# CAPRICORN MUNICIPAL DEVELOPMENT GUIDELINES

# 2023 MEETING 5 MINUTES

**Venue:** Teams

**Date and Time:** **23rd June at 11:00 am**

<table>
<tr><th>Item</th><th>Item</th></tr>
<tr><td>1</td><td>Welcome<br><br>Attendance:<br>Chris Hegarty (MCE), Richard Bywater (MCE), Scott McDonald (GRC), Brendan Fuller (GRC), Grant Vaughan (RRC), Mohit Paudyal (RRC), Frank Nastasi (IRC), Jamie McCaul (RRC), Gary Carlyle (IRC), Jarvis Black (MRC), Sarah Banda (CHRC), Michael Stanton (IRC), Jon Ashman (LSC), Jason Gustafson (LSC).</td></tr>
<tr><td>2</td><td>Apologies:<br>Nathan Garvey (BSC), Brendan Fuller (GRC), Allen Xianju Chen (LSC)</td></tr>
<tr><td>3</td><td>True and correct record of minutes from previous meeting<br>Refer Attachment A<br><br><u>M2023.05 Resolution:</u><br>That the minutes of the meeting held via Teams on 26th May 2023 be formally adopted.</td></tr>
<tr><td>4</td><td>Terms of reference and Budget<br>Website costs to be distributed by GRC prior to end of financial year.</td></tr>
<tr><td>5</td><td>Outstanding items from the previous meeting<br>This includes items which were not fully resolved at the previous meeting or items not considered due to time constraints.
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<tr><td>M22.01.01</td><td>Website Update</td><td>All</td></tr>
<tr><td>M10.5.1</td><td>D6 Site regrading – consider retaining wall issue</td><td>LSC</td></tr>
<tr><td>M22.04.01</td><td>Review of Reference documents in all Specifications</td><td>BSC</td></tr>
<tr><td>M23.01.03</td><td>Standard Drawing W-090 - 20 & 25mm Service and Water Meter Connections</td><td>GRC/MCE</td></tr>
<tr><td>M23.01.06</td><td>C224 – Open Drains</td><td>GRC</td></tr>
<tr><td>M23.01.07</td><td>C213 Earthworks Specification</td><td>GRC</td></tr>
<tr><td>M23.01.08</td><td>Sewer Jump up ownership and drawing CMDG-S-030</td><td>LSC</td></tr>
<tr><td>M23.02.01</td><td>Pipe roughness parameters</td><td>BSC</td></tr>
<tr><td>M23.02.02</td><td>D11 Water Supply Network -D11.07.02 and Table D.11.07.02 Minimum and Maximum Pressures for Network Design</td><td>LSC</td></tr>
<tr><td>M23.03.01</td><td>G-020 Updates</td><td>All</td></tr>
<tr><td>M23.03.02</td><td>Planning scheme vs CMDG differences</td><td>All</td></tr>
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<tr><td>M23.03.03</td><td>Sewer chamber size vs depth</td><td>GRC</td></tr>
<tr><td>M23.04.01</td><td>Minimum RCP pipe class for road crossings</td><td>BSC</td></tr>
<tr><td>M23.04.02</td><td>GRC Low Pressure Sewer System Drawing</td><td>GRC</td></tr>
<tr><td>M23.04.03</td><td>D5 – Kerb Discharge Points</td><td>RRC</td></tr>
<tr><td>M23.04.04</td><td>CMDG-R-040 Property Access along Bitumen Roads</td><td>CHRC</td></tr>
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<tr><td>6</td><td>New Agenda Items
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<tr><td>7</td><td>General Business<br>None.</td></tr>
<tr><td>8</td><td>Next Meeting<br>Next meeting to be in Calliope on 27th July 10am – 3pm. RB to send out date claimer. Post meeting note – meeting moved to 3rd August due to work being performed on meeting room.</td></tr>
<tr><td>9</td><td>CMDG Action Register<br>The latest register is Attachment B<br><br>CMDG Trial Register<br>The latest register is Attachment C<br><br>Schedule 1<br>The latest schedule is Attachment D</td></tr>
<tr><td>10</td><td>Meeting Closed at 12.15</td></tr>
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| Item No. | Item Details |
|---|---|
| M22.01.01 | **Website Update**<br>M2023.04 Update<br>New website is currently in the detailed design phase. Expected completion within the next few weeks. Currently draft version under review by subcommittee.<br>Website planned to go live within the next few weeks.<br>Draft version of website briefly displayed to the committee and the change in how drawings are displayed was presented.<br>Training will be delivered remotely via teams. Date TBC. Current list of training attendees is:<br>Rich and Nick (MCE), Scott/ Brendan? (GRC), Jamie (RRC).<br><br>M2023.05 Update<br>New website is live. There may be a few minor fixes required but in general everything is working correctly. Please note any issues and MCE will make any updates required.<br>Action By<br>All |
| M10.5.1 | **D6 Site Regrading – consider retaining wall issue**<br><br>M2023.04 Update<br>Subcommittee meeting on 23rd May. Chris noted that the meeting was productive and outcomes agreed on for most issues. Revised D6 document by GRC used as a basis for the required content and the majority of this will be used in the final document with some details removed. Generally noted that detail has been removed from CMDG where possible to place the responsibility on the designer/ RPEQ engineer as there are many site-specific decisions to be made.<br>Also noted that there is no specific legislation for retaining walls and legal outcomes are based on common law so CMDG documentation will be considerate of this when providing any specific direction.<br>MCE is to prepare draft D6 document for final review by the committee.<br><br>M2023.05 Update<br>Minutes of the meeting held on 23rd May are attached (**Attachment G)** along with the draft D6 amended document from that meeting (**Attachment H**).<br><br>Post meeting there has been written legal advice received by RRC which effectively states that a building application is required for all retaining walls 1m and over. This includes retaining walls as part of an operational works application. This advice differs from that received by LSC and is different to the stance outlined in the 23rd May meeting minutes. We are currently working through this issue.<br><br>Jon to confirm with Greg regarding LSC advice in relation to building approval requirements. MCE to send out legal advice about operational works/ building approval requirements for retaining walls. RRC to make some update to draft D6 document in light of new advice.<br><br>Action By<br>MCE, LSC, RRC |

M22.04.01

**Review of Reference documents in all Specifications**

- BSC (Daniel) suggests the group consider a Design Specification review and revising the referencing to current standards/guidelines. These references should provide the same or better information that was originally referred to by the CMDG Design Specs.
- IRC (Michael) has also pointed out that construction specifications have not been reviewed for some time.
- Whilst GRC conducted a review of many of the specs when joining the group there has been only ad hoc review of standards and references since. For discussion at this stage – the question is when should reviews take place and what resources should be assigned to it?

Previous Resolution

Discussion around potential review of documents as some have not been revised since 2007. Chris to review documents and highlight the ones in need of a review. In addition, it was agreed to complete a detailed review the documents on an ad hoc basis as changes are required/ requested to specific documents.

M2022.09 Resolution

The following is a summary of the agreed documents to be reviewed and those responsible for carrying out the review.

M2022.10 Update

Comments received about Australian Standard references need to be updated in D11 and D12 from Sarah

Updated at M2023.02:

| Specification | Last review and notes | In need of review? | To be reviewed by? |
|---|---|---|---|
| D1 Geometric Road Design | Dec 2022 | No | N/A |
| D2 Pavement Design | Dec 2021 | Yes | RRC (Grant) |
| D3 Structures and Bridges | Apr 2019 – References updated | No | |
| D4 Surface Drainage | Aug 2019 | Yes | IRC (Michael) |
| D5 Stormwater Design | Apr 2023 | No | |
| D6 Site Regrading | Mar 2012 | Yes | RRC (Jamie) and MCE |
| D7 Erosion Control and Stormwater Management | Sep 2020 – but review not comprehensive | Yes | RRC (Jamie/Tilak) |
| D9 Cycleway and Pathway Design | Apr 2023 | No | |
| D10 Landscaping (DRAFT) | | Yes | RRC (Grant/ Michael Ramsay) |
| D11 Water Reticulation | Jan 2022 | No | CHRC (Sarah) |
| D12 Sewerage Reticulation | Jan 2022 | No | CHRC (Sarah)<br>Noted AS4999 is withdrawn |
| D13 Small Earth Dams (GRC only) | Apr 2019 | Yes | GRC (Scott/Brendan) |

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|---|---|---|---|
| D14 Floodways (DRAFT) | | Yes | RRC (Grant) |
| D15 Driveways | Jun 2018 | Yes | BSC (Nathan) |
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M2023.02 Resolution

Decided that review of all documents is to be by the end of July (4 months)

MCE to upload new D9 document within 2 weeks.

M2023.03

Rich to send Grant summary of previously noted changes required to D2.

Scott noted that D13 may no longer be applicable to GRC and may be removed. All LGAs to confirm that D13 is not applicable, if so D13 can be removed.

| Local Government | D13 Applicability |
|---|---|
| **Banana Shire** | No |
| **Central Highlands Regional** | No |
| **Gladstone Regional** | No |
| **Isaac Regional** | No |
| **Maranoa Regional** | No |
| **Livingstone Regional** | No |
| **Rockhampton Regional** | No |

M2023.04

Reminder for LGAs to confirm if D13 is applicable. Rich advised that D13 is only applicable to GRC. Scott noted that D13 was originally extracted from D3.

M2023.05 Resolution

All LGAs are No for D13 applicability. MCE to remove from website.

Action By

MCE

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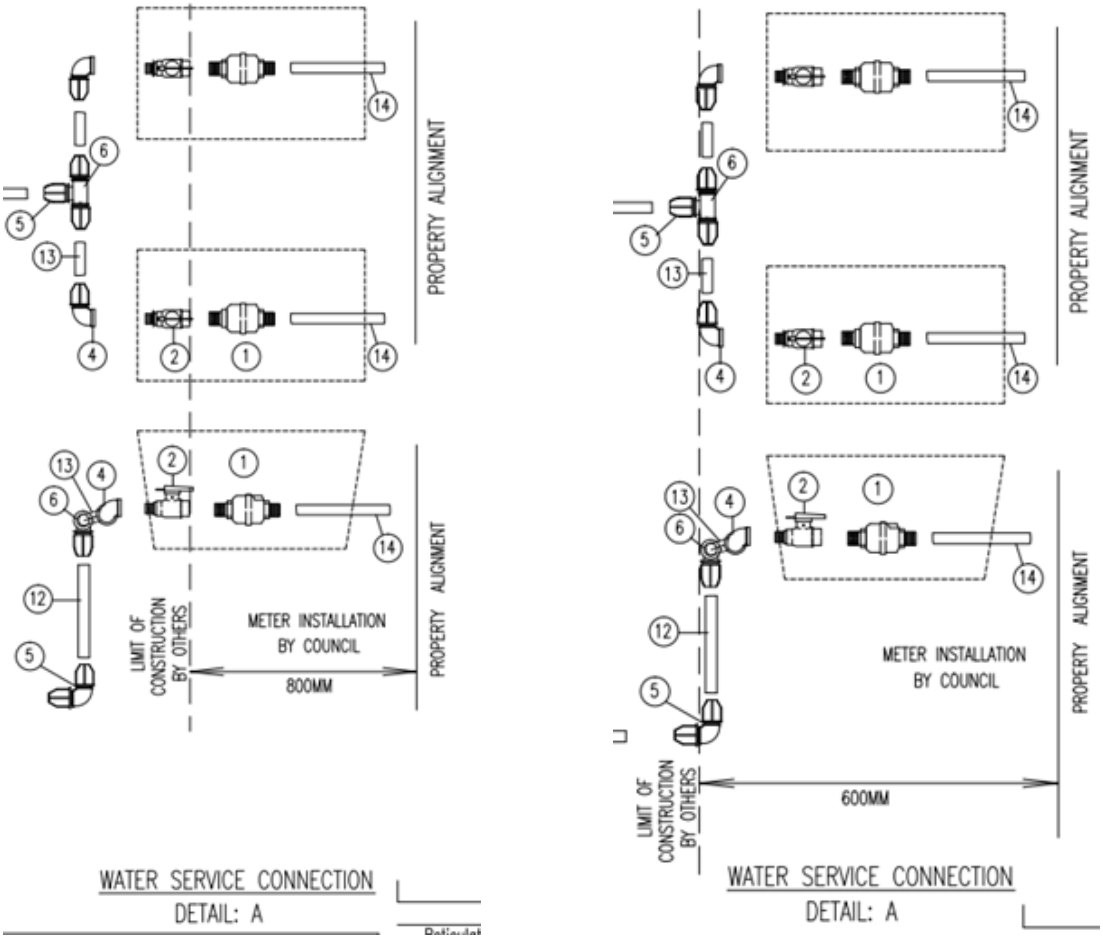
| M23.01.03 | **Standard Drawing W-090 - 20 & 25mm Service and Water Meter Connections**<br>As part of an update to W-090 it was noted that the differences between W-090 and W-090A are minor and there may be an opportunity to combine them.<br>The key difference between the drawings W-090 and W-090A Is the water service connection detail:<br>**W-090** **W090A**<br>  <br><br>The other difference between the drawings is just the short single size on the W-090A is 25mm not 32mm, this could be covered in the applicability table if required.<br>The main benefit from not installing the valve is reduction in the risk of water theft.<br><br>For discussion.<br><br><u>M2023.03 resolution</u><br>LGAs to discuss with requirements water departments and provide feedback.<br><br><u>M2023.04 Discussion</u><br>Brief discussion on whether other LGA have experienced water theft. RRC noted that they (FRW) have had no issues. General agreement to maintain current practices. MRC noted no particular preference but would default to current arrangement unless general consensus to change.<br>Raised that GRC detail does not actually provide a connection to each individual property which may technically not comply with planning scheme.<br><u>M2023.4 Resolution</u><br>GRC to confirm current installation practices with the potential to align with the other LGAs. |

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| | MCE wait for response from GRC and depending on outcome investigate whether there is space to have both details on one drawing with a table of difference.<br><br>M2023.05 Resolution<br>GRC confirmed that they wish to maintain the requirements shown on W090A as these match current practices. MCE to look into merging the two drawings W090 and W090A to create a single drawing with the differences noted in a table of difference/ alternative details.<br><br>Action By<br>MCE. |
| M23.01.06 | **C224 – Open Drains** - No resolution this meeting<br>Brendan noted that he was looking for table drain information and this construction specification contains the relevant information. A title change was suggested or potentially adding this information to the drainage design specification D5.<br>For discussion.<br><br>CAPRICORN MUNICIPAL DEVELOPMENT GUIDELINES<br><br>OPEN DRAINS<br>INCLUDING KERB & GUTTER<br>(CHANNEL)<br><br>C224<br><br>**CONSTRUCTION SPECIFICATION**<br><br>M2023.04 Discussion<br>Discussions around what should be included in C224 vs D5 as some of the information currently in C224 is more focused on design requirements. Some rewording to the text or titles may be possible to make the requirements for Table Drains more obvious.<br><br>M2023.04 Resolution<br>Brendan/ GRC to review document and consider which elements can be moved to D5 and provide feedback/ and updated C224 document.<br><br>Action By<br>GRC |

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| M23.01.07 | **C213 Earthworks Specification** - No resolution this meeting<br>GRC have commented on C213 in relation to the setout. The document discusses the installation and spacing of pegs. However, it is common in the industry to use 3D models, GPS/ RTK a rather than pegs and offsets.<br><br>For discussion<br><br><u>M2023.04 Discussion</u><br>Discussion on whether some of the requirements for pegs and profiles etc is now redundant. Grant raised some examples where the use of survey pegs and traditional survey methods would have provided better accuracy and likely prevented significant issues due to poor level control.<br>Rich noted that ultimately the contractor/ developer/ engineer is responsible for building to correct levels and it is current industry standard to use 3D models.<br>Brendan raised that the use of modern methods is more efficient and has the potential to be more environmentally friendly.<br>Modernisation of the document is potentially required. Agreed to incorporate some clauses in relation to RTK and 3D models but maintain all other current requirements as it gives LGAs a method and opportunity to check setout.<br><br><u>M2023.04 Resolution</u><br>MCE to draft some additional clauses in C213 to include the use of 3D models and RTK.<br><br><u>Action By</u><br>MCE |

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| M23.01.08 | **Sewer Jump up ownership and drawing CMDG-S-030**<br>LSC have raised issues around ongoing maintenance costs of sewer connections. The issues are often caused by poor workmanship of contractors. LSC have proposed revisions to drawing S-030 as per the markup **(Attachment M)**<br>The justifications are as per below:<br>• Council does not install the top junction of a "jump up".<br>• Plumbing contractors have no incentive [except for good practice] to compact around and under the top junction that commonly fails.<br>• Council plumbing inspectors have measured up and left when this void is filled.<br>• Access to this area in the property is often difficult and expensive.<br>• Re-instatement of this area is often difficult and expensive.<br>• Property owners often don't know about "jump ups" and commonly build over them.<br>• Should council repair/replace a "jump up" there is an expectation we have accepted ownership and will continue to maintain it.<br>• Council often has to return and maintain the re-instatement.<br><br>This change would required updates to other LGA documentation as well as the CMDG drawings. Historically the ownership of the jump up is by the LGA. This is supported by the Standard Sewerage Law/ Sewerage and Water Supply Act 1949, which in section 14 point 6 states that the jump up is part of the sewerage system (extract below).<br><br>For discussion.<br><br>**14 Access to sewerage system**<br>**(1)** A local government must, to the greatest practicable extent, make sure that—<br>(a) all premises in a sewered area are able to be connected directly and separately to the local government's sewerage system for the sewered area; and<br>(b) the sewerage system can deal with the sewerage requirements of all premises in the sewered area.<br>**(2)** Subsection (1) does not stop the local government from recovering from an owner of premises the reasonable cost of complying with the subsection for any particular premises or premises group.<br>**(3)** If 2 or more premises are part of a premises group, the local government does not fail to comply with subsection (1) because it makes sure only that the premises group, rather than each individual premises, is able to be connected directly and separately to its sewerage system.<br>**(4)** The design of the sewerage system must allow for a connection point for each premises or premises group to be at or within the boundary of the premises or premises group, and, to the greatest practicable extent, at an invert level below ground level at which a sanitary drain or property sewer laid at minimum grade is capable of servicing the premises or premises group.<br>**(5)** The placing of each connection point is to be decided by the local government, acting reasonably in the circumstances of the connection.<br>**(6)** A junction, bend, pipe, jump up or graded jump up required to connect a sanitary drain or property sewer to the local government's sewer is part of the sewerage system, but only if the sanitary drain or property sewer is at or above the level of the sewer.<br><br><u>M2023.02 Discussion</u><br>Brief summary on the issue and MCE highlighted that there may be legal ramifications with the proposed change. |

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| | M2023.02 resolution<br>LGAs to review any internal information and consider LSC proposal.<br><br>M2023.05 Discussion<br>• Brendan has provided some additional information from WSA. Refer to **Attachment E.**<br>• Significant discussion on ownership and disadvantage vs advantages of putting responsibility onto property owners.<br>• Potential issue raised in relation to LGAs accessing private infrastructure for maintenance or having any rights to determine requirements for access/ maintenance. LSC to investigate.<br>• Noted that changes to ownership on CMDG drawings would impact ownership of all existing sewer jumps. This may need to be discussed at a Council level.<br>• Debate on defining the extents of private ownership on the drawing details vs using notes.<br>• General agreement that Y piece onwards should be defined as the property branch and be privately owned/ maintained.<br>• Ownership of vertical section from Y piece to IO not finalised.<br>• Extending beyond property boundary requirements to be defined in the notes.<br>• LSC to make the proposed changes to the drawing and present to the committee at the next meeting.<br>• Noted that AS 3500 has the requirement to bring inspection openings to the surface.<br><br>*Post meeting discussion with LSC – it many be worthwhile considering not defining ownership on the CMDG drawing and allow internal policy documents within each LGA to determine ownership.*<br><br>M2023.05 resolution<br>LSC to make changes noted above and present at next meeting.<br><br>Action By<br>LSC |

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| M23.02.01 | **Pipe roughness parameters** - No resolution this meeting<br>From Nathan/ BSC:<br>With the significant rainfall currently being experienced, we are finding that pipes are quickly becoming congested with debris, reducing their operational capacity. Networks designed to the 'Good' parameters require continued maintenance to operate at an acceptable level or can quickly deteriorate from good to poor condition very quickly. This results in resourcing issues when Council inherits these assets at the conclusion of the on-maintenance period.<br><br>The original request was that BSC wished to adopt 0.6mm minimum pipe roughness value. However, D5 doesn't directly contain any information in relation to the Colebrook White equation. It does reference the charts and the CPAA hydraulics design manual (which uses Colebrook White). However, QUDM is the main point of reference and is based on manning's equation for pipe capacity, typical values are for "average" conditions.<br><br>For discussion:<br>• Use of worse case parameters for design<br>• Higher cost for developers to reduce LGA maintenance costs<br>• Any similar issues noted by other LGAs<br><br><u>Suggested resolution</u><br>TBC<br><u>For Action</u><br>TBC |

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| M23.02.02 | **D11 Water Supply Network -D11.07.02 and Table D.11.07.02 Minimum and Maximum Pressures for Network Design**<br><br>LSC have been having issues with achieving minimum pressure at house pad on elevated battleaxe blocks. There have been a number of discussions and it is suggested that the text below be included in D11:<br><br>*In situations where internal services from the meter to proposed house building pads exceeds a length of 10m (for example battleaxe allotments) it may be necessary for 32 to 50mm polyethylene to be extended from the meter to the building site or the installation of tanks and pumps (both options at the Developers expense). This is to ensure that sufficient pressure is available at the house building pad location. The designer shall make a submission to Council to demonstrate what internal infrastructure is necessary where the internal service from the meter to the house building site will exceed a length of 10m.*<br><br>Further background from Chris' email:<br>The design parameters in CMDG are intended to ensure that Council has enough capacity in the system to supply elevated lots. So the design parameters ensure that the infrastructure has the capability to supply water to a higher level than the meter. Owners could usually do this by using larger diameter poly to the house site. In fact in the past I have conditioned for larger diameter poly to extend up a battleaxe handle to the building site to ensure this happens.<br>The service standards are where you outline that Council is obligated to supply the required pressure at the meter. That is, despite what the design standards say Council takes on a lesser obligation when it comes to the customer service standards. Refer to FRW customer service standards below. Note I could not find LSC's customer service standards – do you have something similar?<br>I suggest you would defend Councils position based on your obligation to supply the required pressure only at the meter and at no other point based on customer service standards (despite what the design parameters are).<br>Having said that I think that the situations you have presented below with long internal service lines to building sites does present an issue. This is because the Node level for design at "Finished surface/ street elevation at the main location, building pad level or at the mean lot level, whichever is the highest" does not contemplate it will be a long horizontal distance from the meter to the building pad level. The way for Council to deal with this is to identify such properties at development time and ensure tanks and pump are provided by the Developer if necessary (Tanks and pumps for private maintenance not Council – Councils obligation ends at the meter). |

D11.07.03. A minimum design pressure head for Domestic Demands alone, for each Water Service Provider as presented in Table D11.07.02 Minimum and Maximum Pressures, shall be provided during the MH (maximum hourly maximum day) on third consecutive Maximum Day consumption at the defined building pad level or at the mean lot level, whichever is the highest elevation. For clarity when carrying out water network analysis the node levels must comply with the details in Table D11.07.02. ***Minimum Pressure Domestic Demands***

D11.07.04. The maximum design pressure shall not be exceeded. The maximum desirable design pressure for each local government is outlined in Table D11.07.02. Where, practical, pressure reducing valves or other network design measures shall be utilised to achieve this requirement. ***Maximum Pressure***

**Table D11.07.02 Minimum and Maximum Pressures for Network Design**

| | Minimum Pressure at the Node | Node Level for Design | Maximum Desirable Pressure | Absolute Maximum Pressure |
|---|---|---|---|---|
| **Banana Shire** | 22 m | Finished surface/ street elevation at the main location, building pad level or at the mean lot level, whichever is the highest | 50 m | 80m |
| **Central Highlands Regional** | 22 m | | 50 m | 80m |
| **Gladstone Regional** | 25 m (in main)* 20m (in main – constant flow network) | Finished surface/ street elevation at the main location | 50 m (reticulation network) | 80 m |
| **Isaac Regional** | 22 m | Finished surface/ street elevation at the main location, building pad level or at the mean lot level, whichever is the highest | 50 m | 80m |
| **Livingstone Shire** | 22 m | | 50 m | 80m |
| **Maranoa Regional** | 20 m | | 50 m | 80m |
| **Rockhampton Regional** | 22 m | | 50 m | 80m |

* In all design instances it is required that there is a minimum of 22m at the water meter

**Adequacy and Quality of Normal Supply of Water**

| CSS Reference | Performance Indicator | Potable Water Schemes | |
|---|---|---|---|
| | | Rockhampton & Gracemere Water Supply Scheme | Mount Morgan Water Supply Scheme |
| CSS8 | Minimum pressure standard at the water meter (kPa) | 220 kPa | 220 kPa |
| CSS9 | Minimum flow standard at the water meter | 9 L/min | 9 L/min |
| CSS10 | Connections with deficient pressure and/or flow (% of total connections) | < 2.5% | < 2.5% |
| CSS11 | Drinking water quality (compliance with industry standard)[1] | > 98% | > 98% |
| CSS12 | Drinking water quality complaints (number per 1,000 connections) | < 5 | |
| CSS13 | Drinking water quality incidents (number per 1,000 connections) | < 5 | < 5 |

<u>Suggested resolution</u>

Include proposed text in D11.

*In situations where internal services from the meter to proposed house building pads exceeds a length of 10m (for example battleaxe allotments) it may be necessary for 32 to 50mm polyethylene to be extended from the meter to the building site or the installation of tanks and pumps (both options at the Developers expense). This is to ensure that sufficient pressure is available at the house building pad location. The designer shall make a submission to Council to demonstrate what internal infrastructure is necessary where the internal service from the meter to the house building site will exceed a length of 10m.*

<u>M2023.05 Discussion</u>

Discussion about responsibility. This is potentially outside of development and a building approval issue. The pipe from the meter is generally not constructed as part of a development MCU/ ROL.

Chris to review proposed wording.

Grant provided an example of a current water pressure issue where the house has been built at the rear of a large sloping block and has pressure issues following construction.

The existing table does cover all scenarios, however location of building pad is open to interpretation. Wording in existing table D11.07.02 could be amended/ improved. Building envelope could be defined at ROL stage.

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| | Richard noted that CMDG is not for defining service standards following development.<br><br>M2023.05 resolution<br>MCE to review existing table and proposed additional wording in line with comments above.<br><br>Action By<br>MCE |

M23.03.01

**Standard Drawing CMDG-G-020** - No resolution this meeting

Summary of MRC comments:

1. Preference is to retain hazard markers.
2. Remove reference to a proprietary product removed. Instead quote the engineering/ technical parameters. Historically they have had big issues with stipulating a proprietary product.
3. Is the pre-cast base required in all circumstances? Can it be applied on a case-by-case basis?
4. G-020 does not have an abutment detail like G-018 has presumably this is because G-020 users utilise pre-cast units, however the regional areas regularly cast in-situ. Abutment detail required.
5. There is frequent reference to 'precast' preference for this to be removed.
6. We are cognisant that some councils have a Grid Policy, so we want the standard drawing to be in line with MRC's existing Grid Policy.
7. For example, we recommend Note 5 is tabulated (widths/traffic counts for each Council). MRC is shown below.

| Traffic Volumes | Grid Type Required |
|---|---|
| Road with greater than 250 vehicles per day | Not permitted |
| Road with traffic volumes less than 250 but more than 20 vehicles per day | Double grid (8m) |
| Road less than 20 vehicles | Single grid (4m) |

a. Notwithstanding the above, a double grid may be required, at Council's discretion, irrespective of the above if:

8. Note 7. Not applicable to MRC.
9. Note 6. Possibly tabulated. MRC's loading criteria is below (based on the TMR guide).

Frames and abutments are to be structurally certified for design loads in accordance with AS5100.2-2017 (the Bridge Design Code), including all relevant load factors, dynamic load allowances and deflection limits (i.e. span/600). The particular loads to be applied are as follows:

- W80 wheel load;
- A160 axle load;
- M1600 moving load;
- S1600 stationary traffic load.

| Local Government | G-018 Applicability | G-020 Applicability |
|---|---|---|
| **Banana Shire** | | |
| **Central Highlands Regional** | | |
| **Gladstone Regional** | | |
| **Isaac Regional** | | |
| **Maranoa Regional** | | |
| **Livingstone Regional** | | |
| **Rockhampton Regional** | | |

Sarah has asked if width of grid can be specified on the drawing as CHRC does not have a grids policy. For discussion.

For discussion

Suggested Resolution

Make the following updates:

- Remove proprietary produce reference and add additional specification/ requirements similar to TMR as per MRC recommendation.
- Tabulate note 5 for the requirements of each LGA to align with their grid policies.

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| | • Remove reference to precast and replace with “concrete”.<br><br>Action By<br>MCE |
| M23.03.02 | **Planning scheme vs CMDG differences** - No resolution this meeting<br>LGAs to check planning schemes for any inconsistencies with CMDG so that these can be either amended or noted in CMDG. |
| M23.03.03 | **Sewer chamber size vs depth** - No resolution this meeting<br>Consideration to be given varying diameter of chamber based on depth. This is pursuant to GRC recent experience where a manhole internal reline left the reduced internal diameter unfit for confined space entry.<br><br>*More detail and suggested resolution to come following research by MCE*<br><br>For discussion<br><br>Suggested Resolution<br><br>Action By |

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| M23.04.01 | **Minimum RCP pipe class for road crossings** - No resolution this meeting<br>BSC have requested that a class 3 be added to CMDG as minimum strength requirement for RCPs using for road crossings.<br>Currently D5 has clause D05.08.04:<br>D05.08.04. Culvert classes shall be determined in accordance with manufacturer's recommendations. Appropriate consideration should be taken for loadings from construction traffic when determining culvert class. ***Culvert Classes***<br><br>**Background from Nathan:**<br>Banana Shire Council is working through an Operational Works application for the realignment of a road. The applicant has advised that they have designed their culverts to Class 2 in accordance with DTMR Specification MRTS25 (Figure B1 of Appendix B), stating that Section D05.08.04 of CMDG (see below) leaves room for interpterion. It is Banana's Director of Infrastructure's position that all crossroad drainage pipelines are to be a minimum Class 3 unless otherwise approved by the respective Council.<br><br>**MCE comments:**<br>The required pipe class is based on a number of factors including:<br>• In service traffic loading<br>• Construction traffic loading<br>• Support condition<br>• Depth of cover<br><br>If correctly designed a class 2 pipe could be adequate for a road crossing and would be in accordance with the design standards and TMR. The risk of failure/ pipe damage during construction from compaction/ machinery traffic does typically become higher with a lower strength pipe.<br>It is worth noting that many manufactures, including Holcim (Humes) are currently only making class 4 and above to increase efficiently and speed of manufacture by having less moulds/ different reinforcement cages. So it may not be a big issue to developers to increase the minimum requirements.<br><br><u>Suggested Resolution</u><br>For discussion<br><br><u>Action By</u><br>TBC |

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| M23.04.02 | **GRC Low Pressure Sewer System Drawing** - No resolution this meeting<br>GRC propose a new low pressure sewer system drawing to be included in CMDG (**Attachment F**). LGAs to review and confirm applicability or any required changes.<br><br>Complimentary amendments to D12 may also be necessary to stipulate circumstances where Low pressure sewer systems can be used and acceptable design parameters.<br><br>For discussion<br><br><u>Suggested resolution</u><br>Make any required changes including formatting and upload drawing to website.<br><br><u>Action By</u><br>TBC |
| M23.04.03 | **D5 – Kerb Discharge Points** - No resolution this meeting<br><br>RRC has raised the point that CMDG doesn't currently have any limitations around discharge to the kerb. Do we need to update D5 to include something similar to Brisbane City Council?<br><br>BCC specifies that for Connection to Kerb and Channel –<br>• The maximum permissible discharge to the kerb and channel must be limited to 30L/s (i.e. maximum 2 single house lots per discharge point dependent on roof area), and twin 100mm diameter pipes (equivalent 150mm diameter) with approved kerb adaptors.<br>• All drainage pipes >150mm nominal diameter are to connect to a stormwater gully or maintenance hole.<br><br>For discussion<br><br><u>Suggested resolution</u><br>Include an additional clauses in section D5.15 – Lawful Point of Discharge:<br>• The maximum permissible discharge to the kerb and channel must be limited to 30L/s (i.e. maximum 2 single house lots per discharge point dependent on roof area), and twin 100mm diameter pipes (equivalent 150mm diameter) with approved kerb adaptors.<br>• All drainage pipes >150mm nominal diameter are to connect to a stormwater gully or maintenance hole.<br><br><u>Action By</u><br>MCE |

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| M23.04.04 | **CMDG-R-040 Property Access along Bitumen Roads** - No resolution this meeting<br>CHRC have received a number of applications for rural driveways along bitumen roads. On one application it was conditioned that the applicant seal their driveway since it was along a bitumen road. The condition was changed following the applicant complaining to Council and the condition was deemed to be unreasonable on the basis of the cost the property owner had to incur to get the driveway sealed.<br><br>Since then, CHRC have not been conditioning sealed driveways for out of town property accesses, because the cost of installing sealed accesses is prohibitive.<br><br>CHRC is interested to know if other councils are facing the same issue and requested discussion into whether the guideline be modified so it better aligns with what can be implemented on the ground.<br><br>While the cost implication may be causing difficulties there are some important some reasons for sealing driveways including:<br>• The sealing helps to prevent gravel being tracked onto the road and creating a significant hazard for other road users.<br>• Helps to prevent erosion especially if a bed level crossing is used.<br>• It is necessary for safety to seal of the widening on the opposite side of the road once you reach higher traffic volumes.<br>• Rutting in the road shoulder is much more likely to occur which is a hazard for road users.<br>• Reduced maintenance. This could be an ongoing battle with owners about who maintains which parts of the driveway/ road shoulder.<br><br>For discussion.<br><br><u>Suggested resolution</u><br>TBC<br><br><u>Action By</u><br>TBC |