISES	
<b>APPLICANT</b>	Sibi Girgenti Holdings Pty Ltd	<b>ADDRESS</b>	Mclver Road, Mareeba
<b>DATE LODGED</b>	27 June 2022	<b>RPD</b>	Lot 100 on SP276719
<b>TYPE OF APPROVAL</b>	Development Permit		
<b>PROPOSED DEVELOPMENT</b>	Operational Works (Roadworks, Bulk Earthworks, Water and Sewer Supply Works Only - <b>Excluding Stormwater Drainage Works</b> ) for Development Permit RAL/21/0024		

and in accordance with the Planning Act 2016, the applicant be notified that the application for a development permit for the development specified in (A) is:

Approved by Council in accordance with the approved plans/documents listed in (B), subject to assessment manager conditions in (C), relevant period in (D) and further approvals from Council listed in (E);

(A) **APPROVED DEVELOPMENT:** Development Permit for Operational Works (Roadworks, Bulk Earthworks, Water and Sewer Supply Works Only - **Excluding Stormwater Drainage Works**) for Development Permit RAL/21/0024

(B) **APPROVED PLANS:**

Plan/Document Number	Plan/Document Title	Prepared by	Dated
1470-C01 Amdt A	Existing Site Plan	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C02 Amdt A	Typical Cross Section, Pavement Data, and Details	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C03 Amdt A	Bulk Earthworks Plan	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C04 Amdt A	Soil and Water Strategy	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C05 Amdt A	Earthworks, Roadworks and Stormwater Drainage Plan	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C06 Amdt A	Sewer Reticulation Plan	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C07 Amdt A	Water Reticulation Plan	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C08 Amdt A	Details of Intersection, Cul De Sac and Outlet Drains	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C10 Amdt A	Mclver Road/Tilse Street - Longitudinal Section and Set Out	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C11 Amdt A	Mclver Road/Tilse Street - Cross Sections (Sheet 1 of 3)	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C12 Amdt A	Mclver Road/Tilse Street - Cross Sections (Sheet 2 of 3)	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C13 Amdt A	Mclver Road/Tilse Street - Cross Sections (Sheet 3 of 3)	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22



1470-C14 Amdt A	Road A - Longitudinal Section and Set Out	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C15 Amdt A	Road A - Longitudinal Sections (Sheet 1 of 1)	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C16 Amdt A	Catch Drain No. 1 - Longitudinal and Cross Sections, Typical Cross Section and Setout	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C18 Amdt A	Sewerage Reticulation Longitudinal Sections (Sheet 1 of 2)	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22
1470-C19 Amdt A	Sewerage Reticulation Longitudinal Sections (Sheet 2 of 2) and Set Out	Jim Papas Civil Engineering Designer Pty Ltd	17/06/22

## (C) ASSESSMENT MANAGER'S CONDITIONS (COUNCIL)

## (a) General

- (i) This development permit applies to the **roadworks, bulk earthworks, water and sewer supply components of the operational works only** as included on the approved plans. This development permit does not authorise the construction of any stormwater drainage components including but not limited to the underground stormwater drain proposed along Tilse Street, internal underground stormwater works and any stormwater infrastructure proposed to include the use of "blackmax" piping. A subsequent development permit will be issued for this component of works.

All works covered under this development permit will not be placed "on-maintenance" until a subsequent development permit is issued for the stormwater drainage components and the stormwater drainage works have been completed in full, to the satisfaction of Council's delegated officer.

- (ii) All operational works must be designed and constructed in accordance with the procedures as set out in the FNQROC Development Manual.
- (iii) Development must be carried out substantially in accordance with the approved plans and the facts and circumstances of the use as submitted with the application, and subject to any alterations:
- found necessary by the Council's Delegated Officer at the time of examination of the engineering plans or during construction of the development because of particular engineering requirements;
  - to ensure the works comply in all respects with the requirements and procedures of the FNQROC Development Manual and good engineering practice; and
  - to ensure compliance with the following conditions of approval.
- (iv) Council's examination of the documents should not be taken to mean that the documents have been checked in detail and Council takes no responsibility for their accuracy. If during construction, inadequacies of the design are discovered, it is the responsibility of the Principal Consulting Engineer to resubmit amended plans to Council for approval and rectify works accordingly.

- (v) Upon completion of excavation and filling works, a statement of compliance of works endorsed by a Registered Professional Engineer of Queensland (RPEQ) must be submitted to Council.

**(b) Pre-start Meeting**

- (i) In addition to the requirements of Clause CP1.07 and CP1.08 of the FNQROC Development Manual; after documentation has been approved by Council, a pre-start meeting is to be held on site prior to the commencement of work. Part 1 of the **attached** pre-start meeting pro-forma is to be completed and returned prior to the meeting including clause 1.u 'Request for Meeting' together with the prescribed Construction Monitoring Fee as set out in Council's Schedule of Fees.

**(c) Inspections**

- (i) Inspections are to be carried out as detailed in the FNQROC Manual unless advised otherwise at the pre-start meeting.

**(d) Construction Security Bond and Defects Liability Bond**

- (i) In addition to Clauses CP1.06 and CP1.20 of the FNQROC Development Manual; the Construction Security Bond and Defects Liability Bond shall each be a minimum of \$1000 and Bank Guarantees shall have no termination date.
- (ii) During the Defects Liability period, it is the responsibility of the developer to rectify any works found to be defective due to design faults and or found to exhibit faults attributed to the performance of the construction activities in terms of quality and conformance with design and specifications. The bond will be returned on satisfactory correction of any defective work and after expiration of the maintenance period. Failure to comply with a Council issued instruction to correct defective work may result in the call up of the bond to have the work completed.

**(e) Hours of Work**

- (i) Work involving the operation of construction plant and equipment of any description, shall only be carried out on site during the following times:
  - 7.00am to 6.00pm, Monday to Friday;
  - 7.00am to 1.00pm Saturdays;
  - No work is permitted on Sundays or Public Holidays.
- (ii) No variation to the above working hours is allowed unless otherwise agreed in writing by Council.

**(f) Transportation of Soil**

- (i) All soil transported to or from the site must be covered to prevent dust or spillage during transport. If soil is tracked or spilt onto the road pavement from works on the subject land, it must be removed no later than at the end of each working day. Sediment must not enter Council's stormwater drainage network.

(D) RELEVANT PERIOD

When approval lapses if development not started (s.85)

- Any other development – two (2) years (starting the day the approval takes effect).

(E) OTHER NECESSARY DEVELOPMENT PERMITS AND/OR COMPLIANCE PERMITS

- Development Permit for Stormwater Drainage Works

**Date Prepared:** 11 August 2022

DECISION BY DELEGATE

DECISION

Having considered the Planning Officer's report detailed above, I approve, as delegate of Council, the application subject to the conditions listed in the report.

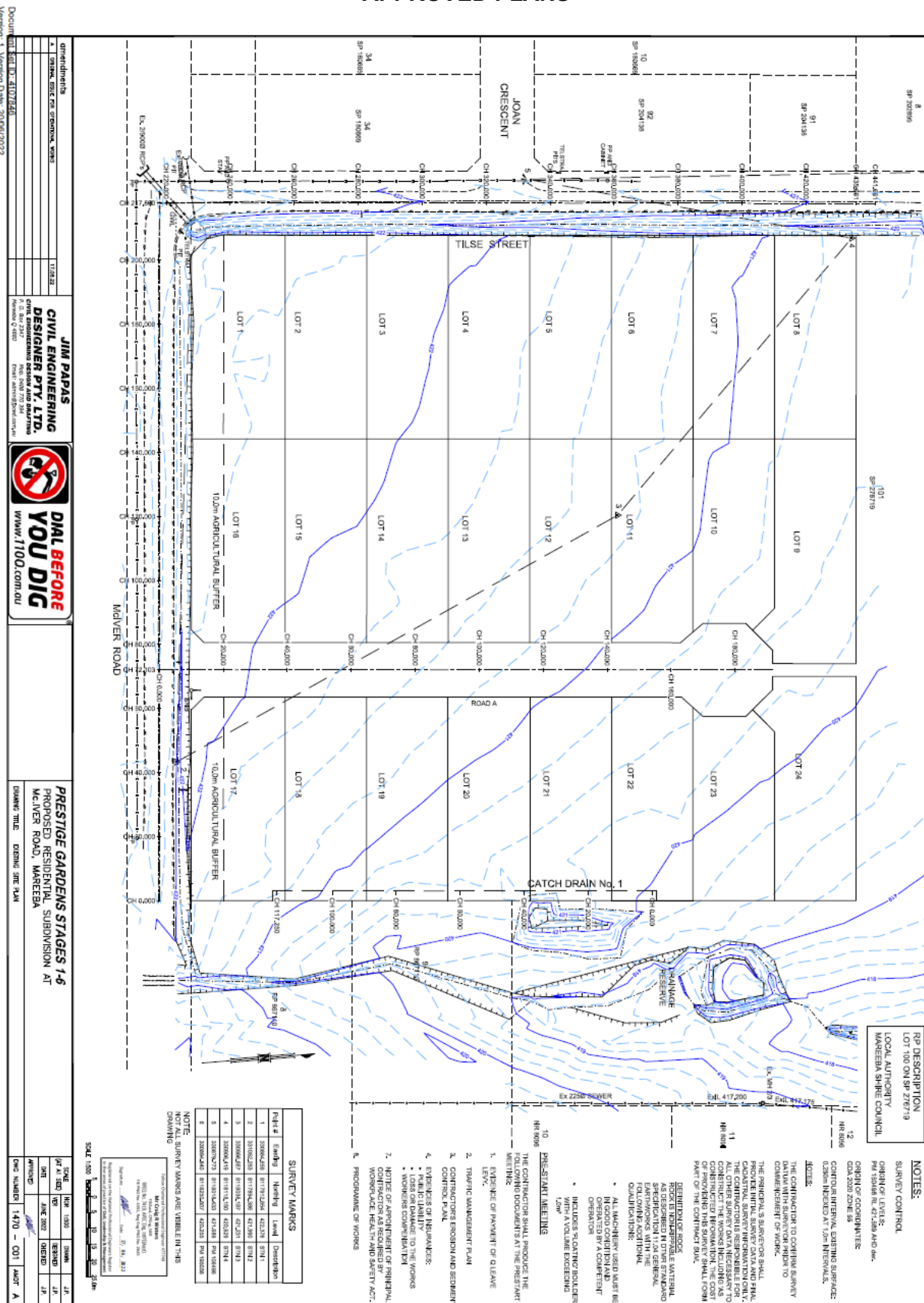
Dated the 11<sup>TH</sup> day of AUGUST 2022

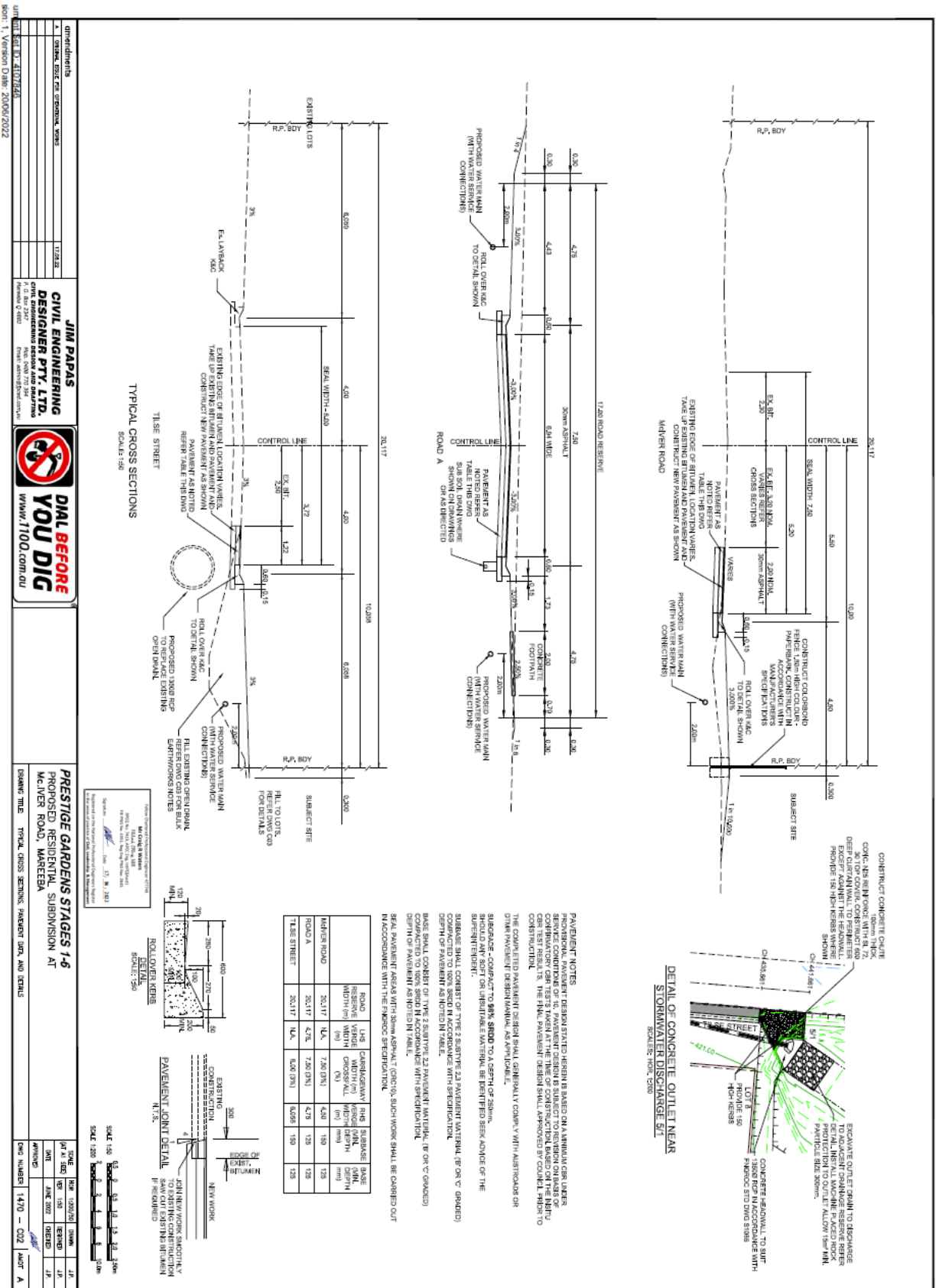


**BRIAN MILLARD**  
**SENIOR PLANNER**

MAREEBA SHIRE  
AS DELEGATE OF THE COUNCIL

APPROVED PLANS





**JIM PAPAS CIVIL ENGINEERING DESIGNER PTY. LTD.**  
 CIVIL ENGINEERING DESIGN AND DRAWING  
 17/23/22  
 1/17/23/22  
 1/17/23/22  
 1/17/23/22

**DNL BEFORE YOU DIG**  
 WWW.1100.COM.AU

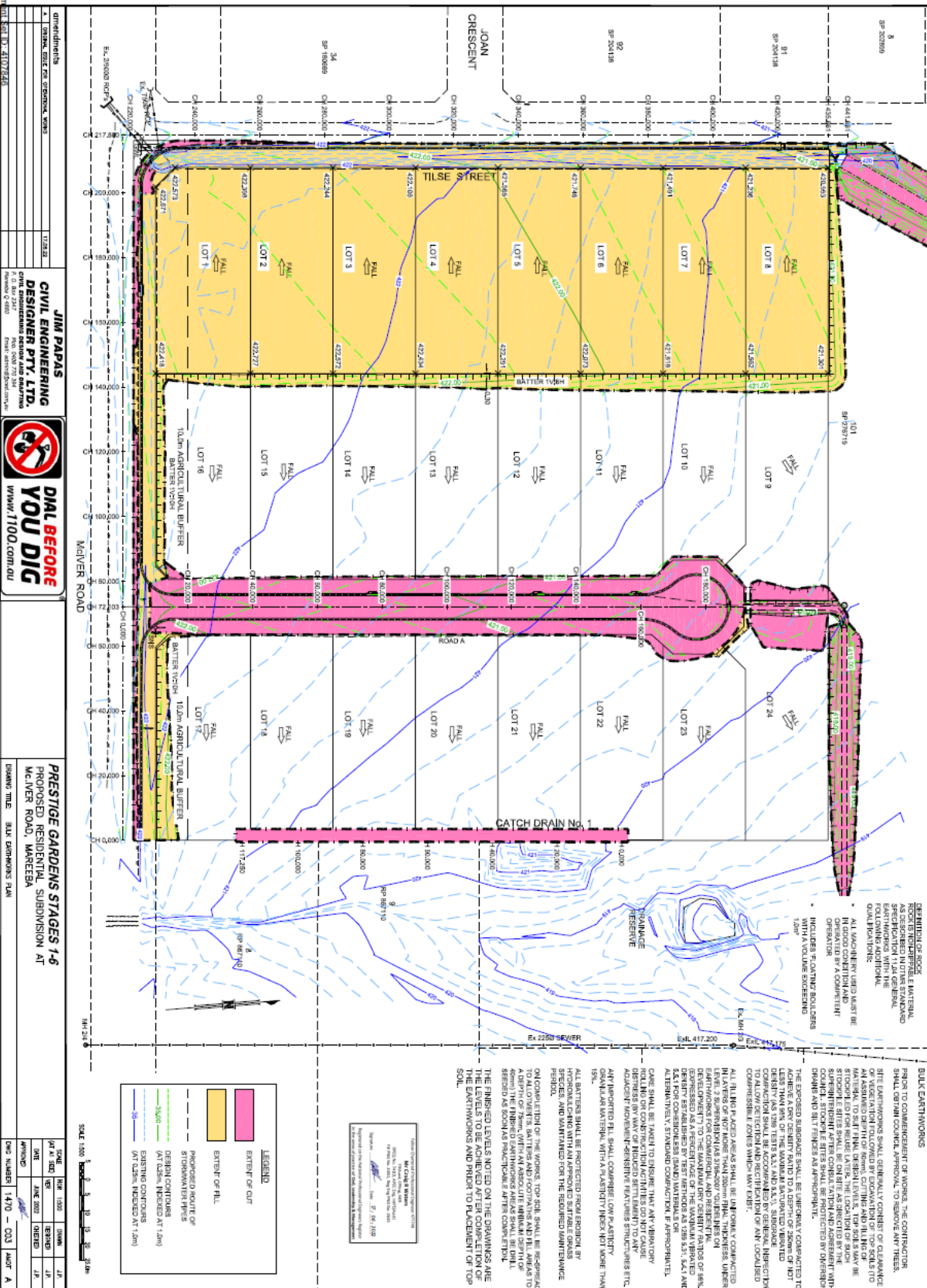
**PRESTIGE GARDENS STAGES 1-6**  
 PROPOSED RESIDENTIAL SUBDIVISION AT  
 MCIVER ROAD, MARCESSA

DRAWING TITLE: TYPICAL CROSS SECTIONS, PAVEMENT DETAIL, AND DETAILS

DATE: 15/08/2022  
 DRAWN BY: J.P.  
 CHECKED BY: J.P.  
 APPROVED BY: J.P.

DATE: 15/08/2022  
 DRAWN BY: J.P.  
 CHECKED BY: J.P.  
 APPROVED BY: J.P.

DATE: 15/08/2022  
 DRAWN BY: J.P.  
 CHECKED BY: J.P.  
 APPROVED BY: J.P.





Document Set ID: 4133700  
 Version: 1, Version Date: 2006/02/22

APPENDIX 1  
 SPECIAL SPECIFIC TO CONTRACTORS

17/23

**JIM PAPAS**  
**CIVIL ENGINEERING**  
 DESIGNER PTY. LTD.  
 CIVIL ENGINEERING DESIGN AND SURVEYING  
 17/23  
 1100.COM.AU

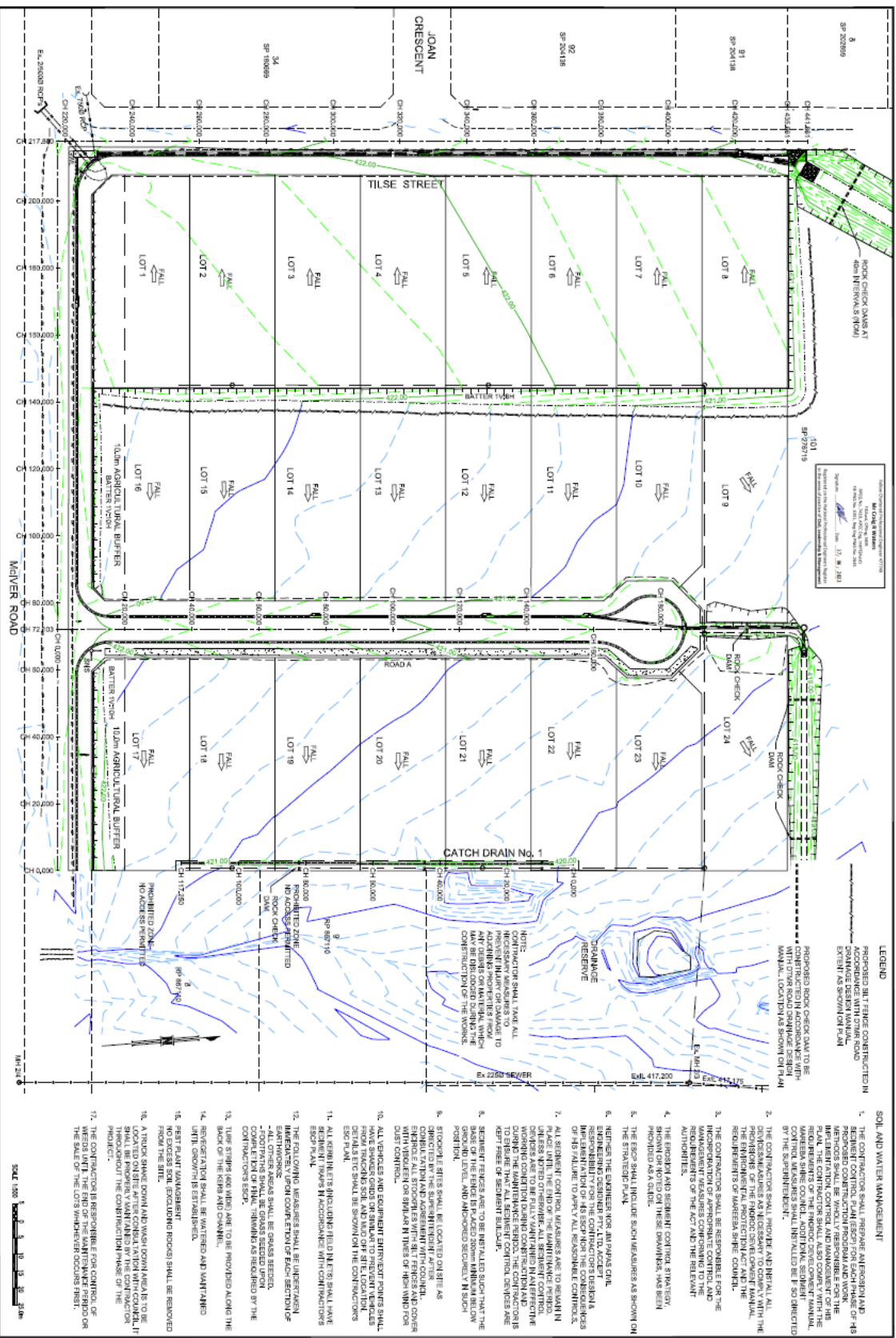
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**PRESTIGE GARDENS STAGES 1-6**  
 PROPOSED RESIDENTIAL SUBDIVISION AT  
 MCIVER ROAD, MAREEBA

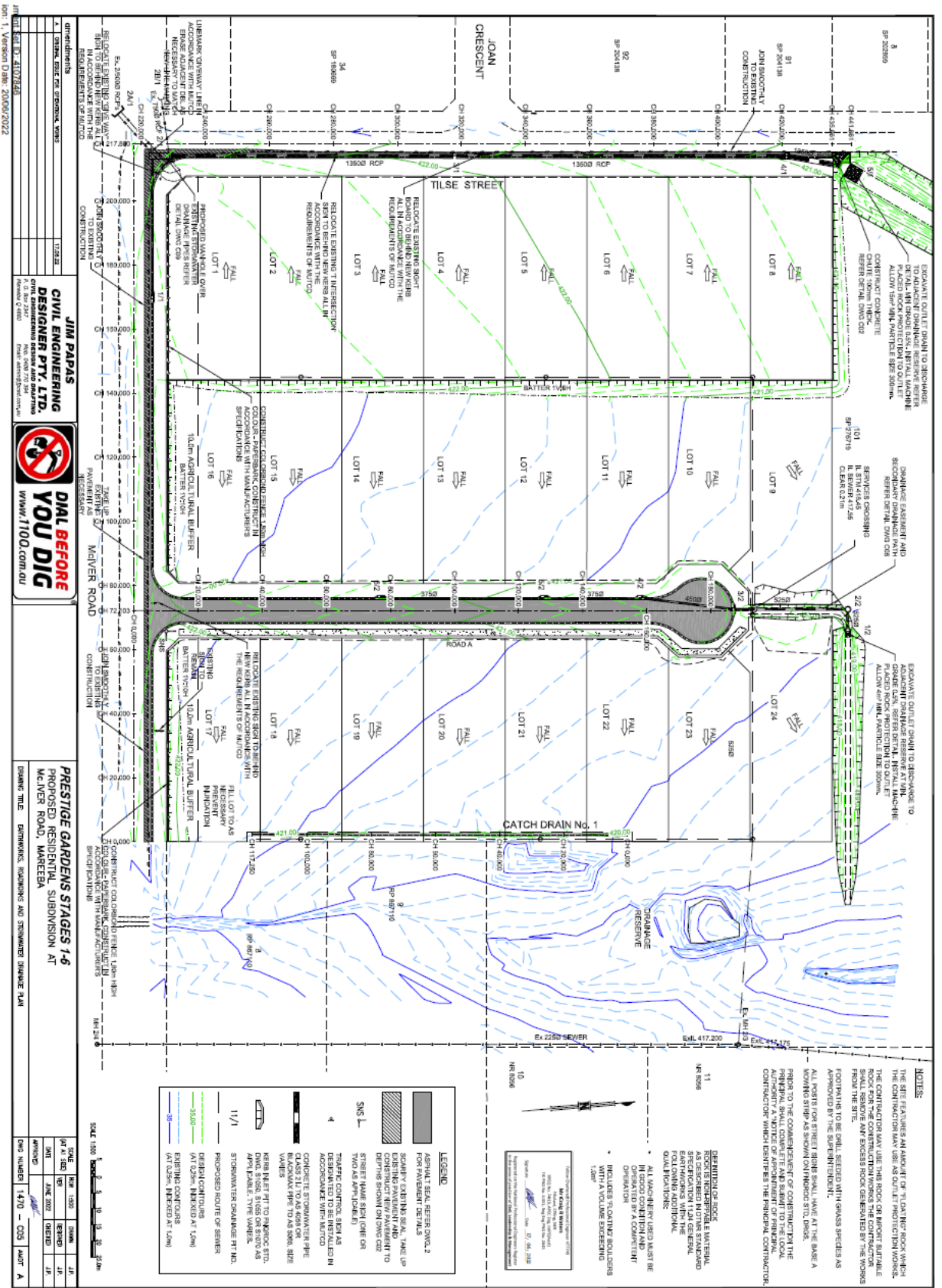
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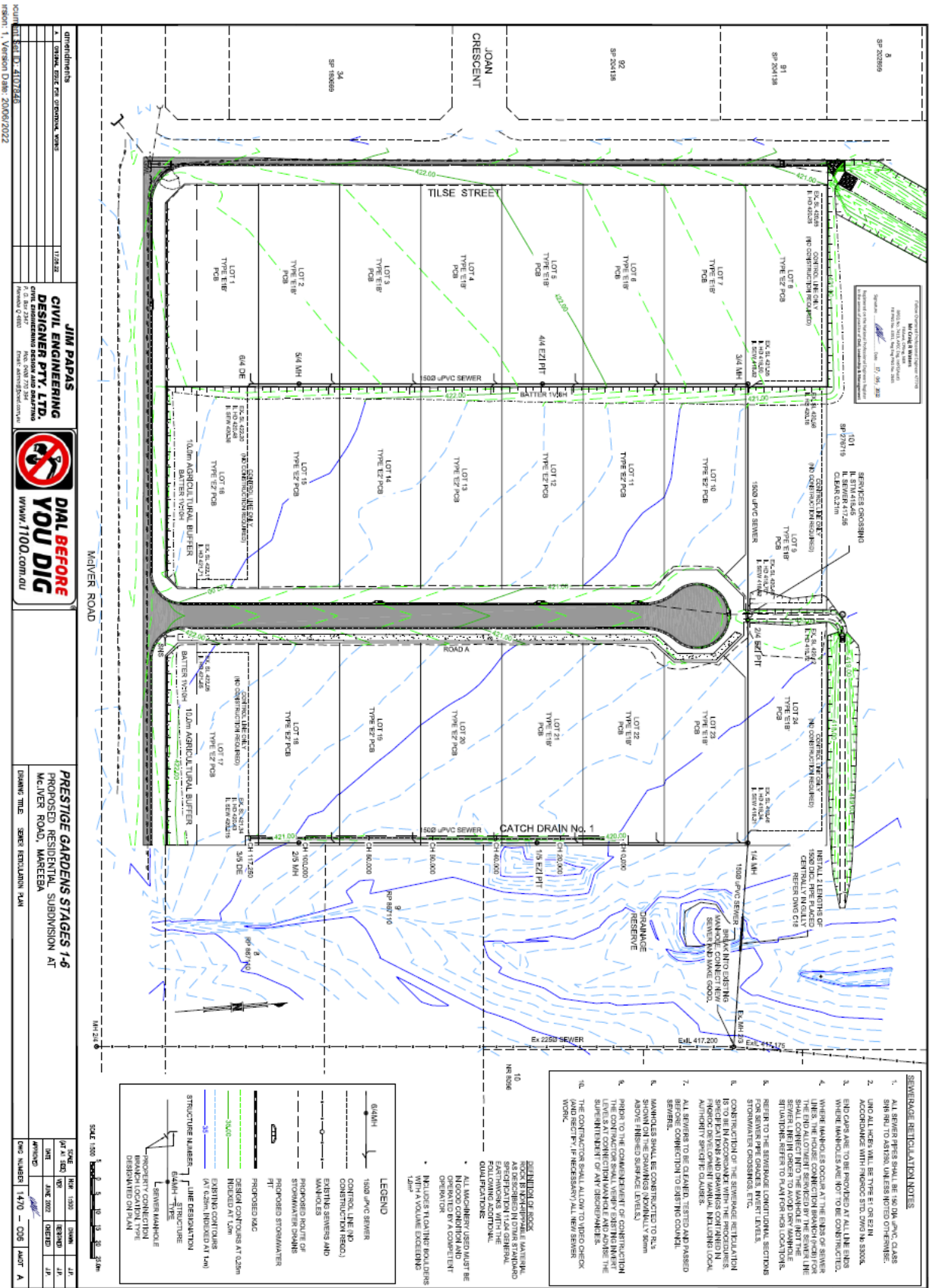
NO.	DATE	BY	CHKD	APP'D
1	17/02/2006	J.P.	J.P.	J.P.
2	24/02/2006	J.P.	J.P.	J.P.

DWG NUMBER: 1470 - C04 - A









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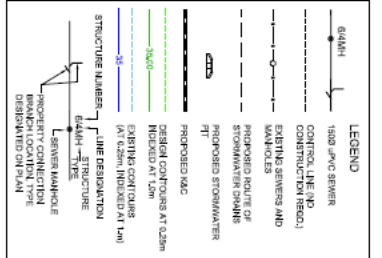


**PRESTIGE GARDENS STAGES 1-6**  
 PROPOSED RESIDENTIAL SUBDIVISION AT  
 MALVER ROAD, MAREEBA  
 DRAWING TITLE: SEWER RETICULATION PLAN

NO.	DESCRIPTION	DATE	BY	CHECKED
1	ISSUED FOR PERMIT	11/23/22	JT	JT
2	ISSUED FOR PERMIT	11/23/22	JT	JT
3	ISSUED FOR PERMIT	11/23/22	JT	JT
4	ISSUED FOR PERMIT	11/23/22	JT	JT

DATE	BY	CHECKED
11/23/22	JT	JT
11/23/22	JT	JT
11/23/22	JT	JT

SCALE: 1:500  
 0 10 20 30m



**GENERAL NOTES:**  
 1. ALL SEWER PIPES SHALL BE 1500mm PVC CLASS BHN S10 TO AUSTRO UNLESS NOTED OTHERWISE.  
 2. UNO ALL PIPES WILL BE TYPE S10 OR S11M ACCORDANCE WITH PROPOSED STD. DWG. NO. S00X.  
 3. END CAPS ARE TO BE PROVIDED AT ALL LINE ENDS WHERE MANHOLES ARE NOT TO BE CONSTRUCTED.  
 4. WHEN MANHOLES OCCUR AT THE ENDS OF SEWER LINES, THE HOUSE CONNECTION BRANCH (HCB) FOR THE END OF SEWER SHALL BE INSTALLED TO THE SEWER LINE IN ORDER TO AVOID OVERLAPPING SITUATIONS. REFER TO PLAN FOR HCB LOCATION.  
 5. REFER TO THE SEWERAGE CONTROLLED SECTIONS FROM SEWERAGE GAUGE WERT LEVELS.  
 6. CONSTRUCTION OF THE SEWERAGE RETICULATION SHALL BE IN ACCORDANCE WITH THE SEWERAGE RETICULATION SPECIFICATIONS AND DRAWINGS CONTAINED IN ATTACHED SET OF DRAWINGS.  
 7. ALL SEWERS TO BE CLEANED, TESTED AND PASSED BEFORE CONSTRUCTION OF SEWER MANHOLE.  
 8. MANHOLES SHALL BE CONSTRUCTED TO RLs SHOWN ON THE DRAWINGS UNLESS OTHERWISE NOTED.  
 9. THE CONTRACTOR SHALL VERIFY EXISTING SEWER LINES AND DRAWINGS CONTAINED IN ATTACHED SET OF DRAWINGS.  
 10. THE CONTRACTOR SHALL ALLOW TO VERIFY CHECK (AND RECTIFY IF NECESSARY) ALL NEW SEWER WORK.

**REVISIONS:**  
 NO. 1 TO 10  
 DATE  
 REVISION

**LEGEND:**  
 1500 PVC SEWER  
 CONTROL LINE AND CONSTRUCTION (HATCH)  
 EXISTING SEWERS AND MANHOLES  
 PROPOSED ROUTE OF STORMWATER CHANNEL  
 PROPOSED STORMWATER PIT  
 PROPOSED MANHOLE  
 DESIRED CONTOURS AT 0.25m INTERVAL AT 50m INTERVAL (IN GREEN) (BASED ON LHM)  
 STRUCTURE NUMBER  
 LINE IDENTIFICATION  
 SEWER MANHOLE  
 PROPOSED MANHOLE  
 BREAKDOWN LOCATION TYPE  
 DESIGNATED ON PLAN

Account No: 1470 - 007 AMPT A  
 Version: 1, Version Date: 20/08/2022

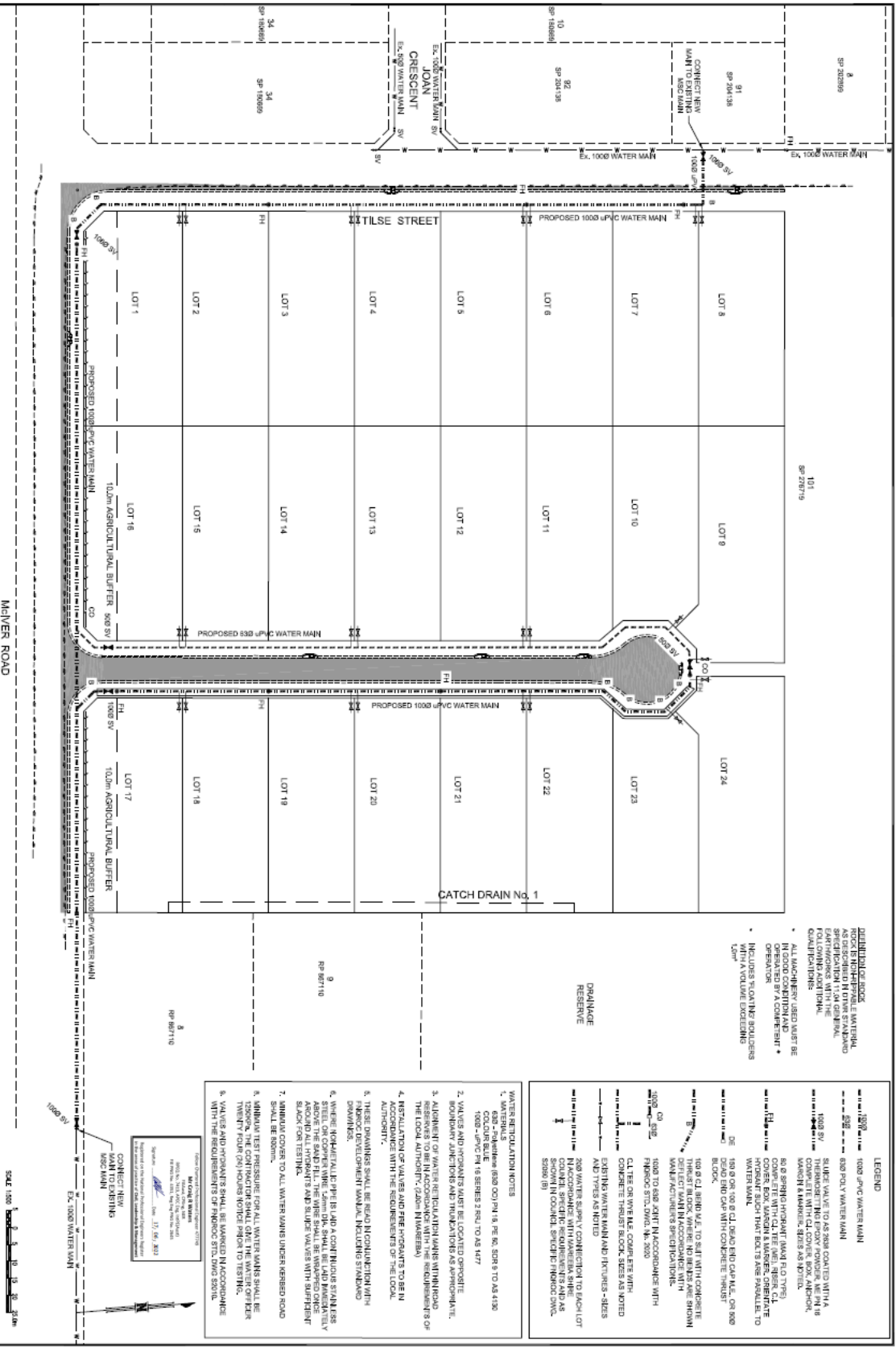
DATE	DESCRIPTION
17/08/22	REVISED

**JIM PAPAS**  
**CIVIL ENGINEERING**  
**DESIGNER PTY. LTD.**  
 CIVIL ENGINEERING DESIGN AND DRAWING  
 12/12/22



**PRESTIGE GARDENS STAGES 1-6**  
 PROPOSED RESIDENTIAL SUBDIVISION AT  
 McIVER ROAD, MAREESA

CDS NUMBER	1470 - 007 AMPT A
------------	-------------------



#### LEGEND

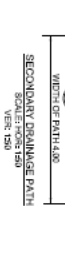
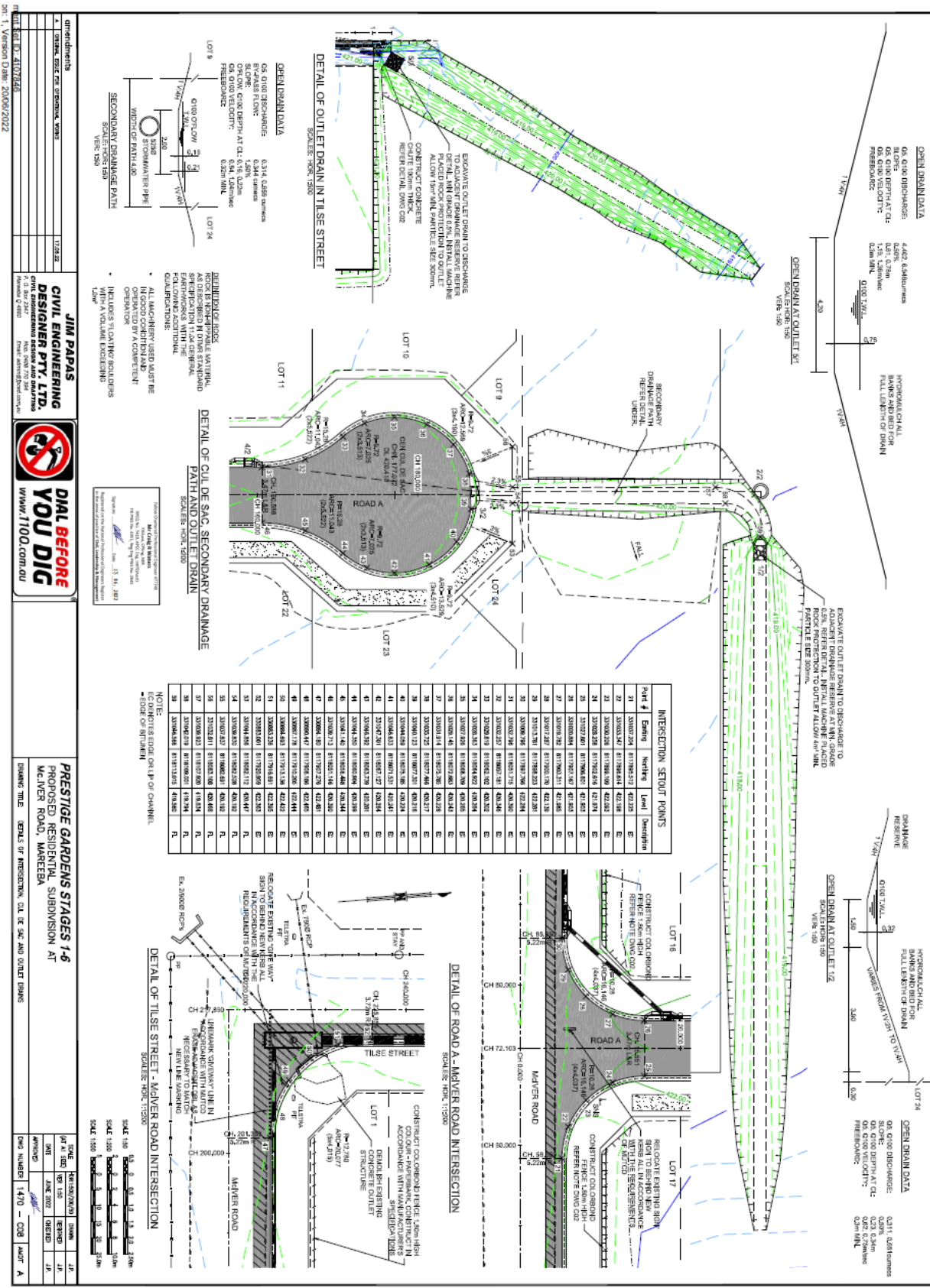
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**WATER SUPPLY CONNECTION TO EACH LOT**  
 IN ACCORDANCE WITH MAREESA SHEET 150001/01/02 - CONCRETE TRUST BLOCK (300x300x80)

#### WATER INSTALLATION NOTES

1. MATERIALS:  
 600 - 75mm (HDPE) 1000 PIPE, 80 & 60mm (PE) 300 TO AS 4190  
 1000 - HDPE 1000 PIPE, 300 TO AS 4177
2. VALVES AND JOINTS SHALL BE LOCATED APPROPRIATELY.  
 INCHUBAR JOINTS AND TRUCKATION AS APPROPRIATE.
3. ALIGNMENT OF WATER SUPPLY CONNECTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY (MAREESA).
4. INSTALLATION OF VALVES AND FITTINGS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY.
5. THESE DIMENSIONS SHALL BE READ IN CONJUNCTION WITH THE DRAWINGS.  
 (EXCEPT MANHOLE INCLINATION DIMENSIONS).
6. VALVES SHALL BE TO BE 100mm ABOVE GROUND LEVEL. LAMP GLASS SHALL BE 100mm ABOVE THE SAND FILL. THE WIRE SHALL BE WARRIED ONCE ABOVE THE SAND FILL AND SLIDE VALVE WITH SUPPLEMENTARY BLOCK FOR TESTING.
7. VALVES TO COVER TO ALL WATER MAINS UNLESS NOTED OTHERWISE SHALL BE 800mm.
8. VALVES TO TEST PRESSURE FOR ALL WATER MAINS SHALL BE TWENTY FOUR (24) HOURS NOTICE PRIOR TO TESTING.
9. VALVES AND FITTINGS SHALL BE MARKED IN ACCORDANCE WITH THE REQUIREMENTS OF FINOCOC STD. DWG 52010.

SCALE 1:500



**INTERSECTION SETOUT POINTS**

Point #	Bearing	Length	Description
1	310°00'00"	10.000	...
2	310°00'00"	10.000	...
3	310°00'00"	10.000	...
4	310°00'00"	10.000	...
5	310°00'00"	10.000	...
6	310°00'00"	10.000	...
7	310°00'00"	10.000	...
8	310°00'00"	10.000	...
9	310°00'00"	10.000	...
10	310°00'00"	10.000	...
11	310°00'00"	10.000	...
12	310°00'00"	10.000	...
13	310°00'00"	10.000	...
14	310°00'00"	10.000	...
15	310°00'00"	10.000	...
16	310°00'00"	10.000	...
17	310°00'00"	10.000	...
18	310°00'00"	10.000	...
19	310°00'00"	10.000	...
20	310°00'00"	10.000	...
21	310°00'00"	10.000	...
22	310°00'00"	10.000	...
23	310°00'00"	10.000	...
24	310°00'00"	10.000	...
25	310°00'00"	10.000	...
26	310°00'00"	10.000	...
27	310°00'00"	10.000	...
28	310°00'00"	10.000	...
29	310°00'00"	10.000	...
30	310°00'00"	10.000	...
31	310°00'00"	10.000	...
32	310°00'00"	10.000	...
33	310°00'00"	10.000	...
34	310°00'00"	10.000	...
35	310°00'00"	10.000	...
36	310°00'00"	10.000	...
37	310°00'00"	10.000	...
38	310°00'00"	10.000	...
39	310°00'00"	10.000	...
40	310°00'00"	10.000	...
41	310°00'00"	10.000	...
42	310°00'00"	10.000	...
43	310°00'00"	10.000	...
44	310°00'00"	10.000	...
45	310°00'00"	10.000	...
46	310°00'00"	10.000	...
47	310°00'00"	10.000	...
48	310°00'00"	10.000	...
49	310°00'00"	10.000	...
50	310°00'00"	10.000	...
51	310°00'00"	10.000	...
52	310°00'00"	10.000	...
53	310°00'00"	10.000	...
54	310°00'00"	10.000	...
55	310°00'00"	10.000	...
56	310°00'00"	10.000	...
57	310°00'00"	10.000	...
58	310°00'00"	10.000	...
59	310°00'00"	10.000	...
60	310°00'00"	10.000	...

**JIM PAPAS**  
CIVIL ENGINEERING  
DESIGNER PTY. LTD.  
CIVIL ENGINEERING DESIGN AND SURVEYING  
10/100 WILSON ROAD, WILSON  
MAREEBA QLD 4270  
Phone: 07 4207 4266  
Fax: 07 4207 4267  
www.jim-papas.com.au



**PRESTIGE GARDENS STAGES 1-6**  
PROPOSED RESIDENTIAL SUBDIVISION AT  
MCIVER ROAD, MAREEBA

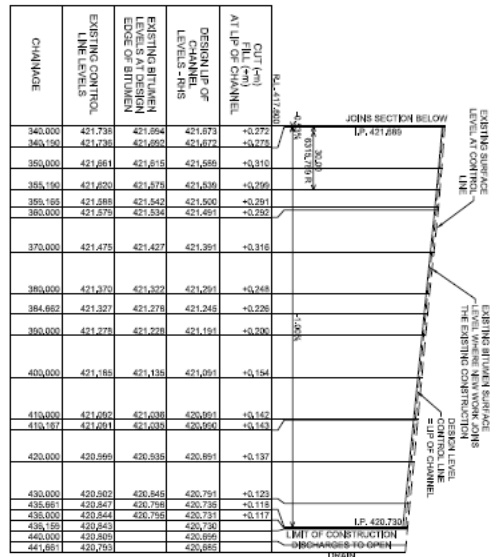
DRAWING TITLE: DETAILS OF PRESTIGE GARDENS STAGES 1-6 AT MCIVER ROAD, MAREEBA

DATE	BY	CHKD	APP'D
14/07/2022	J.P.	J.P.	J.P.
14/07/2022	J.P.	J.P.	J.P.
14/07/2022	J.P.	J.P.	J.P.

DWG NUMBER: 14/0 - C08

SCALE: 1:500  
SCALE: 1:500  
SCALE: 1:500

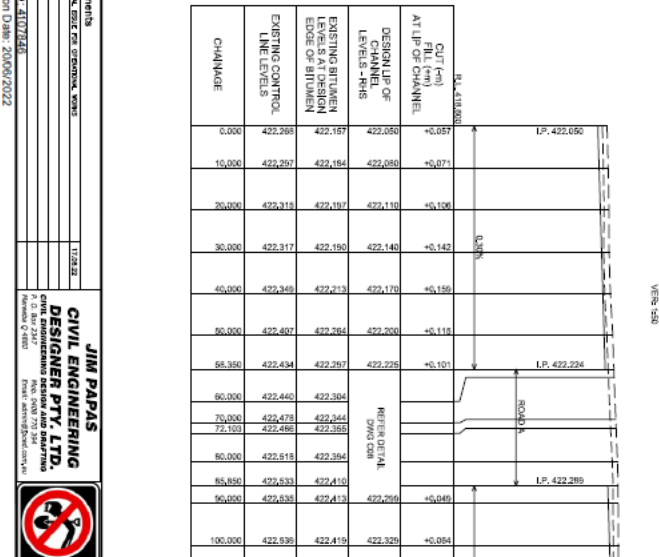




CHANGE	EXISTING	EXISTING CONTROL LINE LEVELS	DESIGN UP OF CHANNEL LEVELS - R.R.S	EXISTING BITUMEN EDGE OF BITUMEN LEVELS
340,000	421,738	421,694	421,673	+0,272
345,190	421,738	421,692	421,672	+0,272
350,000	421,661	421,615	421,596	+0,316
355,190	421,620	421,578	421,536	+0,296
359,195	421,588	421,542	421,500	+0,291
360,000	421,575	421,534	421,491	+0,292
370,000	421,475	421,427	421,391	+0,316
380,000	421,370	421,322	421,291	+0,248
384,662	421,327	421,278	421,245	+0,228
390,000	421,278	421,228	421,191	+0,200
400,000	421,185	421,135	421,091	+0,154
410,000	421,092	421,038	420,991	+0,145
415,197	421,091	421,039	420,990	+0,145
420,000	420,999	420,938	420,891	+0,137
430,000	420,907	420,848	420,791	+0,122
435,991	420,847	420,788	420,735	+0,115
436,000	420,844	420,785	420,731	+0,111
439,199	420,843	420,784	420,730	
440,000	420,839	420,780	420,726	
441,691	420,793	420,735	420,685	

MAIVER ROAD / TLASE STREET - LONGITUDINAL SECTION  
CH. 340,00 TO END  
SCALE: VERT. 1:50

PREPARED BY: MORGAN NEWMAN ENGINEERING LTD.  
DATE: 12/08/2022  
SCALE: VERT. 1:50



CHANGE	EXISTING	EXISTING CONTROL LINE LEVELS	DESIGN UP OF CHANNEL LEVELS - R.R.S	EXISTING BITUMEN EDGE OF BITUMEN LEVELS
0,000	422,393	422,197	422,050	+0,057
10,000	422,297	422,184	422,050	+0,071
20,000	422,313	422,197	422,110	+0,108
30,000	422,317	422,190	422,140	+0,142
40,000	422,348	422,213	422,170	+0,159
50,000	422,407	422,264	422,200	+0,114
55,350	422,434	422,297	422,225	+0,101
60,000	422,440	422,284	422,204	
70,000	422,473	422,344	422,255	
72,100	422,468	422,355	422,255	
80,000	422,515	422,394	422,294	
85,850	422,533	422,410	422,310	
90,000	422,533	422,413	422,296	+0,049
100,000	422,539	422,415	422,325	+0,094
110,000	422,541	422,430	422,350	+0,098
120,000	422,543	422,451	422,389	+0,072
130,000	422,555	422,454	422,415	+0,121
130,990	422,558	422,452	422,422	+0,128
140,000	422,581	422,433	422,395	+0,113
144,188	422,548	422,422	422,383	+0,104
150,000	422,531	422,417	422,365	+0,098
160,000	422,535	422,414	422,335	+0,053
170,000	422,621	422,421	422,320	+0,029
170,798	422,627	422,420	422,320	+0,029
180,000	422,635	422,415	422,356	+0,093
190,000	422,694	422,482	422,417	+0,030
200,000	422,699	422,570	422,478	+0,022
201,350	422,698	422,570	422,478	+0,142
202,177	422,673	422,598	422,498	
207,477	422,710	422,635	422,535	
217,860	422,774	422,699	422,681	
220,000	422,798	422,681	422,681	
228,738	422,610	422,535	422,428	
230,000	422,585	422,478	422,378	
232,400	422,500	422,428	422,428	
235,895	422,438	422,367	422,357	-0,070
239,394	422,428	422,391	422,340	-0,077
240,000	422,383	422,358	422,325	+0,123
240,400	422,370	422,353	422,307	+0,121
250,000	422,301	422,283	422,226	+0,230
260,000	422,233	422,190	422,117	+0,208
260,444	422,231	422,187	422,158	+0,207
270,000	422,177	422,130	422,056	+0,213
280,000	422,113	422,085	422,005	+0,220
290,000	422,047	421,907	421,903	+0,224
300,000	421,989	421,839	421,800	+0,198
308,192	421,990	421,907	421,856	+0,180
310,000	421,953	421,899	421,848	+0,178
320,000	421,903	421,864	421,795	+0,154
325,190	421,894	421,812	421,768	+0,222
330,000	421,828	421,714	421,741	+0,228
333,894	421,795	421,744	421,716	+0,249
340,000	421,739	421,694	421,673	+0,272

MAIVER ROAD / TLASE STREET - LONGITUDINAL SECTION  
CH. 0 TO 340,00  
SCALE: VERT. 1:50

PREPARED BY: MORGAN NEWMAN ENGINEERING LTD.  
DATE: 12/08/2022  
SCALE: VERT. 1:50

Drawings  
1. CHANNEL, ELEV. FOR EXISTING WORK  
1/2/22

**JIM PAPAS**  
CIVIL ENGINEERING  
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CIVIL ENGINEERING DESIGN AND DRAWING  
10/100 WILSON ROAD, WAREBEA  
VIC 3008  
WWW.1100.COM.AU



**PRESTIGE GARDENS STAGES 1-6**  
PROPOSED RESIDENTIAL SUBDIVISION AT  
M.CIVER ROAD, WAREBEA

DATE	BY	NO.	REVISION
12/08/2022	JM	1	ISSUED FOR PERMIT
12/08/2022	JM	2	REVISED
12/08/2022	JM	3	REVISED

Drawn: TIE WATER ROAD / TLASE STREET - LONGITUDINAL SECTION AND SET OUT  
DWG NUMBER: 1470 - C10 - MGT A

Document Set ID: 4133700  
Version: 1, Version Date: 2006/2022

DATE	BY	CHKD	APPV
16.08.2006	J.P.	J.P.	J.P.
16.08.2006	J.P.	J.P.	J.P.
16.08.2006	J.P.	J.P.	J.P.

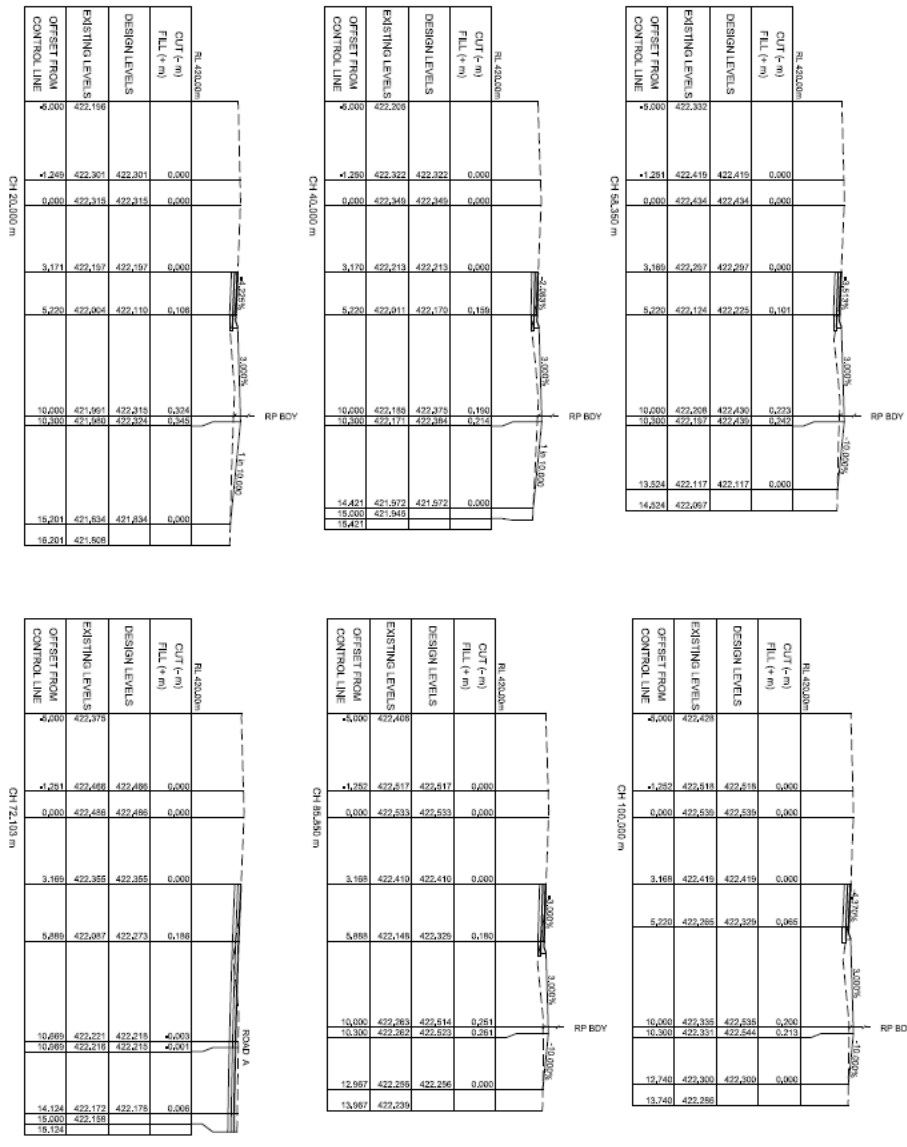
CHG NUMBERS 1470 - C11 | AUST A

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CIVIL ENGINEERING  
DESIGNER PTY. LTD.  
CIVIL ENGINEERING DESIGN AND SURVEYING  
Rm 205, 1/100, WILSON ST, WILSON  
PRESTIGE GARDENS STAGES 1-6  
PROPOSED RESIDENTIAL SUBDIVISION AT  
MCIVER ROAD, MAREEBA



**PRESTIGE GARDENS STAGES 1-6**  
PROPOSED RESIDENTIAL SUBDIVISION AT  
MCIVER ROAD, MAREEBA

DATE	BY	CHKD	APPV
16.08.2006	J.P.	J.P.	J.P.
16.08.2006	J.P.	J.P.	J.P.
16.08.2006	J.P.	J.P.	J.P.



McIVER & PAPAS  
CIVIL ENGINEERING DESIGN AND SURVEYING  
Rm 205, 1/100, WILSON ST, WILSON  
PRESTIGE GARDENS STAGES 1-6  
PROPOSED RESIDENTIAL SUBDIVISION AT  
MCIVER ROAD, MAREEBA

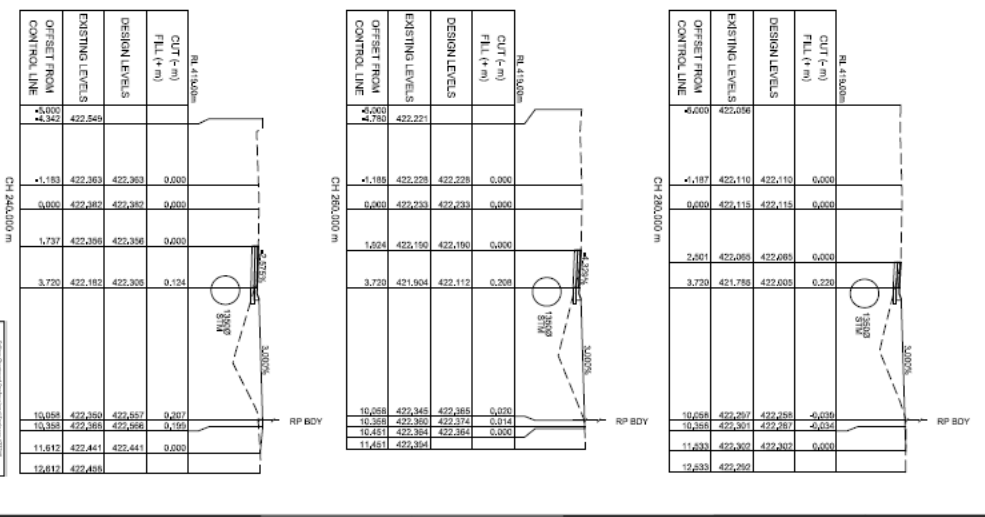
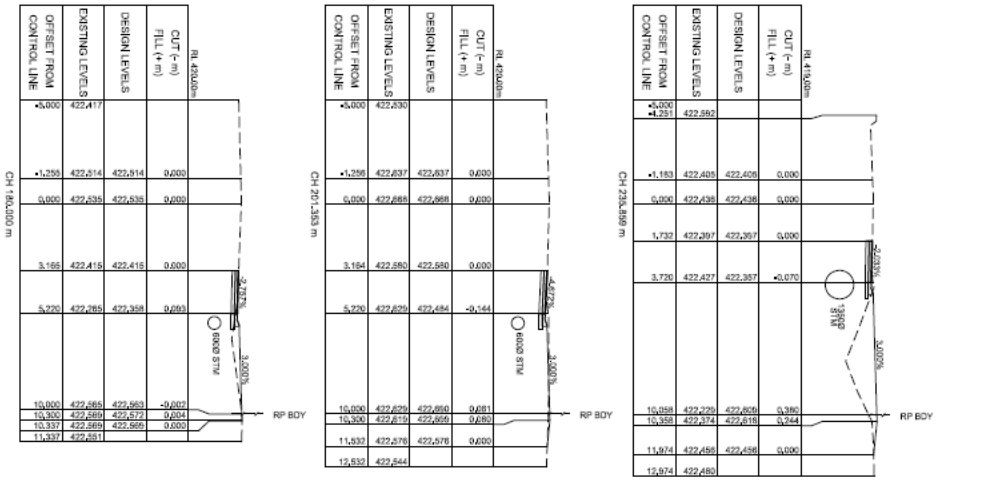
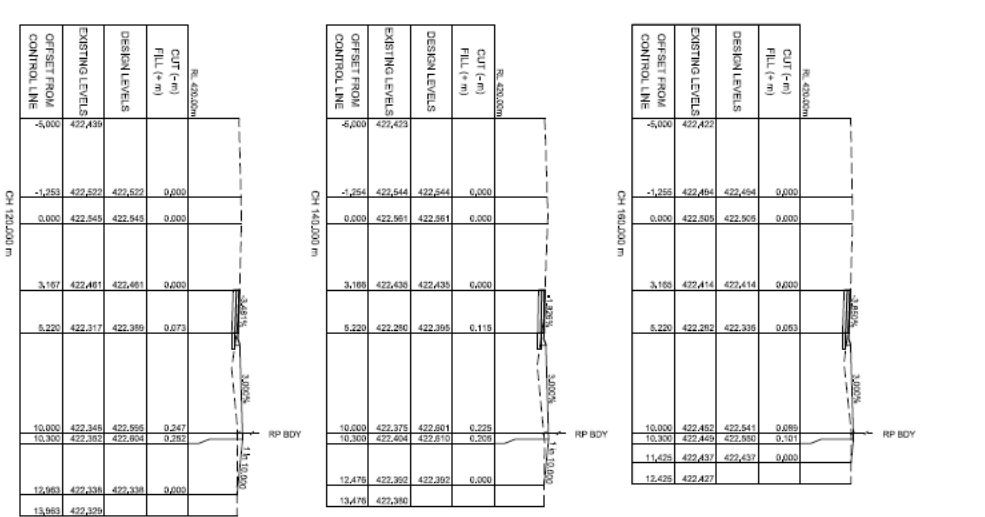
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CIVIL ENGINEERING DESIGN AND SURVEYING  
REVENUE 0 4888  
PO BOX 50000, AUCKLAND

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DRAWING TITLE: WATER ROAD / TLISE STREET - CROSS SECTION SHEET 2 OF 3  
PROJECT: PRESTIGE GARDENS STAGES 1-6  
PROPOSED RESIDENTIAL SUBDIVISION AT  
MCIVER ROAD, MAREBIA

DATE	BY	CHECKED	DATE
11/28/22	JH	11/28/22	JH
DATE	BY	CHECKED	DATE
14/07/23	JH	14/07/23	JH

DWG NUMBER: 1470 - C12 AMPT A

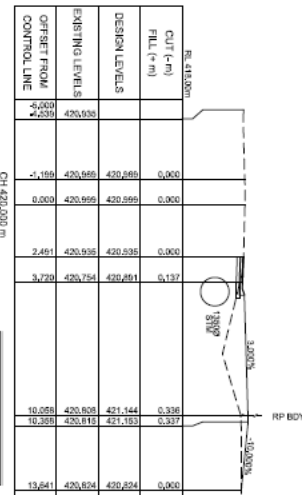
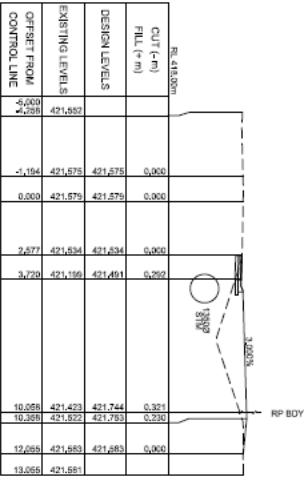
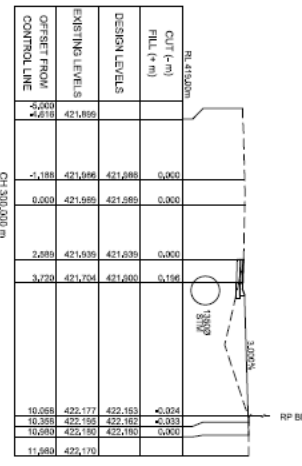
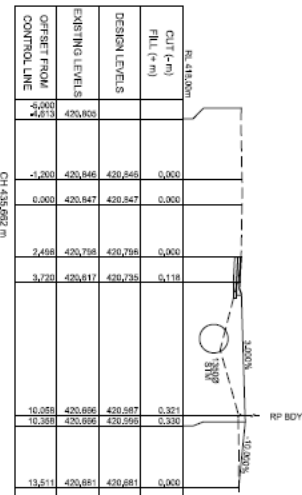
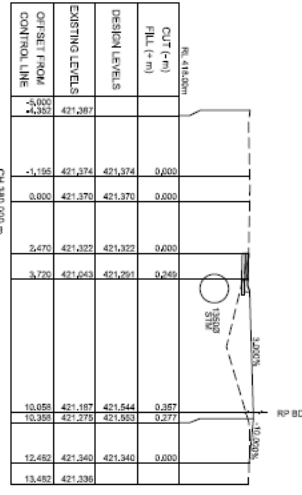
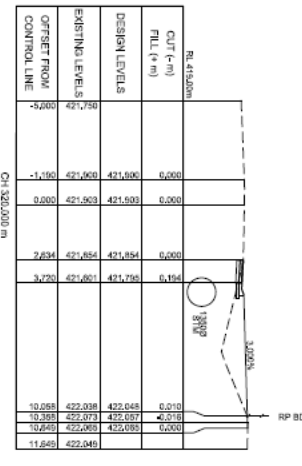
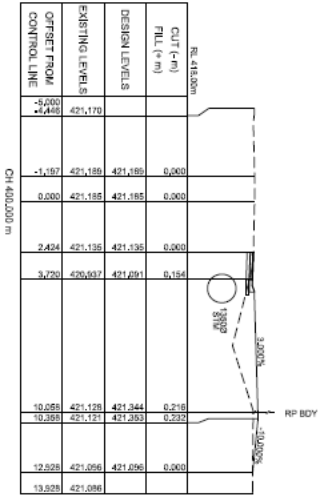
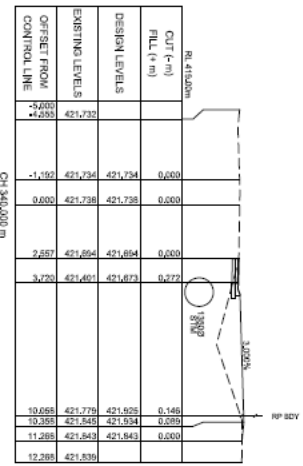


CROSS SECTIONS MCIVER ROAD / TLISE STREET  
SCALE: HORIZ: 1:100  
VERT: 1:100

DATE: 11/28/22 BY: JH CHECKED: JH  
DATE: 14/07/23 BY: JH CHECKED: JH

SCALE: 1:100 (10m, 20m, 30m, 40m)

City Council of Auckland Region  
Auckland Council  
100 Victoria Street, Auckland  
Tel: 09 302 3100  
www.aucklandcouncil.govt.nz



**DRIVER'S SIDE OF ROADWAY, NORTH**  
**3.000%**  
 CH 306,000 m  
 RP BOY

**DRIVER'S SIDE OF ROADWAY, SOUTH**  
**3.000%**  
 CH 326,000 m  
 RP BOY

**DRIVER'S SIDE OF ROADWAY, NORTH**  
**3.000%**  
 CH 346,000 m  
 RP BOY

**DRIVER'S SIDE OF ROADWAY, SOUTH**  
**3.000%**  
 CH 366,000 m  
 RP BOY

**DRIVER'S SIDE OF ROADWAY, NORTH**  
**3.000%**  
 CH 381,000 m  
 RP BOY

**DRIVER'S SIDE OF ROADWAY, SOUTH**  
**3.000%**  
 CH 403,000 m  
 RP BOY

**DRIVER'S SIDE OF ROADWAY, NORTH**  
**3.000%**  
 CH 422,000 m  
 RP BOY

**DRIVER'S SIDE OF ROADWAY, SOUTH**  
**3.000%**  
 CH 435,962 m  
 RP BOY

**SCALE: 1:500**

**DATE: 12.8.22**

**PREPARED BY: J.P.**  
**CHECKED BY: J.P.**  
**DATE: 12.8.22**

**DATE: 12.8.22**

**DATE: 12.8.22**

**JIM PAPAS**  
**CIVIL ENGINEERING**  
**DESIGNER PTY. LTD.**  
 CIVIL ENGINEERING DESIGN AND DRAWING  
 PHONE: 08 9405 3111  
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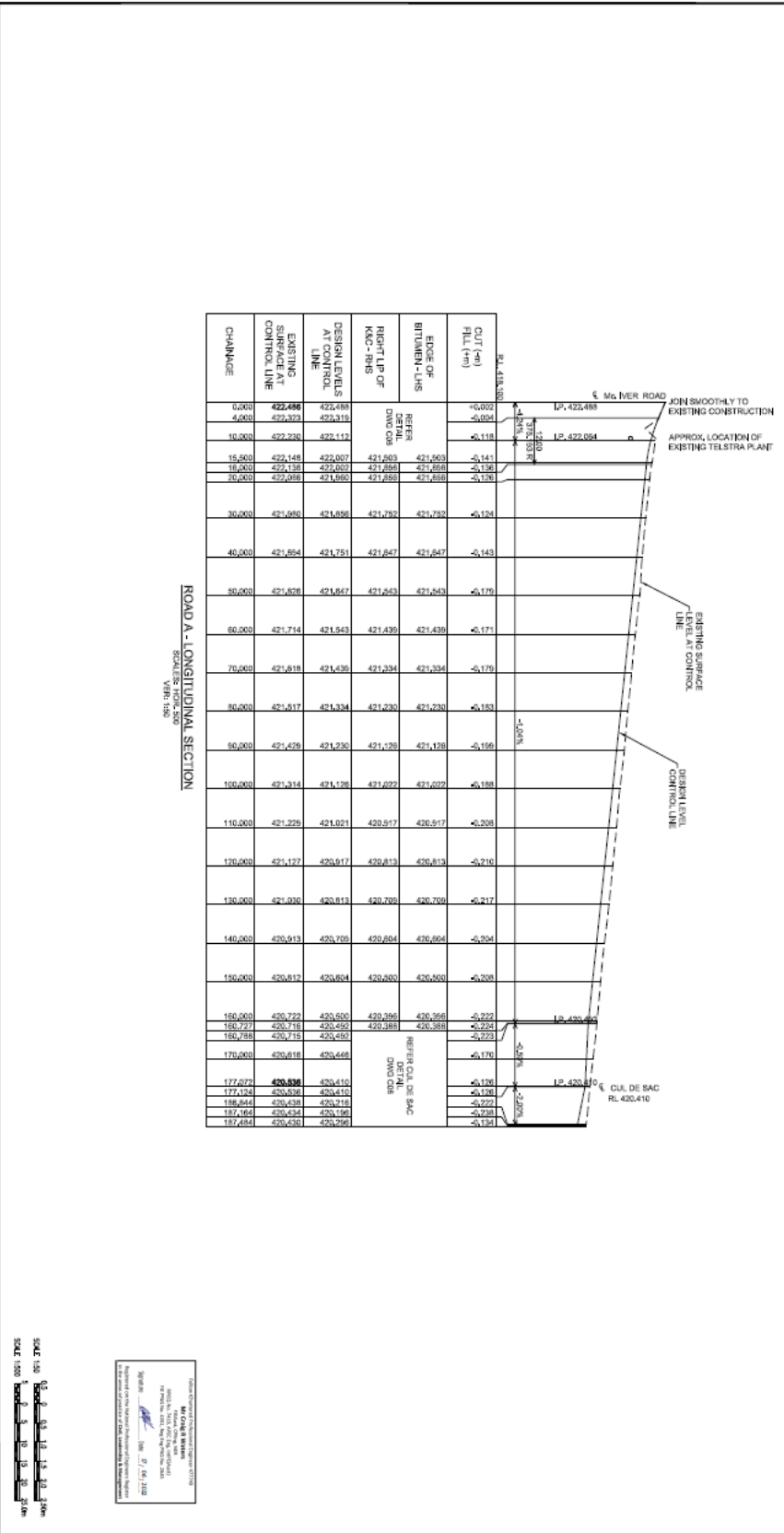
**PRESTIGE GARDENS STAGES 1-6**  
 PROPOSED RESIDENTIAL SUBDIVISION AT  
 MCIVER ROAD, MARCEBA

NO.	DATE	BY	CHKD BY	REV
1	12/08/2022	J.P.	J.P.	1
2	12/08/2022	J.P.	J.P.	2



Document Set ID: 4133700  
Version: 1, Version Date: 20/06/2022

amendments	
1	17/3/23
<b>JIM PAPAS</b> <b>CIVIL ENGINEERING</b> <b>DESIGNER PTY. LTD.</b> <small>CIVIL ENGINEERING DESIGN AND SURVEYING</small> <small>Member of C.E.M.</small> <small>Phone: +61 8 9439 8000</small> <small>Fax: +61 8 9439 8000</small> <small>www.jim-papas.com.au</small>	
<b>DIAL BEFORE YOU DIG</b> <small>www.1100.com.au</small>	
<b>PRESTIGE GARDENS STAGES 1-6</b> PROPOSED RESIDENTIAL SUBDIVISION AT McIVER ROAD, MAREEBA	
DATE	14/7/2022
BY	J.P.
CHECKED	J.P.
DATE	14/7/2022
SCALE	1:100
DATE	14/7/2022
BY	J.P.
CHECKED	J.P.
DATE	14/7/2022



CHANGEO	EXISTING SURFACE AT CONTROL LINE	DESIGN LEVELS AT CONTROL LINE	RIGHT L.P OF M&C - RMS	EDGE OF BITUMEN - CURB	CUT (+) FILL (-) (m)
0.000	422.488	422.488	421.263	421.263	0.000
10.000	422.230	422.112	421.263	421.263	-0.118
15.000	422.148	422.007	421.263	421.263	-0.141
16.000	422.138	422.002	421.263	421.263	-0.136
20.000	422.058	421.958	421.263	421.263	-0.136
30.000	421.950	421.850	421.263	421.263	-0.132
40.000	421.854	421.751	421.263	421.263	-0.143
50.000	421.828	421.647	421.263	421.263	-0.170
60.000	421.714	421.543	421.263	421.263	-0.177
70.000	421.618	421.438	421.263	421.263	-0.170
80.000	421.517	421.334	421.263	421.263	-0.183
90.000	421.426	421.230	421.263	421.263	-0.156
100.000	421.314	421.128	421.263	421.263	-0.188
110.000	421.228	421.021	420.817	420.817	-0.208
120.000	421.127	420.917	420.813	420.813	-0.210
130.000	421.030	420.813	420.709	420.709	-0.217
140.000	420.913	420.708	420.604	420.604	-0.204
150.000	420.817	420.604	420.500	420.500	-0.208
160.000	420.722	420.500	420.396	420.396	-0.222
170.000	420.627	420.396	420.293	420.293	-0.234
180.000	420.518	420.293	420.189	420.189	-0.273
170.000	420.618	420.444	420.189	420.189	-0.170
177.072	420.636	420.410	420.189	420.189	-0.178
177.124	420.636	420.410	420.189	420.189	-0.178
178.244	420.636	420.410	420.189	420.189	-0.222
181.748	420.434	420.189	420.189	420.189	-0.249
187.884	420.430	420.269	420.189	420.189	-0.134

ROAD A			
CHANGEO	EXISTING	NORTHING	RADIUS
0.000	331026270	817781.438	4+424R STRAIGHT
177.072	331026213	8178892.511	4+424R STRAIGHT
177.124	331026213	8178892.511	4+424R STRAIGHT
181.748	331026204	8178892.511	4+424R STRAIGHT



PREPARED BY: JIM PAPAS  
 CHECKED BY: JIM PAPAS  
 DATE: 14/7/2022  
 SCALE: 1:100  
 DRAWN BY: JIM PAPAS  
 DATE: 14/7/2022

DATE	BY	CHKD	APPD
17/03/22			

**JIM PAPAS**  
**CIVIL ENGINEERING**  
**DESIGNER PTY. LTD.**  
CIVIL ENGINEERING DESIGN AND SURVEYING  
15/01/2017  
Phone: 0800 330 330  
Email: jim@jimpapas.com.au



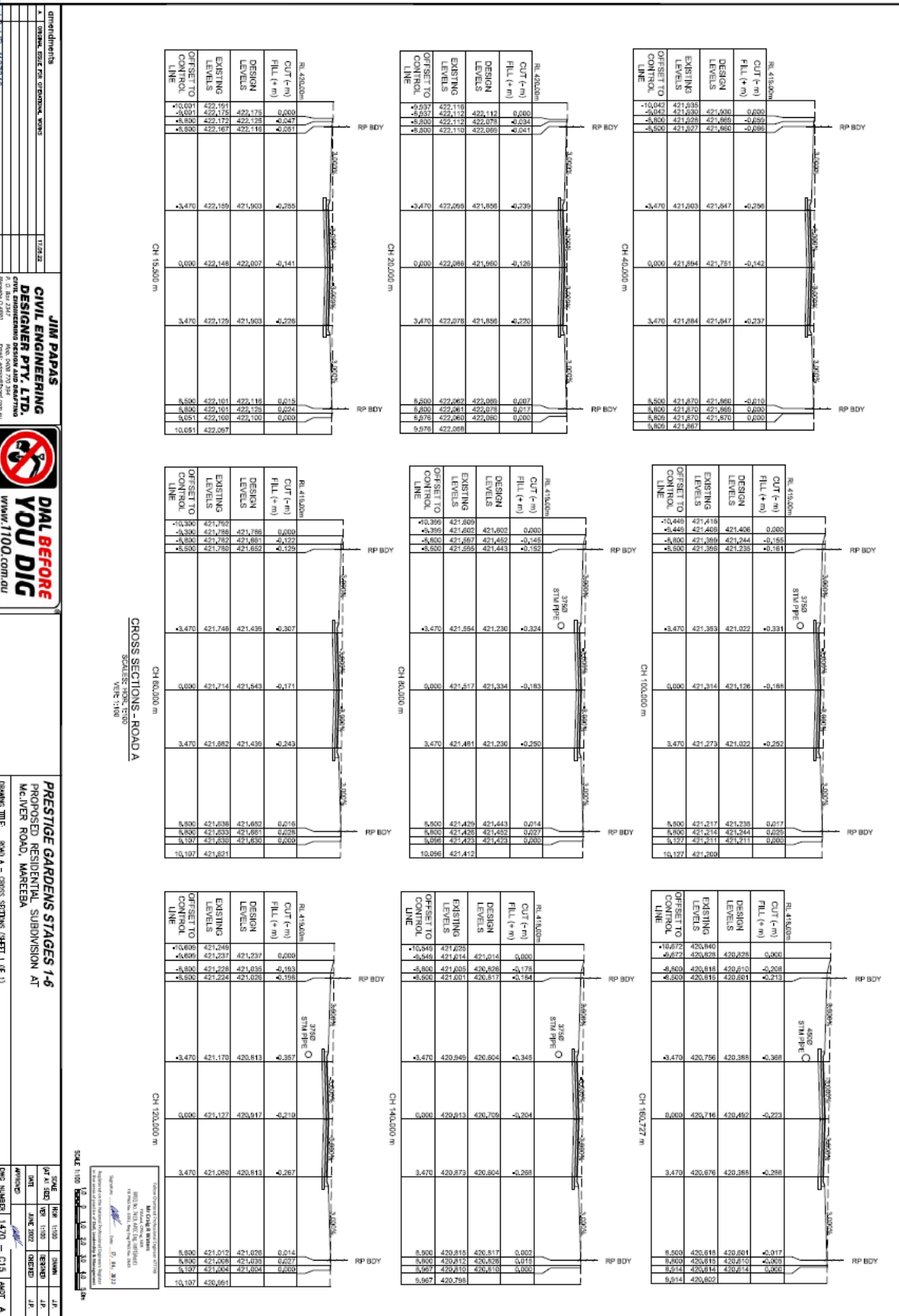
**PRESTIGE GARDENS STAGES 1-6**  
PROPOSED RESIDENTIAL SUBDIVISION AT  
MCIVER ROAD, WARECEBA

DRAWN TITLE: ROAD A - CROSS SECTIONS (SHEET 1 OF 1)

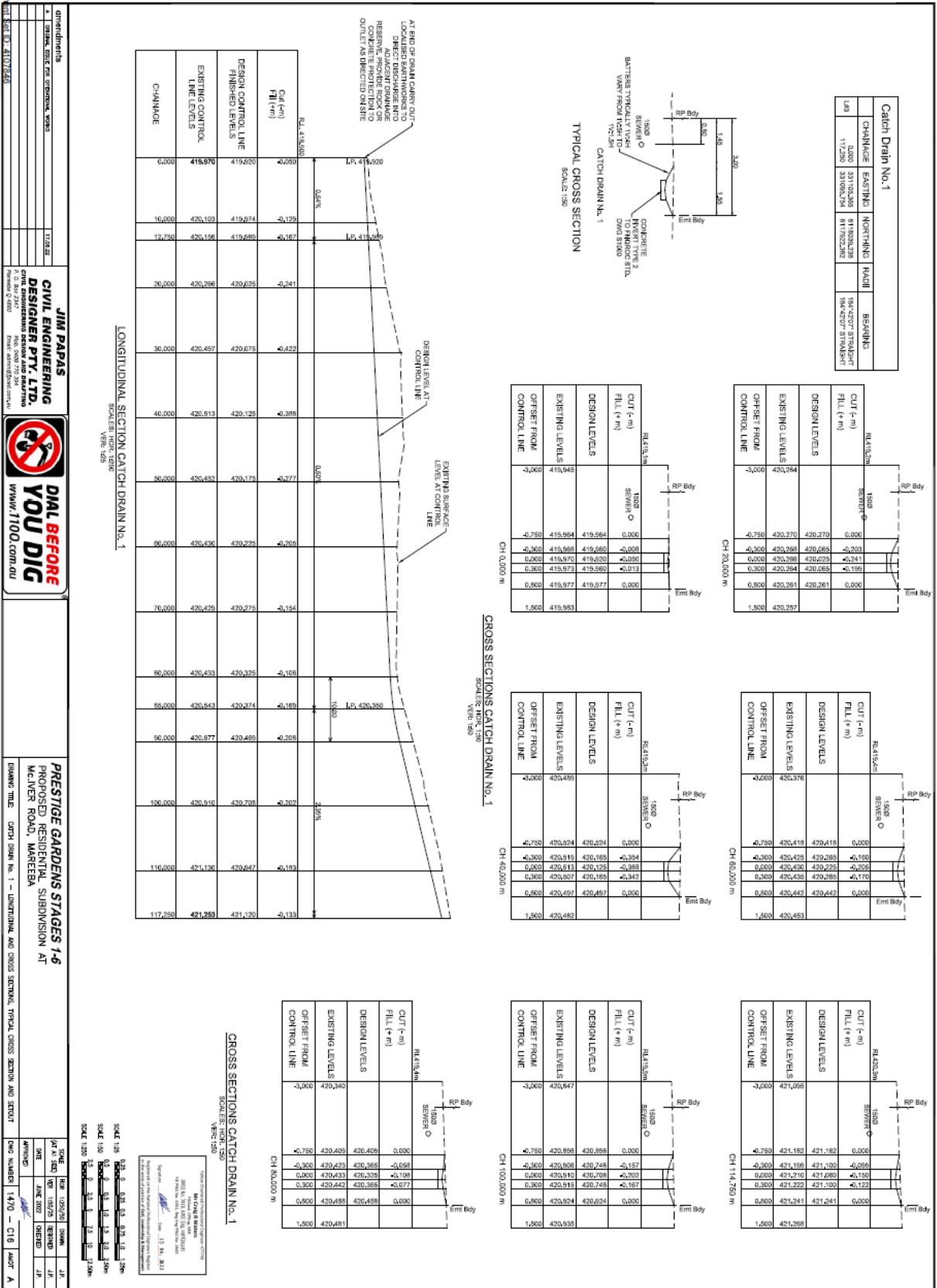
DATE	BY	CHKD	APPD
17/03/22			
17/03/22			
17/03/22			

DATE: 17/03/22  
BY: [Signature]  
CHKD: [Signature]  
APPD: [Signature]

SCALE: 1:100  
1:50  
1:100  
1:200  
1:500



CROSS SECTIONS - ROAD A  
SCALE: 1:100  
VER: 1.000



amendments

NO	DESCRIPTION	DATE
1	ISSUED FOR PERIODIC WORK	17/03/22

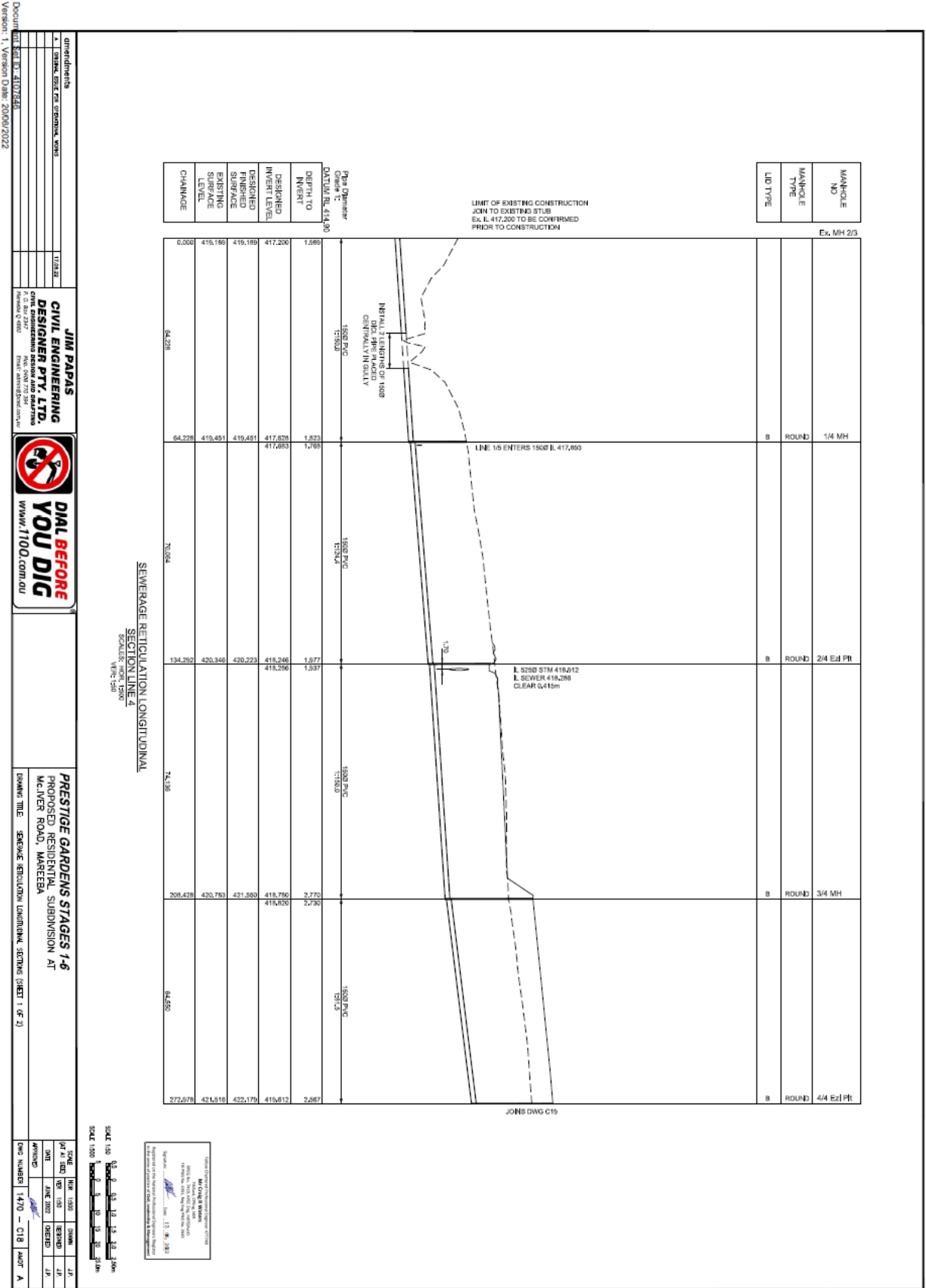
**JIM PAPAS**  
**CIVIL ENGINEERING**  
 DESIGNER PTY. LTD.  
 CIVIL ENGINEERING DESIGN AND DRAWING  
 10/100 WILSON ROAD  
 WEST WYBORNE VIC 3048  
 PHONE: 03 9450 1100  
 WWW: WWW.JIM100.COM.AU



**PRESTIGE GARDENS STAGES 1-6**  
 PROPOSED RESIDENTIAL SUBDIVISION AT  
 MCIVER ROAD, MAREEBA

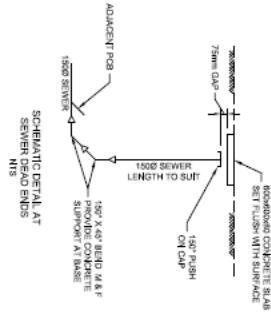
DRAWING TITLE: CATCH DRAIN NO. 1 - LONGITUDINAL AND CROSS SECTIONS, TYPICAL CROSS SECTION AND DETAIL

SCALE	DATE	BY	CHECKED	DATE	BY
SCALE 1:50	17/03/22	JK	JK	17/03/22	JK
SCALE 1:50	17/03/22	JK	JK	17/03/22	JK
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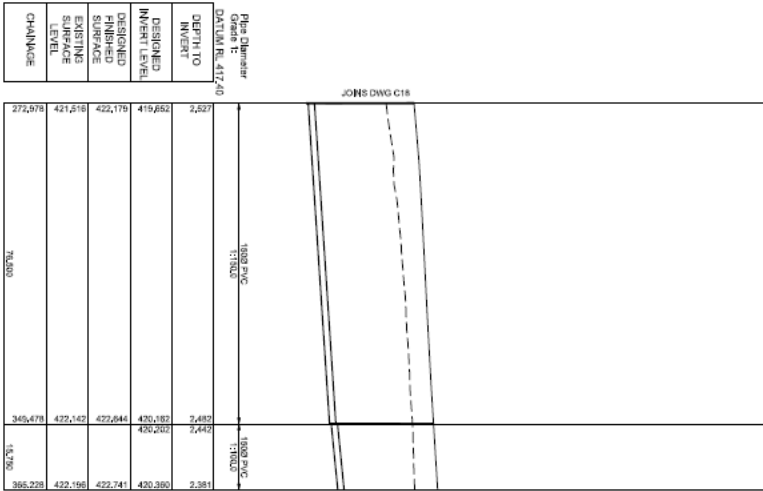


**SEWER SETOUT POINTS**

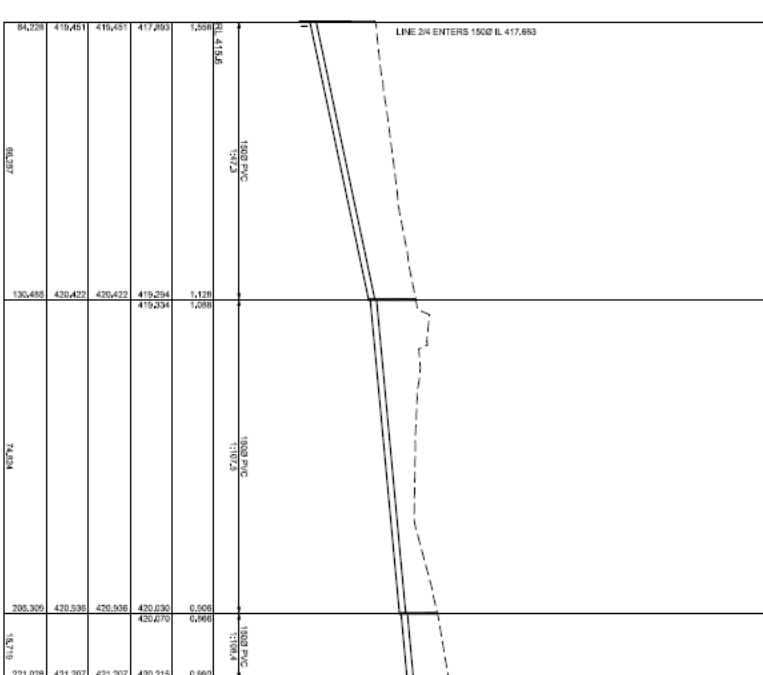
Point #	Bearing	Heading	Level	Description
B1	207°04'00"	S	103.18	S.M.
B2	207°04'00"	E	103.21	S.M.
B3	207°04'00"	N	103.24	S.M.
B4	207°04'00"	W	103.27	S.M.
B5	207°04'00"	S	103.30	S.M.
B6	207°04'00"	E	103.33	S.M.
B7	207°04'00"	N	103.36	S.M.
B8	207°04'00"	W	103.39	S.M.
B9	207°04'00"	S	103.42	S.M.
B10	207°04'00"	E	103.45	S.M.
B11	207°04'00"	N	103.48	S.M.
B12	207°04'00"	W	103.51	S.M.



MANHOLE NO.	MANHOLE TYPE	DIAMETER
4/4	ROUND	48\"/>
5/4	ROUND	54\"/>
6/4	ROUND	54\"/>
DE		



MANHOLE NO.	MANHOLE TYPE	DIAMETER
1/4	ROUND	14\"/>
1/5	ROUND	48\"/>
2/5	RECT	54\"/>
3/5	RECT	54\"/>
DE		



**JIM PAPAS CIVIL ENGINEERING DESIGNER PTY. LTD.**  
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**PRESTIGE GARDENS STAGES 1-6**  
 PROPOSED RESIDENTIAL SUBDIVISION AT  
 MCIVER ROAD, MARCEEA  
 DRAWING TITLE: SEWERAGE RETICULATION LONGITUDINAL SECTION (SHEET 2 OF 2) AND SET OUT

DATE: 15/08/2022  
 SCALE: 1/8\"/>

NO.	DATE	BY	CHKD
1	15/08/22	J.P.	J.P.
2	15/08/22	J.P.	J.P.

CDS NUMBER: 1470 - C19 1A07 A